

Exhibit B

1	IN THE UNITED STATES DISTRICT COURT	
	NORTHERN DISTRICT OF ILLINOIS	
2	EASTERN DIVISION	
3	DAN MCCONCHIE, in his)	
	official capacity as)	
4	Minority Leader of the)	
	Illinois Senate and)	
5	Individually as a)	
	registered voter, JIM)	
6	DURKIN, in his official)	
	capacity as Minority)	
7	Leader of the)	
	Illinois House of)	
8	Representatives and)	
	individually as)	
9	a registered voter the)	
	REPUBLICAN CAUCUS OF)	
10	THE ILLINOIS SENATE,)	
	the REPUBLICAN)	
11	CAUCUS OF THE ILLINOIS)	
	HOUSE OF)	
12	REPRESENTATIVES, and)	
	the ILLINOIS)	Case No. 1:21-cv-03091
13	REPUBLICAN PARTY,)	
	Plaintiffs,)	Circuit Judge
14	v.)	Michael B. Brennan
	ILLINOIS STATE BOARD OF)	Chief Judge
15	ELECTIONS, CHARLES W.)	Jon E. DeGuilio
	SCHOLZ, IAN K.)	Judge Robert M. Dow,
16	LINNABARY, WILLIAM M.)	Jr., Three-Judge Court,
	MCGUFFAGE, WILLIAM)	Pursuant to 28 U.S.C. §
17	J. CADIGAN, KATHERINE)	2284(a)
	S. O'BRIEN, LAURA K.)	
18	DONAHUE, CASANDRA B.)	
	WATSON, and WILLIAM R.)	
19	HAINE, in their)	
	official capacities as)	
20	Members of the Illinois)	
	State Board of)	
21	Elections, EMANUEL)	
	CHRISTOPHER WELCH, in)	
22	his Official Capacity)	
	as Speaker of the)	
23	Illinois House of)	
	Representatives, OFFICE)	
24	OF SPEAKER OF THE)	
	ILLINOIS House of)	
25	Representatives,)	

1 DEPOSITION OF JOWEI CHEN, Ph.D., a
2 Witness, taken on behalf of the Defendants before
3 Peggy E. Corbett, CSR, CCR, RDR, pursuant to
4 Notice on the 3rd day of December, 2021, at the
5 offices of the witness, 426 Thompson Street, Ann
6 Arbor, Michigan.

7
8 A P P E A R A N C E S

9 APPEARING FOR THE PLAINTIFFS DAN MCCONCHIE, IN
10 HIS OFFICIAL CAPACITY AS MINORITY LEADER OF THE
11 ILLINOIS SENATE AND INDIVIDUALLY AS A REGISTERED
12 VOTER, JIM DURKIN, IN HIS OFFICIAL CAPACITY AS
13 MINORITY LEADER OF THE ILLINOIS HOUSE OF
14 REPRESENTATIVES AND INDIVIDUALLY AS A REGISTERED
15 VOTER, JAMES RIVERA, ANNA DE LA TORRE,
16 DOLORES DIAZ, FELIPE LUNA JR., SALVADOR
17 TREMILLO, CHRISTOPHER ROMERO, THE REPUBLICAN
18 CAUCUS OF THE ILLINOIS SENATE, AND THE
19 REPUBLICAN CAUCUS OF THE ILLINOIS HOUSE OF
20 REPRESENTATIVES:

21
22 Mr. Ricardo Meza
23 MEZA LAW
24 161 North Clark Street, Suite 1600
25 Chicago, Illinois 60601
312.802.0336
rmeza@meza.law
and

1 Mr. Charles E. Harris, II
2 MAYER BROWN LLP
3 71 South Wacker Drive
4 Chicago, Illinois 60606
5 312.782.0600
6 charris@mayerbrown.com

7 and

8 Mr. Phillip A. Luetkehans
9 LUETKEHANS, BRADY,
10 GARNER & ARMSTRONG, LLC
11 105 East Irving Park Road
12 Itasca, Illinois 60143
13 630.760.4601
14 pal@lbgalaw.com

15 ON BEHALF OF THE PLAINTIFFS EAST ST. LOUIS BRANCH
16 NAACP, ILLINOIS STATE CONFERENCE OF THE NAACP,
17 AND UNITED CONGRESS OF COMMUNITY AND RELIGIOUS
18 ORGANIZATIONS:

19 Mr. Alex Robledo
20 COOLEY LLP
21 500 Boylston Street
22 Suite 1400
23 Boston, Massachusetts 02116
24 617.937.2300
25 arobledo@cooley.com

APPEARING FOR THE PLAINTIFF MEXICAN AMERICAN
LEGAL DEFENSE AND EDUCATIONAL FUND:

Ms. Griselda Vega Samuel
MALDEF
11 East Adams Street
Suite 700
Chicago, Illinois 60603
(312) 427-0701
gvegasamuel@maldef.org

APPEARING FOR THE DEFENDANTS WELCH, OFFICE OF THE
SPEAKER, HARMON, AND OFFICE OF THE PRESIDENT:

Mr. Michael J. Kasper
LAW OFFICE OF MICHAEL J. KASPER
151 N. Franklin Street
Suite 2500
Chicago, IL 60606
312.7043292
mjkasper60@mac.com
and

Ms. Heather Wier Vaught
HEATHER WIER VAUGHT, P.C.
106 W. Calendar Ave, #141
LaGrange, IL 60625
815.762.2629
heather@wiervaught.com

I N D E X

WITNESS:	PAGE
JOWEI CHEN, Ph.D.	
EXAMINATION BY MR. KASPER	5
EXAMINATION BY MR. LEUTKEHANS	107
CERTIFICATE	113

E X H I B I T S

NO.	DESCRIPTION	PAGE
EXHIBIT 1	Yale Law Journal Article, The Race-Blind Future of Voting Rights	6
Reporter's Note: The original exhibits was submitted to the court reporter for copying and distribution with retention by Mr. Kasper thereafter.		

1 (Deposition commenced at 3:03 p.m.)

2 JOWEI CHEN, Ph.D.,

3 a Witness, being first duly remotely sworn,

4 testified under oath as follows:

5 EXAMINATION

6 BY MR. KASPER:

7 Q. Good afternoon, Dr. Chen. My name is
8 Michael Kasper. I'm going to be asking you a few
9 questions here this afternoon.

10 I note from your CV that you have been
11 through this before, so I won't belabor the point
12 and I'll just get right to it and get started,
13 okay.

14 If you have any questions and you don't
15 understand my question, just ask me to clarify
16 and I'll try to do my best to make it as simple
17 and understandable for you as I can, all right.

18 A. All right, sounds good, good afternoon
19 Mike -- Mr. Kasper.

20 Q. You can call me Mike. That's all right.

21 A. Sorry.

22 Q. So I'll just start on Page -- do you
23 have your reports, Doctor?

24 A. Yes, sir, I do. Oh, wait, let me, I'm
25 sorry to interrupt you, let me just clarify that

Page 5

1 what I have are the two reports from November. I
2 don't have in front of me my earlier report from
3 August.

4 Q. That's fine. I don't intend to use
5 that. Do you have access to Dr. Lichtman's
6 report?

7 A. So I have printed out a copy of
8 Dr. Lichtman's report. I will first point out
9 for both Dr. Lichtman's report, as well as for
10 mine, I only have a black-and-white copy, so
11 there are, obviously, all kinds of colors in both
12 of those reports that I don't have right in front
13 of me.

14 Q. Okay.

15 A. So I just have a black-and-white copy.

16 Q. Okay, that's fine. You won't need to be
17 able to see the colors for any of my questions.

18 (Exhibit 1 was marked by the
19 reporter for identification.)

20 Q. (BY MR. KASPER) And I also have, I'm
21 going to ask you a couple of questions about a
22 Law Review article that you wrote last year, or I
23 think this year in the Yale Law Journal. Do you
24 have access to that? Do you remember that? I
25 don't want to show you something if you're not

1 familiar with it.

2 A. I mean I know what article you're
3 talking about, obviously. If you want, I can go
4 print it out.

5 Q. No, no, no, that's okay. I tell you
6 what, I'm going to ask you just a handful of
7 questions about it. If you want to see the page
8 that I'm referring to, I'll try my best to draw
9 it up on the screen, but like most lawyers, we're
10 technically challenged, so I'll do my best.
11 Okay? Those are really the only documents that
12 I'm going to make reference to.

13 A. Okay.

14 Q. All right. So in your first report on
15 Page 33, Paragraph 33, and I don't think you need
16 to reference it, the first thing you're going to
17 need to reference is Table 7 in your report, but
18 in Page 33, Paragraph 33, you explain your
19 ecological inference methodology. You state that
20 you quote, "Estimated each racial and ethnic
21 group's level of support for each candidate in
22 each election." Right? You estimate each racial
23 and ethnic group's level of support for each
24 candidate in each election. Do you see that?

25 A. Yes, sir.

1 Q. Okay, and you do that, I presume, by
2 gathering demographic data from the Census Bureau
3 at the precinct level, and then the election
4 related data that you receive from your clients
5 regarding the same precincts, right?

6 A. Well, I'm just going to answer your
7 question by pointing you to Paragraph 31 of the
8 report just above on that same page. What I
9 explain is Plaintiffs' counsel reports, gave me
10 files, in other words, reporting those
11 demographic numbers as well as the election
12 numbers.

13 Q. Okay, that's fine. And with that
14 election data and the demographic data then, you
15 used that so you can through your ecological
16 inference methodology estimate supports for
17 candidates in various elections in various
18 districts, right?

19 A. Yeah. I'll just offer the qualification
20 that it's, obviously, not my methodology.
21 Ecological inference is a widely used, commonly
22 used statistical methodology. I did not come up
23 with it. I just used the methodology.

24 Q. Understood.

25 A. Sorry. I'm sorry, I didn't mean to

1 interrupt you. I just wanted to correct that I
2 think you said my methodology or your
3 methodology, and I just wanted to clarify.

4 Q. All right, I'll say "the methodology;"
5 is that better?

6 A. That sounds good.

7 Q. Going back to Paragraph 33 you say that
8 you identified the candidate preferred by Latino
9 voters each election, and then you go on to say
10 that you report that, "Each racial group's level
11 of support for these minority-preferred
12 candidates, as well as the overall performance
13 for the minority-preferred candidate," right?

14 A. Yes, sir, I see that sentence there.

15 Q. Okay. So can I turn your attention to
16 Table 7 on Page 40 of your report. Do you see
17 that?

18 A. I'm there now.

19 Q. Okay. So in the first entry there is
20 the 2016 Illinois comptroller general race and
21 the candidate, the Latino-preferred candidate is
22 Mendoza.

23 A. Yes, I see that.

24 Q. And you indicate that Mendoza received
25 84.10 percent support from Latino voters, right?

1 A. Yes, I see that number.

2 Q. Okay, and so am I correct then in
3 inferring that your conclusion is that 15.9
4 percent of Latino voters supported a candidate
5 other than Mendoza?

6 A. Yes, I think your math is right there.

7 Q. I'm sorry, it's pretty simple math.
8 Even a lawyer can do it, right? Meaning that
9 because 84.10 percent of Latino voters supported
10 Mendoza, the remaining percent had to have
11 supported somebody else.

12 A. Right, that's correct.

13 Q. And then in the next entry Berrios below
14 that?

15 A. Yes.

16 Q. Berrios received 63.20 percent vote from
17 the Latino voters, right?

18 A. Yes.

19 Q. Which means that 36.8 of Latino voters
20 voted for somebody else roughly.

21 A. I think your math is right.

22 Q. The point is that the number you report
23 on the page and the number that I'm throwing at
24 you has to add up to 100 percent.

25 A. Well, obviously, I'm just analyzing vote

1 preferences among Latinos.

2 Q. Right.

3 A. So, of course, the data is counting all
4 votes for all candidates.

5 Q. Right, right, so that if 70 percent of
6 the voters of Latino voters vote for you, and I'm
7 the only other candidate, one can reasonably
8 infer that I received 30 percent of that vote,
9 right?

10 A. Right. In a two-person election, sure,
11 I mean obviously 100 percent of the vote is all
12 of the votes.

13 Q. Right, and in each of your calculations
14 does it add up to 100 percent?

15 A. What do you mean by "each of your
16 calculations add up"?

17 Q. When you do these calculations, whether
18 in this case or any other case, the total number
19 of votes, the total percentage of votes that
20 Latino voters give to all candidates equals 100
21 percent?

22 A. Okay, so you're asking if you added up
23 the estimated Latino support for each of the two
24 candidates or however many candidates are in an
25 election, you're asking if those two numbers will

1 add up to 100 percent. Did I understand your
2 question?

3 Q. Yes.

4 A. Okay, I mean the answer is in general
5 they are going to add up to close to 100 percent.
6 These are estimates. They are not always going
7 to be precise numbers. There's always a constant
8 interval around any sort of estimates, so they
9 aren't going to add up to precisely 100 percent,
10 but they will be in the ball park of 100 percent,
11 depending on how larger constant intervals are,
12 or how vague the estimates are.

13 Q. And can you quantify the ball park at
14 all?

15 A. Well, like I said, I mean it depends on
16 the constant intervals, so I can't tell you in
17 general that a particular range will apply to
18 every single ecological inference estimate you'd
19 ever produce.

20 Q. Fair enough. The way I understand it is
21 the ecological inference methodology can result
22 in an over or underestimate, 102 percent, 99
23 percent, whatever, something like that; is that
24 what your referring to?

25 A. Yeah. I mean your understanding is

1 based on the general understanding, so your
2 understanding is based on the general
3 understanding in all statistical estimation
4 methodologies, that any methodology is, that is
5 producing a point estimate, is not going to be
6 precise, and so if you separately estimate say
7 one racial group's support for one candidate, and
8 then you estimate it for another candidate, it's,
9 again, generally going to be in the ball park,
10 but it's not always going to add up to precisely
11 100 percent, and that is true of basically any
12 estimation methodology, as long as you don't
13 force it, artificially force it to be constrained
14 to exactly 100 percent.

15 Q. Okay. So if it's -- let's say it added
16 up to 120 percent or 80 percent, would that be
17 sufficient to make you think that perhaps there's
18 something incorrect about the methodology?

19 A. No, not at all.

20 Q. Not at all, even if 60 -- if you added
21 up the support for Mendoza or Berrios at 63
22 percent and all the other candidates, and it was
23 only 65 percent, what would you do?

24 A. Well, I mean I don't know if you're
25 representing to me that that's the actual

1 estimate that, you know, that you've got in front
2 of you for Berrios and some other candidates.

3 Q. I'm not, I'm not. I'm just speaking
4 hypothetically.

5 A. Okay, so like I said, there's a
6 confidence interval. It's an estimate.
7 Ecological inference produces a point estimate,
8 but the virtue of ecological inference is that it
9 also gives you estimates about how certain or
10 uncertain you are about a particular estimate.

11 You could see a very small confidence
12 interval or you could see confidence intervals
13 that stand the better part of the entire range of
14 100 percent.

15 I've certainly seen both ends of that
16 spectrum before in producing ecological inference
17 estimates, so the virtue of ecological inference
18 estimates is that you can actually know how,
19 roughly how certain or uncertain you are, and it
20 would not at all be surprising for any estimation
21 methodology to produce an estimate where what we
22 find out is that we can't say with really great
23 certainty what a particular point estimate really
24 is, and so in those sorts of situations it really
25 would be surprising to see, say, true candidates'

1 estimates add up to something that deviates from
2 100 percent.

3 Q. Yeah, I get it. The let me go back a
4 step. If you produce the Mendoza confidence, the
5 point estimate for Berrios' 63.2 in your report
6 here, and then you have a fairly narrow
7 confidence interval, right, your confidence
8 estimate is a couple of points, and then I will
9 presume had you included the other candidates you
10 would have a similar confidence interval; what
11 happens if you add up the totals and it's outside
12 of the confidence interval by a widely disparate
13 number?

14 What would you do? I'm not suggesting
15 that happened here, but what would you do?

16 A. Okay, so Mr. Kasper, I'm going to answer
17 your question but first I'm going to point out
18 that the premise of your question was wrong. So
19 in your question you said, "I presume that if you
20 had included the confidence intervals and the
21 estimates for the other candidates, that they
22 would be similarly small."

23 You cannot make that presumption just
24 because one candidate's confidence interval is
25 small. It is very possible and very realistic

1 for any estimation methodology, including
2 ecological inference, to produce estimates such
3 that one candidate's confidence interval is
4 relatively smaller, and another candidate's is
5 relatively larger, even though they are within
6 the same election, so you cannot make that
7 presumption.

8 Q. Okay.

9 A. Now I'll answer your general question
10 with that caveat. So your general question was
11 what would you do if you were confronted with
12 that sort of estimate? And the numbers are what
13 the numbers are. You would take it with an
14 understanding that you have a little bit more
15 confidence in one candidate's estimate, and a
16 little less confidence in another candidate's
17 estimate, if that's what the confidence intervals
18 tell you. That's how to interpret a confidence
19 interval.

20 Q. Okay. So if you -- what I'm getting at
21 is let's say the total percentage of Latino vote
22 for all candidates adds up to 80 percent but you
23 report -- you get a confidence interval of 2
24 percent, would that alarm you enough to make you
25 want to go check and make sure that there's not

1 something wrong with the data entry?

2 A. I am going to ask the court reporter to
3 repeat that question. I want to make sure I
4 heard it right.

5 (Whereupon, the previous question was read by the
6 reporter as follows:

7 "QUESTION: So if you -- what I'm
8 getting at is let's say the total percentage of
9 Latino vote for all candidates adds up to 80
10 percent but you report -- you get a confidence
11 interval of 2 percent, would that alarm you
12 enough to make you want to go check and make sure
13 that there's not something wrong with the data
14 entry?")

15 A. Okay, and I'm sorry to do this again, if
16 you could just repeat it again a little slower,
17 please. I'm really sorry.

18 (Whereupon, the previous question was read by the
19 reporter as follows:

20 "QUESTION: So if you -- what I'm
21 getting at is let's say the total percentage of
22 Latino vote for all candidates adds up to 80
23 percent but you report -- you get a confidence
24 interval of 2 percent, would that alarm you
25 enough to make you want to go check and make sure

1 that there's not something wrong with the data
2 entry?")

3 A. Okay, thank you for that. I mean my
4 answer to your question generally is that I'm not
5 sure that I have ever encountered that in
6 general, but more to the point it was not my --
7 it was not the question put forward to me in my
8 report, and I'm talking about the first
9 November report here. It was not the question
10 that Plaintiffs' counsel put forward to me to do
11 that sort of inquiry into how confident any
12 particular estimate was.

13 Q. Okay.

14 A. So I was given the instructions to
15 answer a particular targeted question --

16 Q. Okay.

17 A. -- and I think I've explained how I
18 answered it.

19 Q. But in general, your experience is that
20 the numbers should add up to 100 percent when
21 you're measuring Latino or some other group's
22 vote for all candidates, with the exception of
23 this confidence interval?

24 A. Yeah, I just don't think that's what I
25 have been testifying to here. I think I've told

1 you that, you know, you don't always see it add
2 up to precisely 100 percent.

3 There's, obviously, this confidence
4 interval that I've told you about. So like I
5 said in my answer to your previous question, I'm
6 just not sure I've actually encountered that
7 situation, so I'm not really sure I can give you
8 a opinion about what I would do.

9 Q. Okay, that's fine. Fair enough. Are
10 you familiar with the concept of racially
11 polarized voting?

12 A. I mean, of course, I've heard of the
13 term. I can't really give you a legal
14 interpretation of what it precisely entails, but
15 I'm generally familiar with it.

16 Q. Okay, what's your understanding in
17 general of racially polarized?

18 A. My general understanding is that the
19 concept of racially polarized voting refers to
20 second and third prongs of Gingles.

21 Q. Okay, and as a statistical matter, what
22 do you understand it to mean?

23 A. Well, I'm not sure that it's really a
24 precise logistical term. So as statisticians,
25 social scientists, we would try to quantify what

1 is meant by the general concept.

2 So I understand racially polarized
3 voting as a general concept, but I don't have an
4 understanding that it prescribes something really
5 precise that I can really give you an opinion
6 about. A lot of --

7 Q. I'm sorry, what is your understanding
8 generally of what racially polarized voting is?

9 A. Well, like I said, I mean it refers to
10 the second and third prongs of Gingles.

11 Q. Yeah, but do you understand what it
12 means? Let me give you an example. Do you
13 understand it to mean different racial groups
14 supporting different candidates?

15 A. I mean I think my opinion is that it
16 refers to the second and third prongs of Gingles
17 and I would best express that by express
18 reporting the second and third prongs of Gingles.

19 I mean, of course, the idea is
20 generally, I think your general idea is right,
21 that different racial groups support different
22 candidates.

23 Q. Okay. So the second prong is that the
24 minority group, either Latinos, Blacks, Asians,
25 whatever, vote cohesively, right? That's the

1 second prong. What do you understand that to
2 mean?

3 A. You're asking me what I understand the
4 second prong of Gingles to be?

5 Q. Yes.

6 A. Okay. So you're right that, obviously,
7 Gingles says that the minority group votes
8 cohesively. I don't understand that in any sense
9 of I have an opinion about how that translates
10 into an actual statistical estimate.

11 So, obviously, there's some degree to
12 which minorities will support the same candidate.
13 I get that as a general concept.

14 Q. You don't have a statistical measure for
15 cohesion; like above 50 percent, for example,
16 would be cohesive?

17 A. Right. I mean when I work as, you know,
18 when I work on an expert report I will generally
19 push counsel that I'm working for to tell me:
20 What precise question do you want me to answer?
21 Do you want me to tell you if the support is
22 above 50 percent, 60 percent, or whatever?

23 I don't have a personal opinion on how
24 to interpret Gingles. I prefer to answer very
25 precise questions, so I don't have a more precise

1 opinion than what I've told you.

2 Q. Okay, and going back to Table 7 in your
3 report, your first report, again, the top
4 category there of Mendoza, this applies just to
5 the table generally, the 4th column, 5th column
6 and 6th column is Latino support for
7 Latino-preferred candidate, white support for
8 Latino-preferred candidate, and support for
9 Latino-preferred candidate among other voters; do
10 you see that?

11 A. Yes.

12 Q. And so you have, essentially you measure
13 support for candidates in three groups, Latinos,
14 whites and everyone else?

15 A. That's right.

16 Q. And I presume by everyone else you mean
17 Blacks, Asians and anyone else?

18 A. That's correct.

19 Q. And do you believe that to be the
20 appropriate measure, to separate them into three
21 categories?

22 A. What do you mean by "appropriate"?

23 Q. I mean in your expertise is that the
24 standard in your practice to separate those
25 groups?

1 A. I don't have -- sorry about that. I
2 didn't mean to interrupt your question. I don't
3 have an opinion about there being one right way
4 to do it.

5 I answer specific questions that are
6 posed to me, and this is certainly a reasonable
7 question that I can answer with accepted
8 methodology mainly --

9 Q. Why didn't you lump them, Latinos in one
10 column, and everyone else in the second column?

11 A. Right, okay. If I'm understanding your
12 question correctly, you're asking me, am I right,
13 you're asking me why didn't I conduct ecological
14 inference, dividing the entire world or dividing
15 the entire electorate into just Latinos and then
16 non-Latinos, including all racial minorities who
17 are not Latinos?

18 Q. Correct.

19 A. Okay, I get your question, and my answer
20 to your question is that that was not the
21 question that was posed to me to answer by
22 Plaintiffs' counsel.

23 Q. Was the question to measure Latinos,
24 whites and everyone else?

25 A. Right, exactly. I mean I conducted it

1 in a way to answer the question that Plaintiffs'
2 counsel posed to me.

3 Q. Okay. Now I'm going to turn to your --
4 this is on the question of 50 percent plus 1
5 districts, okay? Do you understand that concept?

6 A. You've got to be more precise.

7 Q. Well, in drawing minority districts,
8 minority opportunity districts that you are,
9 obviously, conversant in Gingles 2 and 3 in
10 drawing minority districts that afford minority
11 groups equal opportunities to elect candidates of
12 their choice, you wrote in your article, "The
13 Race Blind Future of Voting Rights," about 50
14 percent plus majority/minority districts, right?
15 Do you remember that?

