SUPERIOR COURT OF THE STATE OF CALIFORNIA FOR THE COUNTY OF SAN FRANCISCO

ELIEZE	ER V	WILLIAMS,	ET	AL.	• ,)		
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		Plaintiff	Ēs,)		
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	Vŝ	5.)	No.	312236
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STATE	OF	CALIFORNI	IA,	\mathbf{ET}	AL.,)		
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		Defendant	cs.)		
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DEPOSITION OF DR. RICHARD BERK Los Angeles, California Tuesday, July 15, 2003

Reported by: DIANA JANNIERE CSR No. 10034 JOB NO. 43704

Page 2 1 SUPERIOR COURT OF THE STATE OF CALIFORNIA 2 FOR THE COUNTY OF SAN FRANCISCO 3 ELIEZER WILLIAMS, ET AL.,) 9) 6 vs.) 9) 7 STATE OF CALIFORNIA, ET AL.,) 9) 9) 9) 9) 11) 12) 13) 14) 15 Defendants.) 9) 16 of Plaintiff at 555 West Fifth Street, Suite 3500, 17 Los Angeles, California, beginning at 9:24 a.m. and 18 ending at 12:23 p.m. on Tuesday, July 15, 2003, 19 before DIANA JANNIERE, Certified Shorthand Reporter 10) 22) 23)	Page 4 INDEX WITNESS EXAMINATION DR. RICHARD BERK 5 BY MR. KREEGER 5 PLAINTIFFS' PAGE PLAINTIFFS' PAGE 1 Expert Witness Declaration Re Dr. Richard Berg 2 Harris Survey 12 3 Various Expert Reports 23 13 14 15 16 17 18 18 19 20 21 23 23
Page 3 1 APPEARANCES: 2 3 For Plaintiffs: 4 MORRISON & FOERSTER BY: MATTHEW I. KREEGER 5 Attorney at Law 425 Market Street 6 San Francisco, California 94105 (415) 268-7000 7 ACLU 8 FOUNDATION OF SOUTHERN CALIFORNIA BY: PETER J. ELIASBERG 9 Attorney at Law 1616 Beverly Boulevard 10 Los Angeles, California 90026-5752 (213) 977-9500 11 For Defendants: 12 OMELVENY & MYERS, LLP 13 BY: PETER L. CHOATE Attorney at Law 14 400 South Hope Street Los Angeles, California 90071-2899 15 (213) 430-6000 16 17 18 19 20 21 22 23 24 25	 Page 5 Los Angeles, California, Tuesday, July 15, 2003 9:24 a.m 12:23 p.m. RICHARD BERK, having been first duly sworn, was examined and testified as follows: EXAMINATION BY MR. KREEGER: Q Good morning. Although we have met off the record, my name is Matthew Kreeger. I work at the law firm of Morrison & Foerster. We are here to take your deposition. Have you ever had your deposition taken before? A I have. Q I am going to ask you a series of questions. You are to answer the questions. If at any time my questions are unclear, please ask me to clarify it and I will do so. The court reporter is going to take down everything that we say. So it is important that we speak one at a time. A I understand. Q If you ever need a break, let me know and we will stop.

		1	
	Page 6		Page 8
1		1	-
1	A I understand.	1	the scientific and statistical credibility of the Harris
2	Q Any questions on what we are going to be doing	2 3	study.
3	here today?	3 4	Q And Exhibit B attached to Berk Exhibit 1
4	A I have no questions.		contains your analysis of that question?
5	MR. KREEGER: Off the record for one minute.	5	A It looks to be. The reason why I am hesitating
6	(Discussion off the record.)	6	is it looks to be a continuing error in the last
7	MR. KREEGER: So let me mark as Berk	7	instance. Perhaps there is one here today. I am just
8	Exhibit 1.	8	checking the pages. Yes, it looks to be completed.
9	(Plaintiffs' Exhibit 1 was marked for	9	Q In your report, you talk about an ideal study.
10	identification by the court reporter.)	10	I believe it is a section that begins on Pages 3 and 4 of
11	BY MR. KREEGER:	11	your report?
12	Q Are you familiar with this document?	12	A I see that.
13	A Well, it looks which one are we talking	13	Q And you describe a way to perform you
14	about? There are several here.	14	referred to it as an ideal study.
15	Q Let's take it piece by piece.	15	And what question was this ideal study that you
16	A Sure.	16	are talking about here? What would it be designed to
17	Q There is a declaration that last three pages	17	answer?
18	signed by Paul Salvaty?	18	A The same questions that the Harris study was
19	A I see that.	19	assigned to answer.
20	Q And there is an Exhibit A and Exhibit B. Let's	20	Q And what did you think those questions to be?
21	start with the declaration portion. Have you ever seen	21	A Well, I have it quoted at the beginning of my
22	that before?	22	report. Why don't we turn there. On Page 2, and I quote
23	A Yes, I have.	23	from the Harris study: Find out what the public school
24	Q What is that document?	24	system is providing and end quote to its students
25	A That is a request for me to provide materials in	25	and so on.
	Page 7		Page 9
1	anticipation of my deposition.	1	Q In order to perform an ideal study designed to
2	Q And then Exhibit A, what is that?	2	examine that question, you've described the use of
3	A That is a it looks to be a copy of my C.V.	3	auditors?
4	Yes, that is correct.	4	A Yes.
5	Q And what about Exhibit B?	5	Q And is there another component to your ideal
6	A Let me just check the C.V. for a moment. The	6	study or is it just for the purpose of using auditors?
7	C.V. document is not complete.	7	MR. CHOATE: Objection to the question.
8	Q And how is it incomplete?	8	THE WITNESS: Let's go back to that page and
9	A There are pages missing at the end. Let me see	9	take a look. You will see that there are two issues.
10	if I can figure out where. I would say half of the C.V.	10	One is how you measure. The other is how you sample.
11	which is basically the list of publications, is not	11	The auditors referring to how you measure. And in the
12	there. The publication list ends in 1982. And	12	ideal study, you wouldn't sample at all.
13	certainly, I have been active since then.	13	BY MR. KREEGER:
14	MR. KREEGER: I see. Would you be willing to	14	Q Do you have any view as to whether this ideal
15	produce an updated copy of the C.V.?	15	study would be feasible to accomplish?
16	MR. CHOATE: I think we produced it, but I will	16	MR. CHOATE: Objection. Vague and ambiguous.
17	go back and check and double verify that. Sure, of	17	Incomplete hypothetical.
18	course.	18	THE WITNESS: Feasibility in this case is a
19	BY MR. KREEGER:	19	matter of resources. I don't know what resources are
20	Q What is Exhibit B attached to Exhibit 1?	20	available to this work.
. 40	A This looks to be the report that I provided in	20	BY MR. KREEGER:

A This looks to be the report that I provided inthis case.

Q What question did you hope to address in yourreport?

25 A Well, I was asked by the attorneys to consider

21 BY MR. KREEGER:

22 Q With adequate resources, do you believe a study

23 of this type that you consider to be an ideal study can

24 be accomplished?25 MR. CHOAT

MR. CHOATE: Objection. Vague and ambiguous.

	Page 10		Page 12
1	THE WITNESS: I do.	1	than disagreement?
2	BY MR. KREEGER:	2	MR. CHOATE: I'm sorry.
3	Q Beginning on Page 7, you talk about issues	3	MR. KREEGER: It is complex. Let me try it
4	associated with disagreement between the teachers who	4	again.
5	were surveyed by Harris. I want to spend some time on	5	MR. CHOATE: Sure.
6	that issue.	6	BY MR. KREEGER:
7	Am I right that the reason that you have written	7	Q Let me it might be easier with the Harris
8	in this question about disagreement between the teachers	8	survey.
9	is because you were concerned that the Harris survey	9	First of all, are you familiar with the document
10	questions were subjective?	10	that I have marked as Berk Exhibit 2?
11	A That was only part of the problem.	11	(Plaintiffs' Exhibit 2 was marked for
12	Q Why else were you interested in that question?	12	identification by the court reporter.)
13	A There is no rigorous way to get to the answers	13	THE WITNESS: Yes, it looks to be the survey
14	from the facts.	14	instrument used in the Harris study.
15	Q Why is that?	15	BY MR. KREEGER:
16	A Because the facts are not being directly	16	Q So I mean just to pick one example, kind of
17	measured. You are asking for people's subjective	17	random here, on the specific page there is a question
18	assessment to facts and there is no way to step from one	18	1A that asks, "Overall, what percentage of
19	to the other.	19	students in your classes are
20	Q When you speak about a disagreement between	20	Limited English Proficient?"
21 22	teachers, does your analysis assume that the teachers are	21 22	Now, if two teachers from the same school responded to that question and they responded
22	asking start again. When you speak about a disagreement between	22	
23 24	teachers, does your analysis assume that the teachers are	23 24	differently, would your analysis conclude that they disagreed about a fact?
24	describing the same fact?	24 25	MR. CHOATE: Objection. Incomplete
25	describing the same race.	23	WIR. CHOATE. Objection. meoniplete
	Page 11		Page 13
1	Page 11 MR. CHOATE: Objection. The document speaks for	1	Page 13 hypothetical.
1 2	•	1 2	-
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	MR. CHOATE: Objection. The document speaks for itself. You are asking about his analysis in this report? THE WITNESS: In this analysis, I am very clear that when there is disagreement, the only way you can look at it empirically is when the teachers are examining the same phenomenon. BY MR. KREEGER: Q For some of questions that were specific to the teachers' own personal experience, a different answer by two different teachers wouldn't be a disagreement; would it? MR. CHOATE: Mischaracterizes the witness's testimony. It is vague and ambiguous. THE WITNESS: That needs to be unpackaged a bit. If I asked you what you had for breakfast, you presumably would be the only expert. Maybe that that is your family. If I asked you what is this room like, there are several of us who might have opinions. So it really depends upon the topic that you are asking about. BY MR. KREEGER:	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	 hypothetical. THE WITNESS: That is one of the ones that is ambiguous for two reasons. First of all, in some classes students are passed between teachers. So they may have some of the same students. Second of all, if students are shoveled between classes on a reasonably random basis, what one teacher experiences with respect to the mix of the students would be quite a bit like what other teachers might experience. So, in this instance, if there were two teachers in the same school, you might be able to learn something about disagreement by comparing their answers. BY MR. KREEGER: Q Did you analyze this particular question for that purpose? A I did not. Q Which questions did you analyze in the Harris survey for purposes of looking at disagreements between teachers? A In my report, if you look at Figures 1 and 2, those reflect the questions that I answered. Q Okay. I will spend a little more time on those

	Page 14		Page 16
$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\\18\\19\\20\\21\\22\\23\\24\\25\end{array} $	 Page 14 MR. CHOATE: Objection. It is vague and ambiguous. THE WITNESS: When I first began looking at the data, I reviewed virtually all of the questions that were asked in the survey to get a sense of what kinds of answers were being provided. So, in that sense, I looked at virtually all of the survey. BY MR. KREEGER: Q How did you choose the particular items tothat appear in Figure 1 and Figure 2? A Well, this, of course, is in an illustrative analysis. The study was not designed properly. So you can't really tell, except for a hundred schools, how much agreement or disagreement there is. So these were picked to illustrate the problem and they seemed to be questions that the Harris analysis took very seriously, which is one of the reasons why I focused on these. Q The items that appear in Figure 1 and 2, those are instances, where, in your view, if teachers provide different answers, they are disagreeing upon a particular fact at a school? A I believe that is a reasonable inference, yes. Q Can you tell me which items on the Harris survey 	$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\\18\\19\\20\\21\\22\\23\\24\\25\end{array} $	 Page 16 your report, Figure 1? MR. CHOATE: Objection. It is vague and ambiguous. What is the question? BY MR. KREEGER: Q I am asking where in his report the entry that says, "Quality of School Facilities," what Harris survey item corresponds to that entry? A That is the adequacy of physical facilities in your school. Q That appears at the bottom of page, Plaintiff 1, 71613.4? A Yes. Yes. That's correct. It is Page 4 of the survey. Q All right. And which Harris survey item corresponds to your entry, "Working Conditions for Teachers"? A "Working Conditions for Teachers." Q On the same page? A Yes. Q And "Availability of Technology"? A "Availability of Technology," on the same page. Q On the same page. What about "Quality of Instruction Materials"? A That would be the textbooks and instructional materials you were given.
	Page 15		Page 17
1 2 3 4 5 6 7 8 9 10 11 12	 corresponded to the answers in Figure 1? A Yes, I can. If you look at Figure 1, let's leave "Teacher Turnover" for a second because that is in another area. These items came from the block of questions under question 9, and these were 9A. Q Okay. Let me just stop you right there. A Sure. Q So maybe, to be more precise, if you you will see the responses in the Harris survey have in addition to the question, they have several response numbers. So it looks like the 9A column has responses to 	1 2 3 4 5 6 7 8 9 10 11 12	 Q On the same page? A Same page. Q All right. So I guess that leaves "Seriousness of Teacher Turnover" in your chart. Where does that come from? A That comes later in the questionnaire, and that is item 14A, on Page 7, in the questionnaire. Q All right. All right. Sticking with Figure 1, you calculate just in the first column, on the Seriousness of Teacher Turnover entry, that the respondents disagree 48 percent of the time. Can you tell me how you calculated that number?

