# In The Matter Of:

*League of Women Voters of Michigan, et al. v.*
*Ruth Johnson*

*Deposition of Kenneth R. Mayer, Ph.D.*
*August 1, 2018*

Record Inc.

For The

Excellence In Court Reporting

*Original File Mayer Kenneth 8-1-18.txt*
*Min-U-Script® with Word Index*

Page 3

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION
_____

LEAGUE OF WOMEN VOTERS OF
MICHIGAN, ROGER J. BRDAK,
FREDERICK C. DURHAL, JR., JACK E.
ELLIS, DONNA E. FARRIS, WILLIAM
"BILL" J. GRASHA, ROSA L.          Case No. 17-CV-14148
HOLLIDAY, DIANA L. KETOLA, JON
"JACK" G. LASALLE, RICHARD "DICK"   Hon. Eric L. Clay
W. LONG, LORENZO RIVERA and         Hon. Denise Page Hood
RASHIDA H. TLAIB,                   Hon. Gordon J. Quist

        Plaintiffs,

    -vs-

RUTH JOHNSON, in her official
capacity as Michigan Secretary of
State,

        Defendant.
_____

        Deposition of KENNETH R. MAYER, Ph.D.,

taken at the instance of the Defendant, under and

pursuant to the Federal Rules of Civil Procedure, before

Tammy L. Uhl, RPR, CRR, CRC, a Notary Public in and for

the State of Wisconsin, at Quarles & Brady LLP,

33 East Main Street, Suite 900, Madison, Wisconsin, on

August 1, 2018, commencing at 9:27 a.m. and concluding at

3:40 p.m.

---

Page 3

I N D E X

Examination:                                    Page
By Mr. Carvin                                      4

Exhibits Identified:                            Page
1    Evaluation of Michigan Congressional and      5
     State Legislative District Plans by
     Kenneth R. Mayer, Ph.D., dated June 1, 2018
2    The University of Chicago Law Review          119
     article titled Partisan Gerrymandering and
     the Efficiency Gap

Requests:                                       Page
1    Files sent from Professor Chen to Professor  159
     Mayer

  (The original exhibits were attached to the original
     transcript and PDFs were provided to counsel)


     (The original transcript was filed with
          Attorney Peter H. Ellsworth)

---

Page 2

A P P E A R A N C E S

FAEGRE BAKER DANIELS LLP, by
MR. JOSEPH H. YEAGER, JR. and MR. KEVIN M. TONER,
300 N. Meridian Street, Suite 2700,
Indianapolis, Indiana  46204-1750,
     appeared on behalf of the Plaintiffs.

JONES DAY, by
MR. MICHAEL A. CARVIN,
51 Louisiana Avenue, N.W.,
Washington, D.C. 20001-2113,
     appeared on behalf of the Defendant.

---

Page 4

        KENNETH R. MAYER, Ph.D., called as
a witness, being first duly sworn, testified
on oath as follows:
        EXAMINATION
BY MR. CARVIN:
Q   Good morning, Professor Mayer.
A   Good morning.
Q   Have you had your deposition taken before?
A   Yes.
Q   How many times?
A   Probably ten.
Q   And has that always been in an expert witness
    capacity?
A   Yes.
Q   Okay.  So you know how this works.  I'll just go
    through a couple of preliminaries.  You're not
    under any medication or any other reason that you
    can't testify fully and truthfully today; is that
    correct?
A   That's correct.
Q   And because the court reporter -- I'm going to
    need verbal responses from you, either yes or no,
    rather than nodding your head.  Do you understand
    that?
A   I understand.

Page 5

1 Q   And if any of my questions are unclear or
2      confusing to you, please don't hesitate to ask me
3      to clarify the question.  Do you understand that?
4 A   Understood.
5 Q   Okay.  And you filed an expert report in this
6      case?
7 A   Yes.
8             MR. CARVIN: Oh, before that, my
9       opposing counsel asked me to clarify that my
10      name is Mike Carvin.  I work for Jones Day.
11      I will be representing the secretary of state
12      in this case, but apparently I haven't
13      formally entered an appearance yet.  That's
14      just to clarify for the record.
15             THE WITNESS: Okay.
16             MR. YAEGER: No objection.  If I --
17      just back to the last question.  I don't mean
18      to interrupt you.  You asked if he filed a
19      report.  Of course the reports aren't filed.
20      They were served.
21             MR. CARVIN: Fair enough.  Okay.
22      I'm going to have this marked as Exhibit 1.
23        (Exhibit No. 1 marked for
24          identification)
25    BY MR. CARVIN:

Page 6

1 Q   Again, just to clarify the record, you prepared a
2      report in this case that has been served on
3      defendants; is that right?
4 A   That's correct.
5 Q   And I've handed you a document that's dated
6      June 1, 2018.  Is that the expert report you
7      prepared in connection with this case?
8 A   Yes.
9 Q   Okay.  And who contacted you in regards to
10     preparing this report?
11 A   I believe it was counsel.
12 Q   And counsel for plaintiffs?
13 A   Yes.
14 Q   And do you recall the particular attorney that
15     contacted you?
16 A   It was Mr. Jaeger.
17 Q   Okay.  And when did he contact you?
18 A   For this report, it was -- I believe it was early
19     2018.
20 Q   Can you be a bit a more specific?
21 A   Not without checking my e-mails.
22 Q   February or March, that neighborhood?
23 A   That's what I remember.
24 Q   Okay.  And you've worked with Mr. Jaeger before in
25     other litigation?

Page 7

1 A   Not other than this case.
2 Q   Okay.  And you were asked to analyze whether or
3      not the state house, state senate, and
4      congressional plans enacted in Michigan were
5      extreme partisan gerrymanders; is that correct?
6 A   I don't believe the request was framed in those
7      terms, but I was asked to analyze the
8      partisanship, analyze the district plan.
9 Q   In what regard?
10 A   To see whether it was -- to assess the
11     partisanship of the redistricting plans.
12 Q   Okay.  And you're being paid $300 an hour?
13 A   Correct.
14 Q   And if you could turn to the bottom of page 2 of
15     your report -- I apologize -- page 3 of your
16     report.  And that lists other cases where you've
17     testified as an expert witness in trial or
18     deposition, is that correct, going on to the top
19     of page 4?
20 A   There is one addition that has occurred since I
21     filed this report, which is Tyson vs. Richardson
22     Independent School District.
23 Q   And where is that?  What state?
24 A   Texas.
25 Q   And what's the issue there?

Page 8

1 A   The at-large nature of elections to the Richardson
2      School Board or what they call the board of
3      trustees.
4 Q   And those are alleged to violate Section 2 of the
5      Voting Rights Act?
6 A   I don't know the specifics of the complaint, but
7      what I did was analyze the effects of the at-large
8      plans on minority voters.
9 Q   Was that Hispanic or black or both?
10 A   Both.
11 Q   And you were analyzing the ability of Hispanic and
12     black voters in this school district to elect
13     their candidate of choice under an at-large
14     scheme?
15 A   More or less.
16 Q   Please elaborate.
17 A   It was to basically conduct a voting rights
18     analysis of the at-large system so that's
19     essentially what it is.  The ability to
20     participate equally in the election process and
21     elect candidates of choice.
22 Q   And has this case gone to trial?
23 A   No.
24 Q   Do you know when it will?
25 A   No.

Page 9

1  Q   Have you filed an expert report in that case?
2  A   Yes.
3  Q   Okay.  And have you been deposed in that case?
4  A   No.
5  Q   And this is more for lawyers than for you.  Do you
6      know what district in Texas the case is scheduled?
7  A   I think it's the northern district in federal
8      court, but I'm not certain.
9  Q   Is Richardson in the northern part of Texas?
10 A   It's a suburb of Dallas.
11 Q   Dallas.  Okay.  Thank you.  All right.  And then
12     I'd like to turn first to -- you testified in
13     Whitford v. Gill; is that correct?
14 A   That's correct.
15 Q   And the issue there was whether or not there was a
16     partisan gerrymander against democrats in the
17     state of Wisconsin; is that correct?
18 A   Yes.
19 Q   Okay.  And did you draw demonstration maps or
20     plans in that case?
21 A   I drew one demonstration map.
22 Q   And just to clarify, you were testifying on behalf
23     of the plaintiffs who were alleging the democratic
24     gerrymander; is that correct?
25         MR. YAEGER: Objection.  Misstates

Page 10

1          that case.
2  A   It was a republican gerrymander, a republican
3      drawn plan in that case, not a democratic one.
4  Q   If I was unclear in my question, I apologize.  You
5      were testifying on behalf of the people
6      challenging the alleged republican gerrymander?
7  A   That's correct.
8  Q   And those people were affiliated with the
9      democratic party?
10 A   Not to parse words that the -- as I understand it,
11     some of the plaintiffs were democrats, but I don't
12     know if the democratic party was involved in the
13     litigation.
14 Q   Fair enough.  Okay.  But in all events, the party
15     on behalf of whom you testified was alleging that
16     the republicans had unfairly and
17     unconstitutionally gerrymandered democrats in the
18     state of Wisconsin; is that correct?
19 A   That's correct.
20 Q   And what offices were at issue in that case?
21 A   In that case, the offices were elections to the
22     state assembly, which here is the lower house of
23     the state legislature.
24 Q   And a minute ago you said you drew a demonstration
25     map --

Page 11

1  A   Yes.
2  Q   -- in that case?  And that was a map that in your
3      opinion was a neutral map that did not have a
4      partisan motivation?
5  A   That's correct.
6  Q   And in your opinion, that map complied with
7      traditional districting principles?
8  A   That's correct.
9  Q   And what traditional districting principles did
10     you use to guide you in the preparation of that
11     demonstration map?
12 A   The principles that I used were population
13     deviation or equal population, preservation of
14     municipal boundaries, and I believe compactness,
15     and obviously contiguity and so those were the
16     ones that -- the traditional districting
17     principles that drove that map.
18 Q   How about the Voting Rights Act?
19 A   That as well.
20 Q   And how about preserving the cores of existing
21     districts, was that a principle that you looked
22     to?
23 A   In the demonstration map, that was not one of the
24     factors.
25 Q   To the best of your knowledge is preserving the

Page 12

1      cores of existing districts a traditional
2      districting principle in Wisconsin?
3  A   It can be.  It's not always adhered to as much as
4      the other criteria.
5  Q   Okay.  How about incumbency, protecting
6      incumbents?
7  A   I did not consider where incumbents lived or who
8      the incumbents were.
9  Q   So you were unaware of, for example, whether or
10     not two incumbents were paired in the same
11     district when you prepared your demonstration map;
12     is that correct?
13 A   That's correct.
14 Q   Do you know in retrospect whether or not any
15     incumbents were placed in the same district?
16 A   There were some.  I don't know sitting here which
17     districts.
18 Q   And I take it from your testimony that when you
19     were actually preparing the map, you were
20     uninformed as to the residences of the current
21     incumbents?
22 A   That's correct.
23 Q   Did you do -- what was your testimony regarding
24     this demonstration map?
25 A   The testimony, as I recall it, was that the --

Page 13

1              MR. YAEGER: I object that's
2        overbroad and compound, but you may answer.
3  A   Was to demonstrate that it was possible to draw a
4        more neutral map while complying with traditional
5        redistricting principles.
6  Q   And did you do any substantive analysis of the
7        partisan fairness or bias of the enacted plan in
8        that case?
9  A   Yes.  There was a supplemental filing.  I don't
10       know whether it was called a report.
11 Q   And what was the basic conclusion of that
12       supplemental filing?
13 A   It was updating some of the conclusions and also
14       responding to some questions that the Court had,
15       but it's been almost two years since that
16       happened, so without having the report in front of
17       me, I couldn't be specific.
18 Q   Fair enough.  And to be clear, I'm not asking you
19       for the specific details.  I'm just asking you for
20       the general gist of your opinion relative to the
21       partisan fairness or bias of the plan at issue.
22 A   Okay.
23 Q   And what was that?
24 A   My conclusions were not affected.  They were the
25       same.  But it was some additional analysis

Page 14

1        regarding a question that the Court had asked.  I
2        think it may -- it was the three-judge panel that
3        heard the case.
4  Q   And what question did they ask?
5  A   I recall it was about the effect of the new wards
6        that were drawn, but I don't remember
7        specifically.
8  Q   When you say wards, do you mean voting precincts?
9  A   Correct.  In Wisconsin, they're called wards.
10 Q   Right.  And other than the effect of the new
11       precincts or wards, did you opine on the partisan
12       fairness or bias of the enacted plan in Wisconsin?
13 A   In the original report, yes.
14 Q   And what was your conclusion?
15 A   That it was -- well, let me back up.  So my report
16       in that case I don't believe offered an opinion
17       about whether the map was a gerrymander.  My
18       report analyzed the partisanship in a way that
19       allowed you to compare the existing -- in the
20       enacted plan with the demonstration plan in
21       comparison sensitivity analyses of the two plans.
22 Q   Okay.
23 A   But I don't recall whether I offered a specific
24       opinion about whether the map was a gerrymander.
25       I might have.  I don't remember.

Page 15

1  Q   Just so I understand your testimony correctly, you
2        opine that the neutral demonstration map that you
3        had prepared was less disadvantageous to democrats
4        than the enacted map; is that correct?
5  A   The way that I would describe it is that the
6        demonstration map was more neutral and fair
7        between the two parties.
8  Q   Okay.  But you may or may not have opined as to
9        whether or not the enacted plan was itself
10       unconstitutionally unfair or extreme partisan
11       gerrymander.  Am I understanding your answers
12       correctly?
13             MR. YAEGER: Objection.  Asked and
14       answered.  You can answer.
15 A   I believe that's true but without having the
16       report in front of me --
17 Q   Just to be clear, I'm just asking you to the best
18       of your recollection.  We can go dig out the
19       testimony.  What I'm really trying to figure out
20       is what metrics did you use to assess the partisan
21       fairness or disadvantage to democrats in that
22       testimony?
23 A   In that case, I performed the efficiency gap
24       calculations and also analyzed the distribution of
25       the state assembly districts in terms of districts

Page 16

1        that were packed and cracked.
2  Q   When you say you analyzed the distribution, does
3        that comport with any of the five metrics you used
4        in this case?  Would that be declination or --
5  A   The metric that I used in that case was the
6        efficiency gap.
7  Q   And then what, if anything, did you say about
8        packing or cracking in that plan?
9  A   Again, I would really rather have the report in
10       front of me because it's been a while since I
11       looked at it.  I do recall that I did reach
12       conclusions about the nature of packing and
13       cracking from the distribution histograms of the
14       enacted map and the demonstration district --
15       demonstration plan.
16 Q   Just so I'm clear, did you analyze the
17       concentration or clustering of democratic voters
18       in various counties or municipalities throughout
19       Wisconsin?  Was that something that you looked at
20       specifically?
21 A   That is.
22 Q   Okay.  And what, if any, conclusions did you draw
23       in that regard?
24 A   The conclusion that I drew using some measures of
25       geographic concentration were that the democrats

Page 17

1    and republicans were -- based on those measures,
2    that the overall concentration and distribution of
3    partisans was equivalent.
4  Q   Meaning they were equally dispersed, republicans
5    and democrats, throughout the state?
6  A   Again, using the different ways of measuring
7    concentration, that the way in which democrats and
8    republicans were distributed was roughly
9    equivalent.  It wasn't the case that democrats
10    were concentrated and republicans were not
11    concentrated.  There were different patterns
12    around the state.
13  Q   Do you recall how your testimony was accepted or
14    not accepted or mentioned by the three-judge court
15    in that case?
16  A   As I recall, the Court did not use the analysis of
17    geographic concentration.
18  Q   Did not use it or did not accept it?
19  A   I don't know what the difference is.
20  Q   Did they refer to it in their opinion as best you
21    can recall?
22  A   Yes.
23  Q   And what, if anything, did they say about it?
24  A   They -- I would have to look at the decision but
25    they -- as I recall, the Court was not persuaded

Page 18

1    by that part of the report.
2  Q   How about the part of the report dealing with --
3    or your testimony dealing with the efficiency gap.
4    What, if anything, did the Court say about that?
5  A   That -- again, it's been a while since I looked at
6    the decision, but the other analysis that I did,
7    they seemed to find that persuasive or took that
8    into account in their decision of accepting the
9    results of that.
10  Q   Of the efficiency gap?
11  A   Of the analysis that I did.
12  Q   The efficiency gap?
13  A   I did more than just calculate the efficiency gap.
14  Q   What else did you do?
15  A   I explained -- I looked at the distribution of
16    districts, estimated the underlying partisanship
17    of particular districts, and conducted sensitivity
18    analysis.
19  Q   Oh, I may have misunderstood that.  What was the
20    sensitivity analysis that you did in that case?
21  A   It was a sensitivity analysis that looked at the
22    enduring nature of the redistricting plan in the
23    face of vote swings.
24  Q   Okay.  Did you use the uniform swing analysis that
25    you employed in this case?

Page 19

1  A   Yes.
2  Q   Then if I could switch to One Wisconsin Institute,
3    which is the first case you've listed at the
4    bottom of page 3.  That was a challenge to voter
5    ID absentee ballot law in Wisconsin; is that
6    correct?
7  A   It was more than that, but it was a challenge to a
8    number of changes in election administration that
9    had been enacted since 2011.
10  Q   And that was enacted by a republican legislature
11    and signed by a republican governor?
12  A   That's correct.
13  Q   And you were retained by the Perkins Coie law firm
14    in that case?
15  A   That's correct.
16  Q   And was the allegation that these changes,
17    including voter ID and absentee ballot,
18    discriminated against minorities or democrats or
19    both?
20  A   So I can talk about the questions that I analyzed.
21  Q   That would be fine.  Sure.
22  A   My analysis was the effect of the voter ID
23    requirement, certain changes in registration laws,
24    and how they affected minorities, student
25    populations.  My analysis did not focus on the

Page 20

1    partisan consequences of that, but it was the
2    effect of the changes on different populations.  I
3    believe it was minority populations, students.  I
4    might have done something about elderly voters.
5  Q   Okay.  And do you recall -- I assume you found
6    that this had an exclusionary effect on the groups
7    that you just listed?
8  A   That's correct.
9  Q   And do you recall if the Court accepted your
10    conclusions or said anything about them?
11  A   They did say -- the court decision did mention the
12    analysis that I did.  I was one of a large number
13    of experts in that case.
14  Q   Okay.  I can read the opinion and find out where
15    it came out.  You also mentioned this Baldus v.
16    Brennan case which was in the Eastern District of
17    Wisconsin in 2012.  Do you recall that case?
18  A   Yes.
19  Q   Was that a challenge to the congressional
20    redistricting in Wisconsin?
21  A   The part of the case that I worked on was, again,
22    on the state legislature.  Primarily the assembly.
23  Q   And just to be clear, the assembly was the lower
24    house?
25  A   That's correct.

Page 21

1 Q And were you retained by the Baldus plaintiffs
2 or -- as I understand, some democratic congressmen
3 intervened in that case. Do you recall who
4 retained you to provide your testimony?
5 A Again, when I am contacted, it's by law firms. So
6 I was contacted by lawyers for the plaintiffs, and
7 I know there were a lot of different plaintiffs
8 who had gotten involved.
9 Q The Baldus plaintiffs?
10 A Correct.
11 Q And do you recall the name of the law firm?
12 A Godfrey Kahn. It's K-a-h-n.
13 Q And what was the gist of your testimony in that
14 case?
15 A So there were two pieces of that analysis. One of
16 them was analyzed the overall effects and
17 population shifts and municipal splits in the
18 enacted plan. The other part was analyzing the
19 affect of the districts drawn in the Hispanic
20 parts of Milwaukee, which comprised two assembly
21 districts.
22 Q Okay. And the first piece of testimony went to
23 the effect on Hispanics or on democrats?
24 A The first part was the effect on populations. I
25 don't recall doing anything specifically about

Page 22

1 democrats versus republicans and voters. There
2 may have -- I may have done an analysis showing
3 that districts that were represented by democrats
4 were treated differently or drawn differently than
5 districts represented by republicans, but it
6 wasn't looking at the underlying partisanship of
7 the plan.
8 Q And was your testimony that the legislature did
9 not preserve the core of some of the districts?
10 A In terms of population shifts, that's correct.
11 Q And that was -- you criticized the plan on that
12 basis?
13 A That's correct.
14 Q And then with respect to -- I believe you said
15 there were Hispanics in a certain municipality?
16 There was another aspect to your testimony?
17 A Correct.
18 Q And what was the gist of that testimony?
19 A That there was a population -- a citizen voting
20 age population in part of Milwaukee that satisfied
21 the requirements of Section 2 of the Voting Rights
22 Act and that the enacted plan split that community
23 in ways that prevented equal participation in the
24 political process.
25 Q To be precise, the Hispanic community was

Page 23

1 essentially compact to compromise a majority in a
2 single-member district, but the redistricting plan
3 split that community, and so they were not a
4 majority in either district?
5 MR. YAEGER: Objection. Compound.
6 You may answer.
7 A So in one of the districts there may have been a
8 small numerical majority, but my conclusion is
9 that it was insufficient for the purposes of
10 Section 2 of the Voting Rights Act.
11 Q Okay. And just so I'm clear on your prior answer,
12 you did not do a formal partisan fairness analysis
13 of the overall effect on the democratic party in
14 that case; is that right?
15 A That's correct. I'm thinking. It's been six
16 years since that case. I believe that's correct.
17 Q Okay. As I said, I'm trying to do this as quickly
18 as I can. You've listed a number of other cases
19 here. My first question with respect to all of
20 them is did you do a partisan fairness or partisan
21 gerrymandering analysis with respect to any of
22 those cases?
23 MR. YAEGER: Referring to the cases
24 on pages 3 and 4?
25 MR. CARVIN: Yes.

Page 24

1 MR. YAEGER: Thank you.
2 A That's correct.
3 Q All right. If we could -- I'm just going to try
4 to get through this quickly. Do you remember what
5 topics you testified on or prepared a report on in
6 McComish v. Brewer?
7 A McComish v. Brewer was a case that involved the
8 public funding program for state candidates in
9 Arizona and it was -- I believe that the analysis
10 was in response to reports that experts for the
11 plaintiffs had submitted.
12 Q And what was the gist of your testimony?
13 A The gist of the testimony is that the -- of my
14 report was that the law did not have an effect on
15 the way that privately funded candidates timed
16 their spending or the amount that they spent.
17 Q And did you give trial testimony in that case?
18 A No.
19 Q Just a deposition?
20 A A report and a deposition.
21 Q And do you recall what the court decided in that
22 case?
23 A Believe that the district court decided for the
24 state. And that case, I think, turned into
25 Arizona Free Enterprise PAC vs. Bennett, which

Page 25

1    went to the Supreme Court.
2  Q   What happened in the Supreme Court?
3  A   The Supreme Court overturned the law.
4  Q   And Milwaukee Branch of the NAACP v. Walker, what
5      was the case there?
6  A   That was a state court specifically about voter
7      ID.
8  Q   Voter ID.  Okay.  And what was the gist of your
9      testimony there?
10 A   The gist of the testimony was that there were a
11     large number of eligible voters affected and who
12     did not possess forms of -- an ID that would allow
13     them to vote under the law.
14 Q   Do you recall what the court's decision was in
15     that case?
16 A   The district court ruled for the plaintiffs and
17     that went to the state supreme court where the
18     state supreme court upheld the law.
19 Q   And how about -- did you testify in trial at that
20     case?
21 A   Yes.
22 Q   Okay.  And then Kenosha County vs. City of
23     Kenosha, what was the issue there, please?
24 A   That was a dispute between the city and county
25     over the agreement between the county board of

Page 26

1    supervisors districts and the wards that the City
2    of Kenosha had drawn.
3  Q   And what was the alleged problem with the lines
4    they drew?
5  A   The problem or the issue was that the lines did
6    not match, that there were county districts that
7    cut through the wards that the municipality of the
8    City of Kenosha drew and the county insisted that
9    the city change its ward boundaries, and the city
10   insisted the county change its district
11   boundaries.
12 Q   And whose side did you testify for?
13 A   I testified for the city.
14 Q   And what was the gist of your testimony there?
15 A   The gist of the testimony -- I'd have to look at
16   my report.  It's been a while.  I don't quite
17   remember every aspect of that.  I know how the
18   case was ultimately resolved is that it was
19   possible under state law for the city to redraw or
20   to split off parts of wards that didn't comply
21   with the population requirements under state law,
22   but when there was a dispute between the city and
23   county, it was allowable for a city to do that.
24 Q   Do you recall how the case was resolved?
25 A   I don't think -- I don't think the court reached a

Page 27

1    decision.  I think once that solution was
2    identified that that's what the city did, and it
3    sort of removed the issue in dispute.
4  Q   Okay.  You mentioned this Tyson vs. Richardson
5      School District at the beginning of this
6      conversation.  With that case in mind, is there
7      any other case that you've offered expert witness
8      testimony in other than the cases listed at the
9      bottom of page 3 and top of page 4 of your report?
10 A   There was one case from 2001, which was a
11     redistricting case.  That one was called
12     Baumgart vs. Wendelberger.
13 Q   Could you spell that for me?
14 A   B-a-u-m-g-a-r-t.  And I believe Wendelberger is
15     W-e-n-d-e-l-b-e-r-g-e-r.
16 Q   Okay.  And what was the issue with respect to
17     redistricting there?
18 A   In that case there was divided control of state
19     government, so a three-judge panel was convened to
20     draw the district lines after an impasse had been
21     reached.  And so in that case you had the
22     democrats submitting one set of plans and the
23     republicans submitting a different set of plans
24     and the panel drew a map.
25 Q   And what testimony did you offer in that regard?

