

IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA  
IN AND FOR THE COUNTY OF SAN FRANCISCO  
UNLIMITED JURISDICTION

--oOo--

ELIEZER WILLIAMS, a minor, )  
by SWEETIE WILLIAMS, his )  
guardian ad litem, et al., )  
each individually and on )  
behalf of all others )  
similarly situated, )

Plaintiffs, )

vs. )

Case No. 312236

STATE OF CALIFORNIA; )  
DELAINE EASTIN, State )  
Superintendent of Public )  
Instruction; STATE )  
DEPARTMENT OF EDUCATION; )  
STATE BOARD OF EDUCATION, )

Defendants. )

\_\_\_\_\_ )

DEPOSITION OF  
LINDA DARLING-HAMMOND

\_\_\_\_\_  
Wednesday, March 26, 2003  
Volume III (Pages 390 - 581)

Reported by: QUYEN N. DO, CSR 12447 (#03-331397)

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1 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA  
2 IN AND FOR THE COUNTY OF SAN FRANCISCO  
3 UNLIMITED JURISDICTION  
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5 ELIEZER WILLIAMS, a minor, )  
by SWEETIE WILLIAMS, his )  
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8 )  
Plaintiffs, )  
9 )  
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10 )  
STATE OF CALIFORNIA; )  
11 DELAINE EASTIN, State )  
Superintendent of Public )  
12 Instruction; STATE )  
DEPARTMENT OF EDUCATION; )  
13 STATE BOARD OF EDUCATION, )  
) )  
14 Defendants. )  
) )  
15 )  
16 )  
17 BE IT REMEMBERED that, pursuant to Notice, and  
18 on Wednesday, March 26, 2003, commencing at 9:41 a.m.  
19 thereof, at LAW OFFICES OF O'MELVENY & MYERS LLP,  
20 275 Battery Street, 26th Floor, San Francisco,  
21 California, before me, QUYEN N. DO, a Certified  
22 Shorthand Reporter, personally appeared  
23 LINDA DARLING-HAMMOND  
24 called as a witness by the Defendants, who, having been  
25 first duly sworn, was examined and testified as follows:

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25 --oOo--

1 --oOo--  
2 LAW OFFICES OF O'MELVENY & MEYERS LLP,  
3 400 South Hope Street, Los Angeles, California  
4 90071-2899, represented by VANESSA KOURY, Attorney at  
5 Law, appeared as counsel on behalf of Defendant State of  
6 California.  
7 LAW OFFICES OF OLSON, HAGEL & FISHBURN LLP,  
8 555 Capitol Mall, Suite 1425, Sacramento, California  
9 95814-4602, represented by N. EUGENE HILL, Attorney at  
10 Law, appeared as counsel on behalf of Defendant State  
11 Board of Education.  
12 LAW OFFICES OF LOZANO SMITH, 20 Ragsdale Drive,  
13 Suite 201, Monterey, California 93940-5758, represented  
14 by JUDD L. JORDAN, Attorney at Law, appeared as counsel  
15 on behalf of Intervenor LAUSD.  
16 LAW OFFICES OF PUBLIC ADVOCATES, INC.,  
17 1535 Mission Street, San Francisco, California 94103,  
18 represented by JOHN AFFELDT, Attorney at Law, appeared  
19 as counsel on behalf of Plaintiffs Eliezer Williams, et  
20 al.  
21 LAW OFFICES OF PUBLIC ADVOCATES, INC.,  
22 1535 Mission Street, San Francisco, California 94103,  
23 represented by JENNY PEARLMAN, Attorney at Law, appeared  
24 as counsel on behalf of the Plaintiffs Eliezer Williams,  
25 et al.

1 OFFICE OF THE ATTORNEY GENERAL, 1300 I Street,  
2 Suite 1101, P.O. Box 944255, Sacramento, California,  
3 94244-2550, represented by KARA READ-SPANGLER, Deputy  
4 Attorney General, appeared as counsel on behalf of  
5 Defendants.

6 --oOo--

7 EXAMINATION BY MS. KOURY

8 MS. KOURY: Q. Good morning --

9 A. Good morning.

10 Q. -- Professor Darling-Hammond. How are you?

11 A. Good.

12 Q. I just want to remind you that you're still  
13 under oath. And as usual, if you want to take a break  
14 at any point during the deposition, just let me know.  
15 We'll go off the record.

16 You've conducted research on what factors  
17 contribute to student achievement. That's correct,  
18 isn't it?

19 A. Yeah.

20 Q. And you've also reviewed other research and  
21 studies that also purport to show what factors  
22 contribute to student achievement; is that correct?