13

25

13 71 through 78. 14

- Do you see those entries?
- 15 A I do.
- Q Which, for example, you said Teacher Turnover 16 doesn't apply in this block. Which is one way that the 17
- 18 school involves parents? 19
 - A That is the way the school involves parents.
- 20 Q Fair enough. That would be item No. 75?
- A Yeah, I take it that those numbers refer to 21
- column numbers in the data set. I wasn't working from 22
- 23 those. I was working from the text, but, yes, I think
- 24 that is right.
- 25 Q And what about "Quality of School Facilities" in

- A For schools in which there was more than one
- 14 teacher, we simply looked at the responses provided by
- the survey, throughout the responses which were "Not 15
- 16 Sure," and any time there was a difference in the
- 17 responses, we called it a disagreement.
- 18 Q So for purposes of this figure, if one
- 19 respondent said, "Excellent" and another respondent said,
- 20 "Good," that would be considered a disagreement?
- 21 A That's correct.
- 22 Q Did you calculate these numbers by hand?
- 23 A I didn't calculate these numbers, but they were
- 24 calculated by someone.
 - Q Who calculated the numbers?

	Page 18		Page 20
1	A They were calculated by Sean Simmons, who, at	1	That Mr. Simmons had a large piece of paper in front of
2	that time, was working on the case with O'Melveny.	2	himself. He wrote down the schools. And as he went
3	Q One of the attorneys at O'Melveny?	3	through the spreadsheet, he simply tabulated where there
4	A That's correct.	4	was agreement or disagreement.
5	Q How was it that let me start again.	5	Q Did you review that piece of paper?
6	Did you do something to insure that these	6	A On the phone.
7	calculations were accurate?	7	MR. CHOATE: Objection. Calls for speculation.
8	MR. CHOATE: objection. It is vague and	8	BY MR. KREEGER:
9	ambiguous.	9	Q You never saw the piece of paper that you are
10	THE WITNESS: The conception of this analysis	10	referring to?
11	was mine. The way to organize the data so that the	11	MR. CHOATE: Objection. Assumes facts not in
12	analysis could be done, that organization was mine.	12	evidence.
13	I instructed him on the calculations to	13	THE WITNESS: I did not see the piece of paper,
14	undertake. We talked on the phone many times. He ran	14	but we spoke about the calculations a number of times.
15	preliminary calculations by me.	15	BY MR. KREEGER:
16	I looked at the spreadsheet to see if he	16	Q Do you know what numerator was in the
17	corresponded with what I saw. And then as the numbers	17	calculation that led to the 48 percent?
18	became available, I questioned him again to review that	18	MR. CHOATE: Objection. It is vague and
19	he had done what I had instructed him to do.	19	ambiguous. Are you referring to 48 percent in Figure 1?
20	BY MR. KREEGER:	20	MR. KREEGER: Yes.
21	Q So the spreadsheet that you were working with	21	THE WITNESS: Well, I know there were about 100
22	didn't reflect these calculations?	22	schools and as 48 percent, so the numerator is somewhere
23	MR. CHOATE: Objection. Mischaracterizes the	23	around 48.
24	witness's testimony.	24	BY MR. KREEGER:
25	THE WITNESS: Spreadsheets were the data. And	25	Q But you can't tell me what, exactly, the
	Page 19		Page 21

1	the spreadsheet was simply sorted by school and then	1	corresponding numbers that lead to that 48 percent
2	examined.	2	calculation number?
3	BY MR. KREEGER:	3	A Well, there were actually 99 schools. So it is
4	Q Right. My question was imprecise.	4	a little bit less than 47. Meaning, that is a pretty
5	You didn't and, so far as you know, no one	5	good fix on that numerator.
6	modified the spreadsheet to actually perform the	6	Q And that right. Because let me make sure
7	calculations that ended up with the 48 percent figure?	7	I understand how this works.
8	MR. CHOATE: Objection.	8	Is this the percentage of schools for which
9	THE WITNESS: What did you mean by modify?	9	there was a disagreement or was there a or was this a
10	BY MR. KREEGER:	10	particular time that the respondents didn't agree?
11	Q Adding a column and then let the Excel calculate	11	MR. CHOATE: Objection. Vague.
12	the percentage of interest, for example.	12	BY MR. KREEGER:
13	MR. CHOATE: Are you asking him? What Dr. Berk	13	Q In excess of 200 respondents, at schools where
14	did?	14	there was more than one respondent per school?
15	MR. KREEGER: I think the question is clear.	15	A Yes, there was about 200 schools. Yes.
16	(Record read as follows:	16	Q So, in some cases, there were three respondents
17	"Question: You didn't and, so far as you	17	for a particular school?
18	know, no one modified the spreadsheet to	18	A A few.
19	actually perform the calculations that ended up	19	Q In instances where there was three respondents
20	with the 48 percent figure?")	20	per school and two of them said "Excellent" and one of
21	MR. CHOATE: Objection. Vague and ambiguous.	21	them said "Good," was that considered to be three
22	THE WITNESS: I didn't do that.	22	respondent agreements or to one school which there was
23	BY MR. KREEGER:	23	disagreement?
24	Q As far as you know, no one did that?	24	A The analysis is of the level of the school. So
25	A As far as I know, this was all done by hand.	25	if there were three people and if there was any dispute

	Page 22		Page 24
1	amongst them, that school had disagreement.	1	given the same quality of textbooks and instruction
2	Q So in Figure 1, although your title says,	2	materials?
3	"Percentage of Time Respondents Disagreed," the actual	3	MR. CHOATE: Objection. Vague and ambiguous.
4	percentage is the percentage of times where there was	4	THE WITNESS: Well, let's go back and look at
5	disagreement about a particular school; is that right?	5	the question.
6	MR. CHOATE: Objection. Mischaracterizes the	6	BY MR. KREEGER:
7	witness's testimony.	7	Q All right.
8	THE WITNESS: Well, yes, the title I thought was	8	A For that question, the assumption was, yes, that
9	clear, but I guess it is not. It is about a school. It	9	they would be given the same textbooks and instructional
10	says ", Conditions at the Same School." So we were	10	materials.
11	characterizing schools.	11	Q Later in your report, when you were dealing with
12	BY MR. KREEGER:	12	an item that has this range of responses, Excellent,
13	Q Were there ever instances in which there were	13	Good, Only Fair, Poor, Not Sure, you collapsed the
14	four or more respondents at a particular school?	14	responses into two groups.
15	A There may have been one or two. It was very	15	You know, one category for Excellent/Good, on
16	rare.	16	the other hand, and another category, Only Fair or Poor.
17	Q If there were say, there were four	17	Did you perform that analysis for disagreement
18	respondents at a school and a particular question about,	18	rates?
19	for example, the Seriousness of Teacher Turnover.	19	A No.
20	Three of them said "Excellent," and one of them	20	Q Why not?
21	said "Good," that school would be considered a school as	21	A Because it wasn't relevant.
22	to which there was disagreement?	22	Q Why wasn't it relevant?
23	A Yes.	23	A The two analyses addressed different questions.
24	Q Why is it that you didn't record these	24	The question here is if you get two different answers, on
25	calculations in some permanent way?	25	a questionnaire, what do you believe? So I checked to

see if at any time there were different -- two different MR. CHOATE: Objection. Mischaracterizes the 1 1 witness's testimony. It is vague and ambiguous. 2 2 or more answers. 3 THE WITNESS: I did. It is right here in this 3 Q Let's look at Figure 2 of your report, please. 4 table. 4 You have three columns. How did you choose these 5 5 particular items to analyze? BY MR. KREEGER: A As the others, they were ones that were 6 Q The table records a result. I am asking why you 6 7 didn't record the calculations that is the underlining 7 identified very prominently in the Harris study. 8 result? 8 Q Can you tell me which items correspond to your 9 A There is no need. The calculations were trivial 9 items in Figure 2? and what you have is a record of that result. 10 10 A I can. (Plaintiffs' Exhibit 3 was marked for MR. CHOATE: Can you refer to the question, 11 11 12 which item in Figure 2? identification by the court reporter.) 12 13 MR. KREEGER: Actually, before we do Exhibit 3, 13 BY MR. KREEGER: let me ask you a few more questions about Figure 1. 14 14 Q Yes. 15 MR. CHOATE: Figure 1 on the doctor's report? 15 A The question, "Evidence of Mice, Rats and MR. KREEGER: Yes. Cockroaches," comes from the question of Evidence of 16 16 Q So one of these entries relates to the textbooks Mice, Rats or Cockroaches". That is Item G. 17 17 18 and instruction materials you were given. And if I 18 "Bathrooms Opened and Clean" comes from 13H, or understand your answer before, correct me if I am wrong, 19 "Are the bathrooms opened and clean" -- "clean and open," 19 20 20 in your reading that question, teachers at the same excuse me. 21 21 school who answered differently disagreed about a fact; And the "Quality of Classroom Temperatures," 22 comes from question 13C, now let me ask you about the 22 is that right? 23 A That's correct. 23 temperature of your classroom. 24 Q And was that based on your assumption that the 24 Q With respect to classroom temperature, your 25 teachers would be -- at a particular school would be 25 analysis assumed that the teachers at the same school

	Page 26		Page 28
1	would experience the same temperature in their	1	THE WITNESS: My role in that was much more
2	classrooms?	2	hands on. I did not do the calculations, but as they
3	MR. CHOATE: Objection. Assumes facts not in	3	were being done, we talked on the phone to make sure they
4	evidence. It is vague and ambiguous. And the document	4	were plausible.
5	speaks for itself.	5	When there were particular items, we both went
6	THE WITNESS: It is about your classroom. So	6	to the spreadsheet. I looked at my computer. He looked
7	the assumption is that within a particular school, yes,	7	in front of his to make sure that we were talking about
8	that is a homogeneous it is a homogeneous set of	8	the same items and coding them the same, which when the
9	classrooms.	9	results were ultimately provided, we went over it again,
10	BY MR. KREEGER:	10	plausibility.
11	Q Homogeneous with respect to their temperature?	11	BY MR. KREEGER:
12	A Well, that is not what the question asked. The	12	Q What do you mean by if you were coding them the
13	question asked about comfort, so that that is one of	13	same way?
14	the difficulties related to it, but the assumption is	14	A There were a lot of materials to examine on the
15	that they are all experiencing basically the same	15	spreadsheet and it might be very easy, for example, to
16	physical conditions.	16	miss the fact that one respondent answered with a one and
17	Q At a particular school?	17	another one with a two.
18	A That's correct.	18	So we would spot check to make sure that we both
19	Q And similarly, with respect to cockroaches, rats	19	saw a one and a two there. And that he didn't
20	or mice, if one person responded they have seen evidence	20	inadvertently or I didn't inadvertently misread the
21	of cockroaches, rats and mice and the other person	21	numbers.
22	responds that they have not, your analysis assumes that	22	Q Did Mr. Simmons ever show you a record of the
23	is a disagreement because they should have experienced	23	calculations that he performed?
24	the same level of cockroaches, rats or mice?	24	A He did not.
25	A That, Counsel, is a misreading of this question.	25	Q Is Figure 2, like Figure 1, a percentage of

It says, Have you seen evidence of cockroaches, rats or 1 1 2 mice? Have they been a problem in your school over the 2 3 3 past year? 4 So the question asked about the school. So I 4 5 5 assumed that the teachers are responding about the again. 6 school. So, yes, disagreement is a disagreement. 6 7 Q How are the percentages in Figure 2 of your 7 8 report calculated? 8 9 A The "Not Sures" were thrown out and these were 9 10 10 then just either basically a true or a false. I agree or disagree. So there was just two options there. 11 11 12 Q And these percentages were again calculated by 12 13 someone at O'Melveny and Myers? 13 14 MR. CHOATE: Objection. Assumes facts not in 14 15 evidence. Calls for speculation. 15 THE WITNESS: Like the earlier items, these 16 16 17 17 reflect an analysis that I laid out, and checked many 18 times over the phone with Mr. Simmons, who did the work. 18 19 BY MR. KREEGER: 19 20 Q Well, let me be clear on that. You directed 20 21 21 Mr. Simmons on how you wanted the calculations to be 22 performed and that he performed the calculations? 22 23 A Well, it was --23 24 24 MR. CHOATE: Objection. I am going to object to were. 25 the extent it calls for speculation. 25

Page 29

schools as to which there is disagreement?