Page 28

1  A   My testimony was that the maps proposed by the
2      democrats were better than the maps proposed by
3      the republicans.
4  Q   In what way?
5  A   I would have to go back and -- it's been almost
6      20 years since that case, but in that case I did
7      analyze the partisanship of the districts using
8      similar methods to what I did in Whitford.
9  Q   Well, in Whitford, just so I understand it, the
10     formal analysis used was the efficiency gap?
11 A   Right.
12 Q   Did you use that in Baumgart?
13 A   No.
14 Q   So what were you analyzing there?
15 A   So in that case, I recall looking at things like
16     competitiveness and looking at the relationship
17     between seats and votes, but there was no single
18     metric that was at issue there.
19 Q   Okay.  Fair enough.  And what offices were at
20     issue in Baumgart?  State house, state senate,
21     congress?
22 A   I believe in that case it was the state assembly
23     and the state senate.
24 Q   Okay.  Not congress as best as you can recall?
25 A   That's correct.

Page 29

1 Q   Okay.  And then at some point there was a court
2     drawn plan?
3 A   That's correct.
4 Q   And that was used throughout the 2000
5     redistricting cycle?
6 A   That's correct.
7 Q   And your report was -- you have a CV at the end of
8     your report.  It's page 96, I believe.
9 A   Correct.
10 Q   And that's current as of June 1st, 2018?
11 A   There are a couple of minor changes.  There's one
12     article that's listed as forthcoming that I
13     believe has now been published.
14 Q   Which one is that, please?
15 A   Learning from Recounts.  It's the first one.  And
16     there's one additional conference paper, which has
17     investigated the effect of voter ID laws and
18     turnout.
19 Q   Okay.  In terms of your books or book chapters or
20     articles or monographs, do any of them deal with
21     the methods or metrics for measuring partisan
22     gerrymandering?
23 A   I'm sorry.  Could you ask the question again?
24 Q   Well, you list here books, book chapters,
25     monographs, articles, and I was wondering if any

Page 30

1     of them dealt with the issue of methods or metrics
2     for measuring partisan gerrymandering?
3 A   So there are articles that touch on partisanship,
4     but I don't recall anything that focused
5     specifically on that particular question.
6 Q   How about any articles, books, book chapters, or
7     monographs on traditional districting principles
8     in drawing maps?
9 A   In terms of published work, no.
10 Q   Okay.  How about any articles, books, monographs,
11     or book chapters on the clustering or partisan
12     concentration of citizens in states or
13     municipalities?
14 A   No.
15 Q   Okay.  Have you ever written anything about
16     whether or not republicans have a natural
17     advantage in producing more seats than votes due
18     to demographic concentrations?
19         MR. YAEGER: Well --
20 A   No.
21         MR. YAEGER: Go ahead.
22 A   Sorry.
23 Q   Have you ever written anything on the Voting
24     Rights Act?
25 A   Not specifically.

Page 31

1 Q   Okay.  If you could turn to page 5 of your report,
2     please.  I'd like to direct your attention to the
3     third paragraph where you state, do you not, that
4     Partisan gerrymandering is the practice of drawing
5     those lines so that a party wins a larger number
6     and share of seats than it would have won under
7     non-gerrymandered lines; is that correct?
8 A   That's correct.
9 Q   And just to get more specific about that, if you
10     could turn to page 8 of your report at the bottom.
11     And I'll read you that paragraph and then ask you
12     a couple questions.  Okay.
13         You write, do you not, The defining
14     characteristic of a partisan gerrymander is that
15     it allows a political party to win more seats than
16     it would have if districts were drawn in a neutral
17     fashion.  "Neutral" in this context means
18     districts drawn in accordance with traditional
19     restricting criteria without regard to
20     partisanship: equal population, contiguity,
21     compactness, preservation of political
22     subdivisions, and compliance with the Voting
23     Rights Act.  Is that what you wrote?
24         MR. YAEGER: Objection.  Misread
25         the exhibit.  You left a word out in the

Page 32

1     second line that may change the meaning.  So
2     I just want the record to be clear.
3 Q   I'm more than happy -- I believe I skipped, sir,
4     win more seats than it would have to if districts
5     were drawn in a neutral fashion.
6         MR. YAEGER: Thank you.
7 Q   Just to be clear, let's clarify the record, I
8     assume the word to in that sentence was a typo?
9 A   That's correct.
10 Q   Okay.  So just to clarify, which I think is
11     relatively straightforward, your definition of a
12     neutral plan is one that is drawn in accordance
13     with traditional redistricting criteria without
14     regard to partisanship; is that correct?
15 A   That's generally true although I do note that
16     there are other criteria that can be involved.
17 Q   Okay.  Well, let's go to those.  I think you're
18     referring to footnote 1 on page 6 of your report?
19 A   That's correct.
20 Q   Okay.  And these other traditional districting
21     principles include preserving communities of
22     interest, core district retention, and in a few
23     instances creating electorally competitive
24     districts or specifically protecting incumbents;
25     is that correct?

Page 33

1         MR. YAEGER: I object to the
2      incomplete reading of the footnote omitting
3      material information.  You may answer.
4  A   So those refer to some specific requirements that
5      are imposed in either state constitutions or state
6      statutes.
7  Q   Yes.  And those would -- were those the other
8      traditional districting principles that you
9      referenced a minute ago?
10 A   Well, so there are standards that are generally
11     considered to be the traditional redistricting
12     principles, and there are others that are
13     specifically required at times in states, but I
14     would not regard competitiveness or incumbent
15     protection as traditional redistricting principles
16     generally.
17 Q   Okay.  And you mentioned state constitutions and
18     statutes.  To your knowledge, courts recognize
19     competitive districts or protecting incumbents as
20     traditional districting principles?
21 A   I haven't read every court decision that's dealt
22     with this, but, again, as a general rule, the
23     first set are ones that you start with as
24     traditional principles and sometimes others are
25     added in depending on what state you're in.

Page 34

1  Q   Okay.  And have you looked at Michigan
2      specifically to figure out whether or not any or
3      all of these criteria are the principles that have
4      guided plans in the past?
5  A   In Michigan, my recollection is that the
6      traditional criteria apply.  The one thing that
7      Michigan does is allows higher population
8      deviations up to plus or minus 5 percent.
9  Q   Just to clarify, you say the traditional ones
10     apply.  Are those the ones you listed on page 8 or
11     also the ones in footnote 1 of page 6?
12 A   So in Michigan I believe it's the one on page 8.
13 Q   And what's the basis for that assertion?
14 A   The fact that those are the ones that are
15     generally applicable, and I do know from Michigan
16     that they do permit up to a plus or minus
17     5 percent population deviation.
18 Q   Is that atypical?
19 A   That's the maximum that the Supreme Court has
20     allowed as presumptively allowable.
21 Q   In state legislation?  State legislative
22     districts?
23 A   Correct.
24 Q   And what's the basis for your assertion that these
25     other districting principles that you list guide

Page 35

1      redistricting in Michigan?
2  A   It's the academic literature and my understanding
3      of how Michigan does it.
4  Q   What academic literature?
5  A   There's a general academic literature on
6      redistricting and that's where those come from.
7  Q   Right.  But I'm asking about Michigan.  What's
8      your understanding of the traditional
9      redistricting principles used in Michigan based
10     on?
11 A   My understanding is those are the same ones used
12     in Michigan, again, with some specifics on things
13     like population deviation.
14 Q   And what's the basis for your assertion that
15     Michigan follows the redistricting principles that
16     you list on page 8?
17 A   It's the general understanding of how states do
18     it.  I have looked at -- I believe it's called the
19     Apol guidelines, which were produced in the 1980s
20     or 1990s sort of laying out principles for the
21     legislature.
22 Q   Laying out principles for the legislature to draw
23     congressional and state legislative districts?
24 A   That's my understanding.
25 Q   And what are those standards?

Page 36

1  A   I would have to see the report to give you the
2      specifics.
3  Q   Just generally describe the Apol Standards.
4  A   Again, the two specifics of the Apol Standards are
5      the population -- allowable population deviation
6      and emphasis on preserving municipal boundaries.
7  Q   And do you know what, if anything, it said about
8      preserving municipal boundaries?
9         MR. YAEGER: I'm going to object.
10     The witness has testified that he would like
11     to look at the document before he could
12     answer that question, so I'm going to object
13     that you're now calling for speculation.  You
14     may answer.
15 A   I don't have the entire document in my head, so I
16     couldn't tell you which specific section or
17     paragraph mentions that.
18 Q   Do you know what takes priority under the Apol
19     Standards, compactness or preserving municipal
20     boundaries?
21 A   I couldn't say without looking at the report.
22 Q   Do you know whether Apol gives greater credence to
23     county boundaries than municipal boundaries?
24 A   I would have to look at the report.
25 Q   Okay.  And do you know whether or not

Page 37

1   redistricting in Michigan has used its traditional
2   districting principle protecting incumbents?
3 A   I would have to look at the report.
4 Q   I'm just asking generally wholly apart from the
5   Apol report, do you know whether or not protecting
6   incumbents has been a traditional districting
7   principle in Michigan?
8 A   That I can't say.
9 Q   Okay.  Can you say whether or not preserving the
10   cores of districts has been a traditional
11   districting principle in Michigan?
12 A   My understanding is that -- actually, I'm not
13   going to speculate without having, you know, the
14   specific statutes in front of me.  I can't say.
15 Q   And I'm not -- just to be clear, I'm not just
16   asking you about what's in the statutes.  I'm
17   asking you what principles have been followed
18   either by courts entering redistricting plans or
19   by the legislature drawing redistricting plans
20   over the last three decades?
21 A   Well, Michigan, like most states, depending on who
22   is in the legislature when they draw the plans,
23   they can apply these criteria because a number of
24   them are actually pretty ambiguous.  There is no
25   formal definition of a community of interest.

Page 38

1   It's a judgment that the people who draw the maps
2   make, and it's not something where you can look at
3   it and say, well, this community is not being kept
4   together and that one is and so, you know, there
5   is a lot of flexibility that legislators have in
6   doing this about which ones they are going to
7   apply in a specific instance.
8 Q   Right.  And I'm asking you have they, for example,
9   applied the principle of retaining the cores of
10   existing districts in Michigan to your knowledge?
11 A   I can't -- not to my knowledge.
12 Q   And what about whether or not preserving
13   communities of interest has been a traditional
14   districting principle in Michigan?
15 A   Again, it's something that's generally applicable.
16   I can't say the degree to which in this plan in
17   that district it was applied.
18 Q   And what about creating electorally competitive
19   districts.  Is that a traditional districting
20   principle in Michigan?
21 A   That is not -- my understanding is that's not a
22   traditional redistricting criteria that's applied
23   in Michigan.
24 Q   How would you define what a competitive district
25   is?

Page 39

1 A   There are different ways of doing it.  One would
2   be a district that both parties have a plausible
3   opportunity to win.  Sometimes it's defined as a
4   district that is within 10 percentage points.
5 Q   And just to be clear, when you say 10 percentage
6   points meaning the estimated partisan range is
7   between 45 and 55 or between 40 and 50?
8 A   I would say 45 and 55.
9 Q   And that's generally accepted in the --
10 A   It depends very much on the context.
11 Q   What would the contextual factors be?
12 A   Things like whether an incumbent has been in the
13   district for a long time, the nature of swings
14   that you see.
15 Q   And incumbency matters because typically
16   incumbents have an advantage of being reelected?
17 A   That's correct.
18 Q   Have you estimated the incumbency advantage in
19   Michigan?
20 A   No.
21 Q   Did you factor incumbency when you were doing your
22   analysis of the partisan fairness of these plans?
23 A   No.  The baseline method is designed to
24   essentially remove the effects of incumbency,
25   which is how you compare different redistricting

Page 40

1   plans.
2 Q   And roughly how much would you say an incumbent
3   has an advantage over a nonincumbent?  What does
4   the literature say on that?
5 A   It depends on what office we're talking about.  I
6   don't know that it's possible to give a specific
7   number "X" percentage points.
8 Q   Well, has typical incumbency advantage in
9   congressional offices been estimated in the
10   literature?
11 A   Yes.
12 Q   And what would that advantage be in percentage
13   terms?
14 A   I don't know what it would be in 2012 to 2016.
15 Q   What would it have been prior to that?
16 A   I would have to check.  I know that people have
17   estimated it.  I don't know specifically what it
18   is.
19 Q   Roughly 6 to 10 percent?
20        MR. YAEGER: Objection.
21 A   It would have -- it would be referring to a
22   specific study, so I would have to look at the
23   literature.
24 Q   You're not an expert on that literature?
25 A   Not to the point where I can identify a specific

Page 41

1    number in a specific article.
2 Q  No.  Just specific number generally?
3         MR. YAEGER: Objection.  Vague and
4      ambiguous.
5 A  I mean, I can't tell you specifically whether the
6      advantage is 4.5 or 5.3, but it is positive.  It
7      is correct to say that incumbents -- I would say
8      not usually.  They almost always win when they run
9      for reelection.
10 Q  And competitive districts are generally viewed as
11      beneficial?
12 A  That depends on who you ask.
13 Q  I'm asking your opinion.
14 A  I think generally speaking a district that is
15      competitive, those are generally considered to be
16      normatively good things.
17 Q  All right.  Let's turn to that specific issue, I
18      guess, at this point.  If you could turn to page 9
19      of your report.  I'm going to start reading.  This
20      is the second -- third full paragraph on page 9.
21         The primary effect of gerrymandering is that
22      it violates both principles.  It disrupts the
23      relationship between the number of votes a party
24      receives and the number of seats it wins, and
25      violates the core democratic principle that the

Page 42

1      two quantities should be related (even though the
2      goal is not proportional representation).  I'm
3      going to stop there.
4         There's a core democratic principle that the
5      number of votes a party receives should relate to
6      the number of seats it wins; is that correct?
7         MR. YAEGER: I object to the
8      incomplete reading of that sentence.  You may
9      answer.
10 A  So I would reverse that and say that the number of
11      seats a party wins ought to be related to the
12      number of votes it receives, which is different
13      from saying that they should be equal.
14 Q  Right.  Okay.  And you say that one of the
15      problems with that is that It distorts the
16      relationship between support in the electorate and
17      the size of a legislative majority, and frequently
18      violates the majoritarian principle, because a
19      political party can win a majority or
20      supermajority of legislative seats even though it
21      receives less than 50% of the overall vote.  Did I
22      read that correctly?
23 A  That's correct.
24 Q  Okay.  And if you could describe the majoritarian
25      principle, this is a doctrine that a party that

Page 43

1      receives less than the majority of votes should
2      not receive the majority of seats?
3 A  As a general matter, the majoritarian principle
4      holds that to have a majority in the legislature,
5      that a party -- the majoritarian principle holds
6      that the party that holds a majority in the
7      legislature should get that through majority
8      support in the electorate.
9 Q  And that is a principle with which you agree?
10 A  Generally, yes.
11 Q  And that is one of the flaws in the enacted plan
12      in this case?
13 A  Based on the metrics, that is one of the
14      indicators of asymmetry and to form my conclusion.
15 Q  Just so we can make this specific rather than
16      general, if you could turn to page 40 of your
17      report.  So you have a column there or a row there
18      listed Partisan Bias, actual; right?  Do you see
19      that?
20 A  Yes.
21 Q  And I'm going to direct your attention to the row
22      underneath, column underneath 2012 to 2016
23      elections, and you have a partisan bias, actual
24      there of minus 7.8; is that correct?
25 A  Yes.

Page 44

1 Q  And that minus 7.8 reflects the difference between
2      the fact that democrats got 52.3 percent of the
3      statewide vote under your analysis and only
4      received 44.5 percent of the seats; is that
5      correct?
6 A  That's correct.
7 Q  52.3 minus 44.5 equals 7.8?
8 A  Correct.
9 Q  And so what you're analyzing there is the
10      difference between the demographics proportion of
11      the statewide vote and their proportion of the
12      statewide seats; right?
13 A  Correct.
14 Q  Why is that different from making the goal
15      proportional representation?
16 A  Because that's only one indicator, and so if the
17      partisan bias is zero, it reflects the fact that
18      the percentage of the vote is equal to the
19      percentage of the seats.
20 Q  Right.  Okay.  But that is essentially -- the
21      difference between -- the partisan bias, actual,
22      is a measure of the difference between the
23      proportion of statewide votes and the proportion
24      of seats gained; correct?
25 A  Correct.

Page 45

1  Q   And then you have -- let me ask you just a general
2      question.  Why would one expect the proportion of
3      statewide vote to be roughly equivalent to the
4      proportion of statewide seats?  Let me give you a
5      hypothetical if I could.
6          If voters were randomly distributed
7      throughout the state and one party enjoyed a
8      53 percent statewide vote, we would expect them to
9      win all of the seats, wouldn't we?
10             MR. YAEGER: Objection.  Incomplete
11         hypothetical.  Compound.  You may answer.
12  A   I would say the answer is no because it is the
13      process of drawing districts where individual
14      votes are aggregated in ways that will -- well,
15      let me put it this way.  The hypothetical doesn't
16      make sense because we know that you do not have
17      perfectly uniform distributions of voters.
18  Q   Right.  So the reason we think that there's going
19      to not be 100 percent success is because we
20      understand that voters are not randomly
21      distributed throughout the state.  There's certain
22      concentrations where certain voters live; right?
23  A   Well, it's more complicated than that because in a
24      legislative system, those voters are aggregated
25      into districts and it is that aggregation process

Page 46

1      in which --
2  Q   Maybe I'm not making myself clear.
3             MR. YAEGER: Objection.  Please
4         finish.
5  Q   Please finish.
6  A   It's that aggregation process that can introduce
7      its own effect.
8  Q   Right.  But I'm positive in my hypothetical
9      completely neutral distribution and line drawing
10      process.  If, for example, a state was 53 percent
11      women, you would not be surprised to know that in
12      all of the districts they would be comprised of 51
13      to 55 percent women, would you, because women are
14      randomly distributed throughout the population?
15             MR. YAEGER: Objection.  Compound.
16         Incomplete hypothetical.  You may answer.
17  A   I don't know that you could make that statement.
18  Q   Is it not the case that if you have a random
19      distribution of any subset and you divvy up the
20      subset, then you're generally going to achieve a
21      proportion equal to the statewide overall
22      representation?  Is that not mathematically
23      obvious?
24  A   If individuals are truly randomly distributed both
25      in terms of whatever characteristic that you are

Page 47

1      hypothesizing about and their sort of spacial
2      distribution is equal, then in that case a
3      district -- aggregating those votes into districts
4      would, again subject to the distributional effects
5      of random distribution, it's likely to produce
6      districts that were within that range or within a
7      relatively narrow range.  We would have to know
8      the specifics of how they were distributed and how
9      that varies.
10  Q   Right.
11  A   But that's correct.  If you had a perfectly
12      uniform distribution of individuals, then
13      aggregating those individuals should not make a
14      difference.
15  Q   And that's why, I assume, you thought the measure
16      of a partisan gerrymander is that they win more
17      seats than it would have if districts were drawn
18      in a neutral fashion?
19  A   Well, you're conflating two different things.
20  Q   Well, let me ask you -- go ahead.
21  A   As the examples I give demonstrate, it's the
22      process of drawing lines when voters are not
23      randomly distributing that introduces a sort of
24      self-evident opportunity to bias those results to
25      a particular set of outcomes.

Page 48

1  Q   Right.  And that is why I thought you were saying
2      that the benchmark for measuring a partisan
3      gerrymander should be compared to a neutral plan
4      drawn without any partisan intent and adhering to
5      traditional districting principles?
6             MR. YAEGER: Objection.  Vague and
7         ambiguous, and it's not a question.
8  A   Can you just rephrase that?  I just want to make
9      sure I understand it.
10  Q   I think it would be controversial, so why don't
11      you just turn to page 8 of your report.  Okay.
12      I'm just reading your words, am I not, The
13      defining characteristic of a partisan gerrymander
14      is it allows a political party to win more seats
15      than it would have if districts were drawn in a
16      neutral fashion.
17          I infer from that that your view is that the
18      measure of a partisan gerrymander is the
19      difference between how many seats a political
20      party gets under the enacted plan and how many
21      they would be if the plan were drawn in a neutral
22      fashion; is that correct?
23  A   That's one measure.  It's not the only one.
24  Q   Well, I thought it was the defining
25      characteristic?

Page 49

1 A  That's correct.  But the metrics involve more than
2    just simply looking at seats.  There are measures
3    of where that bias originates and how it is
4    implemented.
5 Q  No.  That's all fair.  That's how you measure a
6    gerrymander.  And I'll get to that in a minute.
7    I'm just trying to figure out what a gerrymander
8    is.
9         Are you now retracting your testimony that
10   the defining characteristic of a partisan
11   gerrymander is that it allows a political party to
12   win more seats than it would have if districts
13   were drawn in a neutral fashion?
14 A  No.  That's a true statement.
15 Q  If that's the defining characteristic, then the
16   relevant comparison would be, however measured,
17   the partisan bias or efficiency gap of the enacted
18   plan relative to a neutral plan; correct?
19 A  That's generally true.
20 Q  Okay.
21        THE WITNESS: Can we take a quick
22   break in a little bit?
23        MR. CARVIN: Sure.  If you want,
24   right now is fine.
25        MR. YAEGER: Is it a convenient

Page 50

1    time for you?
2         MR. CARVIN: Sure.
3       (Recess taken)
4  BY MR. CARVIN:
5 Q  Before the break we were looking at page 8 of your
6    report, Professor Mayer.  And I'd like to -- well,
7    you say here, do you not, that the two classic,
8    and reciprocal, gerrymandering techniques are
9    packing and cracking; is that correct?
10 A  I'm just trying to find the spot on the report.
11 Q  I apologize.  I'm reading from the second
12   sentence, second line in the second paragraph on
13   page 8.
14 A  Yes.  That's what I wrote.
15 Q  Okay.  And you agree with that?
16 A  Yes.
17 Q  And packing involves concentrating party
18   supporters into a small number of districts where
19   they constitute overwhelming majorities; is that
20   right?
21 A  That's correct.
22 Q  And what would a generally accepted definition of
23   the percentage needed to constitute a packed
24   district be?
25 A  There's no universal definition of that.  Often a

Page 51

1    general rule would be above 60 percent,
2    65 percent.  I mean, there's no specific rule or
3    formula.  Generally what it means is that voters
4    are packed into a district where they constitute a
5    sufficient majority that it is -- you know, they
6    constitute generally an overwhelming majority.
7 Q  So certainly 75 percent would be --
8 A  Probably.  Yes.  I mean -- yes.
9 Q  And then you say Cracking -- again, I'm now
10   reading from the same paragraph -- involves
11   distributing a party's supporters voters in such a
12   way that they constitute minorities in other
13   districts; is that right?
14 A  That's correct.
15 Q  Well, would that literally be true -- would you
16   consider a district that's 49 percent democratic a
17   cracked district?
18 A  It depends.  It depends on what the alternatives
19   would be.  It depends on things -- on some of the
20   specifics.  So a 49 percent district, that number
21   by itself, I think, would not generally be
22   considered a cracked district, but it depends.
23        I mean, if you do it in a way that that
24   concentrates or splits voters in a way that allows
25   the party drawing the district to pick up an

Page 52

1    additional seat, it could meet the definition of
2    cracking.
3 Q  Well, what if you had had ten districts that were
4    51 percent republican and 49 percent democratic,
5    you would say all those are cracked?
6 A  Again, it depends on some contextual factors.  How
7    many seats are in the legislature.  You know,
8    under many conditions, a 49 percent district would
9    not be considered cracked, but there are
10   circumstances in which you would look at that and
11   say that district was designed in a way to pick up
12   an additional seat.
13 Q  Right.  What if the legislature or constitution
14   said we want to maximize the number of competitive
15   districts and the result was districts that are in
16   the range of 51 to 49 for both parties, would you
17   consider that a gerrymander?
18 A  So let me see if I understand this.  I'm not
19   trying to be excessively parsing here, but the
20   precision matters.  If you had ten districts in a
21   legislature and you drew all of them so that one
22   party had 51 percent of the vote -- and that
23   statement implies that you have a metric of
24   measuring that.  But if you had a system in which
25   one party wins all of the seats by very small

Page 53

1   majorities, there are circumstances in which that
2   could -- the metrics of that could show that it
3   was -- that it could be a gerrymander because in
4   that case, the party that has 49 percent of the
5   vote gets zero seats, and the party that gets
6   51 percent wins all of them.  That's a purely
7   hypothetical circumstance because in legislatures,
8   that's not how it is done.
9 Q   Right.  In the real world, it would depend on how
10   accurate your prediction of 51 percent is, it
11   would depend on whether there was an incumbent
12   there, and all sorts of things might produce a
13   different result than a baseline measure of 51 to
14   49; right?
15 A   Well, again, you're comparing apples and oranges
16   because a baseline estimate is designed to remove
17   those extraneous factors so that you have --
18   that's your starting point, and it allows you to
19   compare alternative plans to give you an apples to
20   apples comparison when all of these other factors
21   can affect the results.
22 Q   All right.  Let's assume the baseline measure
23   shows that the relevant share in all ten districts
24   is 51 percent republican and 49 percent democrat.
25   In five of those districts, there's democratic

Page 54

1   incumbents.  So given the incumbency advantage,
2   those five districts would really be 52,
3   53 percent democratic.  So you'd have ten
4   competitive districts where the likely winners are
5   five democrats and five republicans.  Would you
6   consider that a cracked -- a plan where democrats
7   vote is cracked or where there's a strong degree
8   of partisan bias?
9       MR. YAEGER: Objection.  Incomplete
10     hypothetical.  You can answer.
11 A   So can you read that back?
12 Q   I'll do it again for you.  Ask it again.  Ten
13   districts with a baseline measure shows 51 percent
14   republican, 49 percent democrat.  But in five of
15   those districts, there's already democratic
16   incumbents.  So in the real world opposed to
17   baseline measure, five of those districts are
18   likely to elect a democrat.  Would you consider
19   that a plan that has cracked the democratic vote
20   or which is biased against democrats?
21       MR. YAEGER: Same objection.
22 A   Well, in that example, the democrats would
23   presumably win five districts and so that's
24   unlikely to meet the standards for bias or
25   asymmetry, but, again, it would depend on some

Page 55

1   other factors that are unspecified.  Were those
2   districts specifically drawn to isolate democrats
3   or republicans in a particular way to aggregate
4   them in a particular way?
5 Q   Okay.  Let's turn to your other important
6   principle in terms of what defines a partisan
7   gerrymandering scheme.  In the second full
8   paragraph on page 9, you quote an article saying
9   that any electoral system had to pass two tests if
10   it is to be minimally democratic.  The first is
11   The districting should yield an electoral system
12   that is responsive to changes in votes.  If many
13   citizens shift their votes from one party to
14   another, then the advantaged party should win an
15   increased share of legislative seats.  And you
16   agree with that as a test of partisan fairness of
17   a plan; correct?
18 A   Well, I cited Tufte because I agree with these
19   definitions.
20 Q   Okay.  So a plan should be responsive to change in
21   votes.  If many people shift their votes to one
22   party, then that party should also see an increase
23   in seats during the redistricting cycle; correct?
24       MR. YAEGER: Objection.  Misstates
25     the document.  You may answer.