16 A. I think it's like a very brief
17 reference. I mean if you want to just put it up
18 on the screen.

19 Q. I'm happy to do that.

20 A. I'm happy to pull it up. I'm happy to
21 get up on a web browser and pull it up.

22 Q. I'm going to try to pull it up here.
23 Let me see what I can do here.

24 A. Sorry, I don't mean to torture you with
25 having to do that.

1 Q. No, that's all right, I'm just not very
2 good at this stuff, but I think I have it here.
3 Let's see, I'm going to have to get out my
4 glasses for this.

5 No, that's wrong, no. I think that's
6 wrong. That's Dr. Lichtman's report. Can you
7 see that?

8 A. It's blank right now. I see the screen
9 popping up there.

10 Q. That's not the page I want you to see.
11 This one. This is on Page 898 of your article
12 and I highlighted it, I'm not sure if you can see
13 it, it says, "To determine which districts
14 qualify as opportunity districts, we do not use a
15 50 percent minority population-share cut-off," do
16 you see that?

17 A. Yes, I see that.

18 Q. Okay. So I read that to mean that you
19 do not, in order to determine whether or not a
20 minority district affords minority voters an
21 equal opportunity to elect candidates of their
22 choice, you are not looking for a 50 percent plus
23 1 threshold for making that determination.

24 A. That is describing the empirical
25 methodology of this article, and you are correct,

1 that in this article our empirical methodology
2 was not to use a 50 percent minority population
3 share cut-off.

4 I also qualify earlier, as well as later
5 in this article, that what we are doing in this
6 article is not offering a legal opinion about
7 what should be defined as a minority opportunity
8 district, but this is, in fact, true with respect
9 to our empirical methodology here.

10 Q. I guess I'll just put it straight to
11 you. Is it your opinion that in order to afford
12 minority groups an equal opportunity to elect
13 candidates of their choice that a proposed
14 district must exceed 50 percent minority
15 population?

16 MR. LEUTKEHANS: Object, beyond his
17 testimony or his report, but you may answer.

18 A. I just don't have an opinion on that
19 because I don't have an opinion on what legally
20 should qualify as a minority opportunity
21 district.

22 Ideally this paper is saying: If you
23 operationalize a minority opportunity district as
24 having certain statistical and demographic
25 characteristics, then this is what the results

1 would look like.

2 But we're being clear, I'm being clear
3 in this article that I am not giving a legal
4 interpretation about what a minority opportunity
5 district should be or should have in terms of
6 demographics.

7 Q. Okay, I understand. Okay, but going on
8 now, this is the next page that I want you to
9 look at, this is on Page 922 where you wrote:
10 "This over-concentration of minority voters is
11 likely a consequence of mapmakers' historical
12 tendency to create majority/minority (or even
13 more packed) opportunity districts. Such
14 districts have never been required by the VRA and
15 indeed may raise constitutional questions due to
16 their apparent reliance on racial data, nor are
17 such districts necessary to elect
18 minority-preferred candidates who can prevail in
19 crossover districts in most circumstances,"
20 correct?

21 A. If I could just ask you to point me
22 to -- you just wanted to read that out and affirm
23 that I wrote that?

24 Q. Yes, so far, right?

25 A. And you're not putting -- I'm just going

1 to point out for the record that you are not
2 putting the article in front of me, so I can't
3 visually see.

4 Q. Oh, I'm sorry. Am I not sharing my
5 screen?

6 A. You've still got Page 862 up here.

7 Q. Oh, I'm sorry. I don't know why.

8 A. I totally trust that you read it right.
9 I'm just pointing out for the record that it's
10 not in front of me.

11 Q. Okay, well, I'll do my best.

12 A. I'm happy to also just dig up the
13 article and pull it up on my screen if you want,
14 if that's easier for you.

15 Q. That's fine.

16 A. All right. So, and you said,
17 Mr. Kasper, you said Page 922?

18 Q. 922 is where we are right now. I don't
19 know why that didn't work.

20 A. Trust me, I have worse Zoom struggles
21 every day.

22 Q. Is that better, Phil? Can you see that
23 now?

24 MR. LEUTKEHANS: We can now.

25 Q. (BY MR. KASPER) All right, I think I

1 just needed to shut off the first one. Do you
2 have it there, Dr. Chen?

3 A. Let me just, all right, I do see it on
4 Zoom now, and so if you can just give me a
5 second.

6 Okay, I see that passage that you just
7 read.

8 Q. In the second line that's highlighted
9 there you make reference to a majority/minority
10 district opportunity, opportunity district. What
11 do you mean by a majority/minority?

12 A. Well, I'm going to -- I'll answer your
13 question, but I'm going to first point out that
14 this section was written by my co-author
15 Professor Stephanopoulos, but I'll answer your
16 question because I mean I, obviously, am familiar
17 with the term.

18 Q. Okay.

19 A. So in general, a majority/minority
20 district refers to a minority group comprising 50
21 percent or more of a district's population that's
22 measured in some way.

23 Q. Okay, and then in the next sentence it
24 begins, "Such districts," and it goes on to say,
25 "have never been required by the VRA." By "such

1 districts" I presume that you and your co-author
2 are referring to majority/minority districts.

3 A. It does look like that's what the
4 sentence is referring to, and again, I'm just
5 going to point out that this section was clearly
6 written by my co-author.

7 Q. No problem. You've already put that on
8 the record.

9 A. But, yeah, yeah, it's clearly referring
10 to majority/minority districts, to answer your
11 question.

12 Q. And then the last sentence says, "Nor
13 are such districts necessary to elect
14 minority-preferred candidates who can prevail in
15 crossover districts in most circumstances." What
16 do you mean by crossover?

17 MR. LEUTKEHANS: Objection as to,
18 "What do you mean?" but go ahead. I apologize.

19 THE WITNESS: So I didn't hear what
20 your objection was.

21 MR. LEUTKEHANS: I'm sorry,
22 objection as to, "What do you mean?" He's
23 already testified that he didn't write this
24 section.

25 Q. (BY MR. KASPER) What do you and your

1 co-author mean by crossover? How's that?

2 A. All right, I'm going to answer because
3 it's obvious what my co-author was talking about
4 and that's the way I'm going to answer it, so
5 obviously the same caveat as before, but I mean
6 obviously crossover districts is referring to
7 districts where the minority share of the
8 population is not necessarily a majority, but
9 with non-minority crossover voting, that it could
10 elect a minority-preferred candidate.

11 Q. Okay, and now to your definition or to
12 the term minority-preferred candidate, what do
13 you mean by that?

14 A. Well, in general, like how I explain it
15 in my report, I don't have an opinion, an
16 absolute interpretation or an absolute opinion
17 about what the definition of a minority-preferred
18 candidate is.

19 In this particular case, in my
20 November report I asked Plaintiffs' counsel to
21 tell me exactly what they wanted me to identify
22 as a Latino-preferred candidate, and the
23 definition or the specific criterion, the
24 question that was put forward to me was 50
25 percent.

1 Q. So you would identify a
2 minority-preferred candidate based on the
3 criteria given to you by Mr. Luetkehans, or
4 whomever, that is the candidate who received 50
5 percent or more support from that racial group,
6 be it Latinos or Blacks?

7 A. I just answered that I don't have an
8 opinion about that, but that if a question is
9 posed to me which candidate did say Latinos
10 support by over 50 percent, that's a question
11 that I can answer and, you know, obviously, I'm
12 happy to refer to it as a Latino-preferred
13 candidate, with that caveat, this is how I'm
14 operationalizing, but to be clear, to answer your
15 question, I said that I don't have my own opinion
16 about what that term means.

17 Q. Okay. For purposes of Table 7 on your
18 report where you describe Mendoza as the
19 Latino-preferred candidate, why is she the
20 Latino-preferred candidate?

21 A. So to answer your question, I'm going to
22 point you to the note that appears at the bottom
23 of Table 7 where I describe exactly how I'm using
24 that phrase, and I'll just quote from it, and I
25 think I explained this, you know, in my report,

1 throughout my report, as well, but I think this
2 is responsive to your question.

3 I say down there, "Throughout this
4 table, the quote 'Latino-preferred candidate'
5 term refers to the candidate in each election who
6 received the highest estimated support from
7 Latino voters, even if the estimated support was
8 less than 50 percent in context with three or
9 more candidates.

10 So that was in response to a specific
11 question that Plaintiffs' counsel asked me to
12 answer.

13 Q. Okay, fair enough. You could have just
14 said "yes" to my question. And based on that
15 methodology and according to that note it's
16 possible that the Latino -- that the candidate
17 receiving the highest estimated support from
18 Latino voters could be the candidate other than a
19 Latino, right?

20 A. You mean it could be -- you're asking me
21 if it could be a candidate who is not ethnically
22 Latino.

23 Q. Yes.

24 A. Yes, that's absolutely right. I mean,
25 obviously, what I was asked to identify here was

1 not based on the ethnicity of any candidate.

2 Q. All right, I'm going to try to go back
3 to your article, and this is you have a table in
4 your report that I'm struggling to find. Where
5 did that go?

6 Anyway, I'll keep looking for this, but
7 you talk about in your article minority
8 opportunity districts, and the percentage of
9 districts represented by Latinos in various
10 states.

11 Do you recall this at all? I'm going to
12 come back to this. I can't find my screen to
13 share. Give me one second, Doctor, I'm sorry.
14 Okay, we'll come back to that. Bear with me just
15 one second.

16 Let me see if this works. Give me a
17 second. There we go, do you see that?

18 A. Okay, I see that.

19 Q. This is from Page 922 of your article.

20 A. I'll take your word for it, yeah.

21 Q. Okay. That's fine. And in this article
22 or in this table here you measure percentage of
23 Black --

24 MR. LEUTKEHANS: Mike, give me a
25 second, I'm sorry, because my 922 does not have

1 Figure 11, so I'm trying to get to the right
2 page. I apologize.

3 MR. KASPER: Oh, 915, I'm sorry.
4 Look at 915.

5 MR. LEUTKEHANS: I've got it now.
6 I apologize for interrupting.

7 Q. (BY MR. KASPER) And what I think you're
8 trying to do is you're trying measure States'
9 performance, regarding representation in the
10 legislatures, right?

11 A. Well, I'm just comparing a bunch of
12 computer simulated plans here and these are, you
13 know, computer-simulated plans that were created
14 for this article, and then as the figure shows
15 here, I'm comparing it to two things; one is just
16 the demographics of the States, and then using
17 the same definition of opportunity districts,
18 evaluating the legislative plans.

19 Q. Right, and as I understand the circles
20 represent the percentage of Black citizen voting
21 age population in the state, right?

22 A. Yes, sir.

23 Q. And the red star indicates the Black
24 opportunity districts as share of enacted House
25 plans, so that's a real plan, that's not a

1 simulated plan?

2 A. It is the real plan from last decade.

3 Q. Correct, and this was, obviously,
4 written before the current plan?

5 A. That's correct. It was a plan that was
6 drawn last decade.

7 Q. Right. So if you look at Illinois which
8 is right there in the middle, because -- I just
9 want to make sure that I understand this
10 correctly -- because the red star, it is to the
11 right of the circle, that indicates that
12 Illinois' representation in the legislature is
13 greater than its percentage of CVAP on a
14 statewide basis, right?

15 A. Not quite. You're misinterpreting what
16 the research is doing. We're just defining Black
17 opportunity districts, and in general defining
18 opportunity districts in a particular formulaic
19 way, not offering a legal opinion, and then
20 evaluating the demographic characteristics of
21 each district, the demographics and the electoral
22 characteristics of each district in the enacted
23 plan, and then, obviously, making that comparison
24 to like you're saying correctly, the Black
25 citizen voting age population of the state as a

1 whole, and you are correct, that the red star is
2 to the right of the Black citizen voting age
3 population circle.

4 Q. And by my count it's only 4 of 17 where
5 that's the case.

6 A. I'll trust your math on it. I mean I'm
7 not sure that I -- I'm happy to go through it.

8 Q. No, that's fine. But the point is that
9 there are more opportunity districts in Illinois,
10 and I'm assuming I'm correct about the other
11 three states, then the percentage of CVAP in the
12 same state, right?

13 A. I'm not sure that was a well-formed
14 question.

15 Q. I'm not sure it was either, but do you
16 understand it?

17 A. I think what you were trying to ask me
18 is Illinois one of the states that, and I think
19 you're representing to me that only a couple of
20 them have the red star to the right of the blue
21 circle.

22 Q. Yes.

23 A. And I mean just ballparking it, I'll
24 trust your math. I mean it sounds plausible. I
25 can see that there are a couple of other states

1 where that's the case.

2 I'm not sure that was at all relevant
3 for my article, but you know, you are just
4 comparing the blue circles and the red stars, I
5 trust your math on that.

6 Q. Okay, yeah. I'm not sure you should
7 ever admit that something is not relevant for the
8 article. I'll leave that to you in the future.

9 So let's move on a little bit, and I
10 want to go to your initial report, or no, I'm
11 sorry, I want to go to your rebuttal report, and
12 this is in Paragraph 3, and the last sentence,
13 this involves the question of the criteria you
14 used for selecting elections, and Dr. Lichtman's
15 comments about that criteria, right? Do you see
16 Paragraph 3 there?

17 A. Yes, I see it.

18 Q. Okay, and when you began this exercise
19 you indicate in Paragraph 1 of your rebuttal
20 report what the four criteria were that the
21 Plaintiffs' counsel asked you to look for
22 elections that meet those four criteria, correct?

23 A. I see that.

24 Q. Is that what you -- is that correct?
25 The criteria that you were given by the

1 Plaintiffs' counsel asked you to analyze
2 elections that meet all four of these criteria?

3 A. Yes, I was just repeating the criteria.

4 Q. Yes, and you then presumably excluded
5 any elections that didn't meet those four
6 criteria.

7 A. Well, I just identified which elections
8 met those criteria and I, obviously, counted up
9 those elections.

10 Q. Right, and you excluded from that count
11 any election that didn't meet those criteria.

12 A. Well, yeah. That was the question posed
13 to me, was just to identify elections meeting
14 that criteria.

15 Q. Okay, and do you know why those were the
16 criteria that were given to you?

17 A. Well, they were given to me by
18 plaintiffs' counsel.

19 Q. Yeah, but do you know why those were the
20 parameters? Did you have an understanding of why
21 those are the parameters?

22 A. You'd have to ask Plaintiffs' counsel
23 that question.

24 Q. Okay. So the answer is no, you don't
25 know?

1 A. I don't.

2 Q. Okay, fine. All right. And then in
3 Paragraph 3 of your response report, rebuttal
4 report, the defendant, the selection of those
5 criteria by saying, "These are instances of 'when
6 the white majority votes sufficiently as a block
7 in the absence of special circumstances such that
8 it can usually' defeat the Latinos' preferred
9 candidate as required under Gingles," right? Do
10 you see that sentence?

11 A. Right, I'm quoting Gingles, right.

12 Q. But the word "when," this is indicative
13 of when the white majority votes sufficiently as
14 a block, so that's in order to meet your
15 criteria. It only qualifies when the white
16 majority votes sufficiently as a block, right?

17 A. I'm not totally sure I understand your
18 question.

19 Q. Well, this eliminates, in your larger
20 article you talk about crossover. Doesn't that
21 criteria eliminate crossover, or greatly reduce
22 the possibility of a crossover, and certainly it
23 greatly reduces the possibility of coalitional
24 crossover, doesn't it?

25 A. I just want to make sure I understand

1 your question. Am I getting you right that
2 you're asking me: If you eliminate elections
3 where the white majority votes sufficiently as a
4 block, as defined by the 50 percent threshold,
5 you're asking me does that eliminate the
6 possibility of a crossover district? Am I
7 getting you right?

8 Q. Eliminate or greatly reduce recognizing
9 a crossover district as an opportunity district.

10 MR. LEUTKEHANS: Mike, I'll object
11 to form.

12 Q. (BY MR. KASPER) Do you understand the
13 question, Doctor?

14 A. I think I understand the question. I'm
15 just going to restate the question just to at
16 least let you know my understanding of it. What
17 you're asking me is if you throw out an election,
18 or if you eliminate, don't consider elections
19 where the white support for the candidate that
20 the majority of Latinos prefer is under 50
21 percent, if you throw those out, in other words,
22 there is over 50 percent for some other
23 candidates, then does that eliminate the
24 possibility of a so-called crossover district?

25 And I mean I can't say for sure. I

1 can't say for sure either way. I mean it does
2 seem mathematical that you can have a crossover
3 district that elects the candidate of minorities'
4 choice, even though most whites don't support
5 that particular candidate, so it could happen
6 either way. I mean I just don't think there's an
7 absolute answer to your question.

8 Q. Right, and how many times was that
9 present in the Illinois districts that are
10 challenged under the Illinois enacted plan
11 districts that are being challenged?

12 MR. LEUTKEHANS: Objection to form.

13 A. I was not asked to analyze that question
14 and so I don't have an opinion on it.

15 Q. (BY MR. KASPER) Right, correct. So
16 because you weren't asked to analyze it, you
17 don't know?

18 A. Right, I don't have an opinion.

19 Q. Okay. Are you familiar with the
20 methodology of ecological regression?

21 A. I'm generally familiar with let's just
22 call it Goodman's regression, which I think some
23 people refer to as ER, ecological regression.

24 Q. Generally, you don't practice it?

25 A. No, I mean I don't use it myself, but I

1 know what the term is referring to.

2 Q. Okay, so have you ever done it? Have
3 you ever used it?

4 A. I'm sure I've used it before, and I'm
5 sure I've used it alongside ecological inference
6 estimates. I think it's, you know, it's
7 something I've definitely gotten out the code to
8 do before, alongside an ecological inference
9 estimate just to see what the numbers on
10 ecological regression would show.

11 Q. Okay, and in -- you obviously are
12 familiar with Gingles, in Gingles, the U.S.
13 Supreme Court endorsed ecological regression as a
14 methodology, right?

15 A. That's a question to me?

16 Q. Yes.

17 A. I'm not sure that I have an opinion on
18 that. I'm happy to take your word for it. I can
19 say that certainly in 1986 computational methods
20 was not advanced, or computational power was not
21 advanced enough to do anything like ecological
22 inference, and so certainly for that sort of era
23 before about 20, maybe about 23 years ago,
24 ecological regression was certainly commonly
25 practiced, because nobody had the computational

1 power to do anything like ecological inference.

2 Q. Okay, and turning back to your rebuttal
3 report on Page -- I think it's under Paragraph
4 7 -- your reports aren't numbered, so it's a
5 little hard to figure out, but the second
6 footnote --

7 A. Yes.

8 Q. -- where you say, "Dr. Lichtman's data,
9 in fact, has flaws;" do you see that?

10 A. Yes.

11 Q. And you point to the Juliana Straughton
12 vs. Evelyn Sanguinetti as a Black candidate
13 winning against a white candidate, and you point
14 out about the dual election and that she's
15 Latino, right --

16 A. Right.

17 Q. -- over there, but that's the only --
18 that is the only flaw that you reference in your
19 rebuttal report that I have seen.

20 A. Oh, well, if you're asking me are there
21 other flaws that I pointed out, I think all over
22 the report, all over my response report, I am
23 pointing out places where Dr. Lichtman is
24 characterizing his, you know, he's
25 mischaracterizing or just mis-describing what I'm

1 doing, and so I have other places in my report.

2 I think if you are asking for like the
3 identification, you know, are there any other
4 places where I identify that Dr. Lichtman
5 mis-identified the ethnicity or the race of the
6 candidate, I think that's the only footnote.

7 Q. No, no, I'm asking whether or not
8 there's any other data. You say his data has
9 flaws, and flaws is a plural word, and I'm
10 wondering if it's that you have -- you're saying
11 their's two flaws in this piece of data, the
12 joint election and the race, or are there other
13 data flaws that are not pointed out in your
14 rebuttal report?

15 A. Sure. All right, you've got me. I
16 guess data is probably plural. I'm not sure what
17 the singular is, but maybe I probably should have
18 used the singular form of whatever that word is.

19 Q. Well, I think the word is flaw, not
20 data. You could have said "has a flaw" rather
21 than the flaw.

22 A. I gotcha.

23 Q. I just wanted to make it clear. Okay.

24 A. I mean like looking at the footnote,
25 it's, I think it's pretty obvious that I'm

1 pointing out two different things there, and I
2 mean I think if you're asking about the word
3 "flaws" it's because there really are two
4 different points made in that footnote.

5 Q. Okay. Let's back to Gingles, prong 3,
6 and I want to ask about your understanding of
7 Gingles prong 3. Do you understand it to be --
8 when you're measuring white block voting, what do
9 you measure?

10 A. Well, I think what generally people mean
11 by white block voting is what candidate, it is
12 asking what candidate do whites prefer, and what
13 is their support for the minority-preferred
14 candidate in question.

15 Q. Okay. All right, I'm going to move on I
16 think. Let's go to Paragraph 4.

17 MR. LEUTKEHANS: Of the rebuttal
18 report?

19 Q. (BY MR. KASPER) Of the rebuttal report.

20 MR. LEUTKEHANS: Thank you.

21 Q. (BY MR. KASPER) And this is in
22 Paragraph 4, it's the third full sentence, "Cook
23 County in Chicago are obviously not jurisdictions
24 with low Hispanic percentages. Indeed, Latinos
25 comprise 29.8 percent of Chicago's population,

1 and 26.2 percent of Cook County's population in
2 the 2020 decennial census," right?

3 A. I see that.

4 Q. But is that total population or CVAP?

5 A. I believe that I was counting total
6 population there.

7 Q. So that doesn't reflect eligible voters.

8 A. It's not a count of eligible voters. It
9 is a count of decennial census PL 94171
10 population.

11 Q. In your experience would the percentage
12 of citizen voting age population in a location
13 like Chicago or Cook County be lower than the
14 percentage of total population for Latinos?

15 A. Sure, I think in general it's, in
16 general, it's going to be lower.

17 Q. And do you have any way to quantify how
18 much lower in an urban setting like Chicago, or
19 estimate it?

20 A. No. Obviously, it varies across
21 geographies.

22 Q. But it's usually at least a couple of
23 percentage points?

24 A. I mean I'm -- my opinion is that it's
25 generally lower. Like I said, it varies widely

1 across geographies.

2 Q. All right, and you don't need to go to
3 this, but in Dr. Lichtman's report on Page 59,
4 Chart 5, he points out that the CVAP, the Latino
5 CVAP for Cook County is 17.7 percent.

6 Do you have any reason to disagree with
7 that?

8 A. I have not, you know, analyzed that.
9 I'm happy to take your word for it, but I'm just
10 taking your word for it.

11 Q. Okay. I'm sorry, let me get organized
12 here a minute. Okay, could I direct your
13 attention to Dr. Lichtman's report, Table 1 on
14 Page 38?

15 MR. LEUTKEHANS: Hey, Mike, can we
16 take a two-minute break while I go grab that?

17 MR. KASPER: No worries.

18 (Brief recess taken.)

19 Q. (BY MR. KASPER) All right, again
20 Dr. Chen, I'm going to direct your attention to
21 Dr. Lichtman's report, Page 38, Table 1. Do you
22 have that?

23 A. Yes.

24 Q. And I'm particularly interested in the
25 column of his percentage Hispanic CVAP; do you

1 see those columns?

2 A. I see the columns.

3 Q. Okay, and the lowest Hispanic CVAP for
4 any district is 34.6, and all of the others are
5 over 40 percent, going up to as high as 47.8
6 percent, which is the last one down at the
7 bottom, right? Do you see that?

8 A. Okay, are you -- you're pointing at the
9 what is this, the 5th column, Hispanic CVAP?

10 Q. Correct, correct.

11 A. You're just saying that the range is --
12 what did you say, 34 to --

13 Q. 34 to 47, 48.

14 A. Okay, I see those numbers. I mean while
15 we're on this column, I'll just point out that I
16 don't know what Dr. Lichtman is referring to in
17 terms of which year CVAP is this from?