A It is.

Q Are there any items in the Harris survey that,

in your view, have a feature that -- let me start over

Are there any questions in the Harris survey as

to which, if teachers at a particular school responded differently, you would not conclude that there was a

disagreement?

A Well, there are certainly obvious questions

about a given individual teacher. There was stuff on the

teacher's educational background, for example.

Clearly, people can answer differently on that. And then there are some questions for which it is really

impossible to check whether there is disagreement because

there is not two readings for the same phenomena.

For example, two social study kids may use the

- exact same textbooks. When asked about the textbook,
- they may or may not agree, but we cannot tell if they are using the same textbooks.
- The point is disagreements are expected and are
- pervasive. It is difficult because the design of the

study does not allow to document what those disagreements

Q I want to turn to your analysis that appears on

Page	3(
I age	50

	Page 30		Page 32
$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\\18\\19\\20\\21\\22\\23\\24\\25\end{array} $	 Page 11 of your report well, beginning on 10 and continues on to 11, where you do some more work with the questions that appear in some of the questions that appear in Figure 1. First of all, I want to make sure if I have that right. In the analysis that begins at the last paragraph, 10, and begins onto 11 in your report, you talk about a question about construction materials, question about available technology and a question about bathrooms. Are those three items the same questions that we discussed in Figure 1? A They are. Q And here it says you collapsed the responses "Excellent" and "Good" into one category and "Only Fair" and "Poor" into another category; is that right? A That's correct. Q And you say for 99 schools there was more than one respondent for a total of 214 respondents overall. Do you know how often those 99 schools displayed disagreement MR. CHOATE: Objection. BY MR. KREEGER: Q for purposes of that analysis? MR. CHOATE: Vague and ambiguous. And I will 	$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\\18\\19\\20\\21\\22\\23\\24\\25\end{array} $	calculation because, again, these are just meant to illustrate a problem that is pervasive throughout the instrument. BY MR. KREEGER: Q Okay. Turning to the analysis that appears on Page 11 of your report, you say that there is two different ways to analyze these responses as to the schools where there were actual multiple respondents. One would be average over all teachers, as Harris did, and the other is applying a majority vote rule, and then you contrast these results. Maybe I could just ask you: On the instructional materials question you say 18 percent of the teachers felt that the materials were unsatisfactory. And where does that 18 percent come from? A That was from the calculations that Mr. Simmons did. Q What exactly was being calculated there? A The percentage of teachers that felt the materials were unsatisfactory. Q So the denominator in that school calculation was 214? A That's correct. Q Have you seen that calculation recorded in any form?
$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\\18\\19\\20\\21\\22\\23\\24\end{array} $	Page 31 object to the extent that it mischaracterizes the testimony and the report. THE WITNESS: The analysis of disagreement is Figure 1. We have been through that. This was not an analysis of disagreement. This was an attempt just to illustrate because that is all you can do with this data, illustrate potential problems, calculating numbers as Harris did. BY MR. KREEGER: Q Okay. You go on to talk about applying a majority vote rule to those responses, and I guess my question is: Do you know with respect to those 99 schools, how frequently there was a unanimous vote? MR. CHOATE: Objection. It is vague and ambiguous. THE WITNESS: Well, we can tell from the previous analysis on those items. We can go back at the table, that there was disagreement a substantial fraction of the time but not with respect to this particular dichotomy size of the variables. BY MR. KREEGER: Q You just take a look at that. MR. CHOATE: Objection. Mischaracterizes his testimony.	$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\\18\\19\\20\\21\\22\\23\\24\end{array} $	Page 33 MR. CHOATE: Objection. Asked and answered. THE WITNESS: I don't recall seeing a hard copy of those calculations, no. It was discussed over the phone. BY MR. KREEGER: Q And then you say that only 2 percent of the schools had unsatisfactory materials. And by that, you are referring to the calculation that results from your majority vote rule being applied? MR. CHOATE: Objection. The document speaks for itself. THE WITNESS: Well, first of all, the majority vote rule is an arbitrary way of trying to put some rationale into calculations that were done. Not standing by it as a right model because there really isn't any presented in the Harris work, but if you use that model, that is how it is calculated, yes. BY MR. KREEGER: Q Can you explain how that majority vote rule works? MR. CHOATE: Objection. It is vague and ambiguous. THE WITNESS: Just like an election. BY MR. KREEGER:

25

Q So if there were three respondents for a

Page 34		Page 36
particular school and if two out of the three of them	1	18 percent figure?
responded differently, in a particular way, that would be	2	MR. CHOATE: Objection.
considered the response to that school?	3	BY MR. KREEGER:
A Under this majority vote assumption, yes.	4	Q Is that right?
Q And if there were only two respondents at a	5	MR. CHOATE: That is vague and ambiguous.
particular school and they gave different answers, what	6	This
did you do then?	7	THE WITNESS: It is a commentary on the
MR. CHOATE: Objection. The document speaks for	8	18 percent figure and other figures in that paragraph.
itself.	9	BY MR. KREEGER:
THE WITNESS: I think that is covered in	10	Q So, for example, when I asked you if the
footnote one.	11	18 percent figure had a denominator of 214 and you said
BY MR. KREEGER:	12	yes, that would have been true only in the instances
Q Let me just be clear on that. You collapsed the	13	where you included the "Not Sure" responses?
	14	A That's correct.
•	15	Q And the instance where you did not include the
	16	"Not Sure," the denominator would be somewhat less?
-	17	A Correct.
• • •	18	Q But you don't know what it is, sitting here?
• • • • • •		A I know that it didn't make much of a difference.
•		I don't know what the number is.
•		Q You then go on to say: "At the level of
		the school, the majority vote rule was
		applied including 'Not Sure' as a
		response."
Q Did you examine the question as to what would	25	Can you explain how that worked?
	 particular school and if two out of the three of them responded differently, in a particular way, that would be considered the response to that school? A Under this majority vote assumption, yes. Q And if there were only two respondents at a particular school and they gave different answers, what did you do then? MR. CHOATE: Objection. The document speaks for itself. THE WITNESS: I think that is covered in footnote one. BY MR. KREEGER: Q Let me just be clear on that. You collapsed the respondents into two categories: Satisfactory and unsatisfactory? A That's correct. Q And the rule was if there were two respondents and one of them gave a satisfactory response and the other gave an unsatisfactory response, for purposes of this analysis, the school was considered to be satisfactory? A Yeah, just, again, it was an illustrative analysis one might do to get a handle on these issues. That's correct. 	particular school and if two out of the three of them1responded differently, in a particular way, that would be2considered the response to that school?3A Under this majority vote assumption, yes.4Q And if there were only two respondents at a5particular school and they gave different answers, what6did you do then?7MR. CHOATE: Objection. The document speaks for8itself.9THE WITNESS: I think that is covered in10footnote one.11BY MR. KREEGER:12Q Let me just be clear on that. You collapsed the13respondents into two categories: Satisfactory and14unsatisfactory?15A That's correct.16Q And the rule was if there were two respondents17and one of them gave a satisfactory response and the18other gave an unsatisfactory response, for purposes of19this analysis, the school was considered to be20satisfactory?21A Yeah, just, again, it was an illustrative22analysis one might do to get a handle on these issues.23That's correct.24

happen if you excluded the situations where there was a 1 2 tie? 3

A I don't recall doing that, no.

4 Q This whole majority vote analysis only looked at 5 the schools as to which there was multiple respondents; 6 is that right?

- 7 A There is no other way to do it, which is, again,
- 8 the key flaw in this study.
- 9 Q As to schools where there was only the one
- respondent, you just excluded them from this analysis? 10

A Yes. There is no way to measure disagreement 11

when there is only one person responding. 12

13 Q Your footnote talks about a different way of treating the "Not Sure" responses. 14

- 15 It says, "The analysis averaging
- over teachers was about the same 16
- 17 whether or not the 'Not Sure'
- 18 responses were included in the
- 19 denominator."
- 20 What did you mean by that?
- A That the proportions reported in the conclusions 21

22 arrived at didn't materially change. I mean, yes, they

23 changed a little bit, but not so that one would arrive at

- 24 a different conclusion.
- 25 Q And this is a comment, for example, the

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- 1 MR. CHOATE: Objection. It is vague and 2 ambiguous. 3 THE WITNESS: Well, it was the same -- it was 4 the same process as before, but now there are three
- 5 candidates in this election, rather than two.
- 6 BY MR. KREEGER:
- 7 Q So if there were two respondents at a particular
- 8 school, one of them said that the condition was
- 9 "Unsatisfactory," and the other said, "Not Sure," what
- 10 would your rule result in?
- 11 A Unsatisfactory.
- 12 Q If there were three respondents at a particular
- 13 school and one said, "Satisfactory," the second said,
- 14 "Unsatisfactory" and a third said, "Not sure," what would 15 you do then?
- 16 A I don't think that came up, but I can go and
- check. That is a good question. 17
- 18 Q What if there were three responses at a
- 19 particular school, two of them were "Not Sure" and one of
- 20 them was "Unsatisfactory"?
- 21 A I don't think that came up either, but I can
- 22 check. 23

24

- O How would you check?
- A Go back to the spreadsheet and look.
- 25 Q The spreadsheet would tell you whether that

Page 38 1 instance came up, but it wouldn't tell you how you 1 into account, you get a different answer. 2 treated it: would it? 2 Q What do you mean by taking school into account? 3 3 A It would tell me --A Just as described. If you take a vote in each 4 MR. CHOATE: Objection. Vague and ambiguous. 4 school, in this case you don't really need a vote because 5 5 THE WITNESS: It would tell me whether it came I set it up to be pretty clear and simple. 6 up, from which I could probably infer what we did. I 6 If you characterize a school with what a 7 7 would also talk to Mr. Simmons, who did the calculations. respondent says, you get one answer. And if you simply 8 because like I said, I don't think it came up. 8 add across all teachers, you get a different answer. 9 MR. KREEGER: Can I have the answer read back. 9 Q Because there are three teachers at a particular 10 10 please? school. And, therefore, they were treated as three responses instead of just one; is that right? 11 (Record read as follows: 11 12 "Answer: It would tell me 12 A Well, that certainly figures in the arithmetic, 13 whether it came up, from which 13 but the point, again, is not that. The point is that 14 I could probably infer what we 14 teachers are being asked about schools, but the analysis 15 did. I would also talk to ignores schools, even though teachers are being asked 15 16 Mr. Simmons, who did the 16 about schools. It simply aggregates the cross 17 calculations, because like I 17 respondents. And then you go through a lot of silliness, said, I don't think it came up.") 18 18 as this demonstrates. 19 Q Did you do any calculation where this 19 BY MR. KREEGER: 20 Q If there were two respondents at a particular 20 hypothetical problem exists in the result? 21 school and they both indicated "Not Sure," how did you 21 MR. CHOATE: Vague and ambiguous. 22 treat that school? 22 THE WITNESS: The study is poorly designed that 23 A I think we just went through that. That is the 23 a serious analysis cannot be done. 24 first sentence of footnote one. I may have misunderstood 24 BY MR. KREEGER: 25 25 Q At the end of the last full paragraph on the your question.