Page 56

1 A   There's nothing specific about a redistricting
2   cycle, but as a general principle that as the
3   share for a party goes up, the number of seats
4   should reflect that.
5 Q   Okay.  But that's certainly true in a
6   redistricting cycle.  If you increase your vote
7   share by 5 to 10 percent during the decade, then
8   you would argue that a fair system would show a
9   relatively similar increase in your seat share;
10   correct?
11 A   That's incorrect.  The issue is not does the
12   increase in seat share need to match the increase
13   in vote share.  The issue is there ought to be
14   some level of responsiveness.  That if the party's
15   vote changes and there is not a change, then
16   that's a problem.
17 Q   Right.  So we are agreeing that an increase in
18   vote share during a decade should result in
19   increase in seat share, which is roughly
20   proportional?
21 A   The proportional problem -- or the proportional
22   statement is the hitch here.  There's no
23   requirement that it be proportional.
24 Q   Okay.  What do you consider an acceptable level of
25   seat change relative to vote change?

League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 57

1 A  I don't have a particular threshold in mind.
2    Generally it should be true.
3 Q  And what relationship should there be between an
4    increase vote share and an increase seat share
5    generally?
6         MR. YAEGER: Asked and answered.
7 A  Again, the principle is that the representation in
8    a legislature should be responsive to changes in
9    the votes as a general principle.
10 Q  Right.  And gerrymandering makes election results
11    and, therefore, legislative membership
12    unresponsive to changes in electoral support;
13    correct?
14 A  Again, I want to make sure I understand exactly
15    what you're asking.
16 Q  The problem with gerrymandering is that increases
17    in support for the uncontrolling party don't
18    translate to increases in the number of seats;
19    right?
20         MR. YAEGER: Forgive me.  I'm going
21      to object.  It looks like you're reading and
22      I think the witness is confused because you
23      appear to be reading from his report.  Could
24      you point to him what you're reading, please.
25 Q  Sure.  It makes the point six different times, but

Page 58

1    sure.  Turn to the paragraph at the bottom of
2    page 9.
3 A  Yes.  So that's what I wrote, yes.
4 Q  Right.  Okay.  And I'm just trying to figure out,
5    therefore, the hallmark of a gerrymandered plan is
6    that increases in support for the noncontrolling
7    party do not translate into increasing in the
8    number of seats; is that correct?
9 A  That's one of the characteristics.  It's not the
10    only one.
11 Q  But it's one of the important characteristics.
12    It's one of the two?
13 A  Generally, that's correct.
14 Q  Okay.  And now I'm asking you how much of a
15    relationship does there need to be between
16    increases in support for the noncontrolling party
17    into increases in the number of seats?
18         MR. YAEGER: Asked and answered.
19      You may answer.
20 A  It depends on a lot of other things.  I can't give
21    you a number that a 1 percent increase in the vote
22    should lead to a -- it depends on a lot of
23    factors.  Are you crossing over the 50 percent
24    mark?  So there is -- or I did not have a specific
25    threshold value that says on this side or that

Page 59

1    side of those close calls that one constitutes a
2    gerrymander and one does not.
3 Q  So there's no well accepted political science
4    principle about what level of responsiveness or
5    nonresponsiveness distinguishes a gerrymander from
6    another plan; correct?
7 A  Well, not exactly because much depends on how
8    things relate to other examples and where the
9    metrics are.  So there is not in the literature a
10    specific number, but again --
11 Q  Is there --
12         MR. YAEGER: I'm sorry.  The
13      witness is still talking.
14 A  But we're talking about comparing different
15    systems.  If this is a system where the change in
16    seats is larger when the vote changes, that that
17    would be considered more responsive to one where
18    the change in seats is smaller or goes in the
19    opposite direction.  It depends on what points in
20    time you're comparing.
21      But, again, this is a general principle that
22    is general so it is -- I did not have in mind
23    that -- you know, when we're salami slicing that
24    this number is not a gerrymander and you change
25    that by a small amount that things flip.

Page 60

1 Q  Is there a range of numbers that distinguishes
2    between a gerrymander and a non-gerrymander?
3 A  Well, there are comparisons that you can make, but
4    it depends on a number of different factors.
5 Q  So you can't identify a range of numbers in terms
6    of seat responsiveness to vote changes that
7    distinguishes a gerrymander from a
8    non-gerrymander?
9 A  Well, so the distinction is that if we are talking
10    about a very narrow range of numbers, a
11    responsiveness of a tenth of a percentage point or
12    something, in that respect, there's no number out
13    to three or four significant digits.  But it is
14    possible to look at plans and identify the markers
15    of things that are consistent with partisan
16    gerrymanders.  If we're looking at one party with
17    double the number of seats that the other party
18    has with the equivalent share of the vote, that
19    hits you between the eyes.
20 Q  No.  I understand what we're looking at.  I'm
21    wondering if there's either political science
22    consensus or your view as to what distinguishes
23    between a gerrymander and a non-gerrymander in
24    terms of seat vote responsiveness?
25 A  Again, I'm not trying to fight you excessively,

Page 61

1    but it depends.  It depends on whether the bias
2    and asymmetry of a plan is enduring or whether it
3    flips dramatically from one election to the next.
4    It depends on the size of the vote shift.  If
5    we're talking about a 1 percent vote shift or a
6    7 percent vote shift that would be required.  It
7    depends on what percentage of the vote the
8    disadvantaged party would need to get in order to
9    secure a majority of the seats.
10        So, again, this is establishing the general
11   principles.  You know, Tufte does not.  There is
12   not a specific number attached to this.  It's a
13   general principle just like there are -- well,
14   I'll stop there.
15  Q   There's neither a specific number nor a general
16   number attached to that given the number of
17   different variables you just discussed?
18  A   Given this way of expressing that principle, I
19   would say that's correct.
20  Q   So if in one state the democratic vote share
21   increased by 10 percent over a redistricting cycle
22   but the number of seats only increased by
23   1 percent, you would not argue that there's a
24   political science consensus that that's too little
25   responsiveness?

Page 62

1        MR. YAEGER:  Objection.  Incomplete
2    hypothetical.
3  A   It depends.  It depends on other factors that go
4    beyond merely what percentage of the vote -- I
5    mean, a lot of it depends on the general character
6    of the seats votes curve where when you're close
7    to 50 percent historically, the responsiveness
8    tends to be higher.  And if you're at the higher
9    or lower ends, you know, of 75 or 25, there's less
10   responsiveness.
11  Q   Okay.  Now, to go back to the packing situation,
12   just so I'm clear, we'll use democrats as the
13   disadvantaged party in my hypothetical.  If a
14   democratic district was packed at, say,
15   75 percent, that would not be harmful to the
16   democratic residents of that district.  It would
17   be harmful to the democrats overall vote share in
18   the legislature; correct?
19  A   So now you're talking about specific harms?
20  Q   Yeah.
21  A   There could be harms to the people in a packed
22   district because if their votes generically or
23   systematically are distributed in a way that
24   secures an advantage for the other party, it can
25   hurt their representation.

Page 63

1  Q   Right.  That's what I'm trying to figure out.
2    Therefore, democrats are harmed in the plan as a
3    whole.  But I now want to reduce it to the
4    district level.  The democrats in a particular
5    district that is packed democrat are not
6    themselves harmed?
7  A   That's not necessarily true.
8  Q   All right.  How are they harmed?
9  A   Well, if individuals are generally packed -- so a
10   single district, again, the effects of a
11   gerrymander are a function of how voters are
12   aggregated into districts and how votes are
13   translated into seats.  And the way that
14   individuals or voters are aggregated into a
15   district even if their representative shares their
16   party identification, there can still be a harm if
17   their views or their partisanship is the basis for
18   drawing district lines generally that results in
19   less representation overall than they would
20   otherwise get under a neutral plan.
21  Q   Right.  So that's fair enough.  So their ability
22   to elect their candidate of choice to cast a
23   winning vote is not affected adversely for
24   democrats in packed democratic districts.  What's
25   adversely affected is the fact that fewer of their

Page 64

1    partisans are serving in the legislature; correct?
2  A   That's not the only one.  It could also be the
3    case that --
4  Q   Could you answer that one first?
5        MR. YAEGER:  Objection.  Asked and
6    answered.
7  A   What I'm saying is that there are additional --
8    there are additional possible harms to people
9    because if -- again, this is the basis of things
10   like the efficiency gap.  That if I am packed into
11   a district, my vote has less influence on the
12   outcome in that district, which means it's
13   weighted less, than if I were in a district that
14   was not packed.
15       This is the basis of the mean-median that
16   voters are not counted equally if they -- if my
17   vote changes the outcome from 75 to 76 or from 80
18   to 90 opposed to if my vote changes the vote from
19   51 to 52 or if my vote is decisive, so there could
20   be additional harms.
21  Q   I want to make it clear.  Then they would want to
22   be in competitive districts?  They would want to
23   be in a 51 percent democratic district rather than
24   a 75 percent democratic district, that's your
25   testimony?

Page 65

1 A   No.

2 Q   They're harmed?

3 A   No.  I mean, it depends.

4 Q   You just said, did you not, that their vote is not

5     equally weighted if they get 75 percent of the

6     vote support for their preferred candidate than if

7     they were the 51st -- if their preferred candidate

8     got 51 percent of the vote?

9 A   In terms of how the votes are weighted, that is

10    true.

11 Q   So you're saying that somebody who is in a

12    district that has 75 percent vote for his

13    preferred party is treated unequally from somebody

14    where candidates of his preferred party get

15    51 percent of the vote?

16 A   What I'm saying is that in terms of how the votes

17    are translated into outcomes, they are weighted

18    differently.

19 Q   Right.  Why do we care about that?

20 A   Well, that actually gets into a broader question

21    about the effects of gerrymandering because if

22    people are packed and cracked, it means that their

23    votes are weighted differently than people who are

24    not packed and cracked because the way that those

25    votes are aggregated, it is less efficient than

Page 66

1     the advantaged party.

2 Q   It's less efficient in turning votes into seats in

3     the legislature; right?

4 A   That is a true statement.

5 Q   Okay.  Now I'm going to ask you wholly apart from

6     the statewide representation of the party in the

7     legislature, is a democrat residing in the

8     75 percent democratic district harmed?

9 A   Here's the answer.  If that district was drawn in

10    a way to pack democrats into a district in a way

11    that secures an advantage for the other party and

12    puts them at a disadvantage, that it means that

13    their votes are weighted differently than the

14    other party's and that's a harm.

15 Q   Right.  Because if you reduce the democratic

16    percentage in District 1, you could spread it to

17    adjacent districts, and therefore, they would be

18    more efficient about translating votes into seats

19    on a statewide basis; right?

20 A   So it depends on where you put them, but in a

21    district that is unpacked, to redistribute voters

22    in a more neutral fashion, it increases the weight

23    of those votes in terms of how they are aggregated

24    into outcomes.

25 Q   Right.  And would this unpacking help the people

Page 67

1     in the packed district, or would it help their

2     partisan affiliates in adjacent districts?

3 A   It could do both.

4 Q   How would it help somebody who wants to elect a

5     democratic representative from having his very

6     safe opportunity to elect a representative of his

7     choice become an unsafe opportunity to elect the

8     representative of his choice?

9 A   Well, the premise of the question assumes that

10    moving voters changes a safe district into an

11    unsafe district, and that's not necessarily true.

12 Q   Okay.  Well, let's break it down.  If the

13    unpacking turned a safe district into a

14    competitive district, would that harm or help the

15    democratic voter in the packed district?

16 A   It depends.

17 Q   On what?

18 A   It depends on the degree of unpacking.  It depends

19    on whether that redistribution results in

20    additional seats or more efficient translating

21    into votes to seats.  I'm not trying to fight you

22    on this but --

23 Q   You keep looking at the redistribution of the

24    votes helping the party generally.  I'm just

25    asking you if you look at it exclusively from the

Page 68

1     perspective of the voter in the 75 percent

2     democratic district, has he been deprived in any

3     meaningful constitutional value or harmed in any

4     tangible way?

5         MR. YAEGER: Objection.  Misstates

6     the prior testimony.  Seeks a legal opinion.

7     You may answer.

8 A   That asks for a legal opinion, and that's not

9     something I'm going to offer.

10 Q   All right.  Has he been harmed in any way that the

11    political science community would recognize?

12         MR. YAEGER: Same objection

13     regarding characterization of prior testimony

14     and incorporate the prior question.  You may

15     answer.

16 A   I would say, yes, there is a harm that is

17    recognized in the literature, which is the unequal

18    weighting of votes.

19 Q   Relative to other districts.  I'll try it one last

20    time.  If Madison is 75 percent democratic, is

21    that bad or good for democrats in Madison?

22 A   Well, it depends.  It depends on what level of

23    representation we're talking about.  It depends

24    on --

25 Q   Living in a community where 75 percent of the

Page 69

1    voters want to support your candidate of choice is
2    not harmful for you; correct?
3  A   Well, you know, again, you are taking a general
4    principle and forcing it into a small box where
5    the answer is it depends.  If we are talking
6    about, you know, a candidate running only in
7    Madison, then that can be true.  But if we're
8    talking about Madison being put into a district or
9    set of districts where the votes of that
10   75 percent are weighted unequally, then the
11   blanket statement that no one is ever harmed or
12   can't be harmed by being in a district in which
13   75 percent of that jurisdiction share their party
14   identification sort of depends on what we're
15   talking about.
16 Q   Right.  I'll try one last time.  The unequal
17   weighting comes from the statewide distribution,
18   or are you arguing that a democrat who casts a
19   vote in a 75 percent democratic district is harmed
20   relative to a democrat casting a vote in a
21   55 percent district?  His vote counts for less?
22        MR. YAEGER: Objection.  Incomplete
23     hypothetical.  You may answer.
24 A   I would say it depends on how the districts were
25   drawn.  If they were drawn with the intention of

Page 70

1    packing voters into districts, then, yes, there is
2    a harm.
3  Q   Okay.  But absent that partisan intent, you can't
4    identify harm?
5  A   Well, that's not what I said.
6  Q   It's what you just said.
7        MR. YAEGER: Well, wait.
8     Objection.  Fortunately, we have a court
9     reporter.  We'll see what the record said
10     with regard to the witness's testimony.
11 A   Well --
12        MR. YAEGER: There's not a question
13     on the table.  Wait for a question.
14 Q   Why don't we turn to Table 7 on page 40.
15 A   Page 40?
16 Q   Yeah.  Of your report.  I want to make sure I'm
17   understanding the basics of this.  You have two
18   measures at the top, Democratic Share of Statewide
19   Vote 53.2 percent and 52.3 percent; correct?
20 A   Correct.
21 Q   Okay.  Do those numbers reflect -- or does
22   anything else in your report reflect a prediction
23   about democratic statewide vote in the 2018 or
24   2020 elections?
25 A   So you're asking whether this number is a forecast

Page 71

1    of what will happen in 2018 or 2020?
2  Q   I'm making it broader than that.  Is there
3    anything in your report that constitutes a
4    forecast about democratic vote share in state
5    lower house elections in 2018 or 2020?
6  A   To the extent that this is a baseline, it does.
7    It presumes that that's the starting point.
8  Q   No.  But maybe I don't understand.  I thought a
9    baseline was not a prediction -- okay.  Let me ask
10   it this way.  Well, what do you mean by baseline?
11 A   Well, that gives you the starting point of what
12   the partisanship of districts are, which gives you
13   an idea of what is likely or a set of plausible
14   outcomes in those districts.
15 Q   Okay.  It gives you a starting point.  It gives
16   you an idea.  But there's a difference between a
17   starting point and an end point; correct?
18 A   Correct.
19 Q   And are you predicting anywhere in this report
20   that the democratic vote share in actual real
21   world state house elections in 2018 or 2020 will
22   be 53.2 percent?
23 A   That's not what this number is designed to do.
24   What this number is designed to do is to give you
25   a baseline for districts.

Page 72

1  Q   Right.
2  A   It will be the case that the actual result in a
3    district will be in most circumstances pretty
4    close to that vote and also gives you a very good
5    idea of who the winner is going to be.  So the
6    statement that this is uninformative or gives you
7    no idea of what an outcome may be overall or in a
8    particular district, it actually does.
9  Q   Okay.  So you say that 53.2 percent will be pretty
10   close to the actual election results in state
11   house elections in 2018.  How close?
12        MR. YAEGER: Objection.  Misstates
13     the testimony.  You may answer.
14 A   So that 53.2 is a statewide average.
15 Q   Right.
16 A   A statewide total.  The totals in districts is
17   obviously going to be different depending on what
18   the measure is and what the votes are in those
19   districts.
20 Q   Let's go through it one at a time.  How close is
21   the 53.2 percent to what the actual vote statewide
22   will be in state house elections in the real world
23   in 2018?
24 A   So, again, are you asking what the vote will be in
25   any particular district?

Page 73

1  Q  I'll try it again.  Statewide.  53.2 percent, you
2      said, will be pretty close to the 2018 election
3      results.  Now I'm trying to figure out how close
4      in the real world state house elections in 2018
5      will the statewide democratic percentage be to
6      53.2 percent?
7              MR. YAEGER: Objection.  Misstates
8          the prior testimony materially.  You may
9          answer.
10  A   Again, this is a baseline.  The statewide results
11      are likely to be close to this.  But this is not
12      a -- this is not a forecast of what the actual
13      result will be.  It depends on the configurations
14      that are external to this number.  But it is
15      unlikely to be significantly different.
16  Q   Well, have you done any analysis to figure out how
17      likely there will be no significant differences
18      between 53.2 percent and house elections in the
19      real world?
20  A   One of the ways of looking at that would be
21      looking at the vote share under this method that
22      the democrats would need to win in order to win a
23      majority of the seats.  And if you look at the --
24      if, for example, you look at Table A2, which shows
25      the baseline votes for specific districts --

Page 74

1              MR. YAEGER: I'm sorry.  What page
2          is that?
3              THE WITNESS: This is on page 85.
4  A   This gives you a way of organizing or thinking
5      about what is a plausible set of outcomes in those
6      districts.  And it will be a function of the
7      underlying partisanship and the overall context of
8      the election.
9  Q   Just to be clear, it's not a forecast either on a
10     statewide level or with respect to any of these
11     districts?
12  A   Yes, it is.  Because if I look at these districts,
13     I look at District 5 under the plan, you look from
14     2006 to 2010, and the numbers don't change much.
15     That district is vanishingly unlikely to go from a
16     95 percent district to a 60 percent district
17     because you don't see swings of that nature.  So
18     the idea that the baseline estimate of the
19     partisanship gives you no information about what
20     is a plausible outcome in 2018 is incorrect.  It
21     does.
22  Q   It gives you plausible information.  What I'm
23     asking you is whether it's a forecast within plus
24     or minus any margin of error as to the actual
25     election results that you anticipate in 2018 or

Page 75

1      2020?
2  A   Well, I would say that the result in 2018 is going
3      to be close.  I can't give you --
4  Q   Within plus or minus five?
5  A   It doesn't have the statistical properties to give
6      you a margin of error of plus or minus three or
7      plus or minus five.
8  Q   And that's how we do it all the time; right?  We
9      have standard areas of measure.  We have
10     confidence intervals that we put around particular
11     data points.  You haven't done any of that
12     analysis with respect to the 2018 or 2020
13     elections to inform the Court about how close the
14     numbers on these pages will be with what you
15     anticipate will be the actual election results in
16     2018 or 2020; correct?
17  A   Incorrect.
18  Q   Okay.
19             MR. YAEGER: Objection.
20  Q   Go ahead.
21  A   There are two pieces of that question.  The first
22     part is that margins of error and statistical
23     properties are commonly used.  They're used all
24     the time.  That's true.  But that's not the only
25     thing that you look at.

Page 76

1          If I look at a district that's 96.4 percent
2      democratic or pick a -- there aren't that many
3      heavily republican districts.  One that's 36.3.
4      You know, based on history and the likelihood or
5      the probability that that district flipped from
6      one party to the other is basically zero.  There
7      are circumstances in which a strongly democratic
8      or strongly republican district does flip, but it
9      requires an unusual set of circumstances.
10  Q   Right.
11  A   So, again, the fact that these numbers as I used
12     them -- this is not a sample drawn from a
13     distribution that allows you or me to identify a
14     specific confidence interval or credible interval.
15     But that doesn't make this uninformative.  This
16     method is very widely used in the political
17     science literature.  One of the things that this
18     is used for is to estimate not just vote
19     percentages but also who the winner is going to
20     be.  In that respect, this gives you the correct
21     answer a very large percentage of the time.
22  Q   Okay.  How often?
23  A   I don't specifically remember what Professor Chen
24     wrote in his report but I think he predicted --
25  Q   I'm asking about your report.

Page 77

1 A  My report is based on data that he generated, and
2    I believe that his numbers correctly predicted the
3    winner something on the order of in excess of
4    96 percent of the time, but I would have to look
5    specifically at the report.
6 Q  You haven't done that analysis?
7 A  I did not do that here.
8 Q  Right.  You didn't compare the numbers on your
9    baseline partisan measures to real world election
10   results in the house, the senate, or congress;
11   correct?
12 A  Well, Professor Chen did that.
13 Q  I'm going to ask you again.  Did you do an
14   analysis comparing the baseline election results
15   to the real world election results in the house,
16   the senate, or congress?
17 A  Not in my report.
18 Q  Anywhere else?
19 A  That work had been done.
20 Q  Not by you?
21 A  Not by me.
22 Q  So the answer is no?
23 A  As far as what I did, that's correct.
24 Q  Okay.  So to get back to your point, let's stay on
25   page 85.  You have for District 24, House

Page 79

1    accurate idea of what the vote is.  In a district
2    that's 10 percent, it would take a large swing to
3    convert that from one party to another.
4 Q  What does the political science literature tell
5    you about potential swings during a redistricting
6    cycle in state house elections in terms of
7    statewide votes?
8 A  Clearly the results that a particular election can
9    change from one year to the next, and you can see
10   a statewide swing.
11 Q  And what does the literature tell you about how
12   much swing you can anticipate during a
13   redistricting cycle in state house elections
14   generally?
15 A  It depends.  It depends on the state.  It depends
16   on conditions.  It depends on whether we're
17   talking about a presidential year or a midterm
18   year and the party control.  It depends.
19 Q  Right.  So you don't have a general sense of what
20   a plausible swing in state house election
21   statewide votes is?
22 A  Well, you can look at history.  You can look at
23   swings that have actually occurred plus or minus,
24   and that gives you some idea of what plausible
25   swing range would be.