18 Q. Oh, it's, I believe it's pointed out in
19 his report that it's from the 2015 to 2019 ACS
20 survey.

21 A. Okay, I'll take your word for it.

22 Q. Would you believe that to be an
23 authoritative measure of CVAP?

24 A. It is our only measure of CVAP.

25 Q. So it's the best one we can get?

1 A. It's the only one we've got.

2 Q. Okay. So and as I said before the
3 Latino CVAP for Cook County is 17.7 percent, so
4 each of these districts is higher, considerably
5 higher, double, except for one, than the
6 countywide CVAP for Latinos, right?

7 A. I'm sorry, I'm just going to need you to
8 ask you to back up, so what were you saying about
9 17?

10 Q. Oh, I'm sorry. In Dr. Lichtman's report
11 on Page 59, Chart 5, he reports the Latino CVAP
12 for Cook County is 17.7 percent.

13 A. Okay, that was that same thing that you
14 were telling me about before we went on break.

15 Q. Right, correct, correct, and you didn't
16 take any exception to that in your rebuttal
17 report.

18 A. No, and I didn't review that at all, and
19 I mean since you're pointing to whatever that
20 table was, I'll just, you know, say the same
21 caveat again. I don't know what year
22 Dr. Lichtman is talking about with that 17.7
23 percent figure that you referenced, so the same
24 thing there, but obviously 17.7 percent is lower
25 than the numbers that you're pointing out in

1 Table 1 here.

2 Q. Okay, and then --

3 A. I'm just pointing out that I don't know
4 what Dr. Lichtman is referring to because I just
5 don't know.

6 Q. Okay. All right, well, looking at this
7 here, the chart that's in front of you from
8 Dr. Lichtman's report, the Hispanic CVAP in none
9 of those districts is over 50 percent, correct?

10 MR. LEUTKEHANS: Objection to form.
11 You can go ahead.

12 A. I see that.

13 Q. (BY MR. KASPER) Okay, and if you add up
14 all of these, all of them, and then you go to the
15 far right column, it's the percentage of all
16 minority CVAP.

17 A. I see that.

18 Q. Each of those is above 50 percent,
19 correct?

20 A. I see that those are the numbers
21 reported. Obviously, I have not done that on my
22 own --

23 Q. Right.

24 A. -- but I see that.

25 Q. But the purpose of this column I think

1 is to show that all the districts are over 50
2 percent minority CVAP, right?

3 A. Sure, I see that.

4 Q. And you, again, didn't take any
5 exception to that in your rebuttal report.

6 A. I mean I would point out that I think
7 since you've told me that this was meant to be
8 2015-2019 CVAP, I think I reported CVAP numbers
9 myself in my own report.

10 Q. All right, and you said you're familiar
11 with Gingles, prong 3, and do you understand that
12 to refer to the minority, meaning in this case
13 the Latinos, must be able to demonstrate that the
14 white majority votes sufficiently as a block to
15 enable it in the absence of special circumstances
16 to usually defeat the minority-preferred
17 candidate. So in each of these districts, my
18 point is there's no white majority, right? They
19 are an all minority/majority districts.

20 A. So if you're just asking me to affirm
21 that the numbers here are below 50 percent CVAP,
22 I mean then, obviously, they are. I'm not, I
23 have no opinion on exactly how the third prong of
24 Gingles applies with respect to the numbers in
25 this table.

1 Q. Okay, can we go to Paragraph 6 of your
2 rebuttal report? I'm sorry, it's Paragraph 5.
3 We just got these very, very recently, so I
4 apologize for being disorganized.

5 A. Okay, I'm here in Paragraph 5.

6 Q. You take exception to Dr. Lichtman's
7 speculation that Berrios would have lost the
8 election in 2014 in House District 39, even if
9 that District had had a 65 percent Hispanic CVAP.
10 That's on Page 72 of Dr. Lichtman's report, and
11 in Paragraph 5 of your rebuttal report; do you
12 see that?

13 A. I don't take exception to it. I just
14 point out that that was not relevant to the
15 question that I was tasked with answering here,
16 so I mean I don't have any -- I didn't analyze
17 it. I'm not taking exception to it.

18 Q. Okay. Then why did you mention it?

19 A. Well, as I explained in my report, this
20 is Dr. Lichtman offering political commentary
21 about these couple of different elections, and as
22 I say in the next paragraph, Paragraph 6, it is
23 irrelevant to the question that I was asked to
24 answer, so I wasn't taking exception to what
25 Dr. Lichtman described as content. Like I said,

1 it's just not relevant to the question that I was
2 tasked with answering.

3 Q. Okay, and what was that question?

4 A. I am going to answer your question by
5 pointing you to Page 33 of my original
6 November report where I said, "Plaintiffs'
7 counsel asked me to count among elections that
8 satisfy four criteria, how many in which the
9 Latino-preferred candidate was defeated," and
10 obviously the way that I have been using the term
11 Latino-preferred candidate.

12 Q. I see. And so the fact that the, a
13 candidate, Berrios, whomever would have also lost
14 the, a sufficient number of the white vote, and
15 perhaps overwhelmingly the Black vote is
16 irrelevant. It's just a question of who won or
17 lost?

18 A. Well, like I said, I have no opinion on
19 the veracity of that claim, except to say that
20 that is not relevant to the question that I was
21 asked to answer.

22 Q. And Dr. Lichtman in his report suggested
23 that the criteria that you were given as you know
24 from your original report limited you to 5
25 elections and he suggested that's too few of a

1 sample to produce reliable results. Do you
2 remember reading that in his report?

3 A. I don't remember the words too few but
4 I'll take your word for it that that was the
5 general opinion that he was trying to express. I
6 just don't remember those precise words.

7 Q. Okay. Let's go back, let's see, Table 7
8 of your initial report.

9 A. Did you say Table 7?

10 Q. Yes.

11 A. Okay, I'm here.

12 Q. Do you have that in front of you?

13 A. I'm here, yeah.

14 Q. Okay. The third entry is the 2015
15 mayoral general election.

16 A. Yes.

17 Q. And the Latino-preferred candidate was
18 Garcia.

19 A. I see that.

20 Q. And in the 5th, 6th column Garcia
21 receives 40.5 percent amongst the other
22 categories, right?

23 A. That's the point estimate, that's right.

24 Q. Right, and then the confidence interval
25 is below, which is fairly narrow.

1 A. I see that.

2 Q. Right, so what that means is that 59
3 and-a-half percent of other voters, presumably in
4 Chicago mostly Black voters, voted against
5 Garcia, right?

6 A. I don't have the estimate for Black
7 voters in front of me, but it would certainly be
8 something in that ball park.

9 Q. Yeah, okay, so Black and Asian and other
10 voters voted 59 percent against Garcia?

11 A. Sure, the same answer again. I did not
12 estimate Blacks separately or Asians separately
13 or any other racial group separately, but
14 certainly your math is right, that I think you're
15 just saying 100 minus 40.5 percent.

16 Q. Correct, and then the one above that,
17 the Berrios election, again in that same 6th
18 column, 56.6 percent of the other voters, Blacks,
19 Asians and others voted against the
20 Latino-preferred candidate.

21 MR. LEUTKEHANS: Mike, I think our
22 simple lawyer math is off a little there. You
23 might want to do that again.

24 MR. KASPER: 44.4?

25 MR. LEUTKEHANS: You said 56.6.

1 MR. KASPER: 55.6, sorry.

2 MR. LEUTKEHANS: That's okay. I
3 just wanted to clean up the record for you.

4 MR. KASPER: You're right, yeah.

5 Q. (BY MR. KASPER) 55.6 percent voted
6 against the Latino-preferred candidate, Berrios.

7 A. Again --

8 Q. If it helps, I wrote it down correctly
9 55.6.

10 MR. LEUTKEHANS: Good to know.

11 A. I affirm that your math is right. I'm
12 giving the same answer as before, which is again
13 that I don't have the actual EI estimate for
14 those other races in front of me here. All
15 you're doing is taking 100 percent and
16 subtracting whatever that number is.

17 Q. (BY MR. KASPER) Correct, you're right.
18 And then in Paragraph 39 on Page 42, I'm sorry,
19 Page 38, no, Page 40, Paragraph 38 on Page 41,
20 and it spills over to the first sentence on the
21 top of Page 42.

22 A. Okay, I'm here.

23 Q. Okay, and you say that, "White
24 opposition to Garcia was sufficient to help
25 defeat Garcia, as Garcia received only 43.8

1 percent of the vote in this two candidate runoff
2 election."

3 The 43.8 percent is the total vote that
4 Garcia received, right? It's not a racial
5 number, that's his total vote?

6 A. Let me just confirm that by checking my
7 table here.

8 Q. Yeah, sure. I think that's right.

9 A. But yeah, I see that I reported 43.8 as
10 Garcia's share.

11 Q. Okay, and then in Paragraph 39, again
12 the last sentence, you write, "Thus white
13 opposition helped to defeat Berrios who received
14 only 33.9 percent of the overall vote for Cook
15 County compared to Kaegi, 45.6 percent," right?
16 Do you see that?

17 A. Yeah. I see that. Did I misspell
18 Kaegi, or something?

19 Q. Oh, no, no, and then Paragraph 40, the
20 last sentence says that, "This near unanimous
21 white opposition helped to defeat Berrios who
22 received only 39.6 percent of the overall vote
23 and losing to Guzzardi, and Berrios, Jr.," the
24 daughter of the Berrios referred to in Paragraph
25 39. Right?

1 Do you see that? You wrote that
2 unanimous white opposition helped to defeat
3 Berrios; do you see that?

4 A. Yes.

5 Q. In Paragraph 38 and 39 and in 40, you
6 used the word "helped," that the white opposition
7 helped to defeat Berrios, right?

8 A. Yeah, I see that.

9 Q. I presume that it, particularly in the
10 case of Garcia and Berrios, Sr., you used the
11 word "helped" because the Latino-preferred
12 candidate also lost the other category.

13 MR. LEUTKEHANS: Objection to form.

14 A. I'm not totally sure what you mean by
15 that, if you could just --

16 Q. (BY MR. KASPER) Okay. So go back to
17 Paragraph, to Table 7.

18 A. Okay.

19 Q. So Garcia, the last entry, Garcia.

20 A. I see that.

21 Q. Garcia wins 84 percent of the Latino
22 vote.

23 A. I see that.

24 Q. Garcia loses the white vote by
25 approximately 71 percent.

1 A. I see that, right.

2 Q. And then Garcia loses the other vote by
3 60 percent.

4 A. Yeah, roughly.

5 Q. So the two losses, the white and the
6 other candidate, or the other category each
7 helped defeat Garcia, right?

8 A. They obviously voted. They tended to
9 disfavor Garcia, so sure.

10 Q. And the same is true in the one above
11 that, where Garcia -- or Berrios loses both the
12 white vote and the other vote, correct?

13 A. Yes.

14 Q. Okay, so in neither case can you say
15 that white opposition caused the Latino-preferred
16 candidate's defeat.

17 MR. LEUTKEHANS: Object to form.

18 A. Yeah, I'm not really sure what you --
19 you know, what you mean by "caused." I mean,
20 obviously, all of these different racial groups
21 are voting, and so when I say "helped" instead of
22 say "caused," that's all it means, is that they
23 are voters, and, obviously, there's some level of
24 opposition.

25 Q. (BY MR. KASPER) Right, but it is

1 mathematically possible, is it not, that white
2 block voting, if whites are few enough in any
3 electoral base, could not cause, by itself, the
4 defeat of a Latino-preferred candidate?

5 A. Okay, so you're asking me hypothetically
6 is it possible or not possible that white
7 opposition to a Garcia, for example, could cause
8 the defeat of Garcia; is that your question?

9 Q. No, I'm saying is it hypothetically
10 possible that white block voting in opposition to
11 Garcia alone could not cause the defeat of
12 Garcia?

13 A. And I'm just trying to understand your
14 question here. You're asking me is it the case
15 that white opposition to Trudy Garcia alone, with
16 no other racial group's opposition?

17 Q. No, no. Let me give you a hypothetical.
18 Let's say that Chicago is 10 percent white, 45
19 percent Black and 45 percent Latino, okay?
20 Garcia gets 100 percent of the Latino vote, okay?

21 A. Okay.

22 Q. Garcia loses 100 percent of the white
23 vote.

24 A. Okay.

25 Q. The white vote alone is not numerous

1 enough to defeat Garcia, correct?

2 A. Okay. So you're setting up this
3 hypothetical scenario where you're telling me the
4 racial composition of -- we're just going to call
5 this place Chicago, right?

6 Q. Sure.

7 A. And you're telling me 45 percent Black,
8 and I assume you're referring to the Black
9 electorate on Election Day not actual?

10 Q. Yeah, yeah.

11 A. So you're telling me the electorate is
12 45 percent Black, 45 percent Latino, 10 percent
13 white, and you're telling me Latino support for
14 Garcia is 100 percent --

15 Q. Yeah.

16 A. -- only the white support for Garcia is
17 zero percent --

18 Q. Right.

19 A. -- and what are you telling me about
20 Black voters?

21 Q. Well, I'm not there yet.

22 A. Okay.

23 Q. White voters alone cannot numerically
24 defeat Garcia.

25 A. Okay, so basically you're asking me

1 without telling me anything about Blacks, is the
2 election outcome pre-determined without even
3 counting these votes?

4 Q. No, I'm just asking you can whites alone
5 in that scenario cause the defeat of Garcia?

6 A. Okay. I mean, obviously, if -- you've
7 told me that there's 45 percent of the voters are
8 Latino, and if they are 100 percent -- I'm sorry.
9 You've told me that --

10 Q. It's not a difficult question.

11 A. I'm just trying to clarify what my
12 understanding of the question is, and let me
13 answer the question.

14 Q. Okay, okay.

15 A. So you're setting up this hypothetical
16 where you're telling me that Latinos are 45
17 percent of the electorate and you're telling me
18 that they are all 100 percent for Garcia.

19 Q. Yes.

20 A. And that's, obviously, 45 percent of the
21 total votes cast on Election Day and so, you
22 know, certainly 10 percent, if that's what you're
23 telling me whites are, could swing the election
24 one way or another.

25 Q. Sure, but they couldn't do it by

1 themselves.

2 A. Okay, sure.

3 Q. Right. That's all I wanted.

4 A. You can add, you can say 10 percent is,
5 obviously, not enough to swing an election, with
6 such disproportionate and wildly unrealistic
7 racial numbers.

8 Q. Okay. Did you get a chance to review
9 the work by Dr. Grumbach in this, in the parallel
10 case?

11 A. I received a copy of it. I was not
12 asked to review much of it, in much detail.

13 Q. Okay. Could I direct your attention to
14 Paragraph 7 of Dr. Lichtman's report on Page 61,
15 I believe it is?

16 A. My pages are out of order here.

17 Q. No problem, no problem.

18 A. Did you say Page 61?

19 Q. Yes, let me see if I can share it with
20 you.

21 A. I've got it here.

22 Q. Look at that, pretty good. Can you guys
23 see that?

24 MR. LEUTKEHANS: Yeah.

25 Q. (BY MR. KASPER) Okay. So this is a

1 comparison of the endogenous elections that both
2 you and Dr. Grumbach chose to analyze, and you
3 see that there's considerable disparities, and
4 when you saw this report, this table in
5 Dr. Lichtman's report, did you investigate any of
6 the elections analyzed by Dr. Grumbach, but not
7 by you? There appear to be 8 of them in the
8 first column there.

9 A. I did not.

10 Q. Did you investigate this at all?

11 A. No, I'm not even sure that this table
12 looks familiar to me, so I'm not sure I looked at
13 it in any detail.

14 Q. Did you review Dr. Lichtman's report? I
15 know you did. You sort of have plenty to say
16 about it in rebuttal.

17 A. I reviewed parts of it, it's rather
18 long, and I'm not sure I read all of it.

19 Q. Fair enough. I'm not sure
20 Mr. Luetkehans read it all either.

21 MR. LEUTKEHANS: Probably correct.

22 Q. (BY MR. KASPER) Okay. All right, and
23 then in Paragraph 8 of your rebuttal --

24 A. I'm here.

25 Q. -- I'm questioning the selection of the

1 elections, and the criteria that you were given.
2 In the middle of that paragraph you say,
3 "Plaintiffs' counsel asked me to identify which
4 elections met conditions that I found reasonable
5 to utilize, such as having different candidates
6 preferred by white and Latino voters," okay? Do
7 you see that?

8 A. I see that.

9 Q. And above that you say, "Plaintiffs'
10 counsel did not tell me which specific elections
11 to count in my analysis," right?

12 A. Yes.

13 Q. What do you mean by that? He didn't
14 tell you what specific elections to count.

15 A. They did not. Plaintiffs' counsel did
16 not tell me a specific list of elections to
17 count. They gave me criteria instead, and I went
18 through the elections and identified which met
19 the criteria, or did not meet the criteria.
20 That's all I mean by that sentence.

21 Q. Okay. So if my three year-old daughter
22 tells me to go pick out a necktie, but I have to
23 pick one with red stripes and blue polka dots,
24 she's not telling me what necktie to pick?

25 MR. LEUTKEHANS: Objection to form,

1 argumentative.

2 Q. (BY MR. KASPER) Never mind, I'll
3 withdraw the question. I think you understand
4 the point I'm trying to make, though. Don't
5 these criteria predetermine the selection?

6 A. Look, I'm quite sure that pre-determined
7 the selection, would sound like: Please look
8 only at elections that occurred in November of
9 2012 in Senate District 25.

10 You know, that's predetermining the
11 elections. I'm just recording the criteria that
12 I was given.

13 Q. Okay.

14 A. And these are criteria that I told
15 plaintiffs' counsel I can apply it. I can answer
16 his question.

17 Q. Do you know what point the purpose of
18 the analysis was trying to prove?

19 A. I mean Plaintiffs' counsel doesn't tell
20 me what their legal strategy is. They don't
21 share that with me. I just tell Plaintiffs'
22 counsel: This is or is not a question that I can
23 answer.

24 Q. Okay, and then were you trying to
25 identify districts in which minorities would have

1 an equal opportunity to elect candidates of their
2 choice?

3 A. That wasn't the question that was posed
4 to me by Plaintiffs' counsel. Obviously, as I
5 explained in my report, Plaintiffs' counsel asked
6 me to count up whether or not the candidate that
7 got over 50 percent won or lost.

8 Q. That wasn't the only criteria. They
9 also had to lose the white vote.

10 A. Yeah, that's criteria Number 4, I mean
11 over 50 percent.

12 Q. You would agree that a Latino candidate
13 who won both the Latino vote and the white vote
14 would win the election?

15 A. That's not always necessarily true,
16 because there could be, obviously, there could be
17 other voters who are not white and Latino.

18 Q. Okay, fair enough. In a district where
19 the combined white and Latino vote constitutes an
20 overwhelming majority, if the Latino-preferred
21 candidate wins the white vote, that candidate is
22 going to win, right?

23 MR. LEUTKEHANS: Objection, form.

24 A. Sure. I mean I understand the general
25 point you're asking there. I mean it's, you

1 know, obviously, I was asked to analyze or to
2 count up elections where whites and Latinos did
3 not prefer the same candidate or did not have
4 over 50 percent.

5 Q. (BY MR. KASPER) Okay, but knowing now
6 the general point that I'm trying to make, do you
7 think that -- that eliminates -- so you
8 eliminated all elections where whites and Latinos
9 supported the same candidate?

10 A. Yeah. If whites and Latinos were over
11 50 percent for one, whatever that candidate was,
12 that would be Criteria 3 and 4 in my list.

13 Q. Right, and the only reason that you did
14 that was because that was the direction that you
15 were given by Plaintiffs' counsel?

16 A. Well, to be precise, that was the
17 question that Plaintiffs' counsel asked me to
18 analyze to answer.

19 Q. Okay, I'm not sure that you and I
20 disagree about that. The reason why you would
21 have excluded races where, from your answer to
22 the question, where Latinos and whites supported
23 different candidates, is because that's the
24 criteria you were given, right?

25 A. Those were the criteria.

1 Q. Okay. In your expertise in your however
2 many years you have been doing this, have you
3 ever done that before?

4 A. Have I ever done what precisely?

5 Q. Have you ever had your criteria set to
6 exclude races where whites and whatever minority
7 group was subject to your inquiry supported the
8 same candidate before?

9 A. Okay, you're asking if I have ever
10 analyzed or counted or identified elections based
11 on criteria that Plaintiffs' counsel or some
12 lawyer has told me, right?

13 Q. Yes, correct.

14 A. I mean the general answer is yes,
15 obviously, not in exactly the same criteria that
16 we're talking about here, but yeah, I mean that
17 is something that's certainly happened where an
18 attorney will ask me: Can you analyze elections
19 that meet X or Y criteria, or these couple of
20 elections that meet a certain criteria, and
21 identify what those elections are?

22 Q. Do you recall -- I'm sorry. Do you
23 recall ever having the criteria being limited --

24 MR. LEUTKEHANS: Mike, he wasn't
25 finished with his answer.

1 MR. KASPER: Fair enough.

2 A. I was basically done.

3 Q. (BY MR. KASPER) Do you recall ever
4 being given criteria to exclude races where
5 whites in the minority group support the same
6 candidate?

7 A. I don't recall ever being asked to use
8 these particular criteria, you know, like this 50
9 percent threshold that we're talking about here,
10 but like I'm saying in general I've certainly,
11 because it's a thing that political scientists
12 do, we analyze elections, it's certainly
13 something that's within my expertise and
14 something that I can answer for an attorney, is
15 to identify elections meeting certain criteria.

16 Q. Okay, on Paragraph 9 of your rebuttal
17 report --

18 A. I'm there.

19 Q. -- wait a minute, you say in the second
20 sentence: "I also found that 10 of 12 Cook
21 County Districts in the remedial plan would favor
22 Berrios based on the 2018 Cook County Assessor
23 primary election. Dr. Lichtman does not provide
24 any alternative estimates of his own that would
25 dispute these calculations." Do you see that?

1 A. I see that.

2 Q. Okay. On Page 175 of Dr. Lichtman's
3 report, can I direct your attention to that? Now
4 that will take some time to get there.

5 A. I see it, I mean I've got it in front of
6 me if you just want to have me look at it.

7 Q. Okay. In this slide, Dr. Lichtman
8 presents the results of reconstituting the 2015
9 mayoral election, right?

10 A. I'm not sure that I have actually
11 reviewed this, but I'll take your word for it.
12 It does seem like it's labeled that way.

13 Q. Okay, and I think the point of this
14 slide is you'll see that in the challenged
15 districts, the districts that you're talking
16 about here, House District 3 and House District
17 4, that both of those districts Garcia wins
18 handily by 26 and 27 percent respectively. Do
19 you recall seeing that when you reviewed
20 Dr. Lichtman's report?

21 A. Like I said, I don't recall seeing this
22 table. I mean I accept your representation of
23 what Dr. Lichtman was trying to do, but I'm not
24 sure I've actually seen it before just now.

25 Q. Okay, and then so you don't have any

1 reason to dispute the accuracy of this?

2 A. I just have no opinion on the accuracy
3 of it, like I said.

4 Q. Okay. But you didn't address it in your
5 rebuttal report.

6 A. Well, No, did I not respond to this
7 table.

8 Q. Okay, and the same goes for Table 8 on
9 Page 182 of Dr. Lichtman's report. I think I
10 have it up there.

11 And again, this is just reconstituting
12 the 2015 mayoral election in House District 3
13 which shows that Garcia wins the election in
14 House District 3 by 30 points. Again, you didn't
15 take any exception to that in your rebuttal
16 report, correct?