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Q Well, maybe I misunderstood what footnote one Page 12 of your report, you say, "The apparent 1 1 contradiction could be resolved by 2 said. If there is a tie, meaning there were two -- two 2 3 votes for different responses, my question is somewhat 3 proper weighting of the teachers." 4 different. We have two respondents and they both 4 How could the contradiction be resolved? 5 indicate "Not Sure"? 5 A Proper sampling theory makes very clear that you weight responses by the universe of the probability of 6 A Again, I don't think that came up. I don't 6 remember discussing that with Mr. Simmons, but I will ask the selection. If that number was known and applied 7 7 8 him to refresh my memory. I don't think it was an issue. 8 properly, then, in principle, you can avoid this 9 9 Q You go on, on Page 12, to discuss another difficulty. 10 problem you found, which is the way that schools with 10 Q Did you make any attempt to see whether that multiple respondents are addressed in the Harris survey. 11 could be done with the Harris data? 11 12 In particular, you are concerned about the 12 A As I said, this study is so poorly designed that 13 prospect that schools under which there is multiple 13 that information is simply not available, at least to me. 14 respondents are over represented in the conclusions that 14 Q What information would you need to solve this particular problem that you don't have? 15 Harris draws in the survey; is that correct? 15 16 A Yes, I am concerned about that, but that is not 16 MR. CHOATE: Objection. It is vague and what this is about. 17 17 ambiguous. This particular problem being? 18 Q Okay. Isn't this issue in the hypothetical you 18 MR. KREEGER: The one that he describes in these 19 lay out on Page 12 the concern that School C, where there 19 paragraphs on Page 12. 20 was multiple respondents, is over represented -- over 20 THE WITNESS: I answered that. You need to know represented in the data? 21 21 the probability of selection to the sample. 22 22 BY MR. KREEGER: A No. 23 Q What is the concern about in the hypothetical? 23 Q If the problem is simply -- if the problem is 24 A If you calculate the result the way Harris did, 24 failing to take into account that you asked a question 25 you get one answer. If you calculated it, take school 25 about a particular school, as opposed to a question about

	Page 42		Page 44
1	a particular teacher, why couldn't you resolve this	1	think are sufficiently reliable that they provide
2	particular problem by weighting the schools as to	2	meaningful survey data?
3	which as to which there was actual multiple	3	MR. CHOATE: Objection. It is vague and
4	respondents, less than the schools to which there was one	4	ambiguous. It is an incomplete hypothetical.
5	respondent?	5	THE WITNESS: Again, it is a matter of degree
6	A Because that is a function of the sample itself,	6	and it depends upon how that question is used. If I am
7	which is, as I say in my report inadequate. You need to	7	interested in just sort of a global sense of a particular
8	know this about the population.	8	issue, some of the questions may be adequate.
9	Q You offer your view on Page 13 that some of the	9	If I am trying to ultimately document in a
10	questions, on the face, appear to you to be overly	10	quantitative way some phenomena, that same question may
11	subjective.	11	not be. So it depends on the context. If you provide me
12	For example, you give the instance about	12	a context and show me a question, I might be able to make
13	textbooks and your expectation that the question, as	13	a judgment. I'm not sure I can.
14	asked, is so subjective as to not elicit meaningful data.	14	BY MR. KREEGER:
15	I don't mean to put words in your mouth, but am I right	15	Q Dr. Berk, in your view, would it be possible to
16	about that?	16	construct a survey of teachers to answer questions about
17	MR. CHOATE: Objection.	17	the conditions in California schools?
18	MR. KREEGER: Let me withdraw the question. It	18	A You need to be more precise about what you mean
19	is not really important.	19	by "conditions."
20	Q Are there certain items in the Harris survey	20	Q If I wanted to understand how prevalent certain
21	that you think are not so subjective?	21	conditions were in California schools, could a survey of
22	MR. CHOATE: Objection. It is vague and	22	teachers be instructed to answer that question?
23	ambiguous.	23	MR. CHOATE: Objection. Vague and ambiguous.
24	THE WITNESS: Yeah, the questions vary in their	24	He just testified that he needs to know more about what
25	ability to elicit facts being sought. Asking a teacher	25	conditions are.

1 about, for example, whether they have a particular

2 degree, presumably is something they can answer

3 relatively accurately about.

4 Virtually all of the questions may be -- not

5 all, but almost all of the questions, about experience in

6 the schools, require a subjective judgment. And they are

7 more or less unreliable because of that.

8 BY MR. KREEGER:

9 Q Leaving aside the questions about the particular

10 qualifications of a teacher, are there any questions on

11 the Harris survey that you think are reliable?

12 MR. CHOATE: Take a look at the survey if you 13 need to.

14 THE WITNESS: Well, first, as I said, more or

15 less reliable. I mean, any question if I asked you what

16 you had for breakfast, you may not recall accurately at17 this point.

18 So all of these things, depends on recall, and

- 19 there may be and often are errors, so it is a matter of
- 20~ degree. But you want me to find some questions that are

21 likely to be more reliable rather than less?

22 BY MR. KREEGER:

- 23 Q Well, I guess my question is: Are there any
- 24 items in the Harris survey, leaving aside demographic

25 questions about the teacher, that you identify that you

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- THE WITNESS: Yeah, I need to know what
- conditions are.
 BY MR. KREEG

1

15

16

BY MR. KREEGER:
Q Are there some conditions under which a survey
can be constructed?

5 can be constructed?
6 MR. CHOATE: Vague and ambiguous. Asked and
7 answered.

- 8 THE WITNESS: What I meant by asking about
- 9 conditions, are we talking about whether the roof leaks?
- 10 Whether kids come to school in an unruly fashion? It
- 11 depends on what you are asking teachers about.
- 12 BY MR. KREEGER:

13 Q I am trying to understand. How does it depend14 on that?

MR. KREEGER: Objection. Vague and ambiguous.

THE WITNESS: Well, certain conditions can be

more easily apprehended than others and reported moreaccurately.

In addition, it depends upon what you are goingto do with the information. I keep coming back to that.

21 If all you want is kind of a qualitative

- 22 description of what teachers feel, you can do that. If
- 23 you are trying to ascertain whether some structural
- 24 feature of the building is inadequate, it is more
- 25 difficult.

	Page 46		Page 48
1	BY MR. KREEGER:	1	get information that would sort of advance the ball.
2	Q It is more difficult because the teachers	2	BY MR. KREEGER:
3	wouldn't know?	3	Q What about questions about whether there are
4	A They might know. They might not know. It is	4	sufficient textbooks to meet the teachers and the
5	hard to determine that. Plus, the fact that for things	5	students needs; is that kind of question one that can be
6	like structural condition, there is a right answer and it	6	answered by a survey of teachers?
7	is often very quantitative and the way these questions	7	MR. CHOATE: Objection. It is vague and
8	are asked, there is no way to map from satisfactory to 78	8	ambiguous. It is an incomplete hypothetical. Sufficient
9	degrees with 40 percent humidity. There is no way to get	9	for what?
10	from A to B, which is presumably the goal of the study.	10	MR. KREEGER: Enough textbooks to meet the
11	Q Maybe my question I need to put aside the	11	teachers and students needs.
12	Harris survey. I am talking about, for instance, in	12	MR. CHOATE: Same objections.
13	principle, whether one could construct a different	13	THE WITNESS: Best I can do is to describe my
14	teacher survey that could answer the question how	14	own situation. If you were to ask me that question, I
15	prevalent certain conditions are in California schools?	15	would report that in my introductory statistics class,
16	MR. CHOATE: Vague and ambiguous. Asked and	16	most of the students don't have textbooks. Is that a
17	answered.	17	problem?
18	THE WITNESS: It depends on the condition. If	18	Well, you have to have a follow-up question
19	you describe the condition, maybe I can think it through.	19	which determines whether those textbooks are essentially
20	Maybe it can be done.	20	material.
21	BY MR. KREEGER:	21	In my particular class, I hand out instructional
22	Q Well, let's take some conditions then. If one	22	materials which the students find more useful than the
23	was interested in knowing, for example, the quality of	23	textbook. So do I have sufficient textbooks for my
24	instruction materials at a particular school, would it be	24	students? It depends on what you mean.
25	possible to construct a survey of teachers to address	25	Same would apply to these teachers. You have to
1			

that question? 1 1 2 MR. CHOATE: Objection. Vague and ambiguous. 2 3 3 It is an incomplete hypothetical. BY MR. KREEGER: 4 THE WITNESS: Depends on what you mean by 4 5 "quality." I do not mean to be particular picky. I 5 6 design surveys, too, but it really depends on what you 6 7 mean by quality. 7 8 BY MR. KREEGER: 8 9 Q Well, we can talk about different aspects of 9 quality. One aspect of quality is whether the textbooks 10 10 are in good physical condition as opposed to falling survey teachers? 11 11 apart. Can that sort of question be addressed by a 12 12 13 survey of teachers? 13 14 MR. CHOATE: Objection. Vague and ambiguous. 14 15 Incomplete hypothetical. 15 THE WITNESS: Again, it depends on -- well, not 16 16 again, but it depends on what you mean by "survey." You 17 17 18 can certainly instruct teachers, on a given day, to look 18 19 through each textbook that their students have and record 19 20 whether or not any of the pages are ripped. 20 You can instruct them and look at textbooks and 21 21 22 record the publication date. You can see the textbooks 22 23 and see if the bindings are broken. Teachers would be 23 24 doing what an auditor would do, in effect, and elicit the 24 25 information in a form of a survey. You might be able to 25

- learn a lot more about what teachers are doing and what the students need than a simple public opinion poll item.
- Q I'm sure you are aware that the Harris survey asked several questions along the lines of sufficient textbooks, not just not simply the one?
- A I understand that.
- Q And leaving aside the particular questions that
- are asked, my question is a more global one. Could one
- design a survey designed to answer that question, which
- MR. CHOATE: Objection. It is vague and
- ambiguous. It is asked and answered. It is an
- incomplete hypothetical.
 - THE WITNESS: As said, now several times, these
- things are a matter of degree. Surveys are generally
- very blunt measurement tools and they are fine if the
- questions that you need to answer are blunt questions.
 - If you need precise answers, surveys are often flawed.
 - I could imagine a situation in which you
- designed a much more lengthy questionnaire, to get a
- better fix on whether teachers thought that their
- textbooks were adequate or not. Whether it would be
- sufficient, it would depend on what you want to do with
- the data after the data was collected.

	Page 50		Page 52
1	BY MR. KREEGER:	1	MR. CHOATE: Vague and ambiguous. He answered
2	Q What sort of questions would you include in that	2	essentially that same question about three minutes ago.
3	better survey that weren't asked in this one?	3	THE WITNESS: Again, I don't like to design
4	MR. CHOATE: Objection. Vague and ambiguous.	4	surveys in a middle of a deposition. I have to be
5	THE WITNESS: It is a little hard to sort of do	5	thoughtful about it and review previous work that has
6	this on the fly because it requires a lot of thought and	6	been done and review the expert reports that your group
7	I, quite frankly, did not look at the literature on what	7	provided, I haven't done that.
8	educators think what textbooks should accomplish. All I	8	But I can certainly imagine, as in the case of
9	know is what your experts should say. So I am at a	9	textbooks, teachers being asked to actually behave as if
10	little disadvantage.	10	they were auditors.
11	I wouldn't design a survey over a cup of coffee	11	And for example, keep a diary for a month, which
12	in a deposition. As I said, it is really important that	12	days the bathrooms were working and which they weren't,
13	you learn what it is in the teachers' view that the	13	to actually record the days, and how often they saw
14	textbooks are supposed to provide, and then find out what	14	rodent droppings.
15	the alternative is that is currently in place; and then	15	And insofar as you could ask teachers about
16	determine to what degree the textbooks are providing what	16	objective facts, rather than subjective reactions to
17	the teachers say they need in great detail. That would	17	those facts, I think you would have a stronger survey.
18	tell you whether teachers thought the textbooks are	18	BY MR. KREEGER:
19	adequate.	19	Q What did you mean a minute ago when you say
20	Now, how that translates into students learning	20	field test the survey to see how accurate it was?
21	is a wholly other matter, which is which is not	21	A Well, before you go into the field, with an
22	addressed in the Harris study.	22	instrument that you are going to collect scientific data
23	BY MR. KREEGER:	23	from, you there are normal steps that you normally
24	Q In your view, would it be possible to construct	24	take.
25	a survey of teachers that is designed to elicit	25	One of them is to pilot test or field the
	Page 51		Page 53
1	information about the physical condition of the school in	1	instrument. In a small sample to see if the instrument
2	which they teach?	2	is eliciting sensible information.
3	MR. CHOATE: Objection. It is vague and	3	Q How
4	ambiguous. It is an incomplete hypothetical.	4	A In an ideal world, again, this isn't an
5	THE WITNESS: Well, the Harris survey attempted	5	imaginary world. What I would do and what I have done in
6	that very thing. And I think failed.	6	analogous situations is you test the situation, test the
7	Would it be possible to do better? Perhaps.	7	instrument in a situation where you know the facts.
8	BY MR. KREEGER:	8	So if you know that the bathrooms are working on
9	Q Do you have an opinion one way or the other	9	a particular day, you go in and ask a teacher, today
10	whether a survey of teachers could be probably designed	10	is how is the bathroom working?
11	to achieve that goal?	11	If they say, "yes," that is encouraging. If
12	MR. CHOATE: Objection. It is vague and	12	they say, "no," there is something wrong with your
13	ambiguous. It is asked and answered.	13	instrument. The idea is to get some external reference
14	THE WITNESS: Well again it depends upon what	14	and benchmark your instrument against that