Page 78

1    District 24, a 48.2 percent democratic vote share;
2    correct?
3 A  Correct.
4 Q  And that would in the democratic loss column;
5    correct?
6 A  Correct.
7 Q  How likely, do you have a professional opinion, is
8    it that the actual democratic vote share in the
9    District 24 in 2018 or 2020 will be within plus or
10   minus 1 percent of 48.2?
11 A  I can't give you a specific number.
12 Q  Okay.  How likely is it that the vote share in the
13   real world election in House District 24 will be
14   within plus or minus 5 percent of 48.2 percent?
15 A  I can't give you a probability.
16 Q  Can you give me a probability at plus or minus
17   10 percent?
18 A  Plus or minus 10 percent, I would say that's
19   unlikely to switch.
20 Q  Because of any particular features in District 24
21   or your general notion that baseline is probably
22   not more than 10 percent different than the real
23   world elections?
24 A  So that's based on the general property of
25   baseline elections is that they give you an

Page 80

1 Q  And there's a lot of articles on this, and what
2    would that plausible swing range be?
3 A  It depends.  I don't know that the literature has
4    a specific number.  It depends on the state.  The
5    swings that you get in Michigan are likely to be
6    different than what you get in Texas or
7    California.
8 Q  Nationally, is an 8 percent swing implausible?
9 A  Well, precision matters here.  8 percent in terms
10   of what?  Are we talking about an 8 percent --
11 Q  Share of the two party democratic/republican vote
12   during the life of a redistricting cycle?
13 A  There may be work that identifies that, but it
14   depends.  I mean, if you were looking at a state
15   where the swings or the percentage vote that one
16   party tends to get is within a narrower range,
17   then that would be the kind of number that you
18   looked at.
19 Q  You are not aware generally of plausible swing
20   share votes in congressional or house or senate
21   elections during the life of a redistricting cycle
22   nationally --
23 A  Well, there is a --
24 Q  Let me finish.
25 A  Sorry.  You know, there is a literature on that --

Page 81

1        MR. YAEGER: I'm sorry, but I'm not
2     sure he was finished.
3        THE WITNESS: I'm sorry.
4        MR. YAEGER: I'm confused as to
5     what the question was, so let's let him
6     finish his question.
7  Q   Are you aware of what the literature says about
8     plausible statewide vote shifts in congressional,
9     senate, and state house elections during a
10    redistricting cycle?
11 A   There is a literature about that that I could
12    find, but sitting here I don't recall what that
13    number is.
14 Q   Have you ever analyzed Michigan specifically to
15    identify plausible swing shifts in congress,
16    senate, or the house?
17 A   I have.
18 Q   And what's that?
19 A   Well, one of the metrics that I use in my report
20    is what percentage of the statewide vote democrats
21    would need to win in order to capture a majority
22    of the seat.  And I haven't -- the data that I
23    have doesn't permit me exactly to go back in time.
24    I have data from 2006 to 2016.
25       But I'll give you just one example.  And this

Page 82

1     comes from Table 5 on page 30, which shows that
2     the democratic share -- the democratic share of
3     the statewide vote is going to be the same in
4     every table because that's a statewide number that
5     doesn't depend on any district configuration.  But
6     if you look at -- this is the eighth row where it
7     shows the democratic vote share needed to win a
8     majority of seats of 57.2 percent.  So that is the
9     estimated statewide vote share that democrats
10    would need to get in order to capture 8 of 14
11    seats.
12 Q   How likely is it they'll get 57.2 percent
13    of the --
14 A   The last time --
15 Q   Excuse me.  In the 2018 or 2020 elections?
16 A   This is a baseline.  A baseline has particular
17    characteristics which evens things out.  And the
18    closest analogy I can identify would be that the
19    baseline is generally going to be pretty close to
20    the baseline presidential results averaged over a
21    four-year period.  The last time the democrats
22    received an average of 57.2 percent of the
23    statewide vote in two presidential elections was
24    1964 and 1968.
25 Q   Right.

Page 83

1  A   So it doesn't happen often.
2  Q   Right.
3  A   So it would take an unusual set of conditions for
4     the democrats to achieve that kind of swing in the
5     statewide vote as reflected in this baseline.
6  Q   That's presidential elections.  My question is
7     congress, house, state senate.  Have you analyzed
8     for Michigan the percentage changes in statewide
9     vote shares for those offices throughout the last
10    30 to 40 years?
11 A   Well, I just looked at the presidential result
12    averaged over two elections.
13 Q   Right.
14 A   Which is a roughly comparable to the baseline.
15 Q   Right.
16 A   So we're looking the last time the democrats got a
17    baseline statewide vote share of 57.5 percent or
18    57.2 percent was 50 years ago.  So it can happen,
19    but it would take an unusual set of circumstances
20    for the democrats to get that share of the
21    statewide vote in the form of a baseline.
22 Q   For the third time, that's presidential elections.
23    Have you looked at comparable phenomenon relative
24    to congressional, state house, and senate
25    elections in Michigan over the last 30 to 40

Page 84

1     years?
2        MR. YAEGER: Objection to form.
3     You may answer.
4  A   Not using actual election results.  I was
5     referring to the baseline.
6  Q   Yes.  Okay.  And we are trying to analyze bias in
7     the congressional house and senate elections;
8     right?
9  A   Among other things, yes.
10 Q   And whether those elections are biassed against
11    democrats?
12 A   Correct.
13 Q   And your baseline vote doesn't look at real world
14    congressional, house, or senate elections;
15    correct?
16 A   Well, again, that's the purpose of a baseline is
17    to average those effects out.
18 Q   Right.  And the answer to my question is no.  The
19    baseline doesn't reflect or incorporate any real
20    world congressional, house, or senate elections;
21    correct?
22 A   I believe that's incorrect.  I think the baseline
23    does incorporate those elections.
24 Q   Oh, okay.  Did you prepare the baseline?
25 A   I did not.  That was Professor Chen who did that.

League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 85

1  Q   What elections did he use?

2  A   You would need to put that to him.  It was a

3      series of elections, federal, state, university

4      boards of trustees.  It was a baseline comprised

5      of multiple races.

6  Q   Right.  It's your understanding he also looked at

7      congressional, house, and senate elections?

8  A   You'd have to put that to him.  I don't remember

9      sitting here -- I don't recall all of the specific

10     elections that went into that.

11 Q   All right.  Would there have been anything

12     improper or inappropriate about using

13     congressional house and senate elections in the

14     forecast for the democratic share of the statewide

15     vote?

16            MR. YAEGER: Objection.

17 Q   Or the estimate?

18 A   I don't think there would be anything improper in

19     doing that.  That's a common set of metrics that

20     are used to generate these estimates.

21 Q   Just to be clear, it would not have been improper

22     to use the endogenous elections?

23 A   I'm just thinking about the way in which I have

24     done it that I don't think it would have been

25     improper to use those.  I'm not sure if he did or

Page 86

1      not, but that would be informative into what the

2      baseline partisanship would be.

3  Q   Okay.  And you used these baseline measures

4      because you said they factor out certain external

5      things or maybe I didn't understand.  Why would

6      you use a baseline measure?  Assume with me that

7      it is exogenous statewide elections like the

8      Michigan Board of Trustees, governor, attorney

9      general, and president, why would you use those to

10     analyze the fairness of state legislative and

11     congressional districts?

12 A   Because the purpose of using a baseline in

13     addition to giving you accurate information about

14     outcomes, it allows you to compare alternate

15     district plans using a common metric because when

16     you -- when you take an enacted plan and compare

17     it to a different plan, the boundaries change and

18     many of the underlying factors change.  Who the

19     incumbent is, whether an incumbent in a previous

20     district is an incumbent in the areas of a new

21     district, whether a race is meaningfully contested

22     or not, and so this gives you a mechanism of

23     comparing different configurations.

24 Q   And incumbency and campaign specific spending and

25     those issues affect elections in the real world?

Page 87

1  A   That's correct.  And what a baseline gives you is

2      the underlying characteristic of a district that

3      is less dependent -- or not dependent on those

4      specific factors.

5  Q   So it factors out things like incumbency, campaign

6      spending, and other specific factors that affect

7      elections in the real world to give you some

8      generic idea of the baseline partisanship?

9  A   Well, the way that you're characterizing it is

10     incorrect.  It is not a generic sort of hand

11     waving stab.  It gives you an informative

12     meaningful estimate of what the partisanship of a

13     district is that allows you to identify or to

14     estimate winners and so it's not as if this is

15     throwing at a dart board coming up with -- it

16     gives you an accurate, informative picture of what

17     the partisanship of a district is.

18 Q   Okay.  If you could turn to the bottom of page 14,

19     you say that these baseline measures -- I'm just

20     going to quote the last half of your last sentence

21     there -- are not affected by specific

22     district-level factors such as incumbency, whether

23     a seat is contested, or local variations in

24     turnout; correct?

25 A   Correct.

Page 88

1  Q   So your baseline analysis doesn't measure those

2      factors?

3  A   Well, it controls for them.

4  Q   What's that mean?

5  A   It means it averages them out.

6  Q   Right.  So it eliminates district by district

7      variations in incumbency, turnout, things like

8      that; right?

9  A   Correct.

10 Q   And all of those things affect election outcomes

11     in the real world at the district level,

12     incumbency, turnout, et cetera; right?

13 A   Correct.

14 Q   And just to be clear, you say -- go to page 15.  A

15     properly constructed baseline model using a

16     combination of prior exogenous elections is --

17     you're discussing that.  So does that refresh your

18     recollection on whether Dr. Chen was using prior

19     exogenous elections or was he using endogenous

20     elections?

21 A   So the way that I was using that word, I believe,

22     was referring to higher levels of aggregation.

23     Again, I don't remember or recall specifically

24     whether Professor Chen used state legislative or

25     congressional elections.  My recollection is he

Page 89

1    was using statewide.
2  Q   Okay.  And on page 14, you say it's okay to use
3    these exogenous elections for different offices
4    because to quote your third line there, Nearly all
5    voters cast their ballots consistently for one
6    party or the other, even if they do not identify
7    as members of that party.  Is that what you said?
8  A   That's what I wrote.
9  Q   What percentage of voters cast their ballots
10   consistently for one party for all offices?
11 A   I would have to look at specifically.  I believe
12   it's in excess of 90 percent.  But I would have to
13   check the particulars of those references.
14 Q   That's at the national level, in excess of
15   90 percent?
16 A   Again, I would have to look at that to give you a
17   specific number.
18 Q   Do you know what the number in Michigan is?
19 A   No.
20 Q   Do you know how many people are registered as
21   independents in Michigan?
22 A   Not specifically.
23 Q   Do you know the percentage of ticket splitters in
24   Michigan?
25 A   Not specifically.

Page 90

1  Q   Can you give me a general range?
2  A   It will vary in time.  I would say it's lower now
3    than it was previously, but I can't give you a
4    number of whether it's 3 percent or 5 percent or
5    7 percent.
6  Q   15 percent?
7  A   I don't know.
8  Q   20 percent?
9  A   I don't know.
10 Q   You say that The presidential vote has always been
11   a good predictor of down-ticket voting (especially
12   for non-southern states); correct?
13 A   That sounds like -- I'm just trying to figure out
14   whether those are my words or a citation.
15 Q   It's your report.  I'm reading from it.  The
16   presidential vote has always been a good predictor
17   of down-ticket voting (especially for non-southern
18   states).
19          MR. YAEGER: Could you please point
20      out where it is.
21 Q   Oh, I apologize.  It's two sentences after I read
22   what you read.  I apologize.
23          Page 14, second full paragraph, fourth
24   sentence.  The presidential vote has always been a
25   good predictor of down-ticket voting (especially

Page 91

1    for non-southern states).  Do you see that?
2          MR. YAEGER: May I point to the --
3          MR. CARVIN: Sure.
4  A   I see that, yes.  That looks like something that
5    was taken specifically from the literature.
6  Q   Okay.  So you don't know whether or not it's been
7    a good predictor in Michigan?
8  A   Whether the presidential vote is a good predictor
9    of lower ticket races?
10 Q   State house, state senate, or congressional races
11   in Michigan?
12 A   Yeah.  I can't give you a number of what the
13   correlation is.  I suspect it's quite high.
14 Q   But that's just an uninformed suspicion?
15 A   It's not an uninformed suspicion.  It's based
16   on the --
17 Q   What's is based on?
18 A   -- literature.  It's based on my experience and
19   the general literature.  In Wisconsin, it was
20   probably 98 percent, 96 percent.
21 Q   Again, Michigan.
22 A   So in Michigan, I don't know what the exact
23   correlation is.
24 Q   You haven't looked at it?
25 A   I suspect it's quite high.

Page 92

1  Q   You haven't looked at it?
2  A   I can't say.  I have not looked specifically at
3    the correlation between the presidential vote and
4    lower ticket races in Michigan.
5  Q   Did you look at the comparison between Obama in
6    2008 and Trump in 2016?
7  A   In terms of what?
8  Q   How good a predictor those votes were for the
9    state house, state senate, and congress?
10 A   No.
11 Q   Okay.  You say Jacobson and Carson found that
12   ticket splitting in 2012 reached its "lowest
13   levels...in five decades"; correct?
14 A   Yes.  That's what I wrote.
15 Q   And what was that level?
16 A   I would have to look at it.  I don't know what the
17   specific number is.
18 Q   Okay.  You say on page 15 A properly constructed
19   baseline model using a combination of prior
20   exogenous elections is, for all practical
21   purposes, identical to more complex regression
22   models, and yield similar results for predictive
23   estimates.  Is that what you wrote?
24 A   That's what I wrote.
25 Q   Okay.  What are these more complex regression

League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 93

1    models you're referring to?
2  A   In the Whitford case, I used a regression model to
3    construct the baseline estimate using the
4    presidential vote and demographic features and
5    summaries, campaign specific features, to generate
6    baseline estimates.
7        An expert for the state had concluded that a
8    regression model was equivalent to using the
9    baseline model, and if you compared his estimates,
10   his district level estimates of partisanship with
11   mine, they were almost perfectly correlated.
12 Q   What did he use?
13 A   He used statewide elections so essentially the
14   Chen -- the statewide baseline method.
15 Q   And that was Gaddie?
16 A   Correct.
17 Q   And Gaddie uses the Chen method statewide baseline
18   and you used a more complex regression model?
19 A   That's correct.
20 Q   And you included in that more complex regressive
21   model demographic data?
22 A   That's correct.
23 Q   What demographic data?
24 A   The percentage of white, African-American, and
25   Hispanic.  I believe it was the citizen voting age

Page 94

1    population in districts.
2  Q   Anything else?
3  A   I would have to look at the report.  There were
4    some fixed effects.  County level fixed effects.
5    Presidential effects, incumbency effects.  So I
6    could remove them from the estimates to construct
7    the baseline but I believe that was -- that's it.
8  Q   Okay.  And then what were your geographic fixed
9    effects?
10 A   Dummy variables for counties.
11 Q   Okay.  What's that mean?  What's a dummy variable?
12 A   It is a variable that takes the value of one if
13   the election occurred in a particular county, zero
14   otherwise, so it picks up features that are not
15   captured by the other variables.
16 Q   And you thought obviously that this method of
17   analyzing election results was perfectly
18   appropriate and the best way to do the analysis?
19 A   Well, perfectly appropriate.  That's the way I did
20   it.  It turned out that it didn't make any
21   material difference.  It didn't improve much over
22   the baseline estimates.  So I concluded that
23   baseline estimates are sufficiently accurate to do
24   these kind of analysis.
25 Q   Okay.  But neither you nor Gaddie in Whitford

Page 95

1    looked at actual endogenous elections; right?
2  A   Well, not exactly because the coefficients in my
3    regression model, the dependent variable, was the
4    vote in state legislative districts.  So in that
5    respect, that part was endogenous, but the purpose
6    of that was to establish the relationship between
7    the independent variables and legislative election
8    outcomes.
9  Q   And you haven't done that analysis in this case?
10 A   That's correct.
11 Q   And as far as you know, Chen didn't do it either?
12 A   I don't know.
13 Q   Okay.  So these baseline models are not trying to
14   access the actual vote that will occur in actual
15   elections.  It's trying to give you the underlying
16   partisan measure for comparison purposes.  Do I
17   understand you correctly?
18 A   That part is correct.  And it also gives you -- it
19   gives you the ability to predict who is going to
20   win, which party is going to win in a district.
21 Q   Okay.  But if I asked you today to tell me within
22   a reasonable degree of professional certainty how
23   many seats are democrats likely to win in the
24   state house in 2018, there's nothing in your
25   report that does that; right?

Page 96

1  A   I think that's incorrect.  As we've talked about
2    before, the baseline gives you the starting point.
3  Q   Right.  And now I'm asking you about the end
4    point.  In the real word, have you made any
5    predictions or done any analysis with any of these
6    standard errors of measure about how many seats
7    democrats are likely to win in the 2018 or 2020
8    elections in the state house anywhere in your
9    report?
10 A   In terms of a forecast, specific forecast of
11   district level outcomes, no.
12 Q   Okay.  And in terms of a general forecast for
13   statewide voting, you haven't made a prediction
14   with a standard error of measure about what their
15   statewide voting percentage will be in the state
16   house elections in 2018 or 2020; is that correct?
17 A   That's correct.
18 Q   And the answer is the same for both state senate
19   and congress?
20 A   That's correct.
21 Q   So you're saying it's widely accepted in the
22   political science community not to use endogenous
23   races to assess or predict elections outcomes?
24 A   Again, it depends.  When I was using the term,
25   again, my recollection is that it was a

League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 97

1   combination of statewide results, not district
2   specific.  So I believe it's true that the
3   elections that went into the baseline were all
4   statewide elections, which by definition would
5   mean they were not endogenous.
6  Q   Right.  Okay.  And do you have a view as to which
7   way is better?
8  A   Which way is -- district level outcomes or
9   statewide baselines; that's what you're asking?
10 Q   Yeah.
11 A   I'm sorry.  I didn't hear.
12 Q   Yes.
13 A   It depends on what you're intending to use them
14   for.  For the purposes that I used in the report,
15   which was comparing alternative district plans, I
16   would think that the baseline measure would be
17   better because even the methods that often use
18   endogenous elections, as I did in the Whitford
19   case, use that to control for these factors, to
20   remove those district level effects so you can
21   identify a baseline.
22 Q   Why would you rather know the baseline that's
23   roughly comparable to the 2018 elections in, say,
24   the house than make a forecast as to the real
25   world elections in the 2018 house elections?  Why

Page 98

1   wouldn't you try and make the forecast as accurate
2   as possible?
3           MR. YAEGER: Objection.  Compound.
4       You may answer.
5  A   Because I did not do a forecast.  I was analyzing
6   existing and demonstration plans I am not making a
7   statement about what the statewide vote is
8   specifically going to be in 2018.  Because this is
9   a baseline, it is likely to be close to the
10   numbers that we see because that variation from
11   election to election has already been taken into
12   account and forms the basis for these measures,
13   but I did not use the baseline measure to make a
14   prospective forecast in time about what will
15   happen in 2018 or 2020.
16 Q   Right.  And you're not putting forward your report
17   in any way purporting to do that other than your
18   general sense that the percentages on your page
19   will be close to that?
20 A   Well, and it's also that the percentage that will
21   be necessary for democrats to win a majority of
22   the seat, but that's an estimate of what would be
23   required, which is different than what is going to
24   happen in 2018.
25 Q   Just to be clear though, all of these numbers that

Page 99

1   you pointed me to -- I guess it was on Table 5 or
2   Table 7 on page 40, all of these numbers are based
3   on exogenous statewide elections; right?
4  A   I believe so.
5  Q   So all of these numbers are based on baselines and
6   you don't know the correlation between the
7   baseline projections and actual real world
8   elections that have already occurred; right?
9  A   I believe Professor Chen has done that, but I did
10   not do that.
11 Q   You did not do that, and you don't know how close
12   the correlation is?
13 A   I can't give you a number.
14 Q   And just to clarify, you're not making any
15   forecasts relative to either statewide or district
16   specific results for any of the three offices
17   we're interested in for 2018 or 2020; correct?
18 A   Well, again, there's a difference between making a
19   specific forecast of what the statewide percentage
20   is going to be in 2018.  Nobody knows that.
21 Q   But there's --
22 A   Please let me finish.  The advantage of a baseline
23   estimate is that it gives you information about
24   the underlying partisanship, which is unlikely to
25   change dramatically from one election to the next,

Page 100

1   and it does give you accurate, informative
2   information about who is likely to win in a
3   particular district and allows you to conduct
4   sensitivity testing to see what happens under
5   plausible ranges of shifts in the statewide vote,
6   so it is not specifically a prospective forecast
7   of what the vote share will be in 2018, but it
8   does give you information about the plausibility
9   of a particular statewide shift leading to changes
10   in the seat share through the uniform swing
11   method.
12 Q   It gives you information.  You have not figured
13   out how close the information presented on the
14   exogenous elections correlates with the endogenous
15   elections; correct?
16 A   I have not performed that analysis.
17 Q   You have not provided any standard errors of
18   measure about any of the numbers on these pages in
19   terms of how likely they are to occur in 2018 or
20   2020; correct?
21 A   The standard error is a particular metric of
22   accuracy.  That does not mean that these numbers
23   are guesses.  I can't tell you that the plus or
24   minus range in the democratic share of the voters
25   plus or minus two, but that does not reduce the

League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 101

1   value and information that you obtain from these
2   estimates, which, again, is widely used in the
3   discipline and is accepted as an accurate way of
4   analyzing underlying partisanship in districts.
5 Q   Right.  But it's not used to predict actual
6   election results in the future; right?
7 A   Well, it is.  Because if I have -- I think we're
8   talking past each other in terms of what's a
9   prospective forecast and what is a meaningful
10   prediction of who is going to win a district.  If
11   the baseline partisanship is 90 percent, it is
12   vanishingly unlikely that that number changes
13   sufficient to allow the other party to capture the
14   seat.
15       So in that sense, it's not a forecast of
16   saying the actual result in 2018 is going to be
17   90 percent.  It is very likely that the actual
18   result will be close to that.
19 Q   That's true.  Anybody could tell you that a
20   90 percent district is not going to swing.  I get
21   that.  But you're not making any predictions on
22   numbers between, say, 60 and 40 in terms of their
23   likelihood of a democrat or republican winning
24   those seats in 2018 or 2020, is that correct, yes
25   or no?

Page 102

1 A   That is incorrect.  Because if I'm looking at --
2 Q   What is the probability that a number on your
3   tables between 40 and 60 will produce a winner of
4   one party or another?
5       MR. YAEGER: Objection.  Let's hold
6     off for a second.  We have a siren going off.
7     We have the -- the last question you
8     interrupted the witness.  So I'd like to ask
9     that the witness be allowed to answer the
10     last question after the siren goes off.
11       (Last question read)
12 A   So a number between 50 and 60 would tell you or
13   tell me is what statewide swing would be required
14   to change the party that controls that seat.  And
15   that gives you an ability to estimate what would
16   happen if the statewide vote swings by a
17   particular range.  But as a forecast of what that
18   swing would be, this is not a forecast of that.
19 Q   Right.  Nor is it a forecast of the predicted
20   election outcome in 2018 wholly apart from swing?
21 A   It is a prediction.  It tells you the party that
22   has a majority of the seat is the party that would
23   be regarded as winning that seat.
24 Q   If you could turn back to the table that we looked
25   at before on page 85.  Just to make the record as

Page 103

1   clear as possible.  If you look at A2 on page 85,
2   District 24, you have the number 48.2 percent
3   democratic vote share; right?
4 A   Correct.
5 Q   Is that a projection for the likely democratic
6   vote share in District 24 for the 2018 or 2020
7   election?
8 A   That number is not a forecast of what the vote
9   share would specifically be in that district.  It
10   would depend on what the swing is.
11 Q   And it's not a prediction of the likely vote share
12   in that district within a certain margin of error,
13   say, plus or minus 5; correct?
14 A   The way that a baseline is interpreted is that
15   that is understood to be a measure of the
16   underlying partisanship of a district, and in
17   terms of how it is calculated here, I did not
18   assign a margin of error.  But certainly smaller
19   swings are more likely than larger swings by the
20   nature of -- the nature of elections.
21 Q   And you don't know how closely 48.2 percent in
22   District 24 correlates with the vote, say, in
23   2016?
24 A   I do not.
25 Q   Or any time between 2006 and 2014?

Page 104

1 A   Again, based on the general characteristics of
2   baselines, I can say absent any other information
3   that this is likely to be close.
4 Q   Right.  But you haven't put that hypothesis to the
5   test in Michigan for these seats?
6 A   Not in my report, no.
7 Q   Or anywhere else?
8 A   That I did, that's correct.
9 Q   Okay.
10       THE WITNESS: I'm okay going for
11     some more but if we're going to go before
12     breaking for lunch, I need to take a --
13       MR. CARVIN: I tell you what --
14       MR. YEAGER: Is this a place for
15     you to --
16       MR. CARVIN: Yeah.  Again, I know
17     we've -- we're off the record.
18       (Lunch recess taken)
19 BY MR. CARVIN:
20 Q   Good seeing you in the afternoon, Professor Mayer.
21   So just to finish up the analysis that we were
22   beginning before the lunch break, did you ever
23   compare the actual election results in terms of
24   total seats gained with the actual seats projected
25   by your baseline analysis?