17 A. Same answer as before. I didn't -- I'm
18 not sure I've seen this before now.

19 Q. Okay. All right, fine. And then Page,
20 Table 10, Page 188, is I guess we'll do the same,
21 House District 24.

22 MR. LEUTKEHANS: Do you want to
23 just share.

24 Q. (BY MR. KASPER) Again showing that in
25 House District 24 Garcia would win by 21 points.

1 It's the same answer, you have not seen this
2 before or reviewed it?

3 A. Phil did you say go something.

4 MR. LEUTKEHANS: I was just making
5 a snide comment that Mike keeps showing these
6 things, now that he knows how.

7 MR. KASPER: Right, I'm showing
8 off.

9 MR. LEUTKEHANS: Exactly.

10 MR. KASPER: During the break I had
11 my teenager come in and show me how to do it.

12 A. Mr. Kasper, the same answer as before.

13 Q. (BY MR. KASPER) Okay, and then Table 12
14 on Page 195, this is in challenged District
15 Number 3, it shows that Garcia would win that
16 election by 14 points. Do you see that?

17 A. I see that.

18 Q. And the same answer?

19 A. The same answer as before.

20 Q. Okay. And did you get to Page 172 and
21 173 of Dr. Lichtman's report, where he talks
22 about why he believed the Emanuel Garcia election
23 is a better one to use, than the one that you
24 used, the Berrios AE Assessor election? Did you
25 read that when you were reviewing your report?

1 A. I'm not totally sure. I'm happy to have
2 you ask the question.

3 MR. LEUTKEHANS: Take a moment and
4 go to that page, if you would, since it's not
5 being shown.

6 MR. KASPER: I could show it.

7 MR. LEUTKEHANS: Yeah, I know, but
8 he can look at it, too, whatever you want to do.

9 MR. KASPER: It's just text. It
10 wasn't as exciting.

11 A. Okay. So you want me to take a minute
12 and read 172? What do you want me to do?

13 Q. (BY MR. KASPER) Yeah.

14 A. Okay, I have seen that paragraph that
15 starts with "consistent" -- do you want me to
16 stop reading?

17 Q. Yeah, and it rolls over into the --

18 A. Okay, do you want me to read that next
19 paragraph, too?

20 Q. The next paragraph, too, it talks about
21 the crossover for Garcia.

22 A. Okay, give me a second. Okay, I mean
23 I've read it here.

24 Q. Okay, and Dr. Lichtman suggests that the
25 Garcia election is the better one to measure

1 because Berrios, the one, the election that you
2 used received a very, very minimal amount of
3 crossover voting from whites, and Garcia received
4 something closer to the normal rate that Latino
5 candidates see in elections in Chicago and Cook
6 County. Do you understand that's what he's
7 trying to say?

8 A. I do understand that's what he's trying
9 to say generally.

10 Q. Okay, and do you agree or disagree with
11 that?

12 A. Well, it doesn't really make sense.
13 What he's doing there is he's comparing a Chicago
14 city election and then comparing it to other
15 elections that are covering all of Cook County,
16 and I mean that's just not really a valid basis
17 for a comparison. So to say that --

18 Q. Sorry.

19 A. -- all I was going to say is it just
20 doesn't seem like a way to really make a
21 legitimate argument that that is what crossover
22 voting should be compared to.

23 More generally, you asked me to read
24 kind of the paragraph above that, as well, and I
25 think Dr. Lichtman just misunderstands what I was

1 doing, what I was trying to do, which was to
2 answer a specific question, which was to analyze
3 the performance in all of the districts, in all
4 of the districts in the proposed, the Plaintiffs'
5 proposed plan, and a much longer list of the
6 challenged districts and you, obviously, can't do
7 that if you just have Chicago precinct election
8 results, but not Cook County.

9 Q. Why can't you do it for elections for
10 districts that are entirely within Chicago?

11 A. Well, that's not what I was tasked with
12 answering, so I'm just saying that what my --
13 what the question posed to me was, was to analyze
14 all of the districts and that's, obviously, not
15 something you can do with just Chicago.

16 Q. Okay. Well, you according to this
17 report at the top of Page 173 you estimate
18 crossover voting for Berrios to be 18.3 percent,
19 right?

20 A. Let me get out Table 7 from my report,
21 so yeah, I see where the 18.3 percent is.

22 Q. Okay, in your experience in a location
23 like Cook County, does that not seem low to you?

24 A. I'm not sure I have an opinion about
25 that. I mean I report what the number is, and

1 that's it.

2 Q. Okay.

3 A. I really can't say anything about that
4 question, beyond obviously the areas of Cook
5 County outside the City of Chicago are,
6 obviously, very different politically than areas
7 inside the City of Chicago.

8 So you certainly wouldn't want to just
9 compare a Chicago mayoral election to Cook
10 countywide elections and try to just group them
11 altogether.

12 Q. Okay. But it's fair to say that 18.3
13 percent is substantially lower than 28.3 percent,
14 right -- 28.8 percent, I'm sorry?

15 A. Sure, and again you're comparing apples
16 to oranges. I mean, obviously, your math is
17 right, that 18 is lower than 28, but the 28 comes
18 from a Chicago city mayoral election. The 18
19 comes from a Cook County election, and obviously,
20 the areas that are in Cook County but outside of
21 Chicago are, of course, going to be a lot more
22 Republican than areas inside of Chicago. That's
23 just the way that suburbs work in any major
24 metropolitan area, and that's something that you
25 can say without knowing anything about specific

1 political geography of any specific city, that
2 that's just the general pattern.

3 Q. Okay. I'm struggling to -- do you have
4 any knowledge about what the concentration of the
5 Latino population of Cook County is inside of
6 Chicago versus outside?

7 A. I think that the best I could do to
8 answer that question is to point you to my report
9 from this week, Paragraph 4, I believe is what it
10 was.

11 Q. Okay.

12 A. I think we talked about that earlier
13 but, obviously, I reported census numbers there
14 in Paragraph 4.

15 Q. Right, and I see that sentence where you
16 state that Latinos comprise 29.8 percent of
17 Chicago's population, and 26.2 percent of Cook
18 County's population, but you don't -- you haven't
19 done whatever analysis you would do to
20 determine -- so that it seems to me that a
21 relatively small percentage of Cook County's
22 Latino population resides outside of Chicago,
23 considering how much of Cook County is occupied
24 by Latinos, and I'm just wondering if you did any
25 analysis of that data?

1 A. Okay, I'm not sure that I agree with the
2 premise of your question. I think the premise --
3 I think you made a statement that you infer that
4 there's not much difference, that not a whole lot
5 of Latinos live outside of Chicago, but inside of
6 Cook County, and I certainly don't share that
7 opinion, but that wasn't your question.

8 Q. That's fair. Why don't we just move on.

9 A. Okay.

10 Q. Okay. Could I direct your attention to
11 Paragraph 6, to Table 6 and 7 of your initial
12 report. They appear on Pages 43 and 44 -- 40 and
13 30, I think it starts at 37. Do you see that?

14 A. These two tables, I see them.

15 Q. Yeah. Do you see that the first one is
16 2018 House District by primary, the candidate's
17 name is Saed, and then you list these percentages
18 of support by the various groups we've talked
19 about in the past, right?

20 A. Yeah, I'm not totally sure which page
21 you are on.

22 Q. Page 39 of your report.

23 A. Okay, I gotcha. 39. I was on 37.

24 Q. Any page works.

25 A. All right. I see where Saed is.

1 Q. Okay, and then you talk about the
2 percentage support from each group as we've
3 talked about, and underneath there in the
4 brackets is I presume your confidence interval,
5 correct?

6 A. That's correct.

7 Q. And you report that for each candidate
8 and each group, right?

9 A. No, I report it for the candidate listed
10 in this table.

11 Q. Okay.

12 A. I report a different ratio of groups.

13 Q. Fair enough. The confidence interval is
14 listed for every entry in Columns 3, 4 and 5,
15 correct?

16 A. That's correct.

17 Q. And on Table 7, the same thing, the
18 confidence interval is listed for every entry in
19 Columns 3, 4 and 5.

20 A. Yes, I see that.

21 Q. Table 10 on Page 46 and Table 11 on Page
22 47, do you see that?

23 A. All right, I am at Table 10, 46.

24 Q. Okay. There are no confidence intervals
25 on that table.

1 A. That's correct.

2 Q. Why not?

3 A. That's not what I was asked to answer in
4 Tables 10 for the portions of my report in Tables
5 10 and 11. For this portion of the report, I was
6 asked to generate estimates, but then to report
7 the number of districts that are above 50 percent
8 in terms of the estimated overall share of the --
9 of Berrios' votes, and so I was asked to count up
10 the number of districts that are above 50
11 percent.

12 Q. Okay.

13 A. But let me just finish answering your
14 question there. And so I was specifically asked
15 to count that up for the proposed plan, as well
16 as for the Legislature's mapping plan, and then
17 to compare those two numbers, compare the number
18 of districts that are above 50 percent.

19 And so that required me to rely on a
20 point estimate in order to do that, so it's a
21 matter of comparing two different plans, two
22 different numbers, and looking at them in
23 comparison.

24 Q. Okay, so let's look at on Table 10 entry
25 Number 1, the 4th column, "Latino support for

1 Latino-preferred candidate Berrios." Do you see
2 that?

3 A. Yes.

4 Q. And you put 75.4 percent. Do you see
5 that?

6 A. Right.

7 Q. So in doing that, your analysis would
8 have produced I think I heard you say a
9 confidence interval, right?

10 A. Well, I didn't actually produce a
11 confidence interval for this specific district.
12 So the confidence interval that's generated is a
13 confidence interval for, in Table 7 for example,
14 a confidence interval for the estimate of the
15 entire election, and obviously, this is a
16 countywide election, so that's not the same thing
17 as a confidence interval for a specific district.

18 So the answer is no, I didn't actually
19 generate a confidence interval for this specific
20 district.

21 Q. All right, give me that again. Why does
22 it not prevent, -- produce a confidence interval?

23 A. Sure. I'm just going to repeat my
24 answer again.

25 Q. Please.

1 A. So what the ecological inference
2 methodology does is it produces confidence
3 intervals, as we've talked about before. Those
4 confidence intervals I report in Table 7, I think
5 it was. Table -- or maybe I'm reading it wrong,
6 Table 7 and 6.

7 Q. Uh-huh.

8 A. Those confidence intervals are for the
9 entire election. So when I'm reporting, for
10 example, the Berrios Kaegi elections, EI
11 estimates, that is the confidence level for the
12 entire, for all of Cook County, and it's a point
13 estimate for Cook County that I'm reporting.

14 Q. Correct?

15 A. Confidence intervals are the confidence
16 interval describing the uncertainty around that
17 Cook County estimate. Now that confidence
18 interval is not the same for every geographical
19 area within Cook County. It could be higher in
20 some. It could be lower in other areas.

21 So what I'm not producing here in Table
22 10, I did not produce a district-specific
23 confidence interval, because again that was not
24 what I was tasked with. That's not a question I
25 was tasked with answering. So that's why you

1 don't see a district-specific confidence
2 interval.

3 Q. Do you produce the confidence interval
4 or does whatever software program you use to do
5 your ecological inference estimates produce the
6 confidence interval?

7 A. With respect to Table 7 and the other EI
8 tables that I have, reporting those EI point
9 estimates, the confidence interval is generated
10 by -- the confidence interval distribution is
11 generated by the software, by the computer code.
12 And obviously, I didn't write the ecological
13 inference computer code. It was written about 24
14 years ago --

15 Q. Okay.

16 A. -- but it is produced by that code.

17 Q. Okay, so --

18 A. It's not like I'm personally coming in
19 and generating, you know, an uncertainty estimate
20 of my own. I'm using the prepackaged software to
21 do so.

22 Q. Okay, but in that first entry there for
23 Latino support for Latino-preferred candidate
24 Berrios, 75.4 percent, that's a point estimate,
25 too, right?

1 A. It is a point estimate, yes.

2 Q. So why doesn't it produce a confidence
3 interval?

4 A. I'm explaining that I did not go and
5 generate a confidence interval because it was not
6 necessary for answering the question that I
7 answered in this section of the report.

8 Q. And I'm asking you did the program
9 produce a confidence interval for that point
10 estimate?

11 A. It did not. It produced a confidence
12 interval for the entire jurisdiction, which in
13 this case is Cook County.

14 Q. I guess I don't understand. How did it
15 then become broken down from the County to this
16 district?

17 A. How did what become broken down?

18 Q. Well, where did this 75.4 percent come
19 from, if it didn't come from your ecological
20 inference software?

21 A. It came from point estimates produced by
22 the ecological inference software. The software
23 produces point estimates, and those estimates are
24 reported at the precinct level.

25 I broke them down to the block level and

1 then I reconstituted them to, for example, the,
2 you know, the Plaintiffs' proposed plan or to the
3 legislature's enacted plan, so that part of the
4 estimation I did because, obviously, the
5 ecological inference software does not actually
6 input in a, you know, hypothetical or a proposed
7 districting plan.

8 Q. Okay. But this table here refers to the
9 enacted plan, so these are precincts that exist.

10 A. Yes. These are, obviously, you know,
11 they include precincts from Cook County.

12 Q. Right. And you're saying it's
13 hypothetical only because this election was not
14 limited to this district; is that what makes it
15 hypothetical to you?

16 A. I'm not sure what, when I said
17 hypothetical.

18 Q. Okay.

19 A. I think what I was saying, I'm not sure
20 I used the word hypothetical, but maybe I did,
21 what I was saying is that, obviously, it's a
22 different geography, so when run an ecological
23 inference estimate on the entirety of the -- of
24 the Cook County election, you're producing
25 estimates for all of the precincts, as well as

1 for the entirety of Cook County.

2 Q. Right, and so you're producing a point
3 estimate by precinct? Let's take it one step at
4 a time. You're producing a point estimate by
5 precinct.

6 A. That's correct.

7 Q. And then you're adding up all of those
8 point estimates in every precinct in Cook County
9 to get a general or a final point estimate,
10 right?

11 A. Well, not literally. I know what you're
12 trying to get at. You aggregate all of those
13 estimates.

14 Q. Correct, fair enough.

15 A. You don't actually add them up, but you
16 aggregate them together, and that is, that's what
17 the point estimates that I report ended up.

18 Q. And the result of the aggregation gets
19 you a point estimate that includes a confidence
20 interval?

21 A. You have a point estimate, and you can
22 calculate a confidence interval for any level of
23 geography that you want.

24 Q. Including a district like District 1
25 here?

1 A. Yeah, if you wanted to, you can
2 aggregate numbers up to the district level and
3 you can use those precinct numbers to generate a
4 point estimate, as well as a confidence interval
5 for any sublevel of geography within the
6 election's jurisdiction.

7 Q. Now we're getting somewhere. So my
8 question is why do you have a point estimate for
9 District 1 without a confidence interval?

10 A. The same answer as before, right. My
11 answer from before was what I was asked to do
12 here in Tables 10 and 11 was to go through these
13 two plans, the enacted plan, obviously, certain
14 districts in the enacted plan, and compare that
15 to the districts in the proposed plan, and to
16 count up the number of districts with a point
17 estimate, and when I say point estimate now I'm
18 not talking about just Latino support, I'm
19 obviously talking about the overall estimated
20 share for Berrios, and to count up the number of
21 districts that are over 50 percent, over a 50
22 percent threshold.

23 Q. Okay.

24 A. So to do that I relied upon the point
25 estimates because the whole point of this

1 question that was posed to me was to compare two
2 different plans, was to compare two different
3 plans in terms of the number of districts in each
4 plan that are above a 50 percent threshold.

5 Q. Okay. But what I don't get is if as you
6 said before the software automatically produces
7 the confidence interval for the countywide point
8 estimate, why doesn't it do it for the
9 districtwide?

10 A. The answer there again is that the
11 software, the ecological inference package, does
12 not actually analyze for you a particular
13 districting plan. You have to go in and do that
14 yourself by reconstituting it from geography,
15 from for example, precincts or Census blocks.

16 Q. Right, okay.

17 A. So the ecological inference software is
18 completely blind as to what proposed plan or
19 proposed district you're trying to analyze.

20 It just analyzes every precinct in
21 Chicago -- or I'm sorry not Chicago, but in Cook
22 County. So it analyzes every precinct in Cook
23 County and it spits out for you a distribution of
24 estimates.

25 From that distribution you can calculate

1 a confidence interval for any level of geography
2 you want, and what I have, obviously, done in
3 Table 7 is reported that confidence interval for
4 all of Cook County, the entire jurisdiction in
5 which that election was held.

6 Q. Okay. You just said, I think you just
7 said something different from what I understood.
8 I originally understood you to say that the
9 software automatically produces the confidence
10 interval, but now you just said you can calculate
11 the confidence interval.

12 A. All right, I apologize for the
13 imprecision, so let me explain in a little bit
14 more technical detail exactly how confidence
15 intervals come out.

16 Q. Okay.

17 A. Would that be responsive to your
18 question?

19 Q. Yes.

20 A. You didn't ask me the question, but I
21 think that's what you're trying to ask. So the
22 software spits out outputs, in other words, a
23 distribution, and these are distributions at the
24 countywide level, if you're analyzing a County
25 election, and it gives you a distribution at the

1 precinct level.

2 So these are distributions, and normally
3 we would report say a 95 percent confidence
4 interval using those distributions.

5 Q. Okay.

6 A. So the distributions come from the
7 software. I have to get those distributions and
8 do a little bit of computer code in order to find
9 where is the 95 percent confidence interval.

10 It's not complicated math, because the
11 distribution is already given to you. It's just
12 a matter of counting up where is the 2.5th
13 percentile and where is the 97.5th percentile.

14 And so that's why I said in short form
15 earlier that the software effectively gives you
16 the confidence interval. As you're pointing out,
17 that's not literally true. I do have to do a
18 little bit of math in order to get that
19 confidence interval.

20 Q. And you did not do that math for Table
21 10 and Table 11?

22 A. In order to do that for Table 10 and
23 Table 11, a/k/a for individual districts, you
24 have to do a little bit more math. You would
25 have to take the precinct level numbers,

1 basically apply each confidence interval for each
2 precinct, and apply it to whatever districting
3 plan, whatever district you're analyzing, and
4 reconstitute that.

5 You certainly can do that. It was not
6 necessary to do that in order to answer the
7 question that I was tasked with analyzing here.

8 Q. Right, okay. So in Table 10 the lowest
9 percentage you have is in District 23 at 66
10 percent; do you see that?

11 A. Yeah, I see the 66.

12 Q. How do you know that that's 66 percent,
13 if you don't have a confidence interval?

14 A. I was tasked with using the point
15 estimate and producing a point estimate for the
16 entire plan.

17 And the reason I did that is because I
18 was asked to compare the number of districts that
19 ultimately have a point estimate of above versus
20 below 50 percent.

21 Q. Right, and that's my point.

22 A. Let me just finish. In order to do
23 that, I use the point estimate.

24 Q. Okay. So if your confidence interval,
25 had you done it, was 15 percent, that could be

1 less than 50 percent, right?

2 A. You're asking me if 15 percent is less
3 than 50 percent. Did I hear your question right?

4 Q. No, no, I'm saying 17 percent. It's
5 possible, and my point is that without the
6 confidence interval you can't be entirely certain
7 that the point estimates are correct. That's why
8 you put them in the other tables, to show me what
9 the range could be.

10 A. Like I said, you can produce confidence
11 intervals. That is not what I was doing here in
12 this table because I was counting up the number
13 of districts that are above a certain point
14 estimate threshold, and that threshold being 50
15 percent.

16 Q. But you can't -- okay, fair enough, fair
17 enough. The point estimate, though, is only an
18 estimate and you need a confidence interval in
19 order to be able to tell me what the range could
20 be. I mean it's not exactly 75.4 percent in
21 District 1. There's a range that it could be,
22 right, because it's an estimate?

23 A. Sure. I mean there's a range to any
24 estimate that we do, whenever we're doing a
25 performance analysis of a district.

1 So if there's a particular area where
2 any sort of estimate generates more uncertainty
3 or a higher confidence interval that would, you
4 know, affect your confidence in a point estimate
5 and, obviously, that would be the same both of
6 enacted plan analysis, as well as a proposed
7 plan.

8 Q. Sure.

9 A. I mean it would affect both plans just
10 the same.

11 Q. Right, exactly, and you don't have the
12 confidence intervals for any of these
13 calculations in Table 10 and 11?

14 A. Again, that wasn't necessary to answer
15 the question that I was tasked with answering.

16 Q. The question was how many of the
17 districts are above 50 percent.

18 A. The question was how many districts have
19 a point estimate of above 50 percent in this
20 final column of Table 10 and 11.

21 Q. Were you directed to only use the point
22 estimates? Did the lawyer really understand this
23 well enough to talk about point estimates?

24 A. I was directed to count up, to give a
25 discrete number of districts for each plan.

1 Obviously, I talked with Plaintiffs' counsel
2 about how I exactly planned to go about answering
3 that, you know, with statistical methods.

4 Q. Okay, and did you talk about confidence
5 intervals?

6 A. Of course I explained confidence
7 intervals.

8 Q. Were you told to exclude confidence
9 intervals?

10 A. I was not told to exclude anything.

11 Q. Were you told not to calculate
12 confidence intervals for Tables 10 and 11?

13 A. I was not told to exclude or not
14 calculate anything. I was just told to calculate
15 or count the number of districts above a certain
16 threshold, and so I did what was necessary to
17 answer that question.

18 Q. Okay. What if one of these point
19 estimates was 52 percent, and you had a
20 confidence interval of 5 percent either way?
21 Would you include that?

22 MR. LEUTKEHANS: Objection to form,
23 vague.

24 Q. (BY MR. KASPER) Do you understand the
25 question?

1 A. I just want to know exactly what you're
2 talking about.

3 Q. (BY MR. KASPER) Let's say the point
4 estimate for Latino support for Latino-preferred
5 candidates is 52 percent, okay?

6 A. Okay.

7 Q. And the confidence interval is 47
8 percent to 55 percent?

9 A. 47 to 55, okay.

10 Q. Would that go on your list as being
11 above 50 percent?

12 A. Well, I didn't have a list of districts
13 here in Table 10 where Latino support was above
14 50 percent.

15 I did have a list of, or I counted up
16 districts where the final column which is
17 estimated total support was above 50 percent.

18 Q. Okay. Well, then let's say it's the
19 final column, the same hypothetical.

20 A. Right. Okay, do you want me just to
21 answer that new hypothetical?

22 Q. Yeah.

23 A. I mean the answer is if the question
24 that I'm tasked with answering is report the
25 number, then I report the number or I count up

1 the number that are above the threshold of 50
2 percent.

3 Now as to a confidence interval that say
4 could vary across different areas in Cook County
5 that would similarly affect both the analysis of
6 the enacted plan as well as the proposed plan, so
7 if we're more uncertain in a particular area
8 about whether -- you know, about the point
9 estimate, as in we have a larger confidence
10 interval, then that affects both plans.

11 Q. Okay, but you're not answering my
12 question. Maybe I'm phrasing it poorly. If you
13 put a point estimate -- you are, as I understand
14 it, you were asked to enumerate the number of
15 districts that had a point estimate above a
16 certain threshold, right?

17 A. That's correct.

18 Q. Okay. If a point estimate was above
19 that threshold, but the confidence interval, had
20 you done it, the bottom of that confidence
21 interval was below that threshold, would you or
22 would you not have included that district on your
23 list?

24 A. Well, I mean that's a little bit
25 different question than I was tasked with

1 answering, but in general it's still consistent
2 with, yes, that's what I would have done, because
3 when you have a confidence interval, there's an
4 interval both below and above, and so what a
5 point estimate is, is it's a mean estimate.

6 It's the estimate that is right in the
7 middle of the distributions, so sure. I mean
8 with the understanding that this is what I'm
9 doing is I'm calculating the number of districts
10 where the estimate is above 50 percent, and you
11 can, you know, you can point out that there's a
12 confidence interval, and that's totally fine and
13 totally legitimate, but it doesn't change the
14 fact that the point estimate is above 50 percent
15 or below 50 percent.

16 Q. Okay. Well, then why did you include
17 the confidence intervals in the other table?

18 A. I mean with the other tables, it's just,
19 I think it's pretty normal to include a
20 confidence interval when you're reporting for an
21 entire election and for the entire jurisdiction.

22 It really wasn't actually, you know, it
23 really wasn't necessary for calculating whether
24 or not the numbers above 50 percent or below 50
25 percent.