- 14 THE WITNESS: Well, again, it depends upon what15 you want to do with the data. It depends on which
- 16 features of schools we are talking about. I can imagine
- 17 a survey which would do better.18 Whether it would be adequate for the purposes of
- 19 this litigation, it is hard to tell. I mean you would
- 20 have to field test such a survey and get a sense of how
- 21 accurate the information was.
- 22 BY MR. KREEGER:
- 23 Q What sort of questions would appear in this
- 24 better survey of physical conditions of schools that
- 25 don't appear in the Harris study?

and benchmark your instrument against that. 14 15 Sometimes the teachers simply don't know what 16 your question means. So you ask, after the fact, what 17 did you take my question to mean? 18 And you get back an answer that indicates that 19 they didn't really comprehend what you were really trying 20 to do. 21 Q Would it be possible, after the fact, to perform 22 some field test on that verification of the data provided 23 by the Harris survey? 24 MR. CHOATE: Objection. Vague and ambiguous. 25 THE WITNESS: For some of the items that are

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Page	30

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1	more objective, like a teacher's credentials, presumably	1	want to go through if you want to point him to the
2	you can go to see whether they were, when the survey was	2	particular opinion in his report, I suppose we can do it
3	done. I'm not sure. I believe those records exist.	3	like that.
4	Most of the other items we have been focusing on	4	MR. KREEGER: Why don't you state your
5	are so loosely worded, I don't know how you would	5	objections for the record and then we can get the answer?
6	validate them.	6	THE WITNESS: The point is to generalize to all
7	BY MR. KREEGER:	7	teachers, schools and students in California. If you are
8	Q Let's turn to your report Exhibit 1, Page 14	8	going to generalize to that population, you have to know
9	of your report. Where you begin talking about your	9	how that population did or did not get properly
10	concerns about sampling.	10	represented on those MDR lists. And there is no
11	MR. CHOATE: Matt, Exhibit 1 oh, sorry. My	11	information about that, one way or the other.
12	mistake.	12	BY MR. KREEGER:
13	BY MR. KREEGER:	13	Q No information about that in the Harris survey
14	Q And you discuss the three databases that came	14	or Harris study?
15	from Market Data Retrieval that were used in the Harris	15	A Particularly in the technical appendix, there is
16	survey.	16	no explanation. And by the way, none of the depositions
17	Are you aware of any data that analyzed the	17	I have seen either is there an explanation about how
18	question of whether these MDR data sets are	18	these lists are constructed. They are taken basically on
19	representative?	19	faith, apparently, by the Harris people and by your
20	MR. CHOATE: Objection. It's vague and	20	experts.
21	ambiguous.	21	Q Have you done any work to analyze the question
22	THE WITNESS: What do you mean by	22	about how the MDR lists are constructed?
23	representative?	23	A No, I have not. I normally, when good
24	BY MR. KREEGER:	24	scientific work is done, that kind of central question is
25	Q Representative of the universe of California	25	addressed very explicitly. It is not addressed here at

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teachers? 1 1 all. 2 MR. CHOATE: Objection. It is vague and 2 Q What sort of information would you need to know 3 3 ambiguous. about -- start again. 4 THE WITNESS: In statistics, that is not the way 4 What tests would one perform on the MDR lists to 5 that we use the term "representative." What I do know is 5 obtain confidence that the data taken from them can be that they did some tabulations at the end, which shows a 6 6 generalized to the universe of California teachers? 7 7 few demographics. Sample data matched the population of MR. CHOATE: Objection. Vague and ambiguous. 8 teachers, but that isn't complete evidence that this is 8 THE WITNESS: It is not a matter of tests. It 9 representative at all. 9 is a matter of process. If I was told, if I knew how it 10 10 BY MR. KREEGER: was that a teacher appeared on these lists, then it might Q In statistics, how do you use "representative"? be possible to draw some better inference about how 11 11 12 A "Representative" refers to the process by which 12 credible they are, but it is a matter of process. 13 the data were collected. If you follow appropriate 13 Conceivably, if I understood the process, there 14 probability procedures and if the study is implemented 14 might be some ways you could make a case more or less 15 properly, then you know that the study is representative. strongly about how good the lists were, but the first 15 16 It has to do with process, with outcome. 16 problem is you have to know how it was done. Q You asked the question: How are the MDR's lists BY MR. KREEGER: 17 17 18 constructed and who was audited, and so on. 18 Q You mentioned that the demographic checks that 19 How did those questions relate to any opinions 19 the Harris technical appendix described weren't 20 you have about the validity of the Harris Survey? 20 sufficient to prove that the MDR list can be generalized 21 21 MR. CHOATE: Objection. It is vague and to the universe of California teachers. ambiguous. And Matt, where are you referring to in the 22 22 Are there other tests you think could be 23 report? 23 performed to help answer that question? 24 24 MR. CHOATE: Objection. It is vague and MR. KREEGER: Page 15. 25 MR. CHOATE: It is the same objection. If you 25 ambiguous.

1THE WITNESS: It is also covered in my report.2You could certainly make tests if there were information3on the population for a wider variable of variables that4were used. As I say in my report, there is very5important variables that are nowhere to be found for6which tests are possible. That is why statisticians rely7on process.8BY MR. KREEGER:9Q Which part of your report are you referring to?10A The discussion of weighting, on Page 17, same11issue comes up. It is in the middle of the, I guess,12second full paragraph.13The paragraph starting with "Clearly" "But14perhaps more important" and then from there on.15Q You also talk about the concern about response16rate and response rate bias. Is that correct?17A That's correct.18Q And you discuss the possible bias that might be19introduced from the lower response rates, that the survey20Will "over represent respondents that have a particular21ax to grind."22Is that the bias that you had in mind?23A That is an illustration of the kind of bias that might appear.24Q Are there other kinds of biases that you think		Page 58		Page 60
 You could certainly make tests if there were information on the population for a wider variable of variables that were used. As I say in my report, there is very important variables that are nowhere to be found for which tests are possible. That is why statisticians rely on process. BY MR. KREEGER: Q Which part of your report are you referring to? A The discussion of weighting, on Page 17, same issue comes up. It is in the middle of the, I guess, second full paragraph. The paragraph starting with "Clearly" "But perhaps more important" and then from there on. Q You also talk about the concern about response Tate and response rate bias. Is that correct? A That's correct. Q And you discuss the possible bias that might be introduced from the lower response rates, that the survey will "over represent respondents that have a particular 21 axe to grind." Is that the bias that you had in mind? Is that the bias that you had in mind? A That is an illustration of the kind of bias that Mat the paragrap. C A That is an illustration of the kind of bias that Q And you have no measures. Mat the bias that you had in mind? A That is an illustration of the kind of bias that Q Right. I believe that is what I said. 	1	THE WITNESS: It is also covered in my report.	1	MR. CHOATE: Vague and ambiguous. Incomplete
 were used. As I say in my report, there is very important variables that are nowhere to be found for which tests are possible. That is why statisticians rely on process. BY MR. KREEGER: Q Which part of your report are you referring to? A The discussion of weighting, on Page 17, same issue comes up. It is in the middle of the, I guess, second full paragraph. The paragraph starting with "Clearly" "But perhaps more important" and then from there on. Q You also talk about the concern about response rate and response rate bias. Is that correct? A That's correct. Q And you discuss the possible bias that might be introduced from the lower response rates, that the survey will "over represent respondents that have a particular axe to grind." A That is an illustration of the kind of bias that A That is an illustration of the kind of bias that M That is an illustration of the kind of bias that A That is an illustration of the kind of bias that A That is an illustration of the kind of bias that A That is an illustration of the kind of bias that A That is an illustration of the kind of bias that M Repear. M Report and the provident of the set of the set	2		2	hypothetical.
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 A That's correct. Q And you discuss the possible bias that might be introduced from the lower response rates, that the survey will "over represent respondents that have a particular axe to grind." Is that the bias that you had in mind? A That is an illustration of the kind of bias that might appear. If study over samples teachers living in low-income census study over samples teachers living in low-income census tracts. And you have a concern that the weighting that the Harris study performed didn't adequately address that over sampling. Do I have that right? A Not quite. What I say is the over sample for teachers who live in low-income census tracts Q Right. I believe that is what I said. 	15		-	
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24 might appear. 24 Q Right. I believe that is what I said.				
		A That is an illustration of the kind of bias that		
25 Q Are there other kinds of biases that you think 25 A You said, and I'm not sure if it was schools		0 11		
	25	Q Are there other kinds of biases that you think	25	A You said, and I'm not sure if it was schools

can be introduced by a low response rate? 1 1 Q Fair enough. If -- start again. A There are a limitless number, but it is well 2 Is your criticism that the teachers who live in 2 3 known, for example, that people who are likely to respond 3 low-income census tracts, will be over represented in the 4 are also more likely to respond to the social 4 survey results? 5 desirability of the question. 5 A If you aggregate a three samples together pool, 6 So they try to appear cooperative, helpful, and those three samples together, and don't properly weight 6 they try to give interviewers the answer that they think 7 7 for the over sampling of teachers from low-income 8 the interviewers want. So you get a very compliant sort 8 neighborhoods, you will over represent the views of 9 of response. 9 teachers from low-income neighborhoods. 10 10 O Now, I take it this could be corrected -- this There are a lot of biases. That is why statisticians rely on process because if the process is particular criticism could be corrected by using a 11 11 appropriate to begin with, these problems are minimized. weighting fact to take into account the residence track 12 12 13 Q How can one insure that response rate bias does 13 of the teacher? not factor in through a process? 14 14 A In principle. 15 MR. CHOATE: Objection. It is vague and 15 MR. CHOATE: Objection. Vague and ambiguous. 16 ambiguous. 16 THE WITNESS: In principle, you could properly MR. KREEGER: Let me rephrase. weight, but the information, apparently, is not 17 17 18 Q How can one use process to insure that response 18 available. rate bias does not appear? 19 BY MR. KREEGER: 19 20 MR. CHOATE: Same objection. 20 Q The information is not available? What do you THE WITNESS: Have a high response rate. 21 21 mean? 22 BY MR. KREEGER: 22 A Well, again, you need to weight by the universe 23 Q Are there any checks one can do after the 23 of the probability of selection. That information is not 24 fact to examine whether response rate bias was 24 available. 25 there? 25 And moreover, the weighting that is done, only

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16 (Pages 58 to 61)

Page 62		Page 64
very indirectly corrected for the problem and not	1	perform that calculation, I would appreciate it.
• • •	2	A Could you direct me to the sorted spreadsheet?
	3	MR. CHOATE: We just for the record, Exhibit
	4	3 is a 530-page document. If you are asking Dr. Berk to
low-income census tracts?	5	flip through page by page, we can sit here and do that.
A No. You know that because you know what sample	6	Otherwise, maybe you can direct Dr. Berk to what
they came from, but the weight that the appendix	7	it is that you want him to look at.
describes does not describe a weighting (phonetic)	8	BY MR. KREEGER:
process taking that information into account.	9	Q I will be glad to tell you everything I know,
Q This weight only bases on the poverty level on	10	and I don't want to put words in your mouth. This is
the school, not on the part of the poverty level of the	11	your production and I don't want to tell you what is in
residence of the teacher?	12	there and not in there. I will tell you what appears to
A We can turn to the appendix. There are four or	13	us, but this has really got to be your answer.
five items that it weights on and only those. It doesn't	14	There was two sets of spreadsheets. One begins
weight, if I recall correctly, on the features of the	15	at Page RB 122 and continues on to 157. That appears to
neighborhood in which the teacher lives.	16	be a spreadsheet that was simply about the particular
Q But that data is available, one could factor	17	respondent.
that into the weighting analysis; couldn't one?	18	It doesn't actually include any data about the
MR. CHOATE: Objection. I will object to the	19	respondents. And then there was a second spreadsheet,
extent that it has been asked and answered. Calls for	20	158 through 301, which looks to be a sorted spreadsheet.
speculation.	21	And there appears to be copies of exact same
THE WITNESS: You can certainly improve things	22	spreadsheets appear again at Page 337 through 526.
	23	I know it is difficult to work off of a hard
BY MR. KREEGER:	24	copy, but that is what we have.
Q If I could take you back to the discussion that	25	A I can tell you immediately, that you need the
	 very indirectly corrected for the problem and not completely at all. Q Are you saying that the Harris survey data doesn't record which survey responses came from low-income census tracts? A No. You know that because you know what sample they came from, but the weight that the appendix describes does not describe a weighting (phonetic) process taking that information into account. Q This weight only bases on the poverty level on the school, not on the part of the poverty level of the residence of the teacher? A We can turn to the appendix. There are four or five items that it weights on and only those. It doesn't weight, if I recall correctly, on the features of the neighborhood in which the teacher lives. Q But that data is available, one could factor that into the weighting analysis; couldn't one? MR. CHOATE: Objection. I will object to the extent that it has been asked and answered. Calls for speculation. THE WITNESS: You can certainly improve things by weighting with respect to that variable, yes. BY MR. KREEGER: 	very indirectly corrected for the problem and not completely at all.1Q Are you saying that the Harris survey data doesn't record which survey responses came from low-income census tracts?3A No. You know that because you know what sample they came from, but the weight that the appendix describes does not describe a weighting (phonetic) process taking that information into account.6Q This weight only bases on the poverty level on the school, not on the part of the poverty level of the residence of the teacher?10A We can turn to the appendix. There are four or five items that it weights on and only those. It doesn't weight, if I recall correctly, on the features of the neighborhood in which the teacher lives.16Q But that data is available, one could factor that into the weighting analysis; couldn't one?17MR. CHOATE: Objection. I will object to the extent that it has been asked and answered. Calls for speculation.20THE WITNESS: You can certainly improve things by weighting with respect to that variable, yes.23BY MR. KREEGER:24