Page 105

1      Maybe I can make it a little bit clearer.
2   Just turn to page 40; okay?  This is Table 7.
3   Okay.  And you have, for example, seats won by
4   democrats.  You have 49 under either measure;
5   right?
6  A   That's correct.
7  Q   Okay.  Do you know how many seats were actually
8   won by democrats in the relevant years?
9  A   I do not.
10 Q   Okay.  So you never compared the baseline
11   projections for seats won with the actual seats
12   won?
13 A   That's correct.
14 Q   And that would be true for the senate and congress
15   as well?
16 A   That's correct.
17 Q   Okay.  And we'll get back into this, but the swing
18   analysis that you did when you were, you know,
19   trying to figure out parts and bias at 50 percent,
20   you didn't deduct the relevant percentages from
21   the actual election results, you deducted them
22   from the baseline projected results; right?
23 A   That's correct.
24 Q   And in your view, which is more probative of
25   partisan gerrymandering intent or effect, 2006

Page 106

1   through 2010 election results or the 2012 through
2   2016 baseline election results?
3  A   So can you define what you mean by probative in
4   this context?
5  Q   Well, you come to a conclusion that this is
6   extreme partisan gerrymander and which is more
7   probative evidence of that conclusion, the
8   election results produced in 2006 through 2010 or
9   the election results produced in 2012 through
10   2016?
11 A   They both give you information.  So I don't know
12   whether you can specify which one is superior.  As
13   I put it in the report, the 2006 and 2010 data
14   provides an estimate that the line drawers had at
15   the time of what would happen, and 2012 and 2016
16   gives you an estimate of what did happen.
17 Q   Right.  And which one is more probative?  Do I
18   take it from your answer that 2006 to 2010 is more
19   probative of intent, but 2012 through 2016 is more
20   probative of effect?
21 A   I wouldn't put it that way.  They give you two
22   pieces of information.  And I don't think it's a
23   question of which one is more probative.  They're
24   both probative.
25 Q   Okay.  Just to be clear, you have never written an

Page 107

1   article, or a monograph, or a book chapter about
2   whether baseline measures of partisanship based on
3   exogenous elections should be used to assess
4   partisan fairness or bias; correct?
5  A   Other than testifying in federal court, I have not
6   written an article or book chapter specifically on
7   baseline methods.  Although I've written a number
8   of things about district level election outcomes.
9  Q   And the one in your testimony in the Wisconsin
10   case, you did not use a baseline partisanship
11   measure derived from exogenous elections; correct?
12   You used that regression model you previously
13   described?
14 A   Right.  Which was based on the presidential
15   election results.  And, again, it was, for all
16   practical purposes, the equivalent of the baseline
17   model.
18 Q   Right.  Okay.  So in your report more generally,
19   you give five different tests or metrics for
20   measuring partisan bias gerrymandering; correct?
21 A   Not precisely because partisan bias refers to
22   something specific.  There are other measures of
23   asymmetry and other metrics that capture that
24   asymmetry, so there were multiple measures, some
25   of which are measures of partisan bias.  Others

Page 108

1   which are not specifically about partisan bias but
2   capture things like asymmetry and wasted votes.
3  Q   You list five different metrics.  Partisan bias,
4   partisan symmetry, efficiency gap, mean-median
5   vote, and declination; correct?
6  A   I just want to make sure that I've got that part
7   of my report.  Partisan bias, partisan symmetry,
8   efficiency gap, mean-median, and declination,
9   which is five.
10 Q   Okay.  And which of those five is the best metric
11   or indicator of partisan unfairness or partisan
12   gerrymandering?
13 A   They're all useful.  The important thing about my
14   analysis is that they all line up in the same
15   direction.  There are different precise things
16   that different measures capture even though most
17   of them are the same or the same underlying
18   phenomenon but if I thought that there was one
19   that was -- well, I'll just leave it there.
20 Q   So as to these five, you can't say any one is more
21   widely accepted in the political science
22   profession than another?
23 A   I can say which ones have longer histories and
24   which ones have been used and which ones are more
25   recent.

Page 109

1 Q  We'll come to that in a second.  But which ones in
2     your view are more widely accepted in the
3     political science profession?
4 A  Widely accepted captures something specific.  Some
5     of them have been used for longer, but they've all
6     been proposed by serious academics and students of
7     redistricting, and they all have their value.
8 Q  But none of them are more or less widely accepted
9     in the political science profession than the
10    others?
11 A  Some of them have been used for longer.
12 Q  Does that suggest that they're more widely
13    accepted?
14 A  Not necessarily.  It means that they've been
15    around for longer.  That they were proposed --
16    some of them have been around for 50 years.
17    Others are more recent.  People have been looking
18    at this and the literature has been developing for
19    50 years or longer, and the process of analyzing
20    this is ongoing.
21 Q  Right.  And in light of that, not withstanding
22    their more recent or ancient vintage, you can't
23    say that any one of the five is more or less
24    widely accepted than any of the other measures;
25    correct?

Page 110

1 A  I'm not sure I can give a meaningful answer to
2     that because you have -- people have proposed
3     different ways of capturing this, and there are
4     some underlying common features that all of them
5     capture aspects of bias and asymmetry.  I think
6     they are -- all of these are informative.
7 Q  Okay.  So you can't point to one as more widely
8     accepted than the others in the political science
9     profession?
10 A  Well, I've answered the question as best I can.
11 Q  The answer is no?
12 A  The answer is that they are all informative.  The
13    use depends on in some cases what it is that
14    you're trying to measure and capture.  Partisan
15    bias has been around for the longest.  Asymmetry,
16    the efficiency gap, mean-median, and average win
17    percentage have a shorter history.
18 Q  Partisan bias we've talked about is the difference
19    between seats and votes.  That's the one that's
20    been around the longest?
21 A  That's generally what bias is.  Again, there are
22    different ways of capturing that.
23 Q  Right.  And then we'll come back to partisan
24    symmetry and the differences, but before I do
25    that, if you could turn to page 27 of your report,

Page 111

1     please.
2         I'm going to read the third full paragraph to
3     you, the first sentence.  You say While there may
4     be differences in opinion about which quantity (or
5     variant, or combination of measures) is the best
6     indicator of gerrymandering, and analysts
7     preferring one over the others in specific
8     instances, they all capture the same underlying
9     phenomenon: the partisan imbalance in how votes
10    are converted into seats; is that correct?
11 A  That's what I wrote.
12 Q  And you agree with that?
13 A  Yes.
14 Q  And you agree with Stephanopoulos -- I'm now
15    reading from the next sentence.  Stephanopoulos
16    and McGhee conclude that the metrics are all
17    linked mathematically to each other, can be
18    exactly equivalent under some conditions or are
19    easily transformed from one form to another; is
20    that correct?
21 A  That's what I wrote.
22 Q  And do you agree with that?
23 A  Yes.
24 Q  So if there is a situation where a party capturing
25    a minority of the votes captures a majority of the

Page 112

1     seats, each one of these measures will reflect
2     that plan is biassed or unfair or gerrymandering;
3     correct?
4 A  The qualifier is that they are equivalent under
5     some conditions and under some conditions are
6     easily transformed.  They're not always going to
7     give you the same answer.  The reason I did the
8     analysis the way that I did is that when they line
9     up and they all give you the same answer, that
10    means there's no ambiguity here.  If one gave you
11    one suggested asymmetry and bias and another one
12    didn't, then the evidence would be less
13    unambiguous.
14 Q  But in the circumstances present here where
15    republicans purportedly are getting a minority of
16    the statewide votes and are receiving a majority
17    of the statewide seats, all of these measures will
18    come back that the plan is biassed against
19    democrats in favor of republicans; correct?
20 A  I don't know that that specific statement is true
21    because I haven't calculated these measures for
22    all possible permutations.  And again, if you're
23    referring to district level outcomes, you're going
24    to get different answers depending on the
25    competitiveness of elections, whether an election

Page 113

1    is contested, so I don't know under every possible
2    permutation whether a minority of votes would
3    translate into values of all of these metrics that
4    suggest a gerrymander.
5  Q  Right.  In terms of the statewide, is there a
6    situation you can even hypothesize where if a
7    party received the minority of the statewide vote
8    and a majority of the seats one of these metrics
9    would not suggest a partisan imbalance or a
10   partisan bias?
11 A  Having not done the calculations, I can't say.
12 Q  Okay.
13 A  Given the qualities of them, things like the
14   efficiency gap probably would, but you're
15   describing a hypothetical, which is different from
16   what I did.
17 Q  You say at the bottom that in many circumstances;
18   quote, "all of the measures produce similar
19   results," in large part because they all are
20   different ways of assessing partisan symmetry;
21   correct?
22 A  And one --
23 Q  And one of the examples they give -- I won't even
24   quote them.  One of the examples where they'll all
25   produce the same results are the situation where a

Page 115

1    it is that you're trying to measure.
2  Q  Okay.  Give me examples of when you follow one or
3    will follow the other.
4  A  Depends on the magnitude.  Depends on what it is
5    that you're specifically interested in examining.
6    Most of the time I can state that they give you
7    the same answer in strong cases.  In the cases
8    where they give conflicting answers as they do in
9    some cases in my report, it requires more analysis
10   of what may be going on.
11 Q  Okay.  And they give conflicting answers, for
12   example, with respect to the demonstration plans?
13 A  Sometimes.
14 Q  Okay.  We'll come back to that.  As a general
15   matter, you can't say if the metrics are in
16   conflict, which one should be followed?
17 A  Well, again, that's presuming that there is one
18   metric that is uniformly superior to all of them.
19   And, again, I regard them as all informative.
20 Q  So there's no one of these metrics that's widely
21   accepted as either the best or bright line
22   indicator of identifying a partisan gerrymander;
23   is that correct?
24 A  There are some differences of opinion in the
25   literature about the different measures.

Page 114

1    party captures a minority of the statewide vote
2    but captures a majority of the statewide seats;
3    isn't that correct?
4  A  I don't have the article in front of me.  I can't
5    say whether that's something they specifically
6    argued in that.
7  Q  All right.  Do you have an opinion as to whether
8    that is certainly one of the circumstances in
9    which all of the measures would produce a result
10   of bias or unfairness, i.e., when a party captures
11   a minority of the statewide vote but a majority of
12   the statewide seats?
13       MR. YAEGER: Objection.  Asked and
14     answered.  You may answer.
15 A  I don't know having not done those calculations,
16   but, again, the citations here and the use of this
17   reflect the fact that they are -- they all capture
18   pieces of this asymmetry and whether in an
19   election where a party captures 49.9 percent of
20   the vote and captures 51 percent of the seats that
21   all of these would show unambiguously, I don't
22   know.
23 Q  Okay.  If any of the metrics are in conflict,
24   which ones should you follow?
25 A  I would say it depends on the magnitudes and what

Page 116

1  Q  If you could turn to page 19 of your report.
2    Actually, if we can begin at the bottom of page
3    18.  Okay.  And you're discussing partisan
4    symmetry as a measure of gerrymandering and then
5    you have this extensive quote from Grofman and
6    King on the next page.
7        Is it fair to say that the partisan symmetry
8    analysis championed or begun by Grofman and King
9    is universally recognized indicator of fairness?
10 A  I would say it's a universally regarded indicator
11   of fairness.
12 Q  And your quote on the top of page 19 is that --
13   again, quoting from Grofman and King, Social
14   scientists have long recognized partisan symmetry
15   as the appropriate way to define partisan fairness
16   in the American system of plurality-based
17   elections, and for many years such a view has been
18   virtually a consensus position of the scholarly
19   community.  Do you agree with Grofman and King's
20   statement?
21 A  That's an accurate quotation.
22 Q  And do you agree with it?
23 A  I cited it.
24 Q  So you agree with it?
25 A  Yes.

Page 117

1 Q  And We are aware of no published disagreement on
2    or even clear misunderstanding of partisan
3    symmetry as a standard for partisan fairness.  Is
4    that still true?
5 A  I would agree with that.
6 Q  And then you describe in this paragraph, which I
7    am going to paraphrase just to -- you describe how
8    you do calculate partisan symmetry.  You use the
9    election results -- and then I'm going to go to
10   the second sentence.  Then conduct a uniform swing
11   analysis, shifting the statewide vote by the
12   amount needed to give the other party the
13   equivalent vote share, and applying the shift in
14   each district, determining the winner of each
15   district election at the shifted vote percentage;
16   right?
17 A  Correct.
18 Q  And King has done a software package, has he not,
19   to engage in this partisan symmetry uniform swing
20   analysis?
21 A  It is a software package that allows you to do
22   this type of analysis.  I wouldn't regard it as a
23   direct measure of these things, but it gives you
24   the capability of doing this kind of analysis.
25 Q  Right.  And that's called the JudgeIt software?

Page 118

1 A  That's correct.
2 Q  And you didn't use that here?
3 A  No.
4 Q  Why not?
5 A  Because I was satisfied that the baseline method
6    was sufficient to give reliable answers to the
7    questions that I was analyzing.
8 Q  Okay.  And you also rely on the efficiency gap as
9    a measure?
10 A  That's correct.
11 Q  And that's a well accepted measure?
12 A  I'd say that's generally true.
13 Q  Okay.  And that was developed by Stephanopoulos
14   and McGhee in a University of Chicago article in
15   2015 which you cite at the end of your report; is
16   that correct?
17 A  That's generally true.  It was actually developed
18   by McGhee in an earlier piece, but this is where
19   it was generally analyzed.
20       MR. CARVIN: Could you mark that as
21     Exhibit 2, please.
22     (Exhibit No. 2 marked for
23       identification)
24  BY MR. CARVIN:
25 Q  I've handed you Exhibit 2.  This is the law review

Page 119

1    article we were just discussing where
2    Stephanopoulos and McGhee lay out the efficiency
3    gap analysis?
4 A  That's correct.
5 Q  Okay.  If you could turn to page 862 of this
6    article.
7       MR. CARVIN: Actually, I tell you
8     what, I got another copy for you guys.
9       MR. YAEGER: Thank you very much.
10      MR. CARVIN: Sure.
11      MR. YAEGER: If you need this back,
12    that's okay.
13      MR. CARVIN: Let me just find my
14    copy.  Just one second.  That way everyone
15    can read along.
16 Q  I believe I directed you to page 862,
17   Professor Mayer.
18 A  Okay.
19 Q  If you look at the paragraph immediately under the
20   table on page 862, Stephanopoulos and McGhee say,
21   do they not, that there is no good reason to use
22   partisan bias as a measure of gerrymandering.  And
23   this is in reference to the Grofman and King
24   analysis.  It is conceptually flawed because it
25   focuses on hypothetical rather than actual

Page 120

1    election results.
2 A  The important thing is that the next sentence
3    refers to the fact that it converges on the
4    efficiency gap as systems become more competitive.
5    One of the objections that Stephanopoulos and
6    McGhee have to partisan bias, which is also
7    reflected in Figure 2, is that as election systems
8    become less competitive as reflected in this
9    statewide distribution of votes, partisan bias
10   becomes less informative.  But here in Michigan,
11   the statewide percentages are within the range
12   that they would consider as where the efficiency
13   gap and partisan bias will give you similar
14   results or that they converge as they put it.
15 Q  So you skipped to the second sentence, and I'm
16   happy to deal with that.  They say partisan bias
17   is -- partisan symmetry is not a good measure in
18   uncompetitive states, but you think that Michigan
19   is a competitive state?
20 A  As measured by the baseline, it fits the
21   definition of within the range that you would use
22   to calculate or to rely on partisan bias in
23   addition to these other measures, which again is
24   different from a state where competitiveness means
25   a probability of flipping back and forth.

Page 121

1 Q  Right.  That's their second criticism, but their
2    first criticism that I read to you is It is
3    conceptually flawed because it focuses on
4    hypothetical rather than actual election results;
5    correct?
6 A  That's what they wrote, but you have to read this
7    in the context of the whole paragraph that as the
8    results get more competitive, efficiency gap and
9    partisan bias converge on -- they converge.  And,
10   again, their criticism of partisan bias is it
11   becomes less accurate as you have more uncontested
12   seats and that the vote shares depart from
13   50 percent.
14 Q  Is that what you really think they're saying?
15   Here's what they're really saying.  What they're
16   saying is that to engage is partisan symmetry, you
17   have to hypothesize that in this case democrats
18   have the same vote share as republicans, and you
19   do that through the uniform swing analysis as you
20   did here, and that is the hypothetical election
21   result they're referring to, is it not?
22       MR. YAEGER: Objection.  You refer
23   to partisan symmetry rather than partisan
24   bias which is what's here.
25       MR. CARVIN: Don't give a talking

Page 122

1    objection.  Your objection is on the record.
2    Can you answer the question?
3        MR. YAEGER: Objection.  Misstates
4    the record.
5        MR. CARVIN: Okay.
6 A  The fact that they wrote this does not render the
7    use of partisan symmetry as useless.
8 Q  No.  But it is fair to say that the scholarly
9    consensus on the Grofman and King measure of
10   partisan symmetry has broken down in recent years;
11   isn't that true?
12 A  I think that's an incorrect way of stating that.
13 Q  I'll just ask you and we can go through the
14   article at great length, but you have obviously
15   read it.  Do Stephanopoulos and McGhee criticize
16   Grofman and King's partisan symmetry measure of
17   gerrymandering?
18 A  I don't know that they are specifically attacking
19   Grofman and King.  They refer to it.  But this
20   is -- it is true that there is not unanimous
21   agreement on each one of these metrics, but
22   Stephanopoulos and McGhee have also subsequently
23   written that they all capture the same underlying
24   phenomenon.
25 Q  Right.  All right.  Well, let's figure out what

Page 123

1    they're talking about and let's go through it.  As
2    you describe it on page 19, a key part of the
3    partisan symmetry analysis under Grofman and King
4    is you conduct a uniform swing analysis which
5    shifts the statewide vote by the amount needed to
6    give the other party the equivalent vote share;
7    right?
8 A  That's correct.
9 Q  So if, say, your hypothesizing a 4 percent
10   increase in republican vote share, what you would
11   do is assign 4 percent to each district in the
12   state and then figure out the results there;
13   right?
14 A  You would add 4 percent to each district.
15 Q  To each district, right.  So you wouldn't make any
16   adjustments for turnout differences in those
17   districts.  You would just assign 4 percent?
18 A  That's correct.
19 Q  And each district would increase exactly the same
20   amount as the increase in the statewide vote
21   share; correct?
22 A  That's what the uniform swing method does.
23 Q  Has that ever happened in the history of the
24   United States?
25 A  The point is not whether it happens exactly.

Page 124

1 Q  If you could answer my questions and then go and
2    explain to me why they're irrelevant, that would
3    be very helpful.  So I'm going to again ask you a
4    question.  Has that ever happened in the history
5    of the United States?  You can answer and then
6    elaborate.
7        MR. YAEGER: I'm going to object to
8    that question and instruction.  The witness
9    can answer.
10 A  So if the question is have there been cases where
11   to three significant digits whether a statewide
12   shift has exactly been replicated in every
13   district in a legislative system, the answer is
14   no.  But that's not the relevant question.  The
15   relevant question is whether the method gives you
16   sufficiently accurate information of the
17   underlying quantities of interest to allow you to
18   make meaningful statements about what is happening
19   in districts.  And as far as that question goes,
20   the answer is, yes, it does.
21 Q  And how closely -- if there's a 4 percent increase
22   in a statewide vote, historically what's the range
23   of increases in individual districts within the
24   state?
25 A  Well, I can refer you to the citations in my

Page 125

1  report where in the peer review literature other
2  scholars have analyzed this and have concluded
3  that it is an accurate way of analyzing partisan
4  effects.
5  Q  Okay.  If you would turn to page 13 of your
6  report.  Okay.  And I think the cite you gave that
7  you're now referencing is the fourth sentence says
8  The uniform swing assumption is a reasonable
9  approximation to what actually occurs when
10  aggregate vote shares change citing Jackman in
11  2014; is that correct?
12  A  That's correct.
13  Q  Do you have any other citation support to that?
14  A  There are others.  This is the one that I cited.
15  Q  Can you name the others?
16  A  I would have to look.
17  Q  Okay.  Right now you can't name anybody else?
18  A  I actually can.  I know that Dr. Brunell has used
19  it in his own work.
20  Q  Okay.  I'm talking about scholarly articles.
21  A  He's a scholar, and this is a scholarly article
22  that he and Grofman wrote.
23  Q  Okay.  So you're citing Brunell and Grofman.  You
24  didn't cite that.  Okay.  Anybody else?
25  A  I didn't cite in my report and I could -- I mean,

Page 126

1  it is an accepted method of studying this.
2  Q  How reasonable approximation is it?  How close
3  percentage-wise in each district is the vote swing
4  to the statewide vote swing?
5  A  Sitting here, I can't give you a general statement
6  of that.  The point is that it is accurate enough
7  to allow you to make inferences about the effects
8  of statewide shifts on the results in a
9  legislative district.
10  Q  How accurate is accurate enough?  Does it happen
11  within one or two percentage points?  Three
12  percentage points?
13  A  Sitting here, I can't give you a specific number.
14  Q  Okay.  Well, have you analyzed it in Michigan how
15  much swings in statewide vote shares are
16  replicated approximately or precisely in each
17  district in the state?
18  A  I have not done that analysis.
19  Q  Are you aware that President Trump increased the
20  republican vote share for president in 2016
21  relative to the republican vote share for
22  president in 2012?
23  A  Yes.
24  Q  And that happened uniformly across all state house
25  districts?

Page 127

1  A  I don't know.
2  Q  Did it happen in reasonable approximation in all
3  state house districts?
4  A  I haven't looked specifically at that.
5  Q  Have you ever looked at this in any state?
6  A  Yes.
7  Q  What state?
8  A  Wisconsin.
9  Q  And what was the -- give me the results in
10  Wisconsin.
11  A  The results are that it is accurate enough to
12  allow you to make meaningful inferences.  It
13  doesn't matter whether it's .2 percent or
14  .4 percent.  What matters is does it capture the
15  underlying quantity of interest and it does.
16  Q  I'm not asking you for generic description of what
17  happened in Wisconsin.  I'm asking you what the
18  results were.  You said you actually did this in
19  Wisconsin.  What race did you look at?
20  A  State legislative races.
21  Q  And you looked at the swing in what years?
22  A  I would have to go back and look at my report.
23  Q  When you looked at the statewide swing, you
24  noticed what relative to each district swing?
25  A  Again, what I have done and the literature shows

Page 128

1  is that this is an accurate way of drawing
2  inferences.
3  Q  If there was a 4 percent increase statewide, was
4  there some increase in 90 percent of the state
5  house districts?
6  A  I can't give you that number.
7  Q  70 percent?
8  A  I can't give you that number.
9  Q  So reasonable approximation, we don't really know
10  what that means; right?
11  A  That's untrue because --
12  Q  But you won't tell me what you mean anymore than
13  it's accurate enough and reasonable approximation.
14  You can't provide anymore detail than that, can
15  you?
16  A  Not specifically in Michigan between 2012 and
17  2016.
18  Q  If you could turn to page 837 of The University of
19  Chicago Law Review, please.
20       MR. YAEGER:  Did you mark this as
21  an exhibit?
22       MR. TONER:  Yeah.  It's Exhibit 2.
23  Q  I'm sorry.  Page 835.  All right.  If you want,
24  you can read the first paragraph.  They describe
25  the uniform vote swing in the same way that you're

League of Women Voters of Michigan, et al. v. Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 129

1  calculating it here.
2      For example, Party A's vote shares in each
3  district would be reduced by 5 percent (since it
4  won 55 percent of the statewide vote), while
5  Party B's vote shares would be increased by
6  5 percent.
7      Then it says, does it not, The shifting is
8  troubling for several reasons.  First, it relies
9  on what is known as the "uniform swing
10  assumption," the premise that vote switchers are
11  present in equal numbers in each district.  Given
12  the clustering that characterizes modern
13  residential patterns, this assumption is often
14  inaccurate.  Is that what they say?
15  A  That is what they say.
16  Q  Do you disagree with their conclusion?
17  A  In the sense that this criticism does not fatally
18  undermine the use of the uniform swing because
19  there is other evidence that it actually is an
20  accurate assumption or, again, that it is accurate
21  to the degree that it gives you the ability to
22  make meaningful estimates, and it is also the case
23  that it is often, if not usually, the way that
24  people who draw districts think about estimating
25  the effect of swings in the statewide vote.

Page 130

1  Q  Okay.  Given -- you say -- do you disagree with
2  their assertion that this assumption of a uniform
3  swing is often inaccurate.  Do you agree or
4  disagree with that assumption?
5  A  I would say for the purposes to which I used it
6  that I would disagree with that.
7  Q  I'm asking you whether or not it's true, not for
8  the purposes you used it.  You used it for
9  precisely the same purposes they're describing,
10  which is to assess the partisan symmetry of the
11  plan, and I'm asking you whether or not you agree
12  or disagree with the assertion that they make,
13  which is this uniform swing assumption is often
14  inaccurate.
15  A  Again, this is an argument and I would -- I would
16  say that I disagree with this particular
17  statement.
18  Q  All right.
19  A  Or this particular argument.
20  Q  You've never used the King software for doing
21  partisan symmetry analysis?
22  A  That is incorrect.
23  Q  Okay.  Where did you use that?
24  A  I used it in 2001, and I used it in 2012.
25  Q  Where in 2012?