1 Q. Okay. I think I understand. Now let's
2 go to Paragraph 11 of your rebuttal report, and
3 this is talking about Dr. Lichtman's discussion
4 of the win rates, okay, that starts on Page --
5 I'm sorry, Paragraph 10.

6 MR. LEUTKEHANS: Mike, if this is a
7 new topic, does the court reporter need a break?
8 I could use five minutes.

9 MR. KASPER: That's fine with me.

10 (Brief recess taken.)

11 Q. (BY MR. KASPER) Dr. Chen, where we left
12 off was on Paragraph 9, or I'm sorry, Paragraph
13 10 of your rebuttal report.

14 A. Yes.

15 Q. And you talk about Dr. Lichtman in his
16 reporting analyzed 15 endogenous State, House and
17 Senate elections that you analyzed in your
18 initial report; do you see that?

19 A. Yes.

20 Q. He pointed out that the Latino-preferred
21 candidate won 13 of 15 of these elections for a
22 win rate of 57 percent. Do you agree with that?

23 A. Right. You're just reading my last
24 paragraph -- or I'm sorry the last sentence of
25 Paragraph 10 there.

1 Q. Yeah, but you also agree that 13 of 15
2 is 87 percent?

3 A. Oh, okay, I mean that's a math question.
4 I will trust that that was correct.

5 Q. Isn't that what you do, math questions,
6 Doctor?

7 A. Not off the top of my head.

8 Q. All right. That's fine, and so then in
9 Paragraph 11 you say you will re-analyze this win
10 rate by selecting only the elections meeting the
11 following criteria, and you list five criteria in
12 Paragraph 11, right?

13 A. Yes.

14 Q. Who picked the five criteria?

15 A. Plaintiffs' counsel asked me what would
16 happen to the win rate if you applied these
17 various criteria and I answered that question.

18 Q. Okay. And the -- did you get all the
19 criteria as one or did you go through the
20 criteria one at a time?

21 MR. LEUTKEHANS: Objection, form.

22 Q. (BY MR. KASPER) I'm sorry, my question,
23 is did you analyze what would happen to the win
24 rates based on the first criteria?

25 A. No, I don't think I analyzed them one at

1 a time like that.

2 Q. Okay.

3 A. I was given all the criteria, and I
4 answered the question that was posed to me.

5 Q. Okay. Were you given all five criteria
6 at the same time?

7 A. Yeah, I was given -- I mean I talked to
8 him on the phone and I recall being given all of
9 these criteria and I was told, you know: Look at
10 the election, look at the elections and apply the
11 criteria.

12 Q. Okay. And were there more criteria that
13 were eliminated from the final list of 5 that
14 appear here?

15 A. You'd have to ask Plaintiffs' counsel
16 that. I received these five criteria.

17 Q. Okay, and you received these five
18 criteria all at once?

19 A. Yeah. I recall it was primarily the
20 phone conversation, I think it was on Sunday. I
21 don't remember the exact date. It was a few
22 weeks ago.

23 Q. Did you play any role in determining the
24 five criteria?

25 A. No. Like I said, I answer questions

1 that are posed to me. I don't make up questions
2 for myself to answer, so I did not. I didn't
3 suggest criteria. I didn't tell Plaintiffs'
4 counsel what to instruct me to do.

5 Q. No one asked you: If we added this
6 criteria, what do you think that would do, before
7 the criteria made the list, that kind of thing?

8 A. No, I don't recall a conversation
9 saying: Would this eliminate a lot of elections,
10 or anything like that.

11 Q. Okay.

12 A. I was given instructions, or I was given
13 a question with criteria to answer.

14 Q. Okay.

15 A. I just answer the question that's posed
16 to me.

17 Q. All right, fine, and then on Table 1 in
18 your report you sort of demonstrate what your
19 findings were by applying these criteria, right?

20 A. Right.

21 MR. LEUTKEHANS: Mike, just for the
22 record, you got the corrected Table 1 this
23 morning, correct?

24 MR. KASPER: I don't know if I did.

25 MR. LEUTKEHANS: Okay. Yeah, the

1 only difference is, and I might not remember all
2 the names, is that in Line 3 there's actually,
3 when I was doing this, I accidentally deleted some
4 names.

5 MR. KASPER: Oh.

6 MR. LEUTKEHANS: In Line 3, there's
7 actually 5 candidates in that category.

8 MR. KASPER: Okay, that's fine.

9 MR. LEUTKEHANS: And then in Line
10 there's actually, there should be 3 under
11 that, as well.

12 MR. KASPER: I'm familiar with
13 those candidates.

14 MR. LEUTKEHANS: Yeah, I figured
15 you were, and so that's why. I just accidentally
16 deleted them.

17 MR. KASPER: No problem.

18 MR. LEUTKEHANS: And I corrected
19 them this morning.

20 MR. KASPER: No problem at all.
21 That's not relevant for what --

22 MR. LEUTKEHANS: No, I don't think
23 that changes anything, but I wanted to make sure
24 that you didn't have a concern about that.

25 MR. KASPER: All right, thank you.

1 Q. (BY MR. KASPER) And so, Doctor, in this
2 list in the 1, 2, 3, 4, 5, 6th column, the
3 incumbent, I see that, yes, and then in the 5th
4 column, "Hispanic candidate of choice wins," and
5 you'll see that there are indeed 13 yeses and two
6 nos, which is reflective of the win rate I
7 suppose that Dr. Lichtman talked about and that
8 you referenced in the previous paragraphs, right?

9 A. Right.

10 Q. Okay. Now but then through the process
11 of adding these additional criteria you
12 eliminated every election except one, right?

13 A. That's correct.

14 Q. And you don't know why those criteria
15 were applied?

16 A. That wasn't what I was tasked with
17 forming an opinion on, so I have no opinion.

18 Q. All right. And you have no opinion that
19 maybe, just maybe since it eliminated 14 of 15,
20 they were designed to eliminate these elections
21 from consideration?

22 MR. LEUTKEHANS: Objection.

23 A. I was not asked to analyze that
24 question, so I have no opinion.

25 Q. (BY MR. KASPER) Fair enough. All

1 right, and so let's go to the one that survives.
2 The one that survives the gauntlet here is Entry
3 Number 4, right?

4 A. Right.

5 Q. Berrios, HD39, 2014 democratic primary,
6 right?

7 A. Right.

8 Q. And she survives because she was the
9 candidate of choice. She was not the candidate
10 of choice of white voters, right?

11 A. Right.

12 Q. She did not win, in the next column she
13 did not win, right?

14 A. Met all the criteria.

15 Q. Met all the criteria. Okay. Now let me
16 direct your attention to Entry Number 2. That's
17 House District 39, so the same District as 4,
18 2012 Democratic primary, the same candidate,
19 Berrios, candidate of choice of white voters, no,
20 Hispanic candidate of choice wins, so she won.

21 A. There's an election, right.

22 Q. Right, in Entry Number 4, that would
23 make her an incumbent, right?

24 A. I'll take your representation that she
25 was the incumbent.

1 Q. Okay. So that would eliminate that
2 election, too, right?

3 A. If your representation is right.

4 Q. It's right. It would eliminate the
5 election, right? So the criteria that you were
6 given by Plaintiffs' counsel on Sunday would have
7 eliminated every single election, right?

8 A. Okay, if what you're representing to me
9 is right, then I made a mistake.

10 Q. Okay, and so then there are zero
11 elections according to your own criteria where
12 the Latino candidate of choice loses, correct?

13 A. The same caveat as before. I mean if I
14 stand corrected, then you're right.

15 Q. Right. All right, I have no further
16 questions.

17 EXAMINATION

18 BY MR. LEUTKEHANS:

19 Q. Okay. Let's go through a few, this
20 won't be very long. For the record, Nick
21 Stephanopoulos is a lawyer, correct?

22 A. That's correct.

23 Q. And you're not?

24 A. I am not.

25 Q. Okay. Go back to, if you could go to

1 Lichtman Table 1 on Page 38.

2 A. Okay, I am at 38.

3 Q. Okay. You weren't asked to analyze this
4 table; is that correct?

5 A. I was not.

6 Q. Okay. Dr. Lichtman's report is over 200
7 pages; is that correct?

8 A. That sounds about right.

9 Q. And you received this approximately one
10 week before your rebuttal report was due; is that
11 correct?

12 A. Yeah, it was about one week.

13 Q. Okay. And part of those days were
14 Thanksgiving and a weekend, correct?

15 A. That's correct.

16 Q. Did you have the time or were you asked,
17 given that timeframe, to go through all of the
18 report and determine what flaws were in the
19 report?

20 A. No. As I testified earlier today, there
21 are lots of parts that I hadn't seen before
22 today.

23 Q. Okay. Is it fair that in your Footnote
24 2 you just noted a couple of the obvious problems
25 you found?

1 A. That's correct.

2 Q. Okay. Let's go to the numbers in Table
3 7, your Table 7 of your original report, okay?

4 A. Okay, I'm there.

5 Q. You were asked about these numbers, and
6 I think you said it, but I just want to clear it
7 up, you were asked about these numbers adding up
8 to 100 percent; do you recall that?

9 A. Yes.

10 Q. Is that what the -- what will happen in
11 the EI program if you run all of these numbers,
12 that those columns will add up to 100 percent?

13 A. The columns here on Table 7?

14 Q. When you add the white vs. Latino and
15 all the others. I'm sorry, I'm trying to find
16 the table.

17 A. We're on Page 40, Table 7.

18 Q. Thank you, I'm going the wrong
19 direction. So Mr. Kasper asked you, for example,
20 the 2015 Chicago mayoral election was 40.5
21 percent support for the Latino-preferred
22 candidate among other voters, correct?

23 A. 40.5, yeah, I see the 40.5.

24 Q. And then he asked you does that mean
25 automatically that 49 percent of Latinos'

1 supported that candidate?

2 A. Correct.

3 Q. Would that, would the EI automatically
4 come up with that number, or the ecological
5 inference equation?

6 A. The EI procedure doesn't just
7 automatically do 100 minus 40.5 percent. It
8 separately comes up with an estimate of its own
9 for the other candidates and for the other racial
10 groups.

11 Q. Let's go to your Table 1, the corrected
12 Table 1 --

13 A. Okay.

14 Q. -- that Mr. Kasper asked you about. If
15 the category said incumbent wins, would you then
16 no longer have Berrios as a -- at that point
17 Berrios would still be an election where the win
18 rate was zero, was zero out of one, correct?

19 A. Right, if it says incumbent wins, then,
20 obviously, Berrios lost.

21 Q. Okay, and have you seen Dr. Fowler's
22 report very closely or not?

23 A. I was given a copy of it, but I have not
24 reviewed most of it. I looked at small portions
25 of it that Plaintiffs' counsel directed my

1 attention to.

2 Q. Okay, and did one of those portions talk
3 about the fact that incumbents in Illinois have a
4 very large win rate of over 90 percent in the
5 2012 to 2020 election?

6 A. That was the portion that I referenced
7 in my footnote in this week's report that I saw
8 in Dr. Fowler's report.

9 Q. Okay. So it appears to be relatively
10 rare that incumbents actually win an election --
11 or actually lose an election in Illinois,
12 correct?

13 A. Right, whatever that number was, 91 and
14 92 percent.

15 Q. Okay. Let's take a two-minute break,
16 Mike. I just want to talk to co-counsel.

17 MR. KASPER: Okay, sure.

18 (Brief recess taken.)

19 Q. (BY MR. LEUTKEHANS) Dr. Chen, are you
20 still there?

21 A. I'm here.

22 Q. I have no further questions. I don't
23 know if anybody else does. I guess not.

24 MR. KASPER: Thank you, Doctor.

25 MR. LEUTKEHANS: Peggy, we'll just

1 reserve signature.

2 THE REPORTER: And I understand you
3 all are in a rush, right?

4 MR. LEUTKEHANS: And if you could
5 send roughs as soon as possible, that would be
6 great.

7 (Deposition ended at 5:44 p.m.)

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

C E R T I F I C A T E

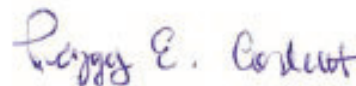
I, Peggy E. Corbett, a Certified Court Reporter of the State of Missouri, do hereby certify:

That prior to being examined the witness was by me duly sworn;

That said deposition was taken down by me in shorthand at the time and place hereinbefore stated and was thereafter reduced to writing under my direction;

That I am not a relative or employee or attorney or counsel of any of the parties, or a relative or employee of such attorney or counsel, or financially interested in the action.

WITNESS my hand and seal this 4th day of December, 2021.



PEGGY E. CORBETT,
CCR No. 143, RDR, CRR

Phillip A. Luetkehans, Esq.

pal@lbgalaw.com

December 6, 2021

RE: MCCONCHIE vs. ILLINOIS STATE BOARD OF ELECTIONS

December 3, 2021, JOWEI CHEN, Ph.D., JOB NO. 4970015

The above-referenced transcript has been completed by Veritext Legal Solutions and review of the transcript is being handled as follows:

___ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext to schedule a time to review the original transcript at a Veritext office.

___ Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Code of Civil Procedure.

___ Waiving the CA Code of Civil Procedure per Stipulation of Counsel - Original transcript to be released for signature as determined at the deposition.

___ Signature Waived - Reading & Signature was waived at the time of the deposition.

Page 114

1 _x_ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF

2 Transcript - The witness should review the transcript and
3 make any necessary corrections on the errata pages included
4 below, notating the page and line number of the corrections.
5 The witness should then sign and date the errata and penalty
6 of perjury pages and return the completed pages to all
7 appearing counsel within the period of time determined at
8 the deposition or provided by the Federal Rules.

9 ___ Federal R&S Not Requested - Reading & Signature was not
10 requested before the completion of the deposition.

1 MCONCHIE vs. ILLINOIS STATE BOARD OF ELECTIONS
2 JOWEI CHEN, Ph.D. (#4970015)
3 E R R A T A S H E E T
4 PAGE_____ LINE_____ CHANGE_____
5 _____
6 REASON_____
7 PAGE_____ LINE_____ CHANGE_____
8 _____
9 REASON_____
10 PAGE_____ LINE_____ CHANGE_____
11 _____
12 REASON_____
13 PAGE_____ LINE_____ CHANGE_____
14 _____
15 REASON_____
16 PAGE_____ LINE_____ CHANGE_____
17 _____
18 REASON_____
19 PAGE_____ LINE_____ CHANGE_____
20 _____
21 REASON_____
22 _____
23 _____
24 WITNESS _____ Date _____
25

[& - 47]

&	113 4:9	2015 49:19 55:14	33.9 58:14
& 3:5 114:23 115:9	12 71:20 74:13	72:8 73:12 109:20	34 49:12,13
0	120 13:16	2015-2019 52:8	34.6 49:4
02116 3:13	13 100:21 101:1	2016 9:20	36.8 10:19
03091 1:12	105:5	2018 71:22 80:16	37 80:13,23
1	14 74:16 105:19	2019 49:19	38 48:14,21 57:19
1 4:13 6:18 24:4	1400 3:12	2020 47:2 111:5	57:19 59:5 108:1
25:23 38:19 48:13	141 4:2	2021 2:4 113:17	108:2
48:21 51:1 82:25	143 113:20	114:3,5	39 53:8 57:18
88:24 89:9 94:21	15 93:25 94:2	2025.520 114:9,12	58:11,25 59:5
103:17,22 105:2	100:16,21 101:1	21 73:25	80:22,23 106:17
108:1 110:11,12	105:19	2284 1:16	39.6 58:22
115:1	15.9 10:3	23 43:23 93:9	3:03 5:1
10 61:18 62:12	151 3:23	24 73:21,25 85:13	3rd 2:4
63:22 64:4 71:20	1600 2:16	24960 113:19	4
73:20 81:21,23	161 2:16	25 67:9	4 37:4 46:16,22
82:4,5,24 84:22	17 37:4 50:9 94:4	2500 3:23	68:10 69:12 72:17
89:12 92:21,22	17.7 48:5 50:3,12	26 72:18	79:9,14 81:14,19
93:8 95:13,20	50:22,24	26.2 47:1 79:17	105:2 106:3,17,22
96:12 97:13 100:5	172 74:20 75:12	27 72:18	40 9:16 49:5 57:19
100:13,25 104:10	173 74:21 77:17	28 1:16 78:17,17	58:19 59:5 80:12
100 10:24 11:11,14	175 72:2	28.3 78:13	109:17
11:20 12:1,5,9,10	18 78:17,18	28.8 78:14	40.5 55:21 56:15
13:11,14 14:14	18.3 77:18,21	29.8 46:25 79:16	109:20,23 110:7
15:2 18:20 19:2	78:12	3	40.5. 109:23
56:15 57:15 61:20	182 73:9	3 24:9 38:12,16	41 57:19
61:22 62:14 63:8	188 73:20	40:3 46:5,7 52:11	42 57:18,21
63:18 109:8,12	195 74:14	69:12 72:16 73:12	426 2:5
110:7	1986 43:19	73:14 74:15 81:14	427-0701 3:19
102 12:22	1:21 1:12	81:19 104:2,6,10	43 80:12
105 3:6	2	105:2 114:5	43.8 57:25 58:3,9
106 4:2	2 16:23 17:11,24	30 11:8 73:14	44 80:12
107 4:8	24:9 105:2 106:16	80:13 115:1	44.4 56:24
11 3:17 35:1 81:21	108:24	31 8:7	45 61:18,19 62:7
82:5 89:12 92:21	2.5th 92:12	312 3:19	62:12,12 63:7,16
92:23 95:13,20	20 43:23	312.7043292 3:24	63:20
96:12 100:2 101:9	200 108:6	312.782.0600 3:3	45.6 58:15
101:12	2012 67:9 106:18	312.802.0336 2:17	46 81:21,23
	111:5	33 7:15,15,18,18	47 49:13 81:22
	2014 53:8 106:5	9:7 54:5	97:7,9

[47.8 - analysis]

47.8 49:5 48 49:13 49 109:25 4970015 114:5 116:2 4th 22:5 82:25 113:16	6 6 4:13 53:1,22 80:11,11 84:6 114:3 60 13:20 21:22 60:3 60143 3:6 60601 2:17 60603 3:18 60606 3:2,24 60625 4:2 61 64:14,18 617.937.2300 3:13 63 13:21 63.2 15:5 63.20 10:16 630.760.4601 3:7 65 13:23 53:9 66 93:9,11,12 6th 22:6 55:20 56:17 105:2	815.762.2629 4:3 84 59:21 84.10 9:25 10:9 862 28:6 87 101:2 898 25:11	18:20 19:1 51:13 64:4 88:15 109:12 109:14 added 11:22 13:15 13:20 103:5 adding 88:7 105:11 109:7 additional 105:11 address 73:4 adds 16:22 17:9,22 admit 38:7 advanced 43:20 43:21 ae 74:24 affect 95:4,9 98:5 affirm 27:22 52:20 57:11 afford 24:10 26:11 affords 25:20 afternoon 5:7,9,18 age 35:21 36:25 37:2 47:12 aggregate 88:12 88:16 89:2 aggregation 88:18 ago 43:23 85:14 102:22 agree 68:12 76:10 80:1 100:22 101:1 ahead 30:18 51:11 alarm 16:24 17:11 17:24 alex 3:11 alongside 43:5,8 alternative 71:24 altogether 78:11 american 3:15 amount 76:2 analysis 66:11 67:18 79:19,25 83:7 94:25 95:6
5 5 4:7 48:4 50:11 53:2,5,11 54:24 81:14,19 96:20 102:13 104:7 105:2 50 21:15,22 24:4 24:13 25:15,22 26:2,14 29:20 31:24 32:4,10 33:8 41:4,20,22 51:9,18 52:1,21 68:7,11 69:4,11 71:8 82:7,10,18 89:21,21 90:4 93:20 94:1,3,14 95:17,19 97:11,14 97:17 98:1 99:10 99:14,15,24,24 500 3:12 52 96:19 97:5 55 97:8,9 55.6 57:1,5 55.6. 57:9 56.6 56:18 56.6. 56:25 57 100:22 59 48:3 50:11 56:2 56:10 5:44 112:7 5th 22:5 49:9 55:20 105:3	7 7 7:17 9:16 22:2 32:17,23 44:4 55:7,9 59:17 64:14 77:20 80:11 81:17 83:13 84:4 84:6 85:7 91:3 109:3,3,13,17 70 11:5 700 3:18 71 3:2 59:25 72 53:10 75.4 83:4 85:24 86:18 94:20	9 9 71:16 100:12 90 111:4 91 111:13 915 35:3,4 92 111:14 922 27:9 28:17,18 34:19,25 94171 47:9 95 92:3,9 97.5th 92:13 99 12:22	
	8 8 65:7,23 73:8 80 13:16 16:22 17:9,22	a able 6:17 52:13 94:19 absence 40:7 52:15 absolute 31:16,16 42:7 absolutely 33:24 accept 72:22 accepted 23:7 access 6:5,24 accidently 104:3 104:15 accuracy 73:1,2 acs 49:19 action 113:15 actual 13:25 21:10 57:13 62:9 adams 3:17 add 10:24 11:14 11:16 12:1,5,9 13:10 15:1,11	

[analysis - best]

98:5 analyze 39:1 42:13 42:16 53:16 65:2 69:1,18 70:18 71:12 77:2,13 90:12,19 101:9,23 105:23 108:3 analyzed 48:8 65:6 70:10 100:16 100:17 101:25 analyzes 90:20,22 analyzing 10:25 91:24 93:3,7 ann 2:5 anna 2:12 answer 8:6 12:4 15:16 16:9 18:4 18:15 19:5 21:20 21:24 23:5,7,19,21 24:1 26:17 29:12 29:15 30:10 31:2 31:4 32:11,14,21 33:12 39:24 42:7 53:24 54:4,21 56:11 57:12 63:13 67:15,23 69:18,21 70:14,25 71:14 73:17 74:1,12,18 74:19 77:2 79:8 82:3 83:18,24 89:10,11 90:10 93:6 95:14 96:17 97:21,23 102:25 103:2,13,15 answered 18:18 32:7 86:7 101:17 102:4 answering 53:15 54:2 77:12 82:13 84:25 86:6 95:15 96:2 97:24 98:11	99:1 anybody 111:23 anyway 34:6 apologize 30:18 35:2,6 53:4 91:12 apparent 27:16 appear 65:7 80:12 102:14 appearing 2:9 3:15,20 114:18 115:7 appears 32:22 111:9 apples 78:15 applied 101:16 105:15 applies 22:4 52:24 apply 12:17 67:15 93:1,2 102:10 applying 103:19 appropriate 22:20 22:22 approximately 59:25 108:9 arbor 2:6 area 78:24 84:19 95:1 98:7 areas 78:4,6,20,22 84:20 98:4 argument 76:21 argumentative 67:1 armstrong 3:5 arobledo 3:14 article 4:13 6:22 7:2 24:12 25:11 25:25 26:1,5,6 27:3 28:2,13 34:3 34:7,19,21 35:14 38:3,8 40:20	artificially 13:13 asian 56:9 asians 20:24 22:17 56:12,19 asked 31:20 33:11 33:25 38:21 39:1 42:13,16 53:23 54:7,21 64:12 66:3 68:5 69:1,17 71:7 76:23 82:3,6 82:9,14 89:11 93:18 98:14 101:15 103:5 105:23 108:3,16 109:5,7,19,24 110:14 asking 5:8 11:22 11:25 21:3 23:12 23:13 33:20 41:2 41:5,17 44:20 45:2,7 46:2,12 52:20 61:5,14 62:25 63:4 68:25 70:9 86:8 94:2 assessor 71:22 74:24 assume 62:8 assuming 37:10 attention 9:15 48:13,20 64:13 72:3 80:10 106:16 111:1 attorney 70:18 71:14 113:13,14 august 6:3 author 29:14 30:1 30:6 31:1,3 authoritative 49:23 automatically 90:6 91:9 109:25	110:3,7 ave 4:2 b b 1:13,17 4:11 115:1 back 9:7 15:3 22:2 34:2,12,14 44:2 46:5 50:8 55:7 59:16 107:25 ball 12:10,13 13:9 56:8 ballparking 37:23 base 61:3 based 13:1,2 32:2 33:14 34:1 70:10 71:22 101:24 basically 13:11 62:25 71:2 93:1 basis 36:14 76:16 bear 34:14 began 38:18 begins 29:24 behalf 2:2 3:8 belabor 5:11 believe 22:19 47:5 49:18,22 64:15 79:9 believed 74:22 berrios 10:13,16 13:21 14:2 15:5 53:7 54:13 56:17 57:6 58:13,21,23 58:24 59:3,7,10 60:11 71:22 74:24 76:1 77:18 82:9 83:1 84:10 85:24 89:20 106:5,19 110:16,17,20 best 5:16 7:8,10 20:17 28:11 49:25 79:7
--	---	--	--