we had about -- on Page 11 of your report where you full spreadsheet with the questionnaire answers linked to 1 1 2 discussed this majority vote analysis. 2 the particular school. And with these pieces of paper, I 3 3 can't do that. And I will just be frank here. We tried to 4 duplicate your computation and just couldn't get them to 4 So I have no way of doing any meaningful 5 come out with the same numbers that you have in here. 5 calculations on that question with this information. 6 So I want to ask you, if you can, to -- with the Q All right. Here is what I propose and load onto 6 7 my computer, the CD-ROM that was produced by you folks, 7 aid of Exhibit 3, which is the -- which includes every 8 document that was produced on your behalf, and certainly, 8 which was represented to be the same data that is found 9 it includes some spreadsheet, if you can demonstrate how 9 in this spreadsheet. one of these numbers were calculated. That might help us 10 And perhaps if you take a look at that, and we 10 see how this worked. 11 can go off the record, too. So, you know, we don't sit 11 here watching, and if you can spend a few minutes on 12 12 So if we could just take the --13 A Do you have the spreadsheet sorted by school? 13 that. 14 Q I think that is in the printout here, but you 14 A Okay. have to verify that, obviously. And I brought the 15 Can I talk to you for a minute? I may have 15 CD-ROM, if you wanted to play on the computer. 16 16 another answer. But, for example, if we just take example in the 17 (Discussion off the record.) 17 18 first full paragraph on Page 11, you make the statement 18 BY MR. KREEGER: 19 "2 percent of the schools had unsatisfactory materials," 19 Q You folks conferred over the break. 20 after applying your majority vote. 20 What did you guys talk about? 21 21 A 2 percent of the schools for which there is MR. CHOATE: What I will let you do is ask 22 multiple respondents. 22 Dr. Berk questions and I think you are, quite frankly, 23 Q Right. That is how you described the 23 entitled to ask him questions about the methodology of 24 calculation. And if you could just walk us through how 24 how the data was analyzed and constructed for purposes of 25 25 you performed that or how you directed Mr. Simmons to report.

	Page 66		Page 68
1	But what you are asking him is to sit down and	1	MR. CHOATE: 122, Exhibit 3.
2	look at a document on your computer and to engage in some	2	MR. KREEGER: Which was separately clipped.
3	type of quantitative analysis that, frankly, would take	3	Although we have these clipped, they weren't produced
4	hours, if not days, and be error prone under the pressure	4	that way. It is separately produced.
5	of a deposition. He is not required to do that. And I	5	On Page 158, this is, in fact, the same
6	am not going to have him do that.	6	spreadsheet. That this you know, the way the printer
7	But to the extent you want to ask him questions	7	broke things up, it appears this way. But as you can
8	about the methodology of how his report was constructed	8	see, just from the electronic file that was produced, the
9	and how data was analyzed, you are free to do that. He	9	row that begins "I.D. 117," on Page 122, goes to the top
10	can answer to that.	10	row on Page 158.
11	BY MR. KREEGER:	11	A How do you know that?
12	Q Before we get to that, what did you guys talk	12	Q From viewing the CD-ROM that you folks produced.
13	about during the break?	13	A Okay.
14	A I explained to him to work from your computer	14	Q I don't know if that helps you in any way. What
15	screen, on the fly like this, is not professionally	15	I would like to like you to do is not if not
16	responsible.	16	perform the calculations, but walk us through how you got
17	I cannot guarantee that the results that we got	17	to the 2 percent figure that is shown on Page 11.
18	are credible. And I didn't feel that it was	18	If you are not comfortable doing it on the
19	professionally sensible for me to proceed to redo the	19	screen, but in reference to whatever spreadsheet that you
20	analysis on the fly in here, on the spreadsheet in	20	have produced in hard copy that relates to that
21	your on your computer, and I basically asked him what	21	calculation.
22	the options were.	22	A Well, I can show you the method, I think, with
23	Q Did you have some other idea in mind?	23	this, but we need to lay it out wider.
24	A Well, we talked about the possibility of working	24	Q All right.
25	with one of your experts, but we didn't get very far in	25	MR. CHOATE: Just for the record, I am just
	Page 67		Page 69
1	Page 67	1	
1 2	that discussion.	1 2	going to be clear that Mr. Kreeger is asking Dr. Berk to
	that discussion. Q What do you mean?	1 2 3	
2	that discussion.		going to be clear that Mr. Kreeger is asking Dr. Berk to look at two different clipped documents. One which bears the dates one set of
2 3	that discussion.Q What do you mean?A Well, presumably, someone one of your experts	3	going to be clear that Mr. Kreeger is asking Dr. Berk to look at two different clipped documents.
2 3 4	that discussion.Q What do you mean?A Well, presumably, someone one of your expertstried to duplicate these calculations. You said that.	3 4	going to be clear that Mr. Kreeger is asking Dr. Berk to look at two different clipped documents. One which bears the dates one set of documents, which bears the Bates range 0122 to 0157, and the second document, Bates range 0158 through 0301.
2 3 4 5	that discussion.Q What do you mean?A Well, presumably, someone one of your experts tried to duplicate these calculations. You said that.So someone must have tried. And perhaps a conversation	3 4 5	going to be clear that Mr. Kreeger is asking Dr. Berk to look at two different clipped documents. One which bears the dates one set of documents, which bears the Bates range 0122 to 0157, and
2 3 4 5 6	that discussion.Q What do you mean?A Well, presumably, someone one of your experts tried to duplicate these calculations. You said that.So someone must have tried. And perhaps a conversation with that person might be useful. But as I said, we	3 4 5 6	going to be clear that Mr. Kreeger is asking Dr. Berk to look at two different clipped documents. One which bears the dates one set of documents, which bears the Bates range 0122 to 0157, and the second document, Bates range 0158 through 0301. And Mr. Kreeger has represented on the record
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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	 Q I'm sorry. The 337 appears to be a duplicate. You guys produced it to us. So you will have to be the answer to that. A All I am saying is all I am saying is that, in principle, this would allow me to show you how the calculations were done. But the difficulty is the items that you are referring to are much farther to the right of the spreadsheet than are shown on 158. And when I went to the next assembled pages, that is the same again. So Q Is that is not where you need I do not want to do this for you. I am trying to get you to explain it. I will tell you, if you go to Page 194, you see columns that look to be again more variable names. And I'm sure there may even be another set. I am happy to help you in any way, but ultimately, I am asking you to show me how you did the calculation. MR. CHOATE: If you are asking Dr. Berk to do some type of quantitative analysis at a particular school, you've shown him three stacks of documents, that is very difficult to assemble together. They are double-sided. MR. KREEGER: No, his is single-sided. I want to be clear. I am not asking you to use any particular 	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	 the fourth column reads the label Parvinv, P-A-R-I-N-V, which I take to mean whether there is parental involvement. That is one of the issues that came up in which we did an analysis. Suppose, now, that the first three rows were the same school, okay? Q Which they don't seem to be. A Okay. But I can illustrate the method I think by supposing that. And again, I don't know whether they are or they aren't. Q Okay. A In this particular case, the vote the majority vote would be 2's, 3's, first one. So that would be counted as a 3. Q What is a 3? A I think that is Very Good. Let's go back to the questionnaire. I'm sorry. I am assuming that this is item this is Page 4 of the questionnaire, the item which says, The Way Schools Involve Parents. I believe that is the same item. And a 3, I'm sorry, is "Only Fair." So in this particular case, if this were the same school, two teachers would have said "Only Fair," and one would have said ", Excellent." Okay.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	Page 71 document. I am looking at the document that you folks produced. And you told me that the calculations aren't actually in those documents, and I appreciate that. And now I am asking that from the documents that you that were produced, show me the method that was used. If you can, fine. If you can't, fine. MR. CHOATE: You can show him the methodology to produce the calculations. You can answer the question. THE WITNESS: What I can do easily is I can do I can go to a spreadsheet which has, I think, one of the variables you are interested in and show you, for example, if the three adjacent rows happen to be of the same school. I would have to figure that out, but how we would have handled that problem. And so I can show you, with illustrations, how the calculations were done. But I cannot vouch for the fact that they are the same school until I shuffle these all. If that is helpful, that is relatively easily done. MR. KREEGER: Why don't you do that. THE WITNESS: Okay. If you look at Page 0212 BY MR. KREEGER: Q Okay. A there are variable names across the top. And	$ \begin{array}{c} 1\\2\\3\\4\\5\\6\\7\\8\\9\\10\\11\\12\\13\\14\\15\\16\\17\\18\\19\\20\\21\\22\\23\\24\\25\end{array} $	Page 73 Now, if you were to take the majority vote rule, this would be a situation where you would call this unsatisfactory because we had a dividing line which separated "Excellent" and "Good" on one hand, from "Only Fair," "Poor" on the other. That would have been the vote. If, on the other hand, you took that school would be characterized in that one single column (phonetic). If you, on the other hand, took a vote of the teachers, two-thirds only saying "Only Fair" and one-third saying, "Excellent," that process then is simply carried down on all of the items where you look at schools, where you tally up what the majority vote says, and then classify the school as Satisfactory or Unsatisfactory. Men you also do a tally across all teachers, and simply report the proportion that says, "Satisfactory" or "Unsatisfactory." Q And the analysis that you described does not appear on the spreadsheet that we were looking at; it appeared or was performed by Mr. Simmons at your direction; is that right? A By hand, yes, that's correct. There are no spreadsheet results. I have not ever seen like as you

Page	74
1 age	/ -

	Page 74		Page 76
1	suggested earlier, a column with this information. If	1	Q Why don't you keep them in the right order.
2	that exists, I don't know about it.	2	A This will take me a moment to
3	Q So to get to my question, if I want to know	3	MR. CHOATE: Off the record.
4	where the 2 percent came from. Sitting here today, you	4	(Recess taken.)
5	can't recreate that with the papers that are in front of	5	BY MR. KREEGER:
6	you?	6	Q Okay. So you mentioned that you looked at some
7	A No, I can't.	7	expert reports and you have referred to Pages 1 and 2 of
8	Q When were you first contacted to work on this	8	your report, which is Exhibit B of Berk Exhibit 1.
9	matter?	9	By "expert reports," do you mean the do you
10	A What do you mean by "this matter"?	10	mean other than the reports of Coral, Lee, Eargman,
11	Q The anything associated with the "Williams	11	Mitchell & Fein?
12	versus State of California" case.	12	A No, that is exactly what I mean.
13	A Approximately 18 months ago, I was contacted by	13	Q Okay.
14	Mr. Daum, who told me about the case and asked me if I	14	MR. KREEGER: I think you missed Oaks, for
15	would help him.	15	whatever that is worth.
16	At the time, I was too busy with other matters.	16	THE WITNESS: Yes, that is true. I'm sorry.
17	And I said, no, I don't I didn't think I could find	17	Oaks as well.
18	the time.	18	MR. KREEGER: Oaks as well.
19	He contacted me again it is hard for me to	19	Q Two reports from Oaks, I gather?
20	recall about a year ago. And maybe less, maybe it was	20	A Yes, that's right.
21	in the early fall. And asked me again.	21	Q And you provided comments to the attorneys at
22	And we talked my schedule had freed up a bit.	22	O'Melveny for questions that they should ask these
23	And I asked what exactly he wanted me to do. And he said	23	experts?
24	that he was interested in having me look at the	24	A These are phone conversations and we
25	quantitative work that the plaintiffs had provided.	25	discussed and first, in general terms, what I thought
		1	

Page 75 these reports were about. And then I helped them 1 And I said, well in, for instance, principle 1 2 2 understand the procedures, as best I could, that were sure. You know, get back to me when you know precisely 3 3 what it is that you want to do. employed. 4 After that, I was contacted by several 4 Q When were these conversations with O'Melveny 5 5 individuals, Mr. Egan, who is with the Attorney General's lawyers? A I believe they were in the fall. 6 office, and one or more attorneys from 0'Melveny & Myers. 6 7 7 I'm sure Mr. Daum was in there, but there were Q What was your next involvement? 8 others as well. And at that point, the depositions of 8 A I don't recall who initiated it, but I was asked 9 your experts were beginning and they needed some help 9 to review the Harris study in particular, and to write my 10 interpreting the expert reports. And so that is what 10 own report on the Harris study. they asked me to do. Q When did you -- when did that conversation take 11 11 place? 12 12 And I read over perhaps four or five of the ones A It was also in the fall, I believe, but much 13 that I think are listed in my report, and provided 13 suggestions about questions they might ask to clarify 14 later. Perhaps November, December. 14 what it is that the experts had done. That was sort of 15 Q And did you prepare the document that is shown 15 on Exhibit B of Berk Exhibit 1? 16 the beginning of the relationship. 16 Q And what expert reports did you say you took a 17 17 A Yes, I did. 18 look at? 18 Q Were you asked to write a report or render 19 19 opinions about something other than the contents that are A The ones that are listed in my report. 20 Excuse me. If we are done with these for now, 20 in Exhibit B? 21 21 can I move them because I am kind of swamped with paper A No. 22 here. 22 Q Were you ever asked by the attorneys at 23 Q That would be fine. 23 O'Melveny about the feasibility of conducting another 24 survey to answer some of the same questions addressed by A Does it matter if I assemble them in the wrong 24 25 order? 25 the Harris survey?