Page 131

1  A  In the Baldus vs. Brennan case.
2  Q  And you used it in 2001 in the --
3  A  In the Baumgart case.
4  Q  So that's well respected, but you chose not to use
5  it here?
6  A  That's correct.
7  Q  And since you've used it, you're aware that they
8  have an approximate uniform partisan swing
9  analysis embodied in that software; right?
10  A  That's correct.
11  Q  And you didn't use that approximate uniform
12  partisan swing analysis?
13  A  I didn't use the software.
14  Q  Right.  And they claim that the approximate
15  uniform partisan swing analysis conforms a lot
16  more with reality than just the straight uniform
17  swing analysis.  Have you examined that question?
18  A  I would have to look specifically.
19  Q  Okay.  But you can't dispute that measure?
20  A  I mean, sitting here, I can't specifically say
21  whether that's something that they've argued.
22  Q  Okay.  All right.  If you could turn to page 859
23  of the Chicago Law Review.  Okay.  And then the
24  first full paragraph again is talking about the
25  calculation of partisan bias or partisan asymmetry

Page 132

1  under Grofman and King.
2      And they say Turning next to the calculation
3  of partisan bias, it is problematic because it
4  relies on the uniform swing assumption; the
5  premise that vote switchers are present in equal
6  numbers in each district.  Even the more advanced
7  version of the metric introduced by Professors
8  Gelman and King "requires the statistical
9  assumption of approximate uniform partisan swing"
10  and then it explains why that.
11      And they say that assumption unfortunately --
12  I'm going to the next paragraph.  Unfortunately,
13  the assumption of uniformity is often inaccurate,
14  even in its approximate version.  Do you disagree
15  with that assertion?
16  A  Again, the notion that it is often inaccurate, I
17  mean, this is an argument that they're making.
18  And so I would not -- I did not look at this and
19  conclude from this that that fatally undermines
20  the method so there's no point in using it because
21  there are other high quality scholars who have
22  looked at this and have concluded that it is an
23  accurate method.
24      And the King and Gelman method, what it does
25  is add a small error term to it, so it can vary

Page 133

1  around the statewide swing.  Again, I do not read
2  this and did not read this and conclude that this
3  means that the uniform swing method is not
4  informative.
5 Q  Well, the reason they think it's often inaccurate
6  is because they say in the last sentence The
7  geographic distribution of the parties' supporters
8  are highly heterogeneous.  Do you disagree with
9  that?
10 A  It depends on the state.
11 Q  Okay.  Do you disagree with that in Michigan?
12 A  I have not done a specific analysis of the
13  distribution of voters other than in the voting
14  rights districts.
15 Q  So you don't have any opinion on that relative
16  to -- you don't have any opinion on that in
17  Michigan?
18 A  Well, as I said in the report, conducting the
19  analysis outside of the Voting Rights Act
20  districts gives you information outside the areas
21  of the highest concentrations of democratic
22  voters.  So, again, the analysis is informative.
23 Q  Maybe I'll try it one more time.  They say here
24  that The geographic distributions of the parties'
25  supporters are highly heterogeneous meaning that a

Page 134

1  given shift of the statewide vote is likely to
2  result in variable shifts at the district level.
3  Do you agree or disagree with that with respect to
4  Michigan?
5 A  You know, again, we can go through this sentence
6  by sentence about their view of this.  I've read
7  this article.  I'm familiar with it.  I do not
8  read this criticism as leading me to conclude that
9  the uniform swing method is not useful.
10 Q  I understand your opinion.  You've repeated that a
11  number of times.  I'm asking you as a factual
12  matter, they claim that The geographic
13  distributions of the parties' supporters are
14  highly heterogeneous meaning that a given shift in
15  the statewide vote is likely to result in variable
16  shifts at the district level.  Do you agree or
17  disagree with that factual assertion for Michigan?
18 A  Again, it is an assertion.  It depends.
19 Q  Okay.  And you have not examined the extent to
20  which a given shift in the statewide vote results
21  in variable shifts at the district level for
22  Michigan; correct?
23 A  That's correct.
24 Q  Okay.  And you say that you've got people who
25  support you on this question.  If you could look

Page 135

1  at footnote 137 in the Chicago Law Review article.
2  They cite Chen and Rodden's article for the
3  heterogeneous and variable levels of changes.
4  Have you read that article?
5  MR. YAEGER: Objection.  Misstates
6  the document.  Go ahead.
7 A  I think so.
8 Q  Okay.  And is Chen a well respected political
9  scientist in this area?
10 A  Yes.
11 Q  Okay.  And then they cite Jackman, 24 British
12  Journal political scientist.  When we estimate
13  bias...we measure manipulation of the electoral
14  system conditional on a spatial distribution of
15  partisan support.  As the spacial distribution
16  changes, so too will the bias...of the electoral
17  system.
18  Is Jackman a well respected political
19  scientist in this area?
20 A  Yes.
21 Q  And do you agree with the citation and the quote
22  from Jackman?
23 A  I haven't seen the article.  I don't have it in
24  front of me.
25 Q  Now, in terms of the difference between, as I

Page 136

1  understand it, you know, proportional
2  representation between seats and votes and
3  partisan symmetry is you don't ask what's the
4  difference between, say, the democratic statewide
5  share of the vote and the democratic statewide
6  share of seats, what I think you call partisan
7  bias, actual; right?
8 A  I'm sorry.  I'm losing track of the questions.
9 Q  I'm actually just trying to get to a point.
10 A  Okay.
11 Q  One question would be what's the difference
12  between the democratic statewide share of the vote
13  and the democratic statewide share of the seats in
14  the relevant office?  They get 53 percent of the
15  vote, but they only get 45 percent of the seats;
16  correct?
17 A  That difference is the measure of partisan bias.
18 Q  But that's not the measure of partisan symmetry as
19  I understand it.  They don't ask what's the
20  difference between 53 percent and 45 percent?
21  They ask themselves the question how many seats
22  would republicans get if they got 53 percent of
23  the vote, and the difference between what they
24  could get and what the democrats get is what they
25  would call the asymmetry.  Do I have that right?

Page 137

1  A   That's generally correct.
2  Q   Okay.  And you only measured this -- and that's
3      why you go through the uniform swing analysis,
4      right, because you're engaging in the
5      counterfactual hypothesis, well, what if instead
6      of getting 47 percent of the vote, what if
7      republicans got 50 percent of the vote, how much
8      of relevant seats would they capture?  Is that
9      what you're trying to figure out?
10 A   Generally, that's correct.
11 Q   You add to their 47 percent as you describe a
12     certain percentage in each district and you
13     calculate the amount of the vote; right?
14 A   Correct.
15 Q   And you, in your report, if you want to go to,
16     like, page 40 again, you only calculate that at
17     50 percent; right?
18 A   No.  That's incorrect.  The republican seat share
19     at the democratic vote share also relies on that.
20 Q   That's fair enough.  The only one you report in
21     terms of partisan bias is 50 percent; right?
22 A   No.  There are two measures of partisan bias.
23     There's the actual bias and then there's the shift
24     at 50 percent, and then the symmetry is measured
25     by the seats the republicans win at the democratic

Page 138

1      vote share.
2  Q   Okay.  And when you're doing partisan bias at
3      50 percent though, just so I'm clear, you're
4      getting to the 50 percent through the uniform
5      swing analysis?
6  A   That's correct.
7  Q   And are you not asking yourself the question how
8      much do democrats get at 50 percent and how much
9      do republicans get at 50 percent?  I don't want to
10     make this anymore complicated than it is.  Just
11     tell me partisan bias at 50 percent, that means
12     that republicans at 50 percent get 60.9 percent of
13     the seats and democrats get 39.1 percent of the
14     seats at 50 percent?
15 A   Not quite.  You would have to divide that number
16     by two.  So at 50 percent of the vote, republicans
17     would get 55.4 percent of the seats.  The
18     difference is 55.4 and 46.6 would be the 10.9.
19 Q   Okay.  So that's helpful.  So you're telling me
20     that 50 percent -- so just so I understand this
21     then.  At 50 percent of the vote, give me that
22     again.  Republicans would win 55.45 percent of the
23     seats?
24 A   I believe that's correct.
25 Q   And then democrats would win, what, 46 --

Page 139

1      45.5 percent of the seats and that's the
2      10.9 percent difference that you're measuring
3      there?
4  A   I believe so.
5  Q   So what you're basically at -- at 50 percent,
6      that's just like the seats vote curve
7      differential; right?
8  A   At 50 percent.
9  Q   Yes.  Okay.  And then you were going to tell me, I
10     think, that you did another measure, which wasn't
11     at 50 percent.  You were estimating what
12     republicans would get -- you have republican seats
13     won at democratic vote share, you have 72; right?
14 A   Correct.  That's the -- right.
15 Q   I apologize.  I just want to make sure we're all
16     on the same page.  You're telling me they're going
17     to win 72 house seats in the count of factual
18     hypothetical that they won 53.2 percent of the
19     statewide vote?
20 A   Using the baseline measure, that's correct.
21 Q   And what is the partisan asymmetry at that point?
22     Do I just compare the -- tell me what --
23 A   Well, a common way of doing it is you look at the
24     difference in seats.  So you would look at the
25     republicans pick up 72 minus 49 or 23 seats.

Page 140

1  Q   Maybe we can do it with percentages so we're
2      comparing apples and oranges.  Because the next
3      one you have, that means 65.5 percent of the
4      seats.  72?
5  A   Correct.
6  Q   And democrats win 44.5 percent at 53.2 if you look
7      at the third column, third row?
8  A   Correct.
9  Q   So what are you telling me there?
10 A   One significant digit.  23 seats divided by 110,
11     that's almost exactly one-fifth.  20 percent.
12 Q   Okay.  And then --
13 A   It's actually a little bit more because it's 65.5
14     minus 45.5 so it's 21 percent.
15 Q   Say again?
16 A   23 divided by 110 is a little more than a fifth so
17     it's actually 21 percent.  65.5 minus 44.5.
18 Q   Okay.  All right.  We can go through this, but you
19     read the Best and McDonald article as well.  And
20     did they not also say that one of the problems
21     with the partisan symmetry analysis is it relies
22     on counterfactual hypotheticals?
23 A   That's correct.
24 Q   All right.  Just so I'm clear on Table 40, how
25     likely is it that republicans will win 50 percent

League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 141

1    of the vote in the 2018 or 2020 election for house
2    or congress or senate?
3        MR. YAEGER: Table 7?
4  Q  I'm actually asking for all three.
5        MR. YAEGER: You said Table 40. I
6      think you meant Table 7.
7  Q  That's fair enough. I was just using it for
8    illustrative purposes, which was to make the point
9    you do a calculation of partisan bias at
10   50 percent for the house, the senate, and the
11   congress?
12 A  Correct.
13 Q  And I'm asking how likely is it that republicans
14   are going to get 50 percent of the vote for any of
15   those offices in 2018 or 2020?
16 A  I can't give you a specific number.
17 Q  Is it likely, unlikely, highly likely, highly
18   unlikely?
19 A  Well, according to this it would be a 3.2 percent
20   swing, so it's possible.
21 Q  But just possible?
22 A  I mean, I --
23 Q  Is it more likely than not?
24 A  I don't know.
25 Q  How likely is it they get 53.2 percent of the vote

Page 143

1  Q  And Stephanopoulos is a law professor?
2  A  That's correct.
3  Q  And has this achieved wide acceptance in the
4    political science community?
5  A  Depends on what you mean wide. I think it is
6    accepted. Not universally or not unanimously.
7  Q  Okay. And it's been subject to relatively intense
8    criticism by reputable political scientists,
9    hasn't it?
10 A  That's correct.
11 Q  So it's fair to say that the scholarly community
12   is at least at this point somewhat divided on the
13   efficiency gap?
14 A  I would say it's not unanimous. Divided implies
15   somewhat split 50-50. I don't think that's true.
16 Q  Okay. But there's a substantial code of well
17   respected political scientists who have raised
18   reservations about the efficacy of --
19 A  There are people who have raised reservations. I
20   don't know whether I would qualify it as
21   substantial, but there are people who have
22   criticized it.
23 Q  Okay. And we can go through this mean-median
24   analysis that was proposed, what, two and a half
25   years ago in the Election Law Journal by McDonald

Page 142

1    under your analysis?
2  A  It would be less likely than getting 50 percent.
3  Q  So remotely possible but probably not?
4  A  I couldn't give you a specific probability.
5  Q  And you've never sought to assess that?
6  A  That's correct.
7  Q  Okay. All right. Now, you did rely on the
8    efficiency gap as well; right?
9  A  Correct.
10 Q  And this was outlined in detail and the results
11   were reported for the first time in this 2015
12   University of Chicago Law Review article?
13 A  Again, I think McGhee had proposed it in an
14   earlier article but this is -- as I understand it,
15   this was the general explanation of the concept
16   and calculations.
17 Q  And this Chicago Law Review is not a peer reviewed
18   scientific journal; is that correct?
19 A  I think it is peer reviewed. Some law reviews are
20   peer reviewed, but I know in the article that
21   McGhee proposed, that was a social science
22   journal, which would have been peer reviewed.
23 Q  But this article, as far as you know, was not peer
24   reviewed by any political scientists?
25 A  I can't say. I don't know.

Page 144

1    and Best?
2  A  I'm just going to just check the date, but that
3    sounds correct. So 2015. So three years ago.
4  Q  And has that garnered wide acceptance in the
5    political science community?
6  A  I'm not aware of a substantial criticism of it,
7    but it is a metric that is used. I think it's --
8    I have not seen a literature that specifically
9    criticizes it.
10 Q  You cite the McGhee article right underneath that,
11   Rejoinder to "Considering the Prospects for
12   Establishing a Packing Gerrymandering Standard."
13   Again, we can go through this in detail, but
14   didn't he criticize McDonald and Best, this
15   mean-median distinction?
16 A  I believe that's correct.
17 Q  And this published -- now back to the McDonald and
18   Best article. This was published in the Election
19   Law Journal?
20 A  Correct.
21 Q  Is that a peer reviewed scientific journal?
22 A  Yes.
23 Q  So the fact that I've got an article published in
24   the Election Law Journal somehow makes me --
25 A  It means it was peer reviewed.

Page 145

1 Q  Okay.
2 A  The editor is actually a colleague of mine.  It is
3    considered the gold standard in election law so
4    congratulations.
5        MR. YAEGER: I told you not to be
6        nice to him.
7 Q  A minute ago you said there wasn't wide criticism
8    of this other than the one we mentioned, but has
9    this been universally accepted as, you know, the
10   best measure or one of the best measures of
11   measuring partisan gerrymandering?
12 A  Universally accepted, I would say no.
13 Q  Can you list, I don't know, five articles that
14   have embraced this mean-median standard as the
15   best?
16 A  I don't think I could list five.  There are some.
17 Q  Okay.  All right.  So you look at the -- let's
18   turn to page 31.  I just want to understand how
19   this works.  I'm sorry.  Page 21.
20      So I'll just focus on the last sentence on
21   page 21.  By definition, the median vote for the
22   party holding a majority of seats must be greater
23   than 50% (since the party must have at least this
24   share of the vote in half of the districts), while
25   the minority party median vote must be below 50%.

Page 146

1    Is that accurate?
2 A  Yes.
3 Q  So if the statewide vote for republicans is under
4    50 percent and they have a majority of the seats,
5    then the mean-median will always be negative
6    relative to democrats, correct, by definition?
7 A  I'm sorry.  Can you say that again?
8 Q  Maybe I can make it even easier.  If democrats
9    have more than 50 percent of the statewide vote
10   but fewer than 50 percent of the statewide seats,
11   the mean-median measure will always be negative
12   for democrats?
13 A  As captured by the baseline, that's true.
14 Q  And, therefore, this is a measure of what I
15   believe you referred to as the majoritarian
16   principle that if you capture a majority of the
17   vote, all else being equal, you should be
18   capturing the majority of the seats?
19 A  It's a measure of that.
20 Q  But in terms of measuring other things --
21 A  Actually, hold on a second.  I'm thinking about
22   the question.  I would have to work out whether a
23   state -- you cannot make an inference about simply
24   using the statewide vote percentage as to directly
25   calculate what the percentage would be in each

Page 147

1    district because the process in which those votes
2    were aggregated matters.  So it is conceivable
3    that a party could get more than 50 percent of the
4    vote and have that be -- that doesn't mean that
5    the median vote in each district will be greater
6    than 50 percent.
7 Q  I confess I didn't understand your answer.
8 A  I guess I want to --
9 Q  I just want to make sure -- are you disavowing the
10   point you made in your report that By definition,
11   the median vote for the party holding a majority
12   of seats must be greater than 50%?  That's true,
13   isn't it?
14 A  That's true.
15 Q  And while the minority party median vote must be
16   below 50 percent obviously; right?
17 A  No.  That's correct.
18 Q  Okay.  And then maybe -- so then if you turn the
19   page, right, you say When partisans are packed or
20   cracked - the essence of a partisan gerrymander -
21   the mean vote for the minority party will always
22   be larger than the mean.  I took it to be a typo
23   that you meant the median vote but --
24 A  That's correct.  That is a typo.
25 Q  Okay.

Page 148

1 A  So if a party wins a majority of seats with a
2    minority of the vote, again using the baseline,
3    the median will always be greater than the mean.
4 Q  Okay.  And this declination, this fifth one, this
5    was published in, like, 2018, this year?
6 A  That's correct.
7 Q  All right.  I assume there hasn't been any serious
8    scholarly reaction or analysis of this declination
9    literature?
10 A  Not that I'm aware of.
11 Q  All right.  Well, with respect to all of these
12   measures, and we can go through them one at a time
13   if you like, is there a consensus or widely
14   accepted view on how much is too much in terms of
15   partisan bias?
16 A  Is there a threshold that has been proposed?
17 Q  Well, to be precise, is there a partisan bias gap
18   that is widely or consensus viewed as unacceptable
19   in the political science community?
20 A  Not as a threshold that I'm aware of.
21 Q  Same question for partisan asymmetry or the Gilman
22   King analysis.  Is there a uniform or virtually
23   uniform consensus on how much of a symmetry gap is
24   unacceptable?
25 A  Not that I'm aware of.

Page 149

1 Q  Same question for the efficiency gap.  Is there a
2    uniform or nearly uniform consensus on how much of
3    an efficiency gap is too large to be acceptable?
4 A  Stephanopoulos and McGhee proposed 8 percent as a
5    threshold because in their view that is a level
6    that is likely to endure over the life of a
7    redistricting plan.  In the Whitford case, Simon
8    Jackman did an analysis where he actually
9    concluded that the correct -- or that the
10   threshold value is 7 percent so there is -- or,
11   again, based on the probability that an efficiency
12   gap that exceeds that is likely to endure over the
13   life of a plan.
14 Q  So Jackman says 7 percent.  Stephanopoulos and
15   McGhee say 8 percent.  Is there a consensus or
16   near consensus in the political science community
17   about whether either of those numbers or any
18   number renders an efficiency gap unacceptable?
19 A  The 7 to 8 percent range is the number that I'm
20   familiar with.
21 Q  Right.  But has there been a collection of
22   scholarly articles saying that anything beyond 7
23   to 8 percent is unacceptable other than
24   Stephanopoulos's article and Jackman's testimony
25   in Wisconsin?

Page 150

1 A  Not that I'm aware of.
2 Q  Same question for the mean-median.  Is there any
3    scholarly widely accepted view or consensus how
4    much of a mean-median gap is unacceptable?
5 A  So McDonald and Best did examine different
6    redistricting plans that are generally considered
7    to be gerrymanders, but I can't, sitting here,
8    give you a specific number.
9 Q  That would be the one that was contained in the
10   McDonald/Best article itself.  They give you the
11   number?
12 A  I think there may have been some other work.
13 Q  Okay.  Is there a uniform consensus on how much of
14   this mean-median gap is unacceptable?
15 A  I couldn't give you a number.
16 Q  How about declination?
17 A  Warrington proposes a threshold -- we will get
18   into the weeds here -- which is the declination
19   times the number -- times the log of the number of
20   seats divided by two of roughly .38.  Again, as
21   his estimate of the number -- where the initial
22   declination exceeds that, it is likely to endure
23   over the life of the plan.
24 Q  Okay.  But the fact -- first of all, do you expect
25   judges to do this kind of computation?  Strike

Page 151

1    that.
2        I'm just trying to figure out even if it
3    could endure over the life of a plan, if it's not
4    that big of a deal to begin with, why would you
5    care if it endures over the life of the plan?
6        MR. YAEGER: Objection.  Calls for
7    a legal conclusion.  You may answer.
8 A  I think there are evaluations that you can make
9    where it is clear where the bias and asymmetry are
10   large, and we can get to examples.
11       You know, one of the ways that you could
12   examine that is to take those measures and convert
13   them into seats.  How many additional seats does
14   the party secure through the drawing of district
15   lines and through partisan symmetry?  The analysis
16   I did showed that the results in five extra
17   congressional seats, 11 extra state legislative
18   seats.  And so those numbers are objectively
19   large.
20 Q  All right.  Let's start with the 11.  Do you know
21   how many house seats there are?
22 A  110.
23 Q  Right.  Is there any scholarly or widely accepted
24   view that a 10 percent gap in seats under the
25   efficiency gap is unacceptable?

Page 152

1 A  So Stephanopoulos -- well, we're comparing apples
2    and oranges here.  Stephanopoulos and McGhee
3    propose 8 percent, or the other standard that they
4    propose is two seats in congressional elections,
5    which is the efficiency gap multiplied by the
6    number of seats in a delegation.
7        And, again, the reason for that proposed
8    number is that's -- empirically that's the level
9    above which the efficiency gap or the asymmetry is
10   likely to endure over the life of a plan.
11 Q  Okay.  But, again, is there a generally accepted
12   or scholarly consensus that any gap that endures
13   over the life of plan is unacceptable?
14 A  So I'm trying to make sure I understand.  Is the
15   question is there a premium of seats that a party
16   secures through gerrymandering that is considered
17   unacceptable over the life of a plan?  That's the
18   wrong question.  The question is whether that
19   advantage endures with the metric being the
20   calculation of the efficiency gap or the other
21   metrics where a critical value has been offered.
22 Q  Just make sure I understand you correctly.  It's
23   not the size of the gap.  It's the potential
24   duration of the gap that matters?
25 A  Which is going to be a function of the size of the

Page 153

1    gap.
2  Q   Right.  But what you're really focusing on --
3    there's no generally accepted view in terms of the
4    size of the gap.  You've indicated that
5    Stephanopoulos and McGhee are arguing for the
6    endurance of a gap being the relative
7    consideration; is that right?
8  A   Well, let me phrase it more generally.  When we
9    are looking at things like a two-to-one premium in
10   seats where the party that drew the lines secures
11   twice as many seats as it would have under a
12   neutral map, the importance of a critical value or
13   a threshold is that when you approach that value
14   and epsilon on either side of that, which side are
15   you on, but which side of that threshold are you
16   on but when we're dealing with numbers two to
17   three times the size of those possible values or
18   when we're looking at the number of seats that are
19   involved, that's less of a matter of thresholds
20   within that epsilon as opposed to seems
21   objectively obvious that that's a large number of
22   seats.
23 Q   So two things.  You're comparing the gap between
24   what's achieved under the plan being challenged
25   and what would be achieved under a neutral plan?

Page 154

1  A   That's one standard of comparison.
2  Q   And is there any consensus view on how large that
3    gap needs to be under any of the metrics to be
4    invalid?
5  A   Well, again, to the extent that those thresholds
6    have been proposed, it's a function of the size of
7    the initial asymmetry or bias enduring over the
8    life of a plan.
9  Q   Right.  And that was the proposal that
10   Stephanopoulos and McGhee made with respect to the
11   efficiency gap.  That's how they derived the
12   8 percent?
13 A   And that is also, I believe, what Warrington did.
14 Q   Okay.  Was that true with respect to partisan
15   bias, partisan symmetry, or mean-median?
16 A   I don't know that a specific threshold has been
17   identified but there is, I think, unanimous
18   agreement that higher values are -- lower values
19   are preferable to higher values.
20 Q   Right.  And there's no consensus, however, on how
21   much is too much other than the Stephanopoulos and
22   McGhee and Jackman 7 to 8 percent for the
23   efficiency gap?
24 A   And again --
25 Q   Is the answer yes before you go on?

Page 155

1  A   That's not the only measure where such a value --
2    again, I did not have a threshold in mind when I
3    did this analysis and reached this conclusion.
4  Q   Okay.  And there is no such value recognized in
5    the political science literature?  Some basic
6    threshold value which distinguishes however
7    measured between unacceptable and acceptable level
8    of political fairness or gerrymandering?
9  A   As a function of those critical values, I'm not
10   aware that a threshold has been set.
11        MR. CARVIN:  Okay.  It's 2:15.  Did
12   you want to take, like, a real five-minute
13   break, and then I'm really rushing to try and
14   get us out of here so the more I can go
15   through this --
16        MR. YAEGER:  Sure.  We're driving
17   back to Indiana tonight.  I'm all with you.
18   (Recess taken)
19 BY MR. CARVIN:
20 Q   All right.  Professor Mayer, could you turn,
21   please, to page 59 of your report.  Do you have
22   that in front of you?  Okay.  You say here you do
23   evaluation of demonstration maps.  So my first
24   question is are these demonstration maps the ones
25   that were attached to plaintiff's complaint?

Page 156

1  A   I don't know.
2        MR. CARVIN:  Counsel, can you help
3    me on this?  Do you know if that's what was
4    proposed by the parties as --
5        MR. YAEGER:  I believe that they
6    are.
7  Q   And from your perspective, who sent you these
8    maps?
9  A   As I understood it, these actually were not maps.
10   These were files that were sent to me that
11   assigned blocks to districts, and they were
12   prepared by Professor Chen.
13 Q   Okay.  And so that's why I'm a little confused.
14   Did Chen assign the blocks to the districts that
15   he had created that he sent over to you?
16 A   That's what I understood that he did.
17 Q   When did he send them to you?
18 A   I would have to check.  I think it was the end of
19   May, towards the end of May.
20 Q   And these reflected the census geography contained
21   in the demonstration maps or plans by plaintiffs?
22 A   Again, I don't know.  The census geographies were
23   the census blocks that he assigned to particular
24   state legislative, state senate, and U.S. House
25   districts.