[better - chicago]

better 9:5 14:13 28:22 74:23 75:25 beyond 26:16 78:4 bit 16:14 38:9 91:13 92:8,18,24 98:24 black 6:10,15 34:23 35:20,23 36:16,24 37:2 44:12 54:15 56:4 56:6,9 61:19 62:7 62:8,12,20 blacks 20:24 22:17 32:6 56:12,18 63:1 blank 25:8 blind 4:13 24:13 90:18 block 40:6,14,16 41:4 46:8,11 52:14 61:2,10 86:25 blocks 90:15 blue 37:20 38:4 66:23 board 1:14,20 114:4 116:1 boston 3:13 bottom 32:22 49:7 98:20 boylston 3:12 brackets 81:4 brady 3:5 branch 3:8 break 48:16 50:14 74:10 100:7 111:15 brennan 1:13 brief 24:16 48:18 100:10 111:18	broke 86:25 broken 86:15,17 brown 3:1 browser 24:21 bunch 35:11 bureau 8:2 c c 2:8 113:1,1 ca 114:9,12,20 cadigan 1:16 calculate 88:22 90:25 91:10 96:11 96:14,14 calculating 99:9 99:23 calculations 11:13 11:16,17 71:25 95:13 calendar 4:2 call 5:20 42:22 62:4 called 41:24 candidate 7:21,24 9:8,13,21,21 10:4 11:7 13:7,8 21:12 22:7,8,9 31:10,12 31:18,22 32:2,4,9 32:13,19,20 33:4,5 33:16,18,21 34:1 40:9 41:19 42:3,5 44:12,13 45:6 46:11,12,14 52:17 54:9,11,13 55:17 56:20 57:6 58:1 59:12 60:6 61:4 68:6,12,21,21 69:3 69:9,11 70:8 71:6 81:7,9 83:1 85:23 100:21 105:4 106:9,9,18,19,20 107:12 109:22	110:1 candidate's 15:24 16:3,4,15,16 60:16 80:16 candidates 8:17 9:12 11:4,20,24,24 13:22 14:2,25 15:9,21 16:22 17:9,22 18:22 20:14,22 22:13 24:11 25:21 26:13 27:18 30:14 33:9 41:23 66:5 68:1 69:23 76:5 97:5 104:7,13 110:9 capacities 1:19 capacity 1:3,6,21 2:9,10 casandra 1:17 case 1:12 11:18,18 31:19 37:5 38:1 52:12 59:10 60:14 61:14 64:10 86:13 cast 63:21 categories 22:21 55:22 category 22:4 59:12 60:6 104:7 110:15 caucus 1:9,10 2:13 2:14 cause 61:3,7,11 63:5 caused 60:15,19 60:22 caveat 16:10 31:5 32:13 50:21 107:13 ccp 114:9,12 ccr 2:3 113:20	census 8:2 47:2,9 79:13 90:15 certain 14:9,19 26:24 70:20 71:15 89:13 94:6,13 96:15 98:16 certainly 14:15 23:6 40:22 43:19 43:22,24 56:7,14 63:22 70:17 71:10 71:12 78:8 80:6 93:5 certainty 14:23 certificate 4:9 certified 113:3 certify 113:5 challenged 7:10 42:10,11 72:14 74:14 77:6 chance 64:8 change 99:13 116:4,7,10,13,16 116:19 changes 104:23 characteristics 26:25 36:20,22 characterizing 44:24 charles 1:14 3:1 charris 3:3 chart 48:4 50:11 51:7 check 16:25 17:12 17:25 checking 58:6 chen 2:1 4:6 5:2,7 29:2 48:20 100:11 111:19 114:5 116:2 chicago 2:17 3:2 3:18,24 46:23
--	--	--	--

[chicago - cook]

47:13,18 56:4 61:18 62:5 76:5 76:13 77:7,10,15 78:5,7,9,18,21,22 79:6,22 80:5 90:21,21 109:20 chicago's 46:25 79:17 chief 1:14 choice 24:12 25:22 26:13 42:4 68:2 105:4 106:9,10,19 106:20 107:12 chose 65:2 christopher 1:21 2:13 circle 36:11 37:3 37:21 circles 35:19 38:4 circuit 1:13 circumstances 27:19 30:15 40:7 52:15 citizen 35:20 36:25 37:2 47:12 city 76:14 78:5,7 78:18 79:1 civil 114:19,20 claim 54:19 clarify 5:15,25 9:3 63:11 clark 2:16 clean 57:3 clear 27:2,2 32:14 45:23 109:6 clearly 30:5,9 clients 8:4 close 12:5 closely 110:22 closer 76:4	coalitional 40:23 code 43:7 85:11,13 85:16 92:8 114:9 114:12,19,20 cohesion 21:15 cohesive 21:16 cohesively 20:25 21:8 colors 6:11,17 column 22:5,5,6 23:10,10 48:25 49:9,15 51:15,25 55:20 56:18 65:8 82:25 95:20 97:16 97:19 105:2,4 106:12 columns 49:1,2 81:14,19 109:12 109:13 combined 68:19 come 8:22 34:12 34:14 74:11 86:18 86:19 91:15 92:6 110:4 comes 78:17,19 110:8 coming 85:18 commenced 5:1 comment 74:5 commentary 53:20 comments 38:15 commonly 8:21 43:24 community 3:9 compare 78:9 82:17,17 89:14 90:1,2 93:18 compared 58:15 76:22	comparing 35:11 35:15 38:4 76:13 76:14 78:15 82:21 comparison 36:23 65:1 76:17 82:23 completed 114:7 114:17 115:6 completely 90:18 completion 115:10 complicated 92:10 composition 62:4 comprise 46:25 79:16 comprising 29:20 comptroller 9:20 computational 43:19,20,25 computer 35:12 35:13 85:11,13 92:8 concentration 27:10 79:4 concept 19:10,19 20:1,3 21:13 24:5 concern 104:24 conclusion 10:3 conditions 66:4 conduct 23:13 conducted 23:25 conference 3:9 confidence 14:6 14:11,12 15:4,7,7 15:10,12,20,24 16:3,15,16,17,18 16:23 17:10,23 18:23 19:3 55:24 81:4,13,18,24 83:9 83:11,12,13,14,17 83:19,22 84:2,4,8 84:11,15,15,17,23 85:1,3,6,9,10 86:2	86:5,9,11 88:19,22 89:4,9 90:7 91:1,3 91:9,11,14 92:3,9 92:16,19 93:1,13 93:24 94:6,10,18 95:3,4,12 96:4,6,8 96:12,20 97:7 98:3,9,19,20 99:3 99:12,17,20 confident 18:11 confirm 58:6 confronted 16:11 congress 3:9 consequence 27:11 consider 41:18 considerable 65:3 considerably 50:4 consideration 105:21 considering 79:23 consistent 75:15 99:1 constant 12:7,11 12:16 constitutes 68:19 constitutional 27:15 constrained 13:13 contact 114:9 content 53:25 context 33:8 conversant 24:9 conversation 102:20 103:8 cook 46:22 47:1,13 48:5 50:3,12 58:14 71:20,22 76:5,15 77:8,23 78:4,9,19,20 79:5 79:17,21,23 80:6
--	---	--	---

[cook - demographic]

84:12,13,17,19 86:13 87:11,24 88:1,8 90:21,22 91:4 98:4 cooley 3:11 cooley.com 3:14 copy 6:7,10,15 64:11 110:23 copying 4:15 corbett 2:3 113:3 113:20 correct 9:1 10:2 10:12 22:18 23:18 25:25 27:20 36:3 36:5 37:1,10 38:22,24 42:15 49:10,10 50:15,15 51:9,19 56:16 57:17 60:12 62:1 65:21 70:13 73:16 81:5,6,15,16 82:1 84:14 88:6,14 94:7 98:17 101:4 103:23 105:13 107:12,21,22 108:4,7,11,14,15 109:1,22 110:2,18 111:12 corrected 103:22 104:18 107:14 110:11 corrections 114:14 114:15 115:3,4 correctly 23:12 36:10,24 57:8 counsel 8:9 18:10 21:19 23:22 24:2 31:20 33:11 38:21 39:1,18,22 54:7 66:3,10,15 67:15 67:19,22 68:4,5	69:15,17 70:11 96:1 101:15 102:15 103:4 107:6 110:25 111:16 113:13,14 114:18,21 115:7 count 37:4 39:10 47:8,9 54:7 66:11 66:14,17 68:6 69:2 82:9,15 89:16,20 95:24 96:15 97:25 counted 39:8 70:10 97:15 counting 11:3 47:5 63:3 92:12 94:12 county 46:23 47:13 48:5 50:3 50:12 58:15 71:21 71:22 76:6,15 77:8,23 78:5,19,20 79:5,23 80:6 84:12,13,17,19 86:13,15 87:11,24 88:1,8 90:22,23 91:4,24 98:4 county's 47:1 79:18,21 countywide 50:6 78:10 83:16 90:7 91:24 couple 6:21 15:8 37:19,25 47:22 53:21 70:19 108:24 course 11:3 19:12 20:19 78:21 96:6 court 1:1,15 4:15 17:2 43:13 100:7 113:3	covering 76:15 create 27:12 created 35:13 criteria 32:3 38:13 38:15,20,22,25 39:2,3,6,8,11,14 39:16 40:5,15,21 54:8,23 66:1,17,19 66:19 67:5,11,14 68:8,10 69:12,24 69:25 70:5,11,15 70:19,20,23 71:4,8 71:15 101:11,11 101:14,17,19,20 101:24 102:3,5,9 102:11,12,16,18 102:24 103:3,6,7 103:13,19 105:11 105:14 106:14,15 107:5,11 criterion 31:23 crossover 27:19 30:15,16 31:1,6,9 40:20,21,22,24 41:6,9,24 42:2 75:21 76:3,21 77:18 crr 113:20 csr 2:3 current 36:4 cut 25:15 26:3 cv 1:12 5:10 cvap 36:13 37:11 47:4 48:4,5,25 49:3,9,17,23,24 50:3,6,11 51:8,16 52:2,8,8,21 53:9	data 8:2,4,14,14 11:3 17:1,13 18:1 27:16 44:8 45:8,8 45:11,13,16,20 79:25 date 102:21 114:16 115:5 116:24 daughter 58:24 66:21 day 2:4 28:21 62:9 63:21 113:16 days 108:13 de 2:12 decade 36:2,6 december 2:4 113:17 114:3,5 decennial 47:2,9 defeat 40:8 52:16 57:25 58:13,21 59:2,7 60:7,16 61:4,8,11 62:1,24 63:5 defeated 54:9 defendant 40:4 defendants 2:2 3:20 defense 3:15 defined 26:7 41:4 defining 36:16,17 definitely 43:7 definition 31:11 31:17,23 35:17 degree 21:11 deguilio 1:14 deleted 104:3,16 democratic 106:5 106:18 demographic 8:2 8:11,14 26:24 36:20
		d	
		d 4:4 dan 1:2 2:9	

[demographics - ei]

demographics 27:6 35:16 36:21 demonstrate 52:13 103:18 depending 12:11 depends 12:15 deposition 2:1 5:1 112:7 113:8 114:19,22,24 115:8,10 describe 32:18,23 described 53:25 describing 25:24 44:25 84:16 description 4:12 designed 105:20 detail 64:12 65:13 91:14 determination 25:23 determine 25:13 25:19 79:20 108:18 determined 63:2 67:6 114:18,22 115:7 determining 102:23 deviates 15:1 diaz 2:12 difference 80:4 104:1 different 20:13,14 20:21,21 46:1,4 53:21 60:20 66:5 69:23 78:6 81:12 82:21,22 87:22 90:2,2 91:7 98:4 98:25 difficult 63:10	dig 28:12 direct 48:12,20 64:13 72:3 80:10 106:16 directed 95:21,24 110:25 direction 69:14 109:19 113:11 disagree 48:6 69:20 76:10 discrete 95:25 discussion 100:3 disfavor 60:9 disorganized 53:4 disparate 15:12 disparities 65:3 disproportionate 64:6 dispute 71:25 73:1 distribution 4:16 85:10 90:23,25 91:23,25 92:11 distributions 91:23 92:2,4,6,7 99:7 district 1:1,1 25:20 26:8,14,21 26:23 27:5 29:10 29:10,20 36:21,22 41:6,9,9,24 42:3 49:4 53:8,9 67:9 68:18 72:16,16 73:12,14,21,25 74:14 80:16 83:11 83:17,20 84:22 85:1 86:16 87:14 88:24,24 89:2,9 90:19 93:3,9 94:21,25 98:22 106:17,17	district's 29:21 districting 87:7 90:13 93:2 districts 8:18 24:5 24:7,8,10,14 25:13 25:14 27:13,14,17 27:19 29:24 30:1 30:2,10,13,15 31:6 31:7 34:8,9 35:17 35:24 36:17,18 37:9 42:9,11 50:4 51:9 52:1,17,19 67:25 71:21 72:15 72:15,17 77:3,4,6 77:10,14 82:7,10 82:18 89:14,15,16 89:21 90:3 92:23 93:18 94:13 95:17 95:18,25 96:15 97:12,16 98:15 99:9 districtwide 90:9 dividing 23:14,14 division 1:2 doctor 5:23 34:13 41:13 101:6 105:1 111:24 documents 7:11 doing 26:5 36:16 45:1 57:15 70:2 76:13 77:1 83:7 94:11,24 99:9 104:3 dolores 2:12 donahue 1:17 dots 66:23 double 50:5 dow 1:15 dr 5:7 6:5,8,9 25:6 29:2 38:14 44:8 44:23 45:4 48:3	48:13,20,21 49:16 50:10,22 51:4,8 53:6,10,20,25 54:22 64:9,14 65:2,5,6,14 71:23 72:2,7,20,23 73:9 74:21 75:24 76:25 100:3,11,15 105:7 108:6 110:21 111:8,19 draw 7:8 drawing 24:7,10 drawn 36:6 drive 3:2 dual 44:14 due 27:15 108:10 duly 5:3 113:7 durkin 1:5 2:10
			e
			e 1:14 2:3,8,8 3:1 4:4,11 113:1,1,3 113:20 114:9,12 115:1 116:3,3,3 earlier 6:2 26:4 79:12 92:15 108:20 easier 28:14 east 3:6,8,17 eastern 1:2 ecological 7:19 8:15,21 12:18,21 14:7,8,16,17 16:2 23:13 42:20,23 43:5,8,10,13,21,24 44:1 84:1 85:5,12 86:19,22 87:5,22 90:11,17 110:4 educational 3:15 effectively 92:15 ei 57:13 84:10 85:7 85:8 109:11 110:3

[ei - experience]

110:6 either 20:24 37:15 42:1,6 65:20 96:20 elect 24:11 25:21 26:12 27:17 30:13 31:10 68:1 election 7:22,24 8:3,11,14 9:9 11:10,25 16:6 33:5 39:11 41:17 44:14 45:12 53:8 55:15 56:17 58:2 62:9 63:2,21,23 64:5 68:14 71:23 72:9 73:12,13 74:16,22,24 75:25 76:1,14 77:7 78:9 78:18,19 83:15,16 84:9 87:13,24 91:5,25 99:21 102:10 105:12 106:21 107:2,5,7 109:20 110:17 111:5,10,11 election's 89:6 elections 1:14,20 8:17 38:14,22 39:2,5,7,9,13 41:2 41:18 53:21 54:7 54:25 65:1,6 66:1 66:4,10,14,16,18 67:8,11 69:2,8 70:10,18,20,21 71:12,15 76:5,15 77:9 78:10 84:10 100:17,21 101:10 102:10 103:9 105:20 107:11 114:4 116:1	electoral 36:21 61:3 electorate 23:15 62:9,11 63:17 elects 42:3 eligible 47:7,8 eliminate 40:21 41:2,5,8,18,23 103:9 105:20 107:1,4 eliminated 69:8 102:13 105:12,19 107:7 eliminates 40:19 69:7 emanuel 1:20 74:22 empirical 25:24 26:1,9 employee 113:12 113:14 enable 52:15 enacted 35:24 36:22 42:10 87:3 87:9 89:13,14 95:6 98:6 encountered 18:5 19:6 ended 88:17 112:7 endogenous 65:1 100:16 endorsed 43:13 ends 14:15 entails 19:14 entire 14:13 23:14 23:15 83:15 84:9 84:12 86:12 91:4 93:16 99:21,21 entirely 77:10 94:6	entirety 87:23 88:1 entry 9:19 10:13 17:1,14 18:2 55:14 59:19 81:14 81:18 82:24 85:22 106:2,16,22 enumerate 98:14 equal 24:11 25:21 26:12 68:1 equals 11:20 equation 110:5 er 42:23 era 43:22 errata 114:14,16 115:3,5 esq 114:1 essentially 22:12 estimate 7:22 8:16 12:18 13:5,6,8 14:1,6,7,10,21,23 15:5,8 16:12,15,17 18:12 21:10 43:9 47:19 55:23 56:6 56:12 57:13 77:17 82:20 83:14 84:13 84:17 85:19,24 86:1,10 87:23 88:3,4,9,19,21 89:4,8,17,17 90:8 93:15,15,19,23 94:14,17,18,22,24 95:2,4,19 97:4 98:9,13,15,18 99:5 99:5,6,10,14 110:8 estimated 7:20 11:23 33:6,7,17 82:8 89:19 97:17 estimates 12:6,8 12:12 14:9,17,18 15:1,21 16:2 43:6	71:24 82:6 84:11 85:5,9 86:21,23,23 87:25 88:8,13,17 89:25 90:24 94:7 95:22,23 96:19 estimation 13:3,12 14:20 16:1 87:4 ethnic 7:20,23 ethnically 33:21 ethnicity 34:1 45:5 evaluating 35:18 36:20 evelyn 44:12 exact 102:21 exactly 13:14 23:25 31:21 32:23 52:23 70:15 74:9 91:14 94:20 95:11 96:2 97:1 examination 4:7,8 5:5 107:17 examined 113:6 example 20:12 21:15 61:7 83:13 84:10 87:1 90:15 109:19 exceed 26:14 exception 18:22 50:16 52:5 53:6 53:13,17,24 73:15 exciting 75:10 exclude 70:6 71:4 96:8,10,13 excluded 39:4,10 69:21 exercise 38:18 exhibit 4:13 6:18 exhibits 4:15 exist 87:9 experience 18:19 47:11 77:22
---	---	---	--

[expert - go]

expert 21:18 expertise 22:23 70:1 71:13 explain 7:18 8:9 31:14 91:13 explained 18:17 32:25 53:19 68:5 96:6 explaining 86:4 express 20:17,17 55:5	fine 6:4,16 8:13 19:9 28:15 34:21 37:8 40:2 73:19 99:12 100:9 101:8 103:17 104:8 finish 82:13 93:22 finished 70:25 first 5:3 6:8 7:14 7:16 9:19 15:17 18:8 22:3 29:1,13 57:20 65:8 80:15 85:22 101:24 five 100:8 101:11 101:14 102:5,16 102:17,24 flaw 44:18 45:19 45:20,21 flaws 44:9,21 45:9 45:9,11,13 46:3 108:18 following 101:11 follows 5:4 17:6 17:19 114:8 footnote 44:6 45:6 45:24 46:4 108:23 111:7 force 13:13,13 form 41:11 42:12 45:18 51:10 59:13 60:17 66:25 68:23 92:14 96:22 101:21 formed 37:13 forming 105:17 formulaic 36:18 forward 18:7,10 31:24 found 66:4 71:20 108:25 four 38:20,22 39:2 39:5 54:8	fowler's 110:21 111:8 franklin 3:23 frcp 115:1 front 6:2,12 14:1 28:2,10 51:7 55:12 56:7 57:14 72:5 full 46:22 fund 3:15 further 107:15 111:22 future 4:14 24:13 38:8	42:21,24 46:10 47:25 76:9,23 generate 82:6 83:19 86:5 89:3 generated 83:12 85:9,11 generates 95:2 generating 85:19 geographical 84:18 geographies 47:21 48:1 geography 79:1 87:22 88:23 89:5 90:14 91:1 getting 16:20 17:8 17:21 41:1,7 89:7 gingles 19:20 20:10,16,18 21:4,7 21:24 24:9 40:9 40:11 43:12,12 46:5,7 52:11,24 give 11:20 19:7,13 20:5,12 29:4 34:13,16,24 61:17 75:22 83:21 95:24 given 18:14 32:3 38:25 39:16,17 54:23 66:1 67:12 69:15,24 71:4 92:11 102:3,5,7,8 103:12,12 107:6 108:17 110:23 gives 14:9 91:25 92:15 giving 27:3 57:12 glasses 25:4 go 7:3 9:9 15:3 16:25 17:12,25 30:18 34:2,5,17 37:7 38:10,11
f		g	
f 113:1 fact 26:8 44:9 54:12 99:14 111:3 fair 12:20 19:9 33:13 65:19 68:18 71:1 78:12 80:8 81:13 88:14 94:16 94:16 105:25 108:23 fairly 15:6 55:25 familiar 7:1 19:10 19:15 29:16 42:19 42:21 43:12 52:10 65:12 104:12 far 27:24 51:15 favor 71:21 federal 115:1,8,9 felipe 2:12 figure 35:1,14 44:5 50:23 figured 104:14 files 8:10 final 88:9 95:20 97:16,19 102:13 financially 113:15 find 14:22 34:4,12 92:8 109:15 findings 103:19		garcia 55:18,20 56:5,10 57:24,25 57:25 58:4 59:10 59:19,19,21,24 60:2,7,9,11 61:7,8 61:11,12,15,20,22 62:1,14,16,24 63:5 63:18 72:17 73:13 73:25 74:15,22 75:21,25 76:3 garcia's 58:10 garner 3:5 gathering 8:2 gauntlet 106:2 general 9:20 12:4 12:17 13:1,2 16:9 16:10 18:6,19 19:17,18 20:1,3,20 21:13 29:19 31:14 36:17 47:15,16 55:5,15 68:24 69:6 70:14 71:10 79:2 88:9 99:1 generally 13:9 18:4 19:15 20:8 20:20 21:18 22:5	

[go - inference]