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20 (Pages 74 to 77)

- MR. CHOATE: Objection. Vague and ambiguous. 1 1 deposition? 2 THE WITNESS: I don't believe so, no. 2 A I reread all of the documents that are listed on 3 3 BY MR. KREEGER: Pages 1 and 2 of my report. 4 Q Now, turning to O'Melveny or someone at 4 Oh, excuse me. And also since I finished this, 5 5 I asked for and got copy of -- well, actually, I got it O'Melveny, Margaret Carter, did she participate in as part of this, a copy of Dr. Oaks' deposition, and I 6 analyzing the data? 6 7 MR. CHOATE: Objection. Calls for speculation. 7 read that as well. 8 THE WITNESS: I was at a meeting with several 8 Q You mentioned that in your report. 9 attorneys in which we talked about the case. She was at 9 A Oh, I do -- sorry. 10 that meeting. If memory serves, she was the individual Q I assumed --10 who merged the spreadsheets. A It is just not listed, unfortunately, as one of 11 11 BY MR. KREEGER: 12 12 the documents, but yes, I did. 13 O At your direction? 13 Q On Pages 20 and 21, I believe you commented on 14 A Yes. 14 her transcript? 15 A Yeah. 15 Q What exactly did you tell her to do? 16 A There was a spreadsheet with information about 16 Q Between the time you finished your report and today, have you performed any other work on the case? 17 the schools and there was a separate spreadsheet with 17 information about the survey respondents, and I asked her Other than the work that you just mentioned, 18 18 to merge them, yes. 19 preparing for the deposition? 19 20 Q Why did you ask her in particular to perform 20 A No, I don't think so. No. 21 that task? Q Is Exhibit B to Berk Exhibit 1, this document 21 22 A I'm sorry. I wasn't being clear. They needed 22 reflected the opinions that you have developed in this 23 to be merged and she was assigned to the task. I didn't 23 case? make that assignment. I don't know why she was quite 24 A It does. 24
 - 25 picked, but she certainly can do it.

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8 9 Q How is it that you choose to rely on an 9 attorney from O'Melveny on the task of merging the spread 10 A Yes, I do. 10 sheets? 11 11 12 MR. CHOATE: Objection. Vague and ambiguous. 12 13 THE WITNESS: I don't work in Excel and none of 13 A Yes. my students do and that is the form of the data we are 14 14 in. And it was much less prone to error to have someone 15 15 work in Excel rather than moving it into a database that 16 16 we are familiar with and then merge it. 17 17 18 BY MR. KREEGER: 18 19 Q So we talked about Margaret Carter and Sean 19 that sentence? Simmons, I believe, who are attorneys at O'Melveny that 20 20 A I did. helped you manipulate the data. 21 21 22

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25 Q I'm sorry. I thought I was done with that, but Page 79 Q Was she doing it in order to aid your analysis? I have one more question with Exhibit 3. 1 A Well, I had asked her to do it. There were some 2 One particular page, if you look at the page discussions about what else might be done with the 3 that is -- has Bates label 335 in Exhibit 3 -spreadsheets. There may have been some other purposes 4 A Yes. that the attorneys had in mind that I wasn't party to. 5 Q -- you will see the E-mail message from Mr. Daum Q But you wanted them merged for your own to yourself --6 purposes? 7 A Yes. A That's correct. 8 Q -- in which he comments on some changes he wanted to make to your report. Do you see that? Q He has one change that he proposes, where he says he would like to drop the sentence about Dr. Oaks? Q The sentence reading -- "One has to wonder how carefully she reviewed the other work on which she relies and what commands she has on that O And Mr. Daum wanted to delete it? Is there anyone else who helped you manipulate 22 A We both thought, in hindsight, that it was the data in this case? 23 unprofessional. 24 Q That the statement was not professional? A Not that I know of, no. Q What did you do to prepare for today's 25 A Yes.

- Page 81

- material." Who wrote -- who was it that wrote

	Page 82		Page 84
1	Q And that is why you took it out?	1	English, Munger & Rice in which we sued the State of
2	A Yes, that's correct.	2	California for the way that funds for new school
3	Q But that is your view?	3	construction were being distributed.
4	A Well, I do wonder how thoroughly she reviewed	4	Q Who did this English, Munger & Rice firm
5	the other materials, yes.	5	represent?
6	Q Have you served as an expert witness in cases	6	A It was a class action and it was a variety of
7	before this one?	7	school districts and parents therein. But it was a class
8	A Excuse me. Are we finished with this one?	8	action suit.
9	Q Probably.	9	Q But what subjects did you analyze in that case?
10	MR. CHOATE: Put it away.	10	A Well, there was, apparently, a statute which
11	THE WITNESS: Yes.	11	determines how funds for new school construction are to
12	BY MR. KREEGER:	12	be distributed. Data were collected to determine whether
13	Q Have you served as an expert witness in cases	13	that statute was being followed.
14	before this one?	14	It was quite evident that it was not being
15	A I have.	15	followed. The case settled and the state proposed new
16	Q Can you give me a list?	16	methods to determine how much money would be distributed
17	A Well, I have been doing expert witness work	17	for new school construction.
18	intermittently through my entire career. So that is 30	18	Q And your opinions related to which aspect of
19	years. So it is lots. Do you want more recent ones or	19	that case?
20	more significant ones?	20	A I did the analysis to show the lack of fit
21	Q Let's start with the most recent ones.	21	between what the statute requirements were and how the
22	A I am an expert with a firm of Milberg, Wise,	22	state was, in fact, distributing funds to schools.
23	blah, blah, Larry Rich on a case involving the way in	23	Q Okay. What other cases have you worked on that
24	which escrow companies charge customers for their	24	you recall?
25	services.	25	A Well, I have done a lot of death penalty work,

1 I was involved with them in a case which also 1 for example, with the California Appellant project. 2 2 the ACLU was involved in also. On the way in which I did some work with your firm many years ago on 3 in-home inspections were done on welfare recipients. 3 a case suing California -- State of California for the 4 I am currently involved in -- with a case with 4 way it was using I.Q. tests to place kids in classes for 5 the law firm of Lett and Associates here in L.A. on what 5 the mentally retarded. It was a big case. I don't 6 is called overdetention in the D.C. county jail. 6 recall it. 7 7 I just finished a case involving a dispute with Q Late Larry Pete? 8 the Fuller Austin asbestos trust. The trial was this 8 A Yup. I worked with you folks on that. 9 spring. 9 There was a lawsuit involving the State of 10 Q Who were the attorneys that you worked with 10 California where I defended the state against the charge 11 that the warden at San Quentin was discriminating against then? 11 minority prison staff in promotion and policies. I don't 12 A It was an army because there were probably a 12 13 dozen insurance companies and trusts and, literally, 13 recollect the law firm. It was a Sacramento firm that I 14 there was a dozen firms. 14 worked with. 15 I worked most with a new firm, Robinson -- it is 15 Q And did you provide a statistical analysis? 16 four names. I'm sorry. I don't recall. Another key 16 A All -- in each and every case, my job was either firm was Rosenthal, Natt and those folks. 17 17 to evaluate an analysis done by the other side or to 18 About this time last year, I worked on 18 provide my own statistical analysis. 19 litigation involving the Exxon Valdez spill. That was 19 Q What sort of work have you done for the with O'Melveny. The details become more and more vague, 20 California Appellant project, the death penalty case? 20 21 21 the further back I go. A My work was done -- McClesky case. I was one of 22 But there was a case again with Lit & Associates 22 the experts for Mr. McClesky. As you know, we lost big 23 suing L.A. County for over detention in the L.A. County 23 time. 24 jail. 24 Q That is racial disparity in the disposition of a There was a case again here in town of the firm 25 25 death penalty?

	Page 86		Page 88
1	A We did an analysis in Georgia which shows that	1	Q Have any of your other cases that you have
2	who you kill makes a difference. That went up through	2	testified in involved the question the question of the
3	the appellant courts. The statistical analysis was	3	validity of the survey?
4	sound.	4	MR. CHOATE: We will object to the extent it is
5	The Superior Court decided that if you show on	5	vague and ambiguous.
6	the average that the system discriminates, unless you can	6	THE WITNESS: I am thinking.
7	show you probably know this, that a particular client	7	BY MR. KREEGER:
8	was discriminated against. I was one of the experts in	8	Q Take your time.
9	that.	9	A I think I had one other case where that was
10	Q That is where your analysis was true, but	10	certainly central. Yes.
11	considered to be irrelevant?	11	Q And which case was that?
12	A I would consider I would like to think it was	12	A An earlier version an earlier facet of the
13	true, but it was considered irrelevant.	13	Exxon Valdez case. The plaintiff had done a survey of
14	Q What is the Exxon Valdez case?	14	Alaskan natives, fishermen and other residents in the
15	MR. CHOATE: What does that what is the basis	15	Gulf of Prince Edward Sound, describing having the
16	and where is this going? What does the expert opinions	16	respondents describe their reactions to the spill, and
17	that he gave in this Exxon	17	what consequences befell them.
18	BY MR. KREEGER:	18	And I was asked again to review that survey for
19	Q You can answer.	19	its statistical and scientific credibility.
20	MR. CHOATE: We are going for the scope of his	20	Q And what was your conclusion of that survey?
21	expert report.	21	A Once well, once again, that survey was not a
22	THE WITNESS: The trial last summer was about	22	very credible effort.
23	whether Exxon had properly compensated municipalities in	23	Q Was that another instance in which you thought
24	Alaska for expenses that the municipalities claimed that	24	there were instruments other than a survey that could be
25	they incurred as a consequence of the spill.	25	used to answer that question?
			-

Page 89 1 MR. CHOATE: Objection. Vague and ambiguous. 1 The plaintiffs in this case had undertaken a 2 survey of municipal workers to estimate the costs to the 2 THE WITNESS: No, in this case, the problem was 3 municipalities of the spill. My job was to evaluate that 3 more fundamental. The entire research design, no matter 4 survey and how credible the results were. 4 how you did the measurement, was going to be problematic. 5 BY MR. KREEGER: 5 BY MR. KREEGER: 6 Q And what was your opinion in that case? 6 Q Any other cases that you can think of in which 7 A The survey was not properly undertaken. 7 you offered opinions about a survey? 8 Q Was it your view that the question to be 8 A You know, there may be, but I can't remember 9 addressed in this case should have been addressed in 9 right now any cases that featured survey results as a key 10 10 feature. another way as other than a survey? MR. CHOATE: Objection to the extent that we are 11 Q Have you yourself designed surveys? 11 getting way off the field right now. You are asking 12 12 A I have. 13 Dr. Berk about his -- about opinions in other cases. I 13 Q Can you give me an example of a survey that you don't see how that is relevant as to what he has been 14 14 designed? asked to testify about in this case. 15 A Well, the most recent survey was a study of 15 16 MR. KREEGER: Your objection is noted. 16 ethics that scientists apply to research in biological 17 sciences. 17 Q You can answer, please. 18 A In this particular case, there were two sources 18 Q And what question was that survey designed to of information, at least in principle. One was various 19 19 answer? 20 A Well, in modern scientific research there is a 20 city records, like payroll records. And the other was lot of moral and ethical difficulties. To -- in order 21 information collected by the survey. 21 22 In my view, the official records would probably 22 to -- this was an attempt to sort of map the terrain of 23 give a more credible estimate, that is what I testified, 23 ethical problems and find out how scientists were 24 deciding what to do. 24 than the survey that was undertaken. 25 BY MR. KREEGER: 25 Q And you surveyed scientists?