Page 157

1  Q  Okay.  And as far as you knew, he drew the map or
2     came up with the plan himself?
3  A  That's what I understand it.  That's how I
4     understand it.
5  Q  Do you know who else, if anyone, assisted Dr. Chen
6     in that map drawing exercise?
7  A  I don't.
8  Q  Okay.  Did you ever discuss with him how he
9     created the maps?
10 A  No.
11 Q  Did you ever discuss with him or anybody else what
12    traditional districting principles were used to
13    guide the map?
14 A  No.
15 Q  Okay.  But it's your understanding that these
16    demonstration plans or maps were drawn pursuant to
17    traditional districting principles without any
18    partisan intent to favor republicans or democrats?
19 A  That is my understanding.
20 Q  Okay.  You didn't independently analyze that
21    issue?
22 A  That's correct.
23 Q  Just so I'm clear then, if you could turn to
24    Table A5 on page 91, please.  So this breaks down,
25    for example, the demonstration plan for the

Page 158

1     Michigan lower house; is that right?
2  A  That's correct.
3  Q  Okay.  And you obviously have baseline democratic
4     vote shares assessed under two different election
5     cycles.  Total pop, VAP, and black VAP; right?
6  A  That's correct.
7  Q  For each of these districts?
8  A  That's correct.
9  Q  Okay.  So that information was supplied to you by
10    the census files that Dr. Chen transmitted to you?
11 A  So I wouldn't necessarily characterize them as
12    census files.  These were based on the files that
13    he provided to me that had the information in each
14    census block, which then had an assignment that he
15    had made to a particular district.  So that's what
16    this is based on.
17 Q  Okay.  And did you calculate these percentages or
18    did he?
19 A  I calculated these percentages by aggregating the
20    files that he -- aggregating the census block
21    files into districts.
22 Q  And was this some kind of shapefile that he sent
23    to you?
24 A  No.
25 Q  Well, in what form did he transmit this

Page 159

1     information?
2  A  It was a text file that contained the data.
3  Q  All right.  Do you still have that?
4  A  I believe I do.
5        MR. CARVIN: All right.  We'd like
6     to request getting a copy of that file.  I
7     think there's been some conversation with
8     Dickinson, right, about getting the
9     shapefiles or other kind of census
10    information on the line of these
11    demonstration plans.  I don't know if you've
12    been involved with that, but I would like to
13    see those text files.
14       MR. YAEGER: We'll certainly do
15    that.  It may have already been delivered in
16    a very large delivery of data that we made a
17    couple weeks ago perhaps.  But if not, we
18    will absolutely go find it.
19       MR. CARVIN: I'm not involved in
20    that dispute.  I understand there is a
21    dispute about that, so I'll make the request
22    for the record and won't take up anymore of
23    Professor Mayer's time, but don't get rid of
24    the text file if you have it.
25       MR. YAEGER: I'm not sure there's a

Page 160

1     dispute at all, but we will certainly work
2     through that.
3        MR. CARVIN: All right.  Great.
4     Thanks.
5  Q  Again, just to be clear, you don't know which
6     traditional districting principles were followed.
7     Do you know -- for example, you mentioned the Apol
8     Standards.  Do you know if these purport to follow
9     the Apol guidelines?
10 A  I don't.
11 Q  Do you know if the demonstration plans took
12    account of incumbency?
13 A  I do not.
14 Q  Okay.  All right.  So if you could turn to -- you
15    know what, I think there's an easier way to do
16    this.  Let me -- I'm going to keep flipping
17    back -- just to explain what I'm about to do to
18    you between -- with you.
19       MR. CARVIN: We're going to be
20    flipping between the tables described in the
21    enacted plan and the demonstration plan.  So
22    I thought it might be easier just to give you
23    the excerpts from your report that describe
24    these things.  And so it would be --
25       Counsel, would you like me to make this

Page 161

1    an exhibit?  These are just excerpts from
2    what he's already done just for ease of
3    reference.
4         MR. YAEGER: I don't object to him
5    referring to them if you're telling me
6    they're just pages out of the existing
7    exhibit.
8 Q   What I'm trying to do here, Professor, is stop us
9    from flipping back and forth between the baseline
10   plans and the demonstration maps because you had
11   two things with respect to each of the plans.  One
12   was the enacted plan, and then you did the enacted
13   plan without the majority of minority districts,
14   and then you did the demonstration plans.  So what
15   I've handed to you is the excerpts from the
16   relevant pages of your report analyzing the
17   different plans in that way.
18        MR. YAEGER: Can you just tell us
19   what pages he now has in front of him?
20 Q   Right.  So unless I'm incorrect, these are the
21   ones for congress.  I'm going to subsequently do
22   the others.  It should be page 30 of your report.
23   Tell me if I'm wrong.  Page 36 and 37 of your
24   report and then page 59 of your report.  And 59,
25   60.  Is that correct?

Page 162

1 A   Yes.
2 Q   All right.  So if you put the -- take the
3    demonstration plan, please.  This is for congress,
4    okay, which I believe is contained in 59-60 of
5    your report and then the enacted plan, okay, which
6    is at page 30.  And if you put those two pages
7    together -- right.  Okay.  Do you have that in
8    front of you?
9 A   Yes.
10 Q   Okay.  All right.  If you look first at the
11   republican share of seats, it's a democratic vote
12   share number; right?  Do you have that column in
13   front of you?
14 A   Which table?
15 Q   Well, it would be both on Table 5 and Table 11 and
16   you have a column that says Republican Seats won
17   at Democratic Vote Share; right?
18 A   Okay.
19 Q   And in the enacted plan, republicans would win ten
20   seats at the democratic vote share; right?
21 A   Correct.
22 Q   And under the 2006 to 2010 numbers, the
23   republicans would win 12 seats under the
24   demonstration plan at the democratic vote share?
25 A   Correct.

Page 163

1 Q   So the neutral plan is better for republicans than
2    the enacted plan under this measure; correct?
3 A   Under that measure.
4 Q   Right.  And at 53 percent of the vote, republicans
5    would get 85.7 percent of the seats; correct?
6 A   That's what it shows.
7 Q   That's a huge gap; right?
8 A   That's large.
9 Q   And it's an extreme partisan gerrymandering;
10   right?
11 A   Well, that doesn't exhaust the inquiry because the
12   next column shows --
13 Q   In terms of that measure?
14 A   In terms of that measure.
15 Q   That would be an extreme partisan gerrymandering?
16 A   Under that metric.
17 Q   Okay.  Let's go to the symmetry -- the actual
18   vote; right?  So under the enacted plan under the
19   2012 to 2016 election results -- excuse me.  Under
20   the demonstration plan, under the actual statewide
21   vote, democrats would only win 6 of 14 seats under
22   the demonstration plan; right?
23 A   Again, you're referring to 2012-2016?
24 Q   Yes.  Uh-huh.
25 A   Correct.

Page 164

1 Q   And that's your best estimate of the votes -- of
2    the baseline elections that actually occurred in
3    the decade during the relevant redistricting?
4 A   From 2012 to 2016.
5 Q   Right.  And under that they would have captured
6    52.3 percent of the vote but only 42.9 percent of
7    the seats?
8 A   Correct.
9 Q   And that's a large gerrymander against the
10   democrats?
11 A   So that's a large bias.
12 Q   And it violates the majoritarian principle?
13 A   Yes.
14 Q   Now, if you look at partisan bias at 50 percent,
15   the partisan bias at 50 percent is 14.3 percent
16   against the democrats under either the 2006 to
17   2010 or the 2012 to 2016 elections; right?
18 A   Correct.
19 Q   And that's an unacceptably large partisan bias
20   under that measure; right?
21 A   Well, true.  But, again, if you exclude the Voting
22   Rights Act districts, those biases and asymmetries
23   disappear.
24 Q   We're going to talk about eliminating the Voting
25   Rights Act districts.  But I just want to know --

Page 165

1    let me make it clear.
2        In the real world, you can't eliminate the
3    Voting Rights Act districts; right?  You can't
4    disenfranchise all the black voters in Detroit and
5    Wayne County; right?
6  A   That's not what --
7  Q   We all agree that that's not true; right?  So what
8    I want to do is figure out is the maps in the real
9    world and then we'll go into this hypothetical
10    world where you can disenfranchise all of the
11    black voters in Michigan, which I assume you're
12    not advocating; right?
13            MR. YAEGER: Objection.  Misstates
14        the evidence.
15  Q   You're going to just eliminate the
16    majority-minority districts?
17  A   Wait a second.  What that means is it calculates
18    the metrics for the areas of the state outside of
19    the Voting Rights Act districts, which is
20    different from disenfranchising them.
21  Q   In any event, what I'd like you to do is answer
22    the questions in terms of the enacted plan and the
23    demonstration plan in terms of all of the
24    districts; okay?  And under that metric, the
25    partisan bias at 50 percent is 14.3 percent for

Page 166

1    both the enacted plan and the demonstration plan;
2    right?
3  A   Correct.
4  Q   It's identical.  And that's a large and
5    unacceptable number?
6  A   It's a large number.
7  Q   And is it unacceptable?  Does it reflect an
8    extreme partisan gerrymander?
9  A   That metric does reflect a gerrymander.
10  Q   Let's keep going.  Let's look at the efficiency
11    gap.  The efficiency gap under the demonstration
12    plan is 12.6 percent for the years 2012 to 2016;
13    right?  Is 12.6 too large an efficiency gap to be
14    acceptable in your view?
15  A   That's a large efficiency gap.
16  Q   Exceeds the recommended standard of Stephanopoulos
17    and McGhee?
18  A   That's correct.
19  Q   Now, if you notice, the efficiency gap is nearly
20    perfect if you look at the 2006 through 2010
21    numbers, right, under the demonstration plan?
22  A   That's correct.  Or it's nearly zero.
23  Q   Nearly zero.  And zero means no gap; right?
24  A   Correct.
25  Q   And you look at the same plan, the exact same

Page 167

1    plan, and all you do is put in different years of
2    election data and the efficiency gap goes from
3    zero to 12.6 percent; is that right?
4  A   Yes.
5  Q   Does that reflect that the efficiency gap
6    calculations are highly variable and subject to
7    relatively minor changes in election data?
8  A   So as I explained in the report, the reason for
9    that is that there are a large number of
10    competitive districts where a relatively small
11    swing in the statewide vote causes them to flip
12    control, and the efficiency gap is sensitive to
13    changes in party control because when a district
14    flips from 51 percent to 49 percent for a party,
15    its wasted votes go from 0.5 percent to
16    49 percent.
17  Q   And that's a real problem with the efficiency gap,
18    isn't it?  It penalizes the existence of
19    competitive seats in the plan, doesn't it?
20  A   I don't think penalize is the right word.  It can
21    be sensitive to that.  Again, this is the reason
22    for calculating the multiple metrics.
23  Q   And the reason you have such a large efficiency
24    gap under this neutral demonstration plan is
25    because it's got three competitive districts;

Page 168

1    right?
2  A   That's the conclusion, yes.
3  Q   And that's the correct conclusion.  And the reason
4    is pretty obvious, isn't it?  Do you know what the
5    efficiency gap is for a 51-49 district?  Haven't
6    you wasted 49 votes if you lose 51-49?
7            MR. YAEGER: Objection.
8  Q   And you only wasted 1 percent of votes if you --
9  A   So the efficiency gap is not calculated for a
10    single district.  The efficiency gap is calculated
11    for a plan.
12  Q   Maybe we can answer the question.  What would the
13    efficiency gap be for a 51 to 49 district?
14  A   Well, the number --
15            MR. YAEGER: I object to your
16        characterization.  He did answer the
17        question.  I'm going to object that the
18        question makes no sense as he's explained.
19        You may answer.
20  A   So the number of wasted votes would change from
21    essentially 1 to 49.
22  Q   So it would be a 48 percent efficiency gap.  A
23    huge efficiency gap for that district?
24  A   An efficiency gap is not calculated for a single
25    district.  An efficiency gap is calculated for a

League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 169

1    plan.
2  Q  Yes.  Where you add up the efficiency gaps in each
3     district; correct?
4  A  That's incorrect.  The efficiency gap -- you don't
5     calculate the efficiency gap in a single district.
6     You calculate wasted votes in a single district,
7     and the efficiency gap is the net wasted votes in
8     each district divided by the total number of
9     votes.
10 Q  So you have to add up all of the wasted votes for
11    all of the districts.  I'll make it as easy as I
12    can.  What would be the efficiency gap for ten
13    districts which were 51 percent republican and
14    49 percent democrat?  If you want to do it that
15    way, it would be a huge efficiency gap of, like,
16    48 percent; right?
17 A  It would be large, yes.
18 Q  Right.  Right.  Okay.  And if there was a
19    1 percent swing or a 2 percent swing, the
20    efficiency gap would not -- would either go to
21    zero or -- that's why you have such huge swings
22    when you have competitive districts in efficiency
23    gap; right?
24 A  In this context, yes.
25 Q  And let me ask you this.  What would be the

Page 170

1     efficiency gap for a district with 75 percent
2     democratic vote share for one district?
3            MR. YAEGER:  Objection.
4  A  Again, you don't calculate the efficiency gap for
5     a single district.
6  Q  I thought you did and then you added them up and
7     then you did the division; is that not correct?
8            MR. YAEGER:  Objection.  Misstates
9        the testimony.
10 A  That's incorrect.  You calculated wasted votes --
11 Q  For each district?
12 A  -- for each district.
13 Q  How many wasted votes would be there in a
14    75 percent democratic district?
15 A  So one of the properties of the efficiency gap is
16    that a 75/25 percent district has zero wasted
17    votes.
18 Q  So it finds no efficiency gap in a district that
19    is a clear packing of democrats?
20           MR. YAEGER:  Objection.
21 Q  But it finds a huge efficiency gap in a 51 to
22    49 percent district; right?
23           MR. YAEGER:  Objection.
24 A  So there are -- in a 75-25 district, there are
25    zero wasted votes.  And in a 51-49, there is a

Page 171

1     larger number of wasted votes although, again, you
2     don't calculate the efficiency gap based on a
3     single district.  It depends on the overall
4     distribution of votes.
5  Q  Right.
6  A  Or the overall aggregation of votes.
7  Q  Right.  So if I had ten 75 percent democratic
8     districts, the efficiency gap would be zero for
9     the plan; right?
10 A  That's correct.
11 Q  Okay.  Whereas if I had ten 51-49 districts, the
12    efficiency gap would be huge?
13 A  That's correct.
14 Q  In the real world, which do you think the
15    democrats would prefer -- or the disadvantaged
16    party -- a bunch of 75-25 or a bunch of 51-49?
17 A  In terms of -- I mean, I don't know that -- that's
18    a hypothetical.  I think a party would prefer a
19    competitive district compared to a noncompetitive
20    district where it was an overwhelming minority.
21 Q  All right.  I'll ask it one last time.  If we were
22    analyzing this plan in 2011, right, this
23    demonstration plan, okay, and let's assume that
24    this was the enacted plan, right, then we would
25    think it would have a 0.1 percent efficiency gap.

Page 172

1     And under that measure, we would think this would
2     be not at all a gerrymander.  But then in practice
3     in the real elections between '12 and '16 under
4     your baseline exogenous results, the efficiency
5     gap would be 12.6, a huge gap; right?
6  A  That's correct.
7  Q  So, again, showing the variability of efficiency
8     gaps when you're in a competitive political
9     situation; right?
10 A  That's the explanation that -- that's correct.
11           MR. CARVIN:  Okay.  All right.  And
12       then I'm going to do the same thing with the
13       house districts; okay?  And, Counsel, for the
14       record, I've handed him pages 40, 45, and 46
15       and page 68 from his report; okay?
16           MR. YAEGER:  Thank you.
17           MR. CARVIN:  Which reflects the
18       various measures of the enacted plan versus
19       the demonstration plans.
20 Q  All right.  Under the enacted plan, which is an
21    extreme partisan gerrymander, right, the democrats
22    win 49 seats; correct?
23 A  Correct.
24 Q  And under the demonstration plan, which is neutral
25    and abides by tradition districting principles,

League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 173

1  the democrats win 48 seats if you look at the 2012
2  through 2016 elections?
3  A  Correct.
4  Q  So is the demonstration plan an extreme partisan
5  gerrymander against democrats?
6  A  Again, I calculated multiple metrics and some of
7  them show large values.  Others show smaller
8  values.
9  Q  And under this metric, that would constitute an
10  extreme partisan gerrymander?
11  A  That is a counter-majoritarian result.
12  Q  But not an extreme partisan gerrymander?
13  A  Again, my conclusion about the extreme nature
14  results on the overall indicators.
15  Q  And the fact that you estimate that they won
16  49 seats under the enacted plan doesn't tell you
17  very much about whether or not the enacted plan is
18  an extreme partisan gerrymander?
19  A  Again, that's one indicator.
20  Q  In and by itself, it's not terribly important?
21  A  No.  That's incorrect.  That's not the only piece
22  of information.
23  Q  Okay.  And then -- well, let's look at the other
24  information then.  Under the partisan bias, actual
25  measure under the demonstration plan, it's

Page 174

1  8.7 percent for 2012-2016, and it's 7.8 percent
2  for the same races for the enacted plan.  So,
3  again, the partisan bias is worse than the enacted
4  plan under that measure?
5  A  That's correct.
6  Q  And the bias is apparent in the enacted plan.  Is
7  it equally apparent in the demonstration plan?
8  A  I'm sorry.  Which metric are you referring to?
9  Q  The partisan bias, actual.
10  A  Yes.
11  Q  Okay.  And then let's look at partisan bias at
12  50 percent.  Under the demonstration plan, it's
13  negative 10.9 percent against democrats under the
14  2012-2016 where it's only negative 9.1 percent
15  against the democrats in the enacted plan, so
16  that's yet another metric which shows that the
17  demonstration plan is biassed against democrats?
18  A  Correct.
19  Q  Would you think at this point it's considered an
20  extreme partisan gerrymander?
21  A  So based on the metrics that I used in the
22  Table 7, it does.  Again, the contributors to that
23  are often the existence of the Voting Rights Act
24  district, so a number of these metrics improve
25  outside the area of the state outside of the

Page 175

1  Voting Rights Act districts.
2  Q  That's the key point; right?  Even when you draw
3  scrupulously adhering to traditional districting
4  principles without any bias against democrats, you
5  achieve bias results largely as a consequence of
6  these Voting Rights Act districts; correct?
7  A  Can you say that again?
8  Q  The demonstration plans were mutual plans with no
9  bias or partisan intent which strictly adhere to
10  traditional districting principles.  As you've
11  constantly explained, the reason they're showing
12  apparent bias on the overall plan is because of
13  the effect of the majority-minority districts,
14  which means that even a completely neutral line
15  drawer strictly adhering to traditional
16  districting principles creates an anti-democratic
17  bias largely attributable to the Voting Rights Act
18  districts; correct?
19  A  Well, that's true.  But if you look at the metrics
20  compared to the outside of the majority-minority
21  districts in the enacted plan, virtually every one
22  is improved.  If you compare the demonstration
23  plan component outside of the Voting Rights Act
24  districts and you compare it to the enacted plan,
25  on virtually all of the metrics, the demonstration

Page 176

1  plan is more neutral.
2  Q  More neutral?
3  A  More neutral.
4  Q  Okay.  Is it acceptable?
5  A  As I look at these metrics, I characterize them in
6  the report as mixed but more neutral.
7  Q  More neutral, but, I mean, do you want me to go
8  through it?  We can do it that way too.  Let's do
9  Table 8.  You exclude partisan bias, actual;
10  right?  You excluded them, it's 10.6 under the
11  enacted plan.  And it's minus 11.6 under the
12  demonstration plan?
13  A  Correct.
14  Q  It's worse.  Actual partisan bias is worse?
15  A  But the partisan bias at 50 percent is improved.
16  The symmetry is improved.  The democratic share
17  needed to win a majority is improved.  The
18  efficiency gap is not improved.  The mean-median
19  is improved, and the average republican and
20  democratic wins, that gap is improved.
21  Q  Right.
22  A  So the indicators are mixed, but they are more
23  neutral.
24  Q  More neutral.  But we both agree that the main
25  reason that the neutral plan has an apparent

Page 177

1  pro-bias -- democratic bias result is because of
2  the presence of the majority-minority districts
3  since when you eliminate the majority-minority
4  districts, the bias goes down according to you?
5  A  Right.  So I would not use the phrase eliminate
6  the voting rights districts when you calculate the
7  metrics for the area of the state outside of the
8  Voting Rights Act district.  That's how I would
9  phrase it.
10  Q  All right.  Let's go to how you phrase it in your
11  report.  So at the bottom of page 81, you're
12  discussing the demonstration maps.  You say Nearly
13  all the metrics show less asymmetry and bias.
14  We'll figure out whether that's accurate.  But in
15  any event, you then go onto say and when observed
16  are largely the consequence of majority-minority
17  districts.  So you are saying that the asymmetry
18  and the bias contained in the demonstration plans
19  is largely a consequence of majority-minority
20  districts; right?
21  A  Correct.
22  Q  Some measures are also a function of the high
23  degree of competitiveness in the demonstration
24  maps, with many districts very close to 50% of the
25  vote baseline, such that very small changes in the

Page 178

1  vote can flip districts between the parties.  So,
2  again, these various metrics penalize competitive
3  districts because that are very close to
4  50 percent; correct?
5  A  I wouldn't phrase it as penalize.  I would say
6  that the metrics are sensitive to the existence of
7  competitive districts.
8  Q  Right.  And you can have as we described -- for
9  example, the efficiency gap, you can have a very
10  high, meaning negative efficiency gap measure for
11  very competitive districts?
12  A  Well, again, you can have large numbers of wasted
13  votes in competitive districts.
14  Q  Right.  Because they define wasted votes as
15  49 percent in a 51-49 district?
16  A  For the losing party, that's correct.
17  Q  And if you call a district 51-49 and in the real
18  world there's an incumbent from the opposing party
19  or your baseline measures of 51-49 are off by a
20  percentage point or two, then you could
21  misidentify a pro-republican bias when really it's
22  a neutral because all these districts are tossups;
23  right?
24  A  So there's a lot going on in that question.
25  Q  We all agree the party that gets 51 percent under

Page 179

1  the efficiency gap that the other party is viewed
2  to have wasted a lot of votes; correct?
3  A  So the losing party wastes all of the 49 percent.
4  Q  Right.  But the difference between 49 and 51 is so
5  that you may misidentify which party is wasting
6  the votes; right?
7  A  That's possible.
8  Q  In any event, most political scientists would
9  think that 51-49 districts are not the hallmarks
10  of a partisan gerrymander but are the hallmarks of
11  a plan that is competitive and responsive to
12  changes in vote swings; correct?
13  A  Well, again, there are a lot of conditions and
14  qualifications.  So generally speaking, a 51-49
15  district will have many of those characteristics,
16  but it depends on how that district was drawn.  If
17  I am able to draw, convert districts where I have
18  overwhelming majorities in a small number of
19  districts to large number of districts where I
20  have smaller majorities or if I'm able to combine
21  voters in 25 percent into a 51 percent or
22  52 percent district, that those actually could
23  meet the definitions of packing and cracking
24  because it is -- depending on how the districts
25  are drawn, that packing is compared to or relative

Page 180

1  to what an alternative district would look like.
2  Q  Right.  Which is another way of saying that
3  looking at this number for the efficiency gap
4  doesn't begin to answer all those variables that
5  go into whether a district is fair or not.  You
6  need to analyze all of the redistricting
7  alternatives in all of these measures that you
8  discuss; correct?
9  A  So I disagree with the statement that it doesn't
10  begin to answer the question.  And that's one of
11  the reasons why I calculated multiple metrics
12  because other metrics will capture and measure and
13  are less sensitive to competitive districts like
14  the mean-median or the comparison of the average
15  democratic and republican win.  Those actually get
16  better when you have more competitive districts.
17  Q  All right.  Let's go through it then if you want.
18  Are the efficiency gaps for the demonstration plan
19  acceptable or indicative of packing and cracking?
20      MR. YAEGER: Can you say which page
21  we're looking at?
22      MR. CARVIN: 68.
23  A  So which column are we looking at?
24  Q  I'm starting with the efficiency gap.
25  A  Right.  But which column?

Case 2:17-cv-14148-ELC-DPH-GJQ   ECF No. 148-1, PageID.5566   Filed 12/04/18   Page 47 of
53
League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 181

1  Q   I'll let you do whichever ones you think are okay.
2      Either the statewide 2012 or statewide 2016.
3             MR. YAEGER: Objection to form.
4  A   So those efficiency gaps exceed the proposed
5      thresholds.
6  Q   How about the democratic vote share needed to win
7      the majority of seats, is that indicative of
8      strong partisan bias?  Strong partisan
9      gerrymandering?
10            MR. YAEGER: Objection.  Compound.
11 A   So in both the 2006 and 2010 and 2012 and 2016,
12     the vote share that the democrats need to win a
13     majority is smaller than it is in the enacted
14     plan.
15 Q   I'm not asking you that.
16 A   That's the point of comparison here because we're
17     comparing --
18 Q   I'm not asking you that.
19 A   I understand that, but that is the relevant point
20     of comparison.
21 Q   At some point, your counsel can ask you the
22     questions you want to be asked, but I'm asking you
23     whether or not they're acceptable levels.  I
24     understand they're smaller.  Are they acceptable?
25 A   Well, as I have mentioned before, there is no

Page 182

1      threshold measure that clearly defines what
2      constitutes an acceptable.  Numbers that are
3      closer to 50 percent are preferable to numbers
4      that are larger, farther away from 50 percent.
5  Q   Oh, okay.  Well, maybe I'm misunderstanding this.
6      If you look at the democratic vote share needed to
7      win the majority of seats, in the demonstration
8      plan it's either 54.6 or 53.6; right?
9  A   Correct.  For statewide.
10 Q   And then enacted plan, it's 53.1 -- I'm sorry.
11     That's excluding the majority-minority districts.
12     It's 54.8 or 56.2; right?
13 A   Correct.
14 Q   And as far as you know, there's no meaningful
15     difference between 54.6 and 53.6 and 54.8 and 56.2
16     because there's no clear dividing line between
17     what's acceptable and what's unacceptable?
18 A   Well, but both of those numbers are smaller.
19 Q   And 56.1 is smaller than 56.2.  Would you say that
20     that's a meaningful difference in terms of it?
21 A   I would define one-tenth of a percentage point as
22     not a meaningful difference.
23 Q   And is there anywhere on these charts you can
24     point me to a dividing line between what is
25     acceptable and what is not acceptable?