46:16 48:2,16 51:11,14 53:1 55:7 59:16 66:22 74:3 75:4 86:4 89:12 90:13 96:2 97:10 100:2 101:19 106:1 107:19,25,25 108:17 109:2 110:11 goes 29:24 73:8 going 5:8 6:21 7:6 7:12,16 8:6 9:7 12:5,6,9 13:5,9,10 15:16,17 17:2 22:2 24:3,22 25:3 27:7,25 29:12,13 30:5 31:2,4 32:21 34:2,11 41:15 46:15 47:16 48:20 49:5 50:7 54:4 62:4 68:22 76:19 78:21 83:23 109:18 good 5:7,18,18 9:6 25:2 57:10 64:22 goodman's 42:22 gotcha 45:22 80:23 gotten 43:7 grab 48:16 great 14:22 112:6 greater 36:13 greatly 40:21,23 41:8 griselda 3:16 group 20:24 21:7 29:20 32:5 56:13 70:7 71:5 78:10 81:2,8	group's 7:21,23 9:10 13:7 18:21 61:16 groups 20:13,21 22:13,25 24:11 26:12 60:20 80:18 81:12 110:10 grumbach 64:9 65:2,6 guess 26:10 45:16 73:20 86:14 111:23 guys 64:22 guzzardi 58:23 gvegasamuel 3:19	held 91:5 help 57:24 helped 58:13,21 59:2,6,7,11 60:7 60:21 helps 57:8 hereinbefore 113:10 hey 48:15 high 49:5 higher 50:4,5 84:19 95:3 highest 33:6,17 highlighted 25:12 29:8 hispanic 46:24 48:25 49:3,9 51:8 53:9 105:4 106:20 historical 27:11 house 1:7,11,22,24 2:11,14 35:24 53:8 72:16,16 73:12,14,21,25 80:16 100:16 106:17 how's 31:1 huh 84:7 hypothetical 61:17 62:3 63:15 87:6,13,15,17,20 97:19,21 hypothetically 14:4 61:5,9	identify 31:21 32:1 33:25 39:13 45:4 66:3 67:25 70:21 71:15 ii 3:1 il 3:24 4:2 illinois 1:1,4,7,9 1:10,12,14,19,22 1:24 2:10,11,13,14 2:17 3:2,6,9,18 9:20 36:7,12 37:9 37:18 42:9,10 111:3,11 114:4 116:1 imprecision 91:13 include 87:11 96:21 99:16,19 included 15:9,20 98:22 114:14 115:3 includes 88:19 including 16:1 23:16 88:24 incorrect 13:18 incumbent 105:3 106:23,25 110:15 110:19 incumbents 111:3 111:10 indicate 9:24 38:19 indicates 35:23 36:11 indicative 40:12 individual 92:23 individually 1:4,8 2:10,11 infer 11:8 80:3 inference 7:19 8:16,21 12:18,21 14:7,8,16,17 16:2
	h		
	h 4:11 116:3 haine 1:18 half 56:3 hand 113:16 handful 7:6 handily 72:18 handled 114:8 happen 42:5 101:16,23 109:10 happened 15:15 70:17 happens 15:11 happy 24:19,20,20 28:12 32:12 37:7 43:18 48:9 75:1 hard 44:5 harmon 3:21 harris 3:1 hd39 106:5 head 101:7 hear 30:19 94:3 heard 17:4 19:12 83:8 heather 4:1,1,3	hispanic 46:24 48:25 49:3,9 51:8 53:9 105:4 106:20 historical 27:11 house 1:7,11,22,24 2:11,14 35:24 53:8 72:16,16 73:12,14,21,25 80:16 100:16 106:17 how's 31:1 huh 84:7 hypothetical 61:17 62:3 63:15 87:6,13,15,17,20 97:19,21 hypothetically 14:4 61:5,9	
		i	
		ian 1:15 idea 20:19,20 ideally 26:22 identification 6:19 45:3 identified 9:8 39:7 45:5 66:18 70:10	

[inference - lawyer]

23:14 43:5,8,22 44:1 84:1 85:5,13 86:20,22 87:5,23 90:11,17 110:5 inferring 10:3 initial 38:10 55:8 80:11 100:18 input 87:6 inquiry 18:11 70:7 inside 78:7,22 79:5 80:5 instances 40:5 instruct 103:4 instructions 18:14 103:12 intend 6:4 interested 48:24 113:15 interpret 16:18 21:24 interpretation 19:14 27:4 31:16 interrupt 5:25 9:1 23:2 interrupting 35:6 interval 12:8 14:6 14:12 15:7,10,12 15:24 16:3,19,23 17:11,24 18:23 19:4 55:24 81:4 81:13,18 83:9,11 83:12,13,14,17,19 83:22 84:16,18,23 85:2,3,6,9,10 86:3 86:5,9,12 88:20,22 89:4,9 90:7 91:1,3 91:10,11 92:4,9,16 92:19 93:1,13,24 94:6,18 95:3 96:20 97:7 98:3 98:10,19,21 99:3,4	99:12,20 intervals 12:11,16 14:12 15:20 16:17 81:24 84:3,4,8,15 91:15 94:11 95:12 96:5,7,9,12 99:17 investigate 65:5 65:10 involves 38:13 irrelevant 53:23 54:16 irving 3:6 itasca 3:6	46:21 48:17,19 51:13 56:24 57:1 57:4,5,17 59:16 60:25 64:25 65:22 67:2 69:5 71:1,3 73:24 74:7,10,12 74:13 75:6,9,13 96:24 97:3 100:9 100:11 101:22 103:24 104:5,8,12 104:17,20,25 105:1,25 109:19 110:14 111:17,24 katherine 1:16 keep 34:6 keeps 74:5 kind 76:24 103:7 kinds 6:11 know 7:2 13:24 14:1,18 19:1 21:17 28:7,19 32:11,25 35:13 38:3 39:15,19,25 41:16 42:17 43:1 43:6 44:24 45:3 48:8 49:16 50:20 50:21 51:3,5 54:23 57:10 60:19 63:22 65:15 67:10 67:17 69:1 71:8 75:7 85:19 87:2,6 87:10 88:11 93:12 95:4 96:3 97:1 98:8 99:11,22 102:9 103:24 105:14 111:23 knowing 69:5 78:25 knowledge 79:4 knows 74:6	l la 2:12 labeled 72:12 lagrange 4:2 large 111:4 larger 12:11 16:5 40:19 98:9 latino 9:8,21,25 10:4,9,17,19 11:6 11:20,23 16:21 17:9,22 18:21 22:6,7,8,9 31:22 32:12,19,20 33:4,7 33:16,18,19,22 44:15 48:4 50:3 50:11 54:9,11 55:17 56:20 57:6 59:11,21 60:15 61:4,19,20 62:12 62:13 63:8 66:6 68:12,13,17,19,20 76:4 79:5,22 82:25 83:1 85:23 85:23 89:18 97:4 97:4,13 100:20 107:12 109:14,21 latinos 11:1 20:24 22:13 23:9,15,16 23:17,23 32:6,9 34:9 40:8 41:20 46:24 47:14 50:6 52:13 63:16 69:2 69:8,10,22 79:16 79:24 80:5 109:25 laura 1:17 law 2:16 3:22 4:13 6:22,23 lawyer 10:8 56:22 70:12 95:22 107:21
	j j 1:16 3:22,22 james 2:12 jim 1:5 2:10 job 114:5 joint 45:12 jon 1:14 journal 4:13 6:23 jowei 2:1 4:6 5:2 114:5 116:2 jr 1:15 2:12 58:23 judge 1:13,14,15 1:15 juliana 44:11 jurisdiction 86:12 89:6 91:4 99:21 jurisdictions 46:23		
	k k 1:15,17 92:23 kaegi 58:15,18 84:10 kasper 3:22,22 4:7 4:16 5:6,8,19 6:20 15:16 28:17,25 30:25 35:3,7 41:12 42:15 46:19		

[lawyers - mean]

lawyers 7:9 lbgalaw.com 3:7 114:2 leader 1:3,6 2:9,11 leave 38:8 left 100:11 legal 3:15 19:13 26:6 27:3 36:19 67:20 114:7 legally 26:19 legislative 35:18 legislature 36:12 legislature's 82:16 87:3 legislatures 35:10 legitimate 76:21 99:13 leutkehans 4:8 26:16 28:24 30:17 30:21 34:24 35:5 41:10 42:12 46:17 46:20 48:15 51:10 56:21,25 57:2,10 59:13 60:17 64:24 65:21 66:25 68:23 70:24 73:22 74:4 74:9 75:3,7 96:22 100:6 101:21 103:21,25 104:6,9 104:14,18,22 105:22 107:18 111:19,25 112:4 level 7:21,23 8:3 9:10 60:23 84:11 86:24,25 88:22 89:2 91:1,24 92:1 92:25 lichtman 44:23 45:4 49:16 50:22 51:4 53:20,25 54:22 71:23 72:7	72:23 75:24 76:25 100:15 105:7 108:1 lichtman's 6:5,8,9 25:6 38:14 44:8 48:3,13,21 50:10 51:8 53:6,10 64:14 65:5,14 72:2,20 73:9 74:21 100:3 108:6 limited 54:24 70:23 87:14 line 29:8 104:2,6,9 114:15 115:4 116:4,7,10,13,16 116:19 linnabary 1:15 list 66:16 69:12 77:5 80:17 97:10 97:12,15 98:23 101:11 102:13 103:7 105:2 listed 81:9,14,18 literally 88:11 92:17 little 16:14,16 17:16 38:9 44:5 56:22 91:13 92:8 92:18,24 98:24 live 80:5 llc 3:5 llp 3:1,11 location 47:12 77:22 locked 114:12 115:1 logistical 19:24 long 13:12 65:18 107:20 longer 77:5 110:16	look 27:1,9 30:3 35:4 36:7 38:21 64:22 67:6,7 72:6 75:8 82:24 102:9 102:10 looked 65:12 110:24 looking 25:22 34:6 45:24 51:6 82:22 looks 65:12 lose 68:9 111:11 loses 59:24 60:2,11 61:22 107:12 losing 58:23 losses 60:5 lost 53:7 54:13,17 59:12 68:7 110:20 lot 20:6 78:21 80:4 103:9 lots 108:21 louis 3:8 low 46:24 77:23 lower 47:13,16,18 47:25 50:24 78:13 78:17 84:20 lowest 49:3 93:8 luetkehans 3:4,5 32:3 65:20 114:1 lump 23:9 luna 2:12	maldef 3:17 maldef.org 3:19 mapmakers 27:11 mapping 82:16 marked 6:18 massachusetts 3:13 math 10:6,7,21 37:6,24 38:5 56:14,22 57:11 78:16 92:10,18,20 92:24 101:3,5 mathematical 42:2 mathematically 61:1 matter 19:21 82:21 92:12 mayer 3:1 mayerbrown.com 3:3 mayoral 55:15 72:9 73:12 78:9 78:18 109:20 mcconchie 1:2 2:9 114:4 116:1 mcguffage 1:16 mean 7:2 8:25 11:11,15 12:4,15 12:25 13:24 18:3 19:12,22 20:9,13 20:15,19 21:2,17 22:16,22,23 23:2 23:25 24:17,24 25:18 29:11,16 30:16,18,22 31:1,5 31:13 33:20,24 37:6,23,24 41:25 42:1,6,25 45:24 46:2,10 47:24 49:14 50:19 52:6
		m	
		m 1:15,15 mac.com 3:25 major 78:23 majority 24:14 27:12 29:9,11,19 30:2,10 31:8 40:6 40:13,16 41:3,20 52:14,18,19 68:20 making 25:23 36:23 74:4	

[mean - numerous]

52:22 53:16 59:14 60:19,19 63:6 66:13,20 67:19 68:10,24,25 70:14 70:16 72:5,22 75:22 76:16 77:25 78:16 94:20,23 95:9 97:23 98:24 99:5,7,18 101:3 102:7 107:13 109:24 meaning 10:8 52:12 means 10:19 20:12 32:16 56:2 60:22 meant 20:1 52:7 measure 21:14 22:12,20 23:23 34:22 35:8 46:9 49:23,24 75:25 measured 29:22 measuring 18:21 46:8 meet 38:22 39:2,5 39:11 40:14 66:19 70:19,20 meeting 39:13 71:15 101:10 members 1:19 mendoza 9:22,24 10:5,10 13:21 15:4 22:4 32:18 mention 53:18 met 39:8 66:4,18 106:14,15 methodologies 13:4 methodology 7:19 8:16,20,22,23 9:2 9:3,4 12:21 13:4 13:12,18 14:21	16:1 23:8 25:25 26:1,9 33:15 42:20 43:14 84:2 methods 43:19 96:3 metropolitan 78:24 mexican 3:15 meza 2:15,16 meza.law 2:18 michael 1:13 3:22 3:22 5:8 michigan 2:6 middle 36:8 66:2 99:7 mike 5:19,20 34:24 41:10 48:15 56:21 70:24 74:5 100:6 103:21 111:16 mind 67:2 mine 6:10 minimal 76:2 minorities 21:12 23:16 42:3 67:25 minority 1:3,6 2:9 2:11 9:11,13 20:24 21:7 24:7,8 24:10,10,14 25:15 25:20,20 26:2,7,12 26:14,20,23 27:4 27:10,12,18 29:9 29:11,19,20 30:2 30:10,14 31:7,9,10 31:12,17 32:2 34:7 46:13 51:16 52:2,12,16,19 70:6 71:5 minus 56:15 110:7 minute 48:12,16 71:19 75:11	111:15 minutes 100:8 mis 44:25 45:5 mischaracterizing 44:25 misinterpreting 36:15 missouri 113:4 misspell 58:17 mistake 107:9 misunderstands 76:25 mjkasper60 3:25 moment 75:3 morning 103:23 104:19 move 38:9 46:15 80:8 n n 2:8 3:23 4:4 naacp 3:9,9 name 5:7 80:17 names 104:2,4 narrow 15:6 55:25 near 58:20 necessarily 31:8 68:15 necessary 27:17 30:13 86:6 93:6 95:14 96:16 99:23 114:14 115:3 necktie 66:22,24 need 6:16 7:15,17 48:2 50:7 94:18 100:7 needed 29:1 neither 60:14 never 27:14 29:25 67:2 new 97:21 100:7	nick 107:20 non 23:16 31:9 normal 76:4 99:19 normally 92:2 north 2:16 northern 1:1 nos 105:6 notating 114:15 115:4 note 4:15 5:10 32:22 33:15 noted 108:24 notice 2:4 november 6:1 18:9 31:20 54:6 67:8 number 10:1,22 10:23 11:18 15:13 54:14 57:16 58:5 68:10 74:15 77:25 82:7,10,17,25 89:16,20 90:3 93:18 94:12 95:25 96:15 97:25,25 98:1,14 99:9 106:3,16,22 110:4 111:13 114:15 115:4 numbered 44:4 numbers 8:11,12 11:25 12:7 16:12 16:13 18:20 43:9 49:14 50:25 51:20 52:8,21,24 64:7 79:13 82:17,22 89:2,3 92:25 99:24 109:2,5,7,11 numerically 62:23 numerous 61:25
--	--	--	--

[oath - page]

o	okay 5:13 6:14,16 7:5,11,13 8:1,13 9:15,19 10:2 11:22 12:4 13:15 14:5 15:16 16:8 16:20 17:15 18:3 18:13,16 19:9,16 19:21 20:23 21:6 22:2 23:11,19 24:3,5 25:18 27:7 27:7 28:11 29:6 29:18,23 31:11 32:17 33:13 34:14 34:18,21 38:6,18 39:15,24 40:2 42:19 43:2,11 44:2 45:23 46:5 46:15 48:11,12 49:3,8,14,21 50:2 50:13 51:2,6,13 53:1,5,18 54:3 55:7,11,14 56:9 57:2,22,23 58:11 59:16,18 60:14 61:5,19,20,21,24 62:2,22,25 63:6,14 63:14 64:2,8,13,25 65:22 66:6,21 67:13,24 68:18 69:5,19 70:1,9 71:16 72:2,7,13,25 73:4,8,19 74:13,20 75:11,14,18,22,22 75:24 76:10 77:16 77:22 78:2,12 79:3,11 80:1,9,10 80:23 81:1,11,24 82:12,24 85:15,17 85:22 87:8,18 89:23 90:5,16 91:6,16 92:5 93:8	93:24 94:16 96:4 96:18 97:5,6,9,18 97:20 98:11,18 99:16 100:1,4 101:3,18 102:2,5 102:12,17 103:11 103:14,25 104:8 105:10 106:15 107:1,8,10,19,25 108:2,3,6,13,23 109:2,3,4 110:13 110:21 111:2,9,15 111:17 old 66:21 once 102:18 operationalize 26:23 operationalizing 32:14 opinion 19:8 20:5 20:15 21:9,23 22:1 23:3 26:6,11 26:18,19 31:15,16 32:8,15 36:19 42:14,18 43:17 47:24 52:23 54:18 55:5 73:2 77:24 80:7 105:17,17,18 105:24 opportunities 24:11 opportunity 24:8 25:14,21 26:7,12 26:20,23 27:4,13 29:10,10 34:8 35:17,24 36:17,18 37:9 41:9 68:1 opposition 57:24 58:13,21 59:2,6 60:15,24 61:7,10 61:15,16	oranges 78:16 order 25:19 26:11 40:14 64:16 82:20 92:8,18,22 93:6,22 94:19 organizations 3:10 organized 48:11 original 4:15 54:5 54:24 109:3 114:10,21 originally 91:8 outcome 63:2 outputs 91:22 outside 15:11 78:5 78:20 79:6,22 80:5 overall 9:12 58:14 58:22 82:8 89:19 overwhelming 68:20 overwhelmingly 54:15 o'brien 1:17
		p	
		p 2:8,8 p.c. 4:1 p.m. 5:1 112:7 package 90:11 packed 27:13 page 4:5,12 5:22 7:7,15,18 8:8 9:16 10:23 25:10,11 27:8,9 28:6,17 34:19 35:2 44:3 48:3,14,21 50:11 53:10 54:5 57:18 57:19,19,19,21 64:14,18 72:2 73:9,19,20 74:14 74:20 75:4 77:17 80:20,22,24 81:21	

[page - point]

81:21 100:4 108:1 109:17 114:15 115:4 116:4,7,10 116:13,16,19 pages 64:16 80:12 108:7 114:14,17 114:17 115:3,6,6 pal 3:7 114:2 paper 26:22 paragraph 7:15 7:18 8:7 9:7 38:12 38:16,19 40:3 44:3 46:16,22 53:1,2,5,11,22,22 57:18,19 58:11,19 58:24 59:5,17 64:14 65:23 66:2 71:16 75:14,19,20 76:24 79:9,14 80:11 100:2,5,12 100:12,24,25 101:9,12 paragraphs 105:8 parallel 64:9 parameters 39:20 39:21 park 3:6 12:10,13 13:9 56:8 part 14:13 87:3 108:13 particular 12:17 14:10,23 18:12,15 31:19 36:18 42:5 71:8 90:12 95:1 98:7 particularly 48:24 59:9 parties 113:13 parts 65:17 108:21 party 1:12	passage 29:6 pattern 79:2 pdf 114:12 115:1 peggy 2:3 111:25 113:3,20 penalty 114:16 115:5 people 42:23 46:10 percent 9:25 10:4 10:9,10,16,24 11:5 11:8,11,14,21 12:1 12:5,9,10,22,23 13:11,14,16,16,22 13:23 14:14 15:2 16:22,24 17:10,11 17:23,24 18:20 19:2 21:15,22,22 24:4,14 25:15,22 26:2,14 29:21 31:25 32:5,10 33:8 41:4,21,22 46:25 47:1 48:5 49:5,6 50:3,12,23 50:24 51:9,18 52:2,21 53:9 55:21 56:3,10,15 56:18 57:5,15 58:1,3,14,15,22 59:21,25 60:3 61:18,19,19,20,22 62:7,12,12,12,14 62:17 63:7,8,17,18 63:20,22 64:4 68:7,11 69:4,11 71:9 72:18 77:18 77:21 78:13,13,14 79:16,17 82:7,11 82:18 83:4 85:24 86:18 89:21,22 90:4 92:3,9 93:10	93:12,20,25 94:1,2 94:3,4,15,20 95:17 95:19 96:19,20 97:5,8,8,11,14,17 98:2 99:10,14,15 99:24,25 100:22 101:2 109:8,12,21 109:25 110:7 111:4,14 percentage 11:19 16:21 17:8,21 34:8,22 35:20 36:13 37:11 47:11 47:14,23 48:25 51:15 79:21 81:2 93:9 percentages 46:24 80:17 percentile 92:13 92:13 performance 9:12 35:9 77:3 94:25 period 114:18 115:7 perjury 114:17 115:6 person 11:10 personal 21:23 personally 85:18 ph.d. 2:1 4:6 5:2 114:5 116:2 phil 28:22 74:3 phillip 3:4 114:1 phone 102:8,20 phrase 32:24 phrasing 98:12 pick 66:22,23,24 picked 101:14 piece 45:11 pl 47:9	place 62:5 113:9 places 44:23 45:1 45:4 plaintiff 3:15 plaintiffs 1:13 2:9 3:8 8:9 18:10 23:22 24:1 31:20 33:11 38:21 39:1 39:18,22 54:6 66:3,9,15 67:15,19 67:21 68:4,5 69:15,17 70:11 77:4 87:2 96:1 101:15 102:15 103:3 107:6 110:25 plan 35:25 36:1,2 36:4,5,23 42:10 71:21 77:5 82:15 82:16 87:2,3,7,9 89:13,14,15 90:4 90:13,18 93:3,16 95:6,7,25 98:6,6 planned 96:2 plans 35:12,13,18 35:25 82:21 89:13 90:2,3 95:9 98:10 plausible 37:24 play 102:23 please 17:17 67:7 83:25 plenty 65:15 plural 45:9,16 plus 24:4,14 25:22 point 5:11 6:8 10:22 13:5 14:7 14:23 15:5,17 18:6 27:21 28:1 29:13 30:5 32:22 37:8 44:11,13 49:15 52:6,18
--	---	---	--

[point - put]

53:14 55:23 67:4 67:17 68:25 69:6 72:13 79:8 82:20 84:12 85:8,24 86:1,9,21,23 88:2 88:4,8,9,17,19,21 89:4,8,16,17,24,25 90:7 93:14,15,19 93:21,23 94:5,7,13 94:17 95:4,19,21 95:23 96:18 97:3 98:8,13,15,18 99:5 99:11,14 110:16 pointed 44:21 45:13 49:18 100:20 pointing 8:7 28:9 44:23 46:1 49:8 50:19,25 51:3 54:5 92:16 points 15:8 46:4 47:23 48:4 73:14 73:25 74:16 polarized 19:11,17 19:19 20:2,8 political 53:20 71:11 79:1 politically 78:6 polka 66:23 poorly 98:12 popping 25:9 population 25:15 26:2,15 29:21 31:8 35:21 36:25 37:3 46:25 47:1,4 47:6,10,12,14 79:5 79:17,18,22 portion 82:5 111:6 portions 82:4 110:24 111:2	posed 23:6,21 24:2 32:9 39:12 68:3 77:13 90:1 102:4 103:1,15 possibility 40:22 40:23 41:6,24 possible 15:25 33:16 61:1,6,6,10 94:5 112:5 power 43:20 44:1 practice 22:24 42:24 practiced 43:25 pre 63:2 67:6 precinct 8:3 77:7 86:24 88:3,5,8 89:3 90:20,22 92:1,25 93:2 precincts 8:5 87:9 87:11,25 90:15 precise 12:7 13:6 19:24 20:5 21:20 21:25,25 24:6 55:6 69:16 precisely 12:9 13:10 19:2,14 70:4 predetermine 67:5 predetermining 67:10 prefer 21:24 41:20 46:12 69:3 preferences 11:1 preferred 9:8,11 9:13,21 22:7,8,9 27:18 30:14 31:10 31:12,17,22 32:2 32:12,19,20 33:4 40:8 46:13 52:16 54:9,11 55:17 56:20 57:6 59:11	60:15 61:4 66:6 68:20 83:1 85:23 97:4 100:20 109:21 premise 15:18 80:2,2 prepackaged 85:20 prescribes 20:4 present 42:9 presents 72:8 president 3:21 presumably 39:4 56:3 presume 8:1 15:9 15:19 22:16 30:1 59:9 81:4 presumption 15:23 16:7 pretty 10:7 45:25 64:22 99:19 prevail 27:18 30:14 prevent 83:22 previous 17:5,18 19:5 105:8 primarily 102:19 primary 71:23 80:16 106:5,18 print 7:4 printed 6:7 prior 113:6 probably 45:16,17 65:21 problem 30:7 64:17,17 104:17 104:20 problems 108:24 procedure 110:6 114:19,20	process 105:10 produce 12:19 14:21 15:4 16:2 55:1 83:10,22 84:22 85:3,5 86:2 86:9 94:10 produced 83:8 85:16 86:11,21 produces 14:7 84:2 86:23 90:6 91:9 producing 13:5 14:16 84:21 87:24 88:2,4 93:15 professor 29:15 program 85:4 86:8 109:11 prong 20:23 21:1 21:4 46:5,7 52:11 52:23 prongs 19:20 20:10,16,18 proposed 26:13 77:4,5 82:15 87:2 87:6 89:15 90:18 90:19 95:6 98:6 prove 67:18 provide 71:23 provided 114:19 115:8 pull 24:20,21,22 28:13 purpose 51:25 67:17 purposes 32:17 pursuant 1:16 2:3 push 21:19 put 18:7,10 24:17 26:10 30:7 31:24 83:4 94:8 98:13
--	--	---	--