	Page 90		Page 92
1	A Yes.	1	The problem there was to see to what degree the
2	Q What is another example of a survey that you	2	sentence meted out by the U.S. Sentencing Commission was
3	have done?	3	consistent with the public opinion.
4	A I did several surveys of citizens the public,	4	Q Any other surveys?
5	in Southern California in a variety of environmental	5	MR. CHOATE: You are asking what he can remember
6	issues.	6	today?
7	Q These are attitudinal surveys?	7	THE WITNESS: What I am doing in my mind, my
8	A Not really. When people talk about attitudes,	8	publications, working through those.
9	they talk about subjective states of mind. This is	9	BY MR. KREEGER:
10	called willingness to pray surveys, which where the	10	Q If you would like your C.V
11	object was to find out the value of a particular amount	11	A That would certainly help. If we are really
12	of environmental goods and services.	12	going to do this.
13	Q Does your C.V., the complete version, have a	13	Q I believe it is Exhibit A of Exhibit Berk 1.
14	list of the surveys that you organized?	14	A Item No. 5 of Page 2. "Corrections Reform and
15	A No. You would have to know what was behind each	15	State Elites." This was a survey in three states of
16	of the publications to know whether a survey was used or	16	legislators and various public officials associated with
17	not.	17	the criminal justice system. The goal was to determine
18	Q Can you give me an example of another survey	18	what sort of prison sentences they felt were appropriate
19	that you designed?	19	for felons in their state.
20	A Well, let me start at the very beginning of my	20	No. 6," Crime as Play," that involved a survey
21	career. I was I worked with the Kerner Commission	21	of middle school students in a town just outside of
22	and in their massive surveys of urban professionals,	22	Evanston, Illinois. In fact, it might have been in
23	teachers, police, shop keepers and so on, in which we	23	Evanston. Asking them about self-report measures of
24	were trying to understand the services that they were or	24	misconduct.
25	were not providing to inner city residents.	25	No. 7, "Labor and Leisure at Home," that
			P
	Page 91		Page 93
1	Q Who was surveyed in that case, in those surveys?	1	involves both surveys in diaries of a random sample of

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A That is, as I said, teachers, police officers,

3 inner city merchants, welfare workers. There is one --4 another group I have forgotten. And these are within 15

5 cities across the country. 6

- Q And you surveyed the professionals themselves? A Yes.
- 8 Q What sort of questions did you ask to address

the question of what services they were providing? 9

- 10 MR. CHOATE: Vague and ambiguous.
- THE WITNESS: This is 30 years ago. 11
- BY MR. KREEGER: 12 13
 - Q All right.

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- 14 A It was about the provision of services. I can't 15 reproduce the question for you right now.
- O Does that survey or your work on that survey 16 appear in any of your publications? 17
- 18 A Yes. There is a group of Roots of Urban

19 Discontent, it is listed in that C.V., and that survey is 20 described in there.

- O Any other surveys that you have designed?
- 22 A Well, there is many. A more recent book that is
- 23 called "Just Punishment" was a survey of individuals,
- asking them basically to sentence hypothetical offenders 24
- 25 based on features of the crime and the offender himself.

individuals, asking them about household work that they 3 undertook.

- 4 No. 8, "Money, Work and Crime," that was an
- 5 experiment testing whether small payments to individuals
- released from prison would reduce the chances of 6
- recidivism. Survey data was collected of those 7
- 8 individuals about their job experiences and other 9
- features of their lives.
- 10 I already talked about "Just Punishment." That
- 11 covers the books. Although, there is one more. This is
- slightly not updated. There is now a thirteenth, but it 12
- 13 doesn't involve surveys.

14 There are about 150 publications. Do you want 15 me to go through them and --

- Q Do many of them have surveys?
- A I think it is the same. I think probably maybe
- 18 a quarter of them have surveys. Some of them are the
- same surveys that are discussed in the book. Some of 19
- them are different ones. 20 21
 - O Let me stop you. Be more specific.
- 22 Do you have examples, other than what you have
- 23 talked about so far, of instances where you surveyed or
- 24 designed a survey to be administered to professionals? 25
 - A Let's see. We talked about life scientists. We

	Page 94		Page 96
1 2 3 4	talked about teachers, police. We talked about legislators and criminal justice professionals. Can I scan what is here Q Take your time.	1 2 3 4 5	case as to the extent to which school facilities had at particular district were inadequate? MR. CHOATE: Objection. Vague and ambiguous. THE WITNESS: What the analysis showed was that the decision-making process was extremely capricious. So
5 6 7 8	 A and see if I can come up with any more. No. 12, on Page 4, "Determinants of White Collar Income," there was a survey that played an important role in that we were talking to white collar workers in large 	6 7 8	instead of being driven by need, it was driven by factors which was outside of the scope of the governing statute. I think that's a fair summary of the conclusion, there,
9	firms in Chicago. Some of them I think you would call	9	yes.
10 11	professional, but this was not public sector. This was private sector. The same holds for "Sex, Earnings and	10 11	BY MR. KREEGER: Q Did you reach any views of the extent to which
12 13	The Nature of Work," talking about 19. Q Right.	12 13	the district needed the funds to improve the school facilities?
14	A Which stops unfortunately, but I know I have	14	MR. CHOATE: Objection. It's vague and
15 16	conducted MR. CHOATE: Is that the rest of his C.V.?	15 16	ambiguous. THE WITNESS: No, it was it was basically a
17 18	MR. KREEGER: It looks to be. MR. CHOATE: I think we produced that.	17 18	study of the match between the dollars that were actually distributed and the dollars that the statute implied
19 20	MR. KREEGER: Mr. Eliasberg, from the ACLU,	19 20	should have been distributed.
21	handed me a copy of what appears to be a more complete copy of your C.V.	21	I think the ACLU was party to that suit. You may have complete records of that.
22 23	THE WITNESS: Yes. I will continue here. 38, that was a survey of it involved a survey	22 23	BY MR. KREEGER: Q Over what period of time did your study look for
24 25	of college students. I don't know they are preprofessionals, many of them.	24 25	that case? A We looked over a ten-year period because there
	Page 95		Page 97
1	There are other surveys here, but they are not	1	would be actually year-to-year fluctuations stated and we
2 3	There are other surveys here, but they are not of professionals that I can see. I believe we are finished. But let me we are	2 3	would be actually year-to-year fluctuations stated and we were looking for general trends. It might have been something like the 1990's approximately.
2	There are other surveys here, but they are not of professionals that I can see.	2	would be actually year-to-year fluctuations stated and we were looking for general trends. It might have been
2 3 4 5 6	There are other surveys here, but they are not of professionals that I can see. I believe we are finished. But let me we are coming towards the end here. Yes, that's the end of it. BY MR. KREEGER: Q Other than the ones that you told me about, have	2 3 4 5 6	would be actually year-to-year fluctuations stated and we were looking for general trends. It might have been something like the 1990's approximately.Q Was it your view during that ten-year period study that the criteria used by the state in deciding how to allocate the funds was capricious for that entire
2 3 4 5 6 7 8	There are other surveys here, but they are not of professionals that I can see. I believe we are finished. But let me we are coming towards the end here. Yes, that's the end of it. BY MR. KREEGER: Q Other than the ones that you told me about, have you done any surveys that involve education issues? A Other than the ones that I talked to you about,	2 3 4 5 6 7 8	 would be actually year-to-year fluctuations stated and we were looking for general trends. It might have been something like the 1990's approximately. Q Was it your view during that ten-year period study that the criteria used by the state in deciding how to allocate the funds was capricious for that entire period? MR. KREEGER: Objection. Vague and ambiguous.
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25 (Pages 94 to 97)

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Page 98		Page 100
MR. CHOATE: Objection. Vague and ambiguous.	1	experts, I might be asked to review those, or if the
THE WITNESS: What the data showed was when	2	depositions haven't been held yet, to help with help
it went both ways. There were some school districts that	3	the attorneys prepare for that.
didn't seem to be in great need that got substantial	4	But other than that, I have not been asked to do
amounts of money, where there were districts that seemed	5	anything in addition.
to have substantial needs that didn't.	6	Q There are no opinions that you have been asked
BY MR. KREEGER:	7	to render at this point that you haven't yet rendered?
Q Dr. Berk, on Page 21 of your report, Exhibit B	8	A No, but I will qualify it is in here. Insofar
of Exhibit 1, in your conclusion	9	as the new depositions provide new facts that were not
A I have it, thank you.	10	apparent when I wrote this, of course, my opinions will
Q you state that "There are surely	11	change.
schools in California whose	12	Q Just a moment.
educational infrastructure is	13	MR. KREEGER: We can take a quick break for a
unsatisfactory. And just as surely,	14	minute. Home stretch.
many of those schools are in	15	(Recess taken.)
low-income areas."	16	MR. KREEGER: Okay. Dr. Berk, that is all I
What is the basis for your view on those points?	17	have. Thanks for your time.
A Well, I haven't done a study. I did read the	18	THE WITNESS: Thank you.
expert reports. And I, like you, am a citizen of the	19	MR. CHOATE: We will have 30 days
state and read the newspapers and visits and so forth;	20	MR. KREEGER: Sure.
and I am convinced there are a number of schools that	21	MR. CHOATE: from the receipt of the court
have an unsatisfactory educational infrastructure, but I	22	reporter's letter to make any corrections, review the
can't point to any work that I have done about that.	23	depo.
Q And what about your view that many of those	24	MR. KREEGER: Is that what we have been doing?
schools are at low-income areas?	25	MR. CHOATE: I think that is what we have been

A I mean, likewise, at UCLA, I talk to students doing. all of the time from a variety of different schools, and they describe what it was like in this high school and primary schools. And it is clear that, as I said, there are many schools that the infrastructure is unsatisfactory, and many of these are in low-income neighborhoods. It is not a rigorous scientific study, but I think it is credible. Q Is it your view that schools whose educational infrastructure is unsatisfactory are more likely to be located in low-income areas? /// /// MR. CHOATE: Objection. Vague and ambiguous. THE WITNESS: Well, I can give you a lay opinion because, again, I haven't done a -- the survey. We just know that, in general, income is associated with perks. Higher income neighborhoods have better streets, you know. Better public services in general. Stands to reason the school is being publicly serviced, would also be associated with income. So, yes, there probably is an association between income and the infrastructure of the schools. BY MR. KREEGER: Q Do you have in mind any additional work that you intend to do in this case? A If there are further depositions of plaintiff's

oing.

MR. ELIASBERG: We can say --

MR. KREEGER: Just one last thing for the

record. In light of Dr. Berk's responses to questions

5 about how he performed the calculations, we reserve the

6 right to seek additional discovery, whether it be from an

7 attorney at O'Melveny or from Dr. Berk, or additional

8 document production, if necessary, in order to understand

9 how the calculations were performed.

MR. CHOATE: You can reserve the right.

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1 2 3 4 5 6 7 8 9 I, DR. RICHARD BERK, do hereby declare under penalty 10 of perjury that I have read the foregoing transcript; 11 that I have made such corrections as noted herein, in 12 ink, initialed by me, or attached hereto; that my 13 testimony as contained herein, as corrected, is true and 14 correct. 15 EXECUTED this,	
1 2 3 4 I, the undersigned, a Certified Shorthand 5 Reporter of the State of California, do hereby certify: 6 That the foregoing proceedings were taken before 7 me at the time and place herein set forth; that any 8 witnesses in the foregoing proceedings, prior to 9 testifying, were placed under oath; that a verbatim 10 record of the proceedings was made by me using machine 11 shorthand which was thereafter transcribed under my 12 direction; further, that the foregoing is an accurate 13 transcription thereof. 14 I further certify that I am neither financially 19 interested in the action nor a relative or employee of 18 any attorney of any of the parties. 17 IN WITNESS WHEREOF, I have this date subscribed 18 my name. 19 Dated:	