Page 183

1  A   Not in terms of comparing two numbers.
2  Q   Right.  Or how about all of the numbers in
3      aggregate?
4  A   So I did not have a threshold in mind when I
5      reached this conclusion.
6  Q   You were quite confident in saying that the
7      enacted plan was an extreme partisan gerrymander.
8      Is the demonstration plan sufficiently different
9      from the enacted plan not to constitute an extreme
10     partisan gerrymandering?
11 A   Again, I will restate what I said in my report.
12     The metrics are more mixed, and they are generally
13     improved, so it is a more neutral map.
14 Q   Yes.  Is it sufficiently neutral, or does it still
15     constitute either an extreme partisan gerrymander
16     or a partisan gerrymander?
17 A   Again, the conclusion that I reached was that it
18     is a more neutral map.
19 Q   I know.  And I'm asking you a different question.
20     I understand it's more neutral.  Is it
21     sufficiently neutral not to be fairly
22     characterized as a partisan gerrymander?
23 A   Again, the fact that the metrics are mixed mean
24     that I reach a different conclusion about the map.
25 Q   And what's that conclusion?  How would you

Page 184

1      characterize it?
2  A   It's a more neutral map than the enacted plan.
3  Q   Yes.  But I want you to pretend that the enacted
4      plan was never enacted and you were just analyzing
5      this plan.  How would you characterize it, as a
6      partisan gerrymander, an extreme partisan
7      gerrymander, or an acceptable level of partisan
8      bias?
9             MR. YAEGER: Objection.  Incomplete
10     hypothetical.  Compound.  You can answer.
11 A   You know, again, the demonstration map is
12     understood -- I understood this in comparison to
13     the enacted plan, and the metrics are more mixed,
14     and as I look at this looking at these metrics,
15     that some of them indicate high levels of bias and
16     asymmetry.  Others do not.
17 Q   Right.
18 A   My conclusion is that based on the full set of
19     indicators that this is not one that I would
20     characterize as an extreme partisan gerrymander
21     even though some of the indicators suggest a high
22     degree of bias and asymmetry.
23 Q   Is it a partisan gerrymander?
24            MR. YAEGER: Objection.
25 A   So in making that conclusion, what I had in mind

League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 185

1    was the way that partisan gerrymanders are
2    investigated in the literature that when you --
3    there is a literature that defines partisan
4    gerrymanders as those that emerge from places
5    where you have unified party control, and that is
6    the definition of a partisan gerrymander in the
7    literature as reflected in these metrics.
8        In a map that was neutrally drawn that has a
9    set of mixed indicators where some metrics
10   indicate high levels of asymmetry and bias and
11   others do not, my conclusion is that that was not
12   a partisan gerrymandering.  It was not a partisan
13   gerrymander because, again, the essence of a
14   gerrymander is intentionally drawing district
15   lines to benefit one party over the other party.
16   That's what I explained in my report.
17 Q   Right.  That's why you need to look at these
18   neutral maps.  Is the gap between this neutrally
19   drawn map and the enacted plan significant?
20 A   Again, significant in this context often implies
21   statistical significance.  The way that I read
22   this and how I analyzed it is that all of the
23   indicators in the enacted map indicated high
24   levels of bias and asymmetry.  Some of them do in
25   the demonstration map, but some of them don't.

Page 187

1 Q   So the mean-median difference is minus 5.2 percent
2    meaning minus to democrats; right?
3 A   Correct.
4 Q   But you think that's de minimis?
5 A   Again, I did not have a threshold in mind when I
6    looked at this.
7 Q   You told me before if they all point in the same
8    direction, there's very powerful evidence that
9    there's an anti-democratic intent going on in the
10   map drawing; right?
11 A   That's incorrect.  The intent is not inferred by
12   these numbers.
13 Q   Right.  So these numbers don't tell you anything
14   about the intent whether they were trying to crack
15   or pack.  They just tell you the results; right?
16 A   There is a small exception with the declination,
17   but for the others, that's generally true.
18 Q   Okay.  And now I'm going to ask you if these
19   numbers indicate an anti-democratic bias, that's
20   no reason to infer that the drafters of the
21   demonstration plan were trying to pack or crack
22   democratic voters; correct?
23 A   Well, the metrics combined with the unified party
24   control does give you some information, but the
25   numbers specifically by themselves does not

Page 186

1 Q   What don't?
2 A   The 2006-2010 partisan bias at 50 percent, the
3    mean-median, the declinations are smaller, and
4    almost all of the metrics are more neutral.
5 Q   Partisan bias at 50 percent is 10.9.
6 A   I meant the democratic share needed to win a
7    majority of seats.  And the partisan bias of
8    the --
9 Q   53.6?
10 A   Again --
11 Q   54.6?
12 A   You have to -- it's smaller --
13       MR. YAEGER: Excuse me.  Could we
14     just have question and answer.
15 Q   I'm trying to figure out is there any number on
16   this map that shows anything other than at least a
17   mild anti-democratic bias?
18 A   By anti-democratic bias, do you mean large "D"
19   like democratic party bias?
20 Q   Yeah.  Sure.
21 A   I would regard the differences in the mean and
22   median as meaningful and the vote share that
23   democrats would need.  Again, looking at the
24   statewide, the areas of the state outside the
25   Voting Rights Act districts.

Page 188

1    exhaust the inquiry.
2 Q   So if the republican legislature and the
3    republican governor had passed this plan, the
4    demonstration plan, you would not characterize it
5    as a partisan gerrymander?
6 A   So, again, I would characterize some of the
7    indicators suggesting a degree of asymmetry and
8    bias.  So, again, you know, the indicators are
9    what they are.
10 Q   So it at least raises a serious suspicion of a
11   partisan gerrymander?
12 A   The metrics indicate a degree of asymmetry and
13   bias.
14 Q   Which does reflect packing and cracking?
15 A   It can.
16 Q   And if the republicans had passed the
17   demonstration plan, you would infer packing and
18   cracking?
19 A   Well, again, the investigation was identifying
20   competitive districts so, I mean, my report says
21   what it says.  I mean, the indicators are mixed
22   and the demonstration plan is more neutral than
23   the enacted plan.
24 Q   And then you have this whole series where you take
25   out the majority-minority districts; right?

Page 189

1  A   I do the calculations for the other areas of the
2      state.
3  Q   Oh, what's that mean?  I thought you pretended
4      that majority-minority districts didn't exist?
5  A   No.  You calculate the metrics for the areas of
6      the state other than the majority-minority of
7      Voting Rights Act districts.  I didn't exclude
8      them.
9  Q   You didn't.  So you put down 16 congressional
10     seats when you excluded the majority-minority
11     districts?  You still kept the seats at 16?  Or at
12     14.  Excuse me.
13 A   No.  Those metrics are calculated on the 12
14     districts other than the majority-minority
15     districts.
16 Q   So you took the majority-minority districts out?
17 A   Again, I didn't delete them or eliminate them.
18     What I did was --
19 Q   You eliminated them from the --
20 A   Right.
21 Q   -- analysis of the partisan fairness?
22 A   Those metrics were for the portion of the state
23     outside of the majority-minority districts.  You
24     used the term excluding them.
25 Q   I'm just making the obvious point that obviously

Page 190

1      if you eliminate two of the five democratic seats
2      in the state, then it's hardly surprising that the
3      seats votes analysis is not going to look great
4      for the democrats.  It's 40 percent of their
5      seats; right?
6          MR. YAEGER: Objection.  Compound.
7          Argumentive.  Assumes facts not in evidence.
8          Misstates his testimony.  You can answer.
9  A   Can you ask that question again?
10 Q   Yes.  Under the normal real world analysis, the
11     democrats have five seats.  Under your excluding
12     the majority-minority districts, you eliminate two
13     of the five democratic districts.  You decrease
14     the democratic seat share, so it's hardly
15     surprising when you compare votes to seats that
16     they don't do particularly well when you take away
17     40 percent of their seats; is it?
18 A   Right.  But they do better under the metrics.  So
19     if you look at the --
20 Q   Who does better?
21 A   The democrats.  So if you look at Table 11 under
22     the demonstration plan -- I'm referring to
23     Table 11.
24 Q   No.  I understand that.  I'm just trying to figure
25     out --

Page 191

1          MR. YAEGER: Objection.  He's still
2      answering your question, sir.
3  Q   It's not really.  That's because you eliminated
4      the most packed districts in the state.
5          MR. YAEGER: I object.  This is not
6      a discussion.  This is a deposition.  You
7      need to let him answer his questions.  If
8      you're going to make speeches, you can't be
9      surprised when he is going to answer you in
10     detail.  That's up to you, sir.
11         MR. CARVIN: That's fine.
12 A   So, I mean, if you look at the part of the state
13     that exclude the democratic districts -- an often
14     offered explanation is that the reason for a bias
15     against -- when we're talking about states like
16     Wisconsin and Michigan, is those metrics that
17     indicate a high degree of bias and asymmetry are a
18     function of highly concentrated democratic
19     districts.  So democrats, minority voters who are
20     heavily democratic, and if you look at the -- the
21     bias and asymmetry in a map is a function of those
22     districts.
23         Now, let me finish.  So if we -- the idea
24     here is if we look at the rest of the state taking
25     the case of congress, the two districts that are

Page 192

1      created to comply with the Voting Rights Act, so
2      we're removing concentrations of democratic voters
3      in this case, and we calculate the metrics as we
4      do -- as I do in Table 6, you still get large
5      indicators of bias.
6  Q   And that's because you've also eliminated two
7      democratic seats so let me --
8  A   Well, you've eliminated two seats that were
9      concentrated and the --
10 Q   Exactly.
11 A   But --
12         MR. YAEGER: Excuse me.  Excuse me.
13     Forgive me.  I have to object.  First of all,
14     the reporter cannot take this where you're
15     talking over the witness, so I'll ask both of
16     you, please, one at a time and please
17     question and answer.
18 Q   All right.  Let's go back to Q and A.  That's a
19     fair point.  Turn to Table A1, please, of your
20     report.
21         MR. YAEGER: I'm sorry.  What page?
22         MR. CARVIN: 84.
23         MR. YAEGER: Thank you.
24 Q   All right.  This is the enacted U.S. House plan,
25     right, in 13 of the 14 majority black districts;

Case 2:17-cv-14148-ELC-DPH-GJQ   ECF No. 148-1, PageID.5569   Filed 12/04/18   Page 50 of
53
League of Women Voters of Michigan, et al. v.
Ruth Johnson

Deposition of Kenneth R. Mayer, Ph.D.
August 1, 2018

Page 193

1    is that correct?
2  A   That's correct.
3  Q   And those are egregiously packed districts; right?
4    85 plus or 80 plus percent democratic vote share?
5  A   Again, I would -- those are packed districts.
6  Q   Right.  And then if you look at the districts in
7    the house, the same pattern, all of the
8    majority-minority districts have at least 75 to
9    80 percent democratic concentrations?
10 A   Are we talking in the lower house?
11 Q   Yeah.
12 A   I think the smallest concentration 73.3 percent.
13 Q   And a lot of them are up in the 89, 90 percent
14   range?
15 A   Correct.
16 Q   Okay.  So all of the majority black districts in
17   those state house plan are also packed; correct?
18 A   Correct.
19 Q   And the argument is that when you pack these
20   districts because of the Voting Rights Act and
21   other natural clustering of democrats, right, that
22   that will create efficiency gaps and wasted votes
23   even if your intent is not to pack or crack the
24   districts; right?
25 A   That's the argument.

Page 194

1  Q   And you did a demonstration plan where you put
2    that to the test where they didn't try to pack or
3    crack anybody, but the mere existence of the
4    majority-minority districts led to these partisan
5    bias against the democrats.  That's pretty
6    powerful evidence, isn't it, that the Voting
7    Rights Act concentration of democratic voters has
8    a negative effect on wasted votes in Michigan?
9  A   Not exactly.  Because here we need to look at the
10   enacted plan because the argument of a natural
11   concentration of democratic voters leads to these
12   indicia of bias and asymmetry and the idea is that
13   if you remove those from the calculations -- so
14   essentially recalculating the metrics for the
15   portions of the state outside of the Voting Rights
16   Act districts, you should get -- if that argument
17   is true, you should get smaller indicators of bias
18   and asymmetry because you have already -- you are
19   not counting these districts with high levels or
20   high concentrations of democrats.
21 Q   Which means you're not counting 12 seats where
22   democrats actually win elections or two seats.
23 A   Let me try again.
24 Q   I understand what you're saying.
25 A   Actually, you don't.

Page 195

1        MR. YEAGER: Can we take a break?
2        MR. CARVIN: No.  We're almost done
3    here.  I'm just trying to wrap up.  If you
4    want to answer, answer it to whatever length
5    you want.
6        MR. YAEGER: I'll forego the
7    request for a break, but can we just please
8    keep it to question and answer.
9        MR. CARVIN: Go ahead.
10 A   So look at Table 6.
11 Q   Go ahead.
12 A   This is the portion of the state outside of the
13   Voting Rights Act districts.  So these are the
14   areas where you have essentially controlled for
15   the existence of the most democratic districts in
16   the state.  If it was those two districts with the
17   highest concentrations of democratic voters that
18   were driving these metrics, then if you calculate
19   for the areas of the state outside those, those
20   metrics should get smaller.  The maps should
21   become more neutral.
22 Q   Why?  Why?  Because you're not just eliminating
23   the packed democratic districts, you're
24   eliminating the democratic districts.  So you're
25   reducing the democratic seat share.  If you were

Page 196

1    trying to examine what you're saying is what you
2    would do is reduce all the Voting Rights Act
3    districts to, say, 25, 30 percent black
4    population, disperse the votes around, and find
5    out what happens.
6        MR. YAEGER: Okay.  I'm going to
7    object.
8  Q   Isn't that so?
9        MR. YAEGER: Again, it's
10   argumentive.  I would ask you not to raise
11   your voice.  The witness is trying to answer
12   your questions.  He's continually being
13   interrupted, being lectured.
14      That's a compound question which assumes
15   many facts not in evidence.  I think it's an
16   improper question.  If you insist on an
17   answer, he can try to answer it.
18 Q   I will ask you, wouldn't that help analyze the
19   issue that you're looking at, drawing a race blind
20   map that doesn't preserve Voting Rights Act
21   districts with the currently 55 to 60 percent
22   black districts being, say, 25 to 30 percent, then
23   you would have a basis for comparing whether or
24   not the high concentration minorities compelled by
25   the Voting Rights Act had a negative effect on

Page 197

1 democratic forges?  Wouldn't that be one way of
2 analyzing it?
3 A  Not the way that I did it.  So what I did --
4 Q  Again, please, wouldn't that be one way of
5 figuring it out?
6 A  So I'm not sure I understand the question.  What I
7 do know is that --
8     MR. YAEGER: Forgive me.  Could you
9     ask him a question that he says he
10    understands.  I prefer that he not just
11    answer a question that he says he doesn't
12    understand.
13 Q  What I'm trying to do is avoid an argument.  I'll
14 just make a little point here.  You say what
15 you've done is test this proposition by
16 eliminating the majority-minority districts.  My
17 point is that does eliminate the packed districts,
18 but it also eliminates the democratic seats, so it
19 reduces the democratic vote share in the
20 legislature, okay.  So it's got two -- it's
21 pushing the opposite directions.
22     If what all you were trying to figure out was
23 whether the Voting Rights Act district caused a
24 concentration of democrats that hurt them on these
25 various measures, the most direct way of measuring

Page 198

1 that would be to eliminate the packing in those
2 districts, reduce them from 85 percent democratic
3 to 55 percent, and obviously have a correlative
4 diminution in their black VAP.  That would be a
5 more direct measure of the consequences of the
6 Voting Rights Act on partisan bias, would it not?
7     MR. YAEGER: Objection to form.
8     Answer.
9 A  I don't think that would necessarily be the most
10 direct way.  Again, what I did by looking at the
11 areas of the state outside of those districts is
12 you still find evidence of packing and cracking
13 that cannot be attributable to those districts and
14 you look at the partisan bias in the efficiency
15 gap and democratic vote share needed to win the
16 majority of the seats and the difference between
17 the average democratic and republican win, the
18 declination, all of those point to continued
19 evidence of packing and cracking.
20 Q  I'm not going to repeat my point.  I'll just make
21 a simple point.  Why did the Voting Rights Act
22 districts contribute to the anti-democratic bias
23 of the demonstration plan but not contribute to
24 the anti-democratic bias of the enacted plan?
25     MR. YAEGER: Assumes facts not in

Page 199

1     evidence.  You may answer.
2 A  That has to do with the way the districts outside
3 of the Voting Rights Act were drawn in the
4 demonstration plan.
5 Q  They were drawn neutrally in the demonstration
6 plan, but it nonetheless produced anti-democratic
7 results, which you opined were largely
8 attributable to the Voting Rights Act districts;
9 correct?
10 A  You're comparing apples and oranges because the
11 conclusion about the Voting Rights Act
12 districts -- well, actually, let me put it this
13 way.  In the demonstration plan -- I want to make
14 sure that -- so Table 12.  Many of the metrics or
15 the indicators of packing and cracking do improve,
16 so what I take is that the existence of those
17 districts does contribute to some of the metrics
18 and indicators of bias and asymmetry in the state
19 house of representatives.
20 Q  When you say those districts, you mean the Voting
21 Rights Act districts?
22 A  Yes.
23 Q  You contribute to the asymmetry and bias?
24 A  In the demonstration plan.
25 Q  Right.

Page 200

1 A  Yes.  In the demonstration plan.
2 Q  Right.  And the same would presumably be true in
3 the enacted plan; no?
4 A  As an empirical matter, that is not true because I
5 did do those calculations.
6 Q  And what in those calculations leads you to a
7 different conclusion?
8 A  Because the metrics of packing and cracking and
9 asymmetry that exist outside of the Voting Rights
10 Act districts remains.
11 Q  Okay.  I'll try it one last time.  You do agree
12 that the Voting Rights Act districts contributed
13 to the anti-democratic bias in the demonstration
14 plans; correct?
15 A  Correct.
16 Q  Okay.  And do you think that the Voting Rights Act
17 districts contributed to the anti-democratic bias
18 of the enacted plan?
19 A  We can test that proposition directly by looking
20 at, for example, the House of Representatives for
21 what happens when you -- for the entire state and
22 for the portion of the state that is outside of
23 the Voting Rights Act district.  And many of the
24 indicators stay about where they are.
25 Q  And those indicators are premised on the notion

Page 201

1    that democrats are winning 3 of 12 seats; right?
2  A  In terms of partisan -- in terms of the partisan
3    bias, that's true.  But the other metrics are
4    agonistic as to which party -- how many seats a
5    party controls.
6  Q  They're agonistic as to whether or not the
7    democrats control nine seats or three seats?
8  A  You know, in terms of -- the efficiency gap does
9    not depend on a particular configuration of which
10    party controls which seats.
11  Q  So it's not a measure of cracking or packing?
12  A  It is a measure of cracking or packing but the
13    metrics -- so the partisan bias will change when
14    you remove seats that the minority party or either
15    party controls.  Those metrics, the partisan bias,
16    the partisan bias at 50, those will change as they
17    do.
18  Q  That's just for the efficiency gap; right?  The
19    efficiency gap is agonistic as to how many seats
20    you win; is that your argument?
21  A  I want to make sure I phrase this correctly.  If
22    the efficiency gap remains stable after you remove
23    packed districts, it means that there is packing
24    going on -- other packing and cracking going on in
25    the other districts of democratic voters.

Page 202

1  Q  There could be.  If you pack two districts, then
2    the districts in the general area are going to be
3    defined as cracked; right?  Whereas, if you unpack
4    them, then the adjacent districts might be
5    uncracked and the efficiency gap doesn't recognize
6    that reality?
7        MR. YAEGER: Objection.  Assumes
8      facts not in evidence.  Vague and ambiguous
9      and compound.  You may answer.
10  A  Again, by performing the analysis in the areas
11    outside of the Voting Rights Act districts, you
12    still see indicia of asymmetry and packing and
13    cracking, which cannot be due to the existence of
14    those districts because the analysis is done for
15    the other parts of the state.
16  Q  Okay.  If I passed a law saying you've got to pack
17    five democratic districts, right, and all five of
18    those districts elected democrats and I was trying
19    to figure out if that contributed to the
20    democratic representation in the legislature and I
21    said, well, I'm going to eliminate all five
22    democratic districts and I can see now that
23    they're only winning one seat so the seats votes
24    relationship for the rest of the state is not very
25    good.  Or wouldn't you ask yourself the question

Page 203

1    what happens if I unpack those packed democratic
2    districts and see what the map would look like?
3        If you do the first, then you've eliminated
4    all or virtually all of the democratic seats, so
5    there's no seats votes analysis that will come out
6    as anything but negative to the democrats.
7    Whereas if you ask the question does the packing
8    contribute to the anti-democratic bias, you try
9    and unpack the districts; correct?
10        MR. YAEGER: Objection.  All of the
11      other objections I made before I'll just
12      incorporate.  If you want him to answer the
13      question --
14  A  I can't -- look at Table 11.
15        MR. YAEGER: What page are you on?
16        THE WITNESS: This is page 59.
17  A  So Table 11 is the same method I used for the
18    demonstration plan than for the enacted plan.  One
19    set of calculations on the left-hand columns for
20    the statewide plan.  The other column excluding --
21    or for the other areas of the state.
22        Now, if your argument is correct, conducting
23    the analysis of the demonstration plan outside of
24    the Voting Rights Act districts should still show
25    significant anti-democratic, big "D," bias.  But

Page 204

1    if you look at the democratic share of seats, it's
2    50 percent.  The partisan bias, 1.5 percent.
3    Partisan bias at 50, zero.  The republican seats
4    won at the democratic vote share goes from six to
5    five.  The democratic vote share needed to win a
6    majority of the seats, 50.1.  The efficiency gap,
7    2.3.  The declination is essentially zero.
8        All of those metrics show virtually no
9    asymmetry and bias, so if your approach is
10    correct, this all should have showed similar
11    levels of anti-democratic bias, and it doesn't.
12  Q  Your counsel is right.  There's no point in us
13    debating this point.  I'll make two points.  You
14    didn't just go through all these numbers.  You
15    also reduced the number of seats to 12, eliminated
16    the number of democratic seats by two, and you
17    reduced the democratic share of the statewide vote
18    to 47.6.  So obviously if you reduce the number of
19    democratic seats and democratic vote share, you're
20    going to have a ripple effect on all these other
21    numbers; isn't that true?
22  A  It will affect those, but your previous argument
23    is that that should continue to show a bias and
24    asymmetry against the democrats, which in this
25    case it doesn't.

Page 205

1 Q  I will make the last point.  If these districts
2     are not eliminated but they exist in the real
3     world and they're a contributing factor to the
4     enacted plan, right, they are a contributing
5     factor -- I'm sorry -- to the demonstration plan's
6     bias, why in the world are the same districts not
7     a contributing factor to the anti-democratic bias
8     of the enacted?
9 A  My conclusion is because the enacted plan includes
10    lots of packing and cracking outside of the Voting
11    Rights Act districts.  That's what the metrics
12    show.
13 Q  Right.  But that doesn't change the fact that the
14    Voting Rights Act districts are a contributing
15    factor to the measures on that, just as they are
16    in the demonstration plan; right?
17          MR. YAEGER: Asked and answered.
18      You may answer.
19 A  I'm not -- there's a double negative lurking in
20    there.
21 Q  The demonstration plans preserve all the
22    majority-minority districts essentially the same
23    way as the enacted plan does; correct?
24 A  Correct.
25 Q  You have concluded, for obvious reasons, that the

Page 206

1     Voting Rights Act districts contribute to the
2     anti-democratic bias and asymmetry of the
3     demonstration plan.  Do they also contribute to
4     the bias and asymmetry of the enacted plan?
5 A  Significantly less so because the metrics don't
6     change much in the enacted plans when you look at
7     the areas outside of the Voting Rights Act
8     districts.
9 Q  So what we need to do is a comparison between the
10    demonstration plan and the enacted plan to figure
11    out whether the enacted plan constitutes an
12    impermissible partisan gerrymandering?
13 A  I don't quite understand the question.
14 Q  Well, again, we discussed before about why the
15    relevant measure of a partisan gerrymander is
16    whether they're getting more votes than they would
17    have under a neutral plan.  The demonstration
18    plans are neutral plans, so the relevant
19    comparison is between the enacted plan and the
20    demonstration plan?
21 A  It's not the votes.  It's the excess seats that
22    the party gets.
23 Q  Okay.  So you would compare the seats votes
24    analysis under these various metrics as between
25    the enacted plan and the demonstration plan?

Page 207

1 A  There's too much going on there.  Are we looking
2     at the statewide plan or the portion of the plan
3     outside of the Voting Rights Act districts?
4 Q  Just the generic question at this point.  You
5     would compare the results as you did a minute ago
6     between the statewide enacted plan and the
7     statewide demonstration plan to draw any
8     conclusions about partisan fairness and bias;
9     correct.
10 A  That's not the only thing that you would do.
11 Q  But it's the relevant measure; correct?
12 A  It's not the only one.  The other relevant measure
13    is comparing what happens outside of the Voting
14    Rights Act districts because those are held
15    constant in the two plans.
16 Q  But, again, we're still comparing the enacted plan
17    to the demonstration plan?
18 A  In this case, that's correct.
19          MR. CARVIN: Okay.  I have no
20      further questions.  Thanks.
21          MR. YAEGER: Let's go off.
22      (Recess taken)
23      (Adjourning at 3:40 p.m.)
24
25

Page 208