[putting - relevant]

putting 27:25 28:2	107:16 111:22	realistic 15:25	record 28:1,9 30:8
q	quite 36:15 67:6	really 7:11 14:22	57:3 103:22
qualification 8:19	quote 7:20 32:24	14:23,24 17:17	107:20
qualifies 40:15	33:4	19:7,13,23 20:4,5	recording 67:11
qualify 25:14 26:4	quoting 40:11	46:3 60:18 76:12	red 35:23 36:10
26:20	r	76:16,20 78:3	37:1,20 38:4
quantify 12:13	r 1:18 2:8 113:1	95:22 99:22,23	66:23
19:25 47:17	116:3,3	reason 48:6 69:13	reduce 40:21 41:8
question 5:15 8:7	r&s 115:1,9	69:20 73:1 93:17	reduced 113:10
12:2 15:17,18,19	race 4:13 9:20	116:6,9,12,15,18	reduces 40:23
16:9,10 17:3,5,7	24:13 45:5,12	116:21	refer 32:12 42:23
17:18,20 18:4,7,9	races 57:14 69:21	reasonable 23:6	52:12
18:15 19:5 21:20	70:6 71:4	66:4	reference 7:12,16
23:2,7,12,19,20,21	racial 7:20,22 9:10	reasonably 11:7	7:17 24:17 29:9
23:23 24:1,4	13:7 20:13,21	rebuttal 38:11,19	44:18
29:13,16 30:11	23:16 27:16 32:5	40:3 44:2,19	referenced 50:23
31:24 32:8,10,15	56:13 58:4 60:20	45:14 46:17,19	105:8 111:6 114:6
32:21 33:2,11,14	61:16 62:4 64:7	50:16 52:5 53:2	referred 58:24
37:14 38:13 39:12	110:9	53:11 65:16,23	referring 7:8
39:23 40:18 41:1	racially 19:10,17	71:16 73:5,15	12:24 30:2,4,9
41:13,14,15 42:7	19:19 20:2,8	100:2,13 108:10	31:6 43:1 49:16
42:13 43:15 46:14	raise 27:15	recall 34:11 70:22	51:4 62:8
53:15,23 54:1,3,4	range 12:17 14:13	70:23 71:3,7	refers 19:19 20:9
54:16,20 61:8,14	49:11 94:9,19,21	72:19,21 102:8,19	20:16 29:20 33:5
63:10,12,13 67:3	94:23	103:8 109:8	87:8
67:16,22 68:3	rare 111:10	receive 8:4	reflect 47:7
69:17,22 75:2	rate 76:4 100:22	received 9:24	reflective 105:6
77:2,13 78:4 79:8	101:10,16 105:6	10:16 11:8 32:4	regarding 8:5 35:9
80:2,7 82:14	110:18 111:4	33:6 57:25 58:4	registered 1:5,8
84:24 86:6 89:8	rates 100:4 101:24	58:13,22 64:11	2:10,11
90:1 91:18,20	ratio 81:12	76:2,3 102:16,17	regression 42:20
93:7 94:3 95:15	rdr 2:3 113:20	108:9	42:22,23 43:10,13
95:16,18 96:17,25	read 17:5,18 25:18	receives 55:21	43:24
97:23 98:12,25	27:22 28:8 29:7	receiving 33:17	related 8:4
101:3,17,22 102:4	65:18,20 74:25	recess 48:18	relative 113:12,14
103:13,15 105:24	75:12,18,23 76:23	100:10 111:18	relatively 16:4,5
questioning 65:25	reading 55:2	recognizing 41:8	79:21 111:9
questions 5:9,14	75:16 84:5 100:23	reconstitute 93:4	released 114:21
6:17,21 7:7 21:25	114:23 115:9	reconstituted 87:1	relevant 38:2,7
23:5 27:15 101:5	real 35:25 36:2	reconstituting	53:14 54:1,20
102:25 103:1		72:8 73:11 90:14	104:21

[reliable - rush]

reliable 55:1	reported 51:21	restate 41:15	60:1,7,25 62:5,18
reliance 27:16	52:8 58:9 79:13	result 12:21 88:18	64:3 65:22 66:11
relied 89:24	86:24 91:3	results 26:25 55:1	68:22 69:13,24
religious 3:9	reporter 4:15 6:19	72:8 77:8	70:12 72:9 73:19
rely 82:19	17:2,6,19 100:7	retention 4:16	74:7 77:19 78:14
remaining 10:10	112:2 113:4	return 114:17	78:17 79:15 80:19
remedial 71:21	reporter's 4:15	115:6	80:25 81:8,23
remember 6:24	reporting 8:10	review 6:22 50:18	83:6,9,21 85:25
24:15 55:2,3,6	20:18 84:9,13	64:8,12 65:14	87:12 88:2,10
102:21 104:1	85:8 99:20 100:16	114:8,10,13 115:2	89:10 90:16 91:12
remotely 5:3	reports 5:23 6:1	reviewed 65:17	93:8,21 94:1,3,22
repeat 17:3,16	6:12 8:9 44:4	72:11,19 74:2	95:11 97:20 98:16
83:23	50:11	110:24	99:6 100:23 101:8
repeating 39:3	represent 35:20	reviewing 74:25	101:12 103:17,19
report 6:2,6,8,9	representation	ricardo 2:15	103:20 104:25
7:14,17 8:8 9:10	35:9 36:12 72:22	right 5:12,17,18	105:8,9,12,18
9:16 10:22 15:5	106:24 107:3	5:20 6:12 7:14,22	106:1,3,4,6,7,10
16:23 17:10,23	representatives	8:5,18 9:4,13,25	106:11,13,21,22
18:8,9 21:18 22:3	1:7,11,23,24 2:11	10:6,8,12,17,21	106:23 107:2,3,4,5
22:3 25:6 26:17	2:14	11:2,5,5,9,10,13	107:7,9,14,15,15
31:15,20 32:18,25	represented 34:9	15:7 17:4 20:20	108:8 110:19
33:1 34:4 38:10	representing	20:25 21:6,17	111:13 112:3
38:11,20 40:3,4	13:25 37:19 107:8	22:15 23:3,11,12	rights 4:14 24:13
44:3,19,22,22 45:1	republican 1:9,10	23:25 24:14 25:1	rivera 2:12
45:14 46:18,19	1:12 2:13,14	25:8 27:24 28:8	rmeza 2:18
48:3,13,21 49:19	78:22	28:16,18,25 29:3	road 3:6
50:10,17 51:8	requested 115:1,9	31:2 33:19,24	robert 1:15
52:5,9 53:2,10,11	115:10	34:2 35:1,10,19,21	robledo 3:11
53:19 54:6,22,24	required 27:14	36:7,8,11,14 37:2	role 102:23
55:2,8 64:14 65:4	29:25 40:9 82:19	37:12,20 38:15	rolls 75:17
65:5,14 68:5	research 36:16	39:10 40:2,9,11,11	romero 2:13
71:17 72:3,20	reserve 112:1	40:16 41:1,7 42:8	roughly 10:20
73:5,9,16 74:21,25	resides 79:22	42:15,18 43:14	14:19 60:4
77:17,20,25 79:8	respect 26:8 52:24	44:15,16 45:15	roughs 112:5
80:12,22 81:7,9,12	85:7	46:15 47:2 48:2	rules 115:8
82:4,5,6 84:4 86:7	respectively 72:18	48:19 49:7 50:6	run 87:22 109:11
88:17 92:3 97:24	respond 73:6	50:15 51:6,15,23	runoff 58:1
97:25 100:2,13,18	response 33:10	52:2,10,18 55:22	rush 112:3
103:18 108:6,10	40:3 44:22	55:23,24 56:2,5,14	
108:18,19 109:3	responsive 33:2	57:4,11,17 58:4,8	
110:22 111:7,8	91:17	58:15,25 59:7	

[s - specific]

s	28:3,22 29:3,6	set 70:5	110:24
s 1:17 2:8 4:11	34:16,17,18 37:25	setting 47:18 62:2	smaller 16:4
116:3	38:15,17,23 40:10	63:15	snide 74:5
saed 80:17,25	43:9 44:9 47:3	share 25:15 26:3	social 19:25
salvador 2:12	49:1,2,7,14 51:12	31:7 34:13 35:24	software 85:4,11
sample 55:1	51:17,20,24 52:3	58:10 64:19 67:21	85:20 86:20,22,22
samuel 3:16	53:12 54:12 55:7	73:23 80:6 82:8	87:5 90:6,11,17
sanguinetti 44:12	55:19 56:1 58:9	89:20	91:9,22 92:7,15
satisfy 54:8	58:16,17 59:1,3,8	sharing 28:4	solutions 114:7
saw 65:4 111:7	59:20,23 60:1	short 92:14	somebody 10:11
saying 26:22 36:24	64:19,23 65:3	shorthand 113:9	10:20
40:5 45:10 49:11	66:7,8 71:25 72:1	show 6:25 43:10	soon 112:5
50:8 56:15 61:9	72:5,14 74:16,17	52:1 74:11 75:6	sorry 5:21,25 8:25
71:10 77:12 87:12	76:5 77:21 79:15	94:8	8:25 10:7 17:15
87:19,21 94:4	80:13,14,15,25	showing 73:24	17:17 20:7 23:1
103:9	81:20,22 83:1,4	74:5,7	24:24 28:4,7
says 21:7 25:13	85:1 93:10,11	shown 75:5	30:21 34:13,25
30:12 58:20	100:18 105:3,5	shows 35:14 73:13	35:3 38:11 48:11
110:19	109:23	74:15	50:7,10 53:2 57:1
scenario 62:3 63:5	seeing 72:19,21	shut 29:1	57:18 63:8 70:22
schedule 114:10	seen 14:15 44:19	sign 114:16 115:5	76:18 78:14 90:21
scholz 1:15	72:24 73:18 74:1	signature 112:1	100:5,12,24
scientists 19:25	75:14 108:21	113:19 114:21,23	101:22 109:15
71:11	110:21	114:23 115:9	sort 12:8 16:12
screen 7:9 24:18	selecting 38:14	similar 15:10	18:11 43:22 65:15
25:8 28:5,13	101:10	similarly 15:22	95:2 103:18
34:12	selection 40:4	98:5	sorts 14:24
seal 113:16	65:25 67:5,7	simple 5:16 10:7	sound 67:7
second 19:20	senate 1:4,9 2:10	56:22	sounds 5:18 9:6
20:10,16,18,23	2:13 67:9 100:17	simulated 35:12	37:24 108:8
21:1,4 23:10 29:5	send 112:5	35:13 36:1	south 3:2
29:8 34:13,15,17	sense 21:8 76:12	single 12:18 107:7	speaker 1:22,23
34:25 44:5 71:19	sentence 9:14	singular 45:17,18	3:21
75:22	29:23 30:4,12	sir 5:24 7:25 9:14	speaking 14:3
section 29:14 30:5	38:12 40:10 46:22	35:22	special 40:7 52:15
30:24 86:7	57:20 58:12,20	situation 19:7	specific 23:5 31:23
see 6:17 7:7,24	66:20 71:20 79:15	situations 14:24	33:10 66:10,14,16
9:14,16,23 10:1	100:24	slide 72:7,14	77:2 78:25 79:1
14:11,12,25 19:1	separate 22:20,24	slower 17:16	83:11,17,19 84:22
22:10 24:23 25:3	separately 13:6	small 14:11 15:22	85:1
25:7,8,10,12,16,17	56:12,12,13 110:8	15:25 79:21	

[specifically - tasked]

specifically 82:14 spectrum 14:16 speculation 53:7 spills 57:20 spits 90:23 91:22 sr 59:10 st 3:8 stand 14:13 107:14 standard 22:24 star 35:23 36:10 37:1,20 stars 38:4 start 5:22 started 5:12 starts 75:15 80:13 100:4 state 1:14,20 3:9 7:19 35:21 36:25 37:12 79:16 100:16 113:4 114:4,9,12 116:1 stated 113:10 statement 80:3 states 1:1 34:10 35:8,16 37:11,18 37:25 statewide 36:14 statistical 8:22 13:3 19:21 21:10 21:14 26:24 96:3 statisticians 19:24 step 15:4 88:3 stephanopoulos 29:15 107:21 stipulation 114:20 stop 75:16 straight 26:10 strategy 67:20 straughton 44:11	street 2:5,16 3:12 3:17,23 stripes 66:23 struggles 28:20 struggling 34:4 79:3 stuff 25:2 subject 70:7 sublevel 89:5 submitted 4:15 substantially 78:13 subtracting 57:16 suburbs 78:23 sufficient 13:17 54:14 57:24 sufficiently 40:6 40:13,16 41:3 52:14 suggest 103:3 suggested 54:22 54:25 suggesting 15:14 suggests 75:24 suite 2:16 3:12,18 3:23 sunday 102:20 107:6 support 7:21,23 9:11,25 11:23 13:7,21 20:21 21:12,21 22:6,7,8 22:13 32:5,10 33:6,7,17 41:19 42:4 46:13 62:13 62:16 71:5 80:18 81:2 82:25 85:23 89:18 97:4,13,17 109:21 supported 10:4,9 10:11 69:9,22	70:7 110:1 supporting 20:14 supports 8:16 suppose 105:7 supreme 43:13 sure 11:10 16:25 17:3,12,25 18:5 19:6,7,23 25:12 36:9 37:7,13,15 38:2,6 40:17,25 41:25 42:1 43:4,5 43:17 45:15,16 47:15 52:3 56:11 58:8 59:14 60:9 60:18 62:6 63:25 64:2 65:11,12,18 65:19 67:6 68:24 69:19 72:10,24 73:18 75:1 77:24 78:15 80:1,20 83:23 87:16,19 94:23 95:8 99:7 104:23 111:17 surprising 14:20 14:25 survey 49:20 survives 106:1,2,8 swing 63:23 64:5 sworn 5:3 113:7	81:17,21,21,23,25 82:24 83:13 84:4 84:5,6,21 85:7 87:8 91:3 92:20 92:21,22,23 93:8 94:12 95:13,20 97:13 99:17 103:17,22 108:1,4 109:2,3,13,16,17 110:11,12 tables 80:14 82:4,4 85:8 89:12 94:8 96:12 99:18 take 16:13 34:20 43:18 48:9,16 49:21 50:16 52:4 53:6,13 55:4 72:4 72:11 73:15 75:3 75:11 88:3 92:25 106:24 111:15 taken 2:2 48:18 100:10 111:18 113:8 talk 34:7 40:20 81:1 95:23 96:4 100:15 111:2,16 talked 79:12 80:18 81:3 84:3 96:1 102:7 105:7 talking 7:3 18:8 31:3 50:22 70:16 71:9 72:15 89:18 89:19 97:2 100:3 talks 74:21 75:20 targeted 18:15 tasked 53:15 54:2 77:11 84:24,25 93:7,14 95:15 97:24 98:25 105:16
		t	
		t 4:11 113:1,1 116:3,3 table 7:17 9:16 22:2,5 32:17,23 33:4 34:3,22 48:13,21 50:20 51:1 52:25 55:7,9 58:7 59:17 65:4 65:11 72:22 73:7 73:8,20 74:13 77:20 80:11 81:10	

[technical - use]

technical 91:14 technically 7:10 teenager 74:11 tell 7:5 12:16 16:18 21:19,21 31:21 66:10,14,16 67:19,21 94:19 103:3 telling 50:14 62:3 62:7,11,13,19 63:1 63:16,17,23 66:24 tells 66:22 tended 60:8 tendency 27:12 term 19:13,24 29:17 31:12 32:16 33:5 43:1 54:10 terms 27:5 49:17 82:8 90:3 testified 5:4 30:23 108:20 testifying 18:25 testimony 26:17 text 75:9 thank 18:3 46:20 104:25 109:18 111:24 thanksgiving 108:14 their's 45:11 thing 7:16 50:13 50:24 71:11 81:17 83:16 103:7 things 35:15 46:1 74:6 think 6:23 7:15 9:2 10:6,21 13:17 18:17,24,25 20:15 20:20 24:16 25:2 25:5 28:25 32:25 33:1 35:7 37:17	37:18 41:14 42:6 42:22 43:6 44:3 44:21 45:2,6,19,25 46:2,10,16 47:15 51:25 52:6,8 56:14,21 58:8 67:3 69:7 72:13 73:9 76:25 79:7 79:12 80:2,3,13 83:8 84:4 87:19 91:6,21 99:19 100:1 101:25 102:20 103:6 104:22 109:6 third 19:20 20:10 20:16,18 46:22 52:23 55:14 thompson 2:5 three 1:15 22:13 22:20 33:8 37:11 66:21 threshold 25:23 41:4 71:9 89:22 90:4 94:14,14 96:16 98:1,16,19 98:21 throw 41:17,21 throwing 10:23 time 72:4 88:4 101:20 102:1,6 108:16 113:9 114:10,18,24 115:7 timeframe 108:17 times 42:8 today 108:20,22 told 18:25 19:4 22:1 52:7 63:7,9 67:14 70:12 96:8 96:10,11,13,14 102:9	top 22:3 57:21 77:17 101:7 topic 100:7 torre 2:12 torture 24:24 total 11:18,19 16:21 17:8,21 47:4,5,14 58:3,5 63:21 97:17 totally 28:8 40:17 59:14 75:1 80:20 99:12,13 totals 15:11 transcript 114:6,8 114:10,13,13,21 115:2,2 translates 21:9 tremillo 2:13 trudy 61:15 true 13:11 14:25 26:8 60:10 68:15 92:17 trust 28:8,20 37:6 37:24 38:5 101:4 try 5:16 7:8 19:25 24:22 34:2 78:10 trying 35:1,8,8 37:17 55:5 61:13 63:11 67:4,18,24 69:6 72:23 76:7,8 77:1 88:12 90:19 91:21 109:15 turn 9:15 24:3 turning 44:2 two 6:1 11:10,23 11:25 35:15 45:11 46:1,3 48:16 58:1 60:5 80:14 82:17 82:21,21 89:13 90:1,2 105:5 111:15	u u.s. 43:12 u.s.c. 1:16 uh 84:7 ultimately 93:19 unanimous 58:20 59:2 uncertain 14:10 14:19 98:7 uncertainty 84:16 85:19 95:2 underestimate 12:22 underneath 81:3 understand 5:15 12:1,20 19:22 20:2,11,13 21:1,3 21:8 24:5 27:7 35:19 36:9 37:16 40:17,25 41:12,14 46:7 52:11 61:13 67:3 68:24 76:6,8 86:14 95:22 96:24 98:13 100:1 112:2 understandable 5:17 understanding 12:25 13:1,2,3 16:14 19:16,18 20:4,7 23:11 39:20 41:16 46:6 63:12 99:8 understood 8:24 91:7,8 united 1:1 3:9 unrealistic 64:6 urban 47:18 use 6:4 25:14 26:2 42:25 71:7 74:23 85:4 89:3 93:23 95:21 100:8
--	---	---	---

[usually - x]

usually 40:8 47:22 52:16 utilize 66:5	votes 11:4,12,19 11:19 21:7 40:6 40:13,16 41:3 52:14 63:3,21 82:9	72:12 76:20 78:23 96:20 we've 50:1 80:18 81:2 84:3 web 24:21 week 79:9 108:10 108:12 week's 111:7 weekend 108:14 weeks 102:22 welch 1:21 3:20 went 50:14 66:17 white 6:10,15 22:7 40:6,13,15 41:3,19 44:13 46:8,11 52:14,18 54:14 57:23 58:12,21 59:2,6,24 60:5,12 60:15 61:1,6,10,15 61:18,22,25 62:13 62:16,23 66:6 68:9,13,17,19,21 106:10,19 109:14 whites 22:14 23:24 42:4 46:12 61:2 63:4,23 69:2,8,10 69:22 70:6 71:5 76:3 widely 8:21 15:12 47:25 wier 4:1,1 wiervought.com 4:3 wildly 64:6 william 1:15,16,18 win 68:14,22 73:25 74:15 100:4 100:22 101:9,16 101:23 105:6 106:12,13 110:17 111:4,10	winning 44:13 wins 59:21 68:21 72:17 73:13 105:4 106:20 110:15,19 withdraw 67:3 witness 2:2,5 4:5 5:3 30:19 113:6 113:16 114:13,16 115:2,5 116:24 won 54:16 68:7,13 100:21 106:20 wondering 45:10 79:24 word 34:20 40:12 43:18 45:9,18,19 46:2 48:9,10 49:21 55:4 59:6 59:11 72:11 87:20 words 8:10 41:21 55:3,6 91:22 work 21:17,18 28:19 64:9 78:23 working 21:19 works 34:16 80:24 world 23:14 worries 48:17 worse 28:20 write 30:23 58:12 85:12 writing 113:11 written 29:14 30:6 36:4 85:13 wrong 15:18 17:1 17:13 18:1 25:5,6 84:5 109:18 wrote 6:22 24:12 27:9,23 57:8 59:1
v	v 1:13 vague 12:12 96:23 valid 76:16 varies 47:20,25 various 8:17,17 34:9 80:18 101:17 vary 98:4 vaught 4:1,1 vega 3:16 veracity 54:19 veritext 114:7,9 114:11 versus 79:6 93:19 virtue 14:8,17 visually 28:3 vote 10:16,25 11:6 11:8,11 16:21 17:9,22 18:22 20:25 54:14,15 58:1,3,5,14,22 59:22,24 60:2,12 60:12 61:20,23,25 68:9,13,13,19,21 voted 10:20 56:4 56:10,19 57:5 60:8 voter 1:5,8 2:10,12 voters 9:9,25 10:4 10:9,17,19 11:6,6 11:20 22:9 25:20 27:10 33:7,18 47:7,8 56:3,4,7,10 56:18 60:23 62:20 62:23 63:7 66:6 68:17 106:10,19 109:22	voting 4:14 19:11 19:19 20:3,8 24:13 31:9 35:20 36:25 37:2 46:8 46:11 47:12 60:21 61:2,10 76:3,22 77:18 vra 27:14 29:25 vs 44:12 109:14 114:4 116:1	w
	w 1:14 4:2 wacker 3:2 wait 5:24 71:19 waived 114:23,23 waiving 114:20 want 6:25 7:3,7 16:25 17:3,12,25 21:20,21 24:17 25:10 27:8 28:13 36:9 38:10,11 40:25 46:6 56:23 72:6 73:22 75:8 75:11,12,15,18 78:8 88:23 91:2 97:1,20 109:6 111:16 wanted 9:1,3 27:22 31:21 45:23 57:3 64:3 89:1 104:23 watson 1:18 way 12:20 23:3 24:1 29:22 31:4 36:19 42:1,6 47:17 54:10 63:24		
		x	
		x 4:4,11 70:19 115:1	

[y - zoom]

y
y 70:19
yale 4:13 6:23
yeah 8:19 12:25
15:3 18:24 20:11
30:9,9 34:20 38:6
39:12,19 55:13
56:9 57:4 58:8,9
58:17 59:8 60:4
60:18 62:10,10,15
64:24 68:10 69:10
70:16 75:7,13,17
77:21 80:15,20
89:1 93:11 97:22
101:1 102:7,19
103:25 104:14
108:12 109:23
year 6:22,23 49:17
50:21 66:21
years 43:23 70:2
85:14
yeses 105:5
z
zero 62:17 107:10
110:18,18
zoom 28:20 29:4

Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

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

(A) to review the transcript or recording; and

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

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

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

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

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

Veritext Legal Solutions complies with all federal and State regulations with respect to the provision of court reporting services, and maintains its neutrality and independence regardless of relationship or the financial outcome of any litigation. Veritext requires adherence to the foregoing professional and ethical standards from all of its subcontractors in their independent contractor agreements.

Inquiries about Veritext Legal Solutions' confidentiality and security policies and practices should be directed to Veritext's Client Services Associates indicated on the cover of this document or at www.veritext.com.