23 A. Yes.

24 Q. And some of that research, in your opinion,  
25 takes into account good measures for school inputs; is

1 A. The same answer would pertain to that, that  
2 individual studies will make estimates based on the data  
3 they have, but there's not a single answer to that  
4 question.

5 Q. I think I know the answer to the next  
6 question, but given your experience and your review of  
7 research and your own research, are you able to provide  
8 an opinion as to what percentage of impact on student  
9 achievement is attributable to teacher credentials?

10 A. Same answer would pertain. Different studies  
11 will provide various estimates, but there's not going to  
12 be a single number that one could provide across all  
13 studies.

14 Q. Did you recently attend a presentation at the  
15 Santa Clara Law School?

16 A. Yes.

17 Q. And was that in connection with the Williams  
18 lawsuit?

19 MR. AFFELDT: Objection. Vague as to  
20 "connection."

21 MS. KOURY: Q. You can answer that.

22 A. It was a symposium that had to do with the  
23 issues of equity in California schools, and some of the  
24 speakers were connected to the Williams lawsuit.

25 Q. Why did you attend this presentation or

1 that correct?

2 A. Yeah. Some better than others, yes.

3 Q. Your experience both as a teacher and as a  
4 researcher in the field of education also give you a  
5 basis for determining what factors impact student  
6 achievement, is that correct, in your opinion?

7 A. I think "determining" is a strong word. I  
8 think people who are researchers make estimates and use  
9 evidence to try to draw some inferences. It would be  
10 nice if we could determine with a hundred percent  
11 accuracy.

12 Q. Given your experience in education and your  
13 research and your review of other research and studies  
14 regarding the impacts on student achievement, are you  
15 able to provide an opinion as to what percentage of  
16 impact on student achievement is attributable to teacher  
17 qualifications?

18 A. No. There's not a single proportion of --  
19 there's not a single answer to that question. Studies  
20 that make guesstimates about that will have different  
21 answers, as I discussed yesterday.

22 Q. And given your experience and research and  
23 review of research, are you able to provide an opinion  
24 as to what percentage of impact on student achievement  
25 is attributable to home and family factors?

1 symposium?

2 A. I was speaking.

3 Q. And who all were the speakers?

4 A. I don't know that I can remember all of them,  
5 but Mike Kirst gave a presentation. Didi Albert  
6 [PHONETIC] gave a presentation. Someone from the law  
7 school at Santa Clara gave a presentation; I can't  
8 remember their name. I gave a presentation. Jeannie  
9 Oakes gave a presentation. Bill Koski gave a  
10 presentation. And I didn't stay the whole day, so I  
11 don't know who else may have presented.

12 Q. And were any of the attorneys -- any of  
13 Plaintiffs' attorneys in this case present?

14 A. Yeah. Jack Londen was there.

15 Q. Any others?

16 A. I don't remember if John was there or not.

17 Q. John?

18 A. I'm embarrassed to say I don't remember.

19 MR. AFFELDT: I was in D.C.

20 THE WITNESS: I feel better.

21 MS. KOURY: Q. At least you got his name  
22 right. Sorry.

23 Who contacted you about attending the  
24 symposium?

25 A. Students who are involved with the Santa Clara

1 Law Review. I believe they're involved with the Law  
2 Review, but they are students.

3 Q. Did they say how they came to decide to invite  
4 you to the symposium?

5 A. I don't believe they did.

6 Q. And what was your presentation about?

7 A. My presentation was about issues of access to  
8 qualified teachers in California.

9 Q. How long was your presentation?

10 A. I don't know. Probably somewhere between 20  
11 minutes and 50 minutes, I would guess.

12 Q. And during your presentation, did you give a  
13 breakdown of the impacts of student achievement?

14 A. The impacts of student achievement on what?

15 Q. I'm sorry. Let me rephrase that.

16 Did you provide a breakdown of what factors  
17 impact student achievement during your presentation?

18 A. I might have talked about that.

19 Q. Do you recall whether, in fact, you showed a  
20 pie-shaped circle breaking down the different factors  
21 that contributed to student achievement?

22 A. If I did (I'm not sure if I did, because I  
23 give a lot of different presentations), it probably  
24 would have been from a single study from -- sometimes I  
25 use an overhead that has a pie graph that describes

1 other individual inputs.

2 Q. More than 50 percent, is that --

3 A. Not necessarily, no. In fact, it's -- in this  
4 particular example, it is -- happens to be more than  
5 50 percent of the school share, but not more than  
6 50 percent of the total.

7 Q. And what did you mean by it's an easier  
8 example? I think I'm mischaracterizing what you said,  
9 but with respect to --

10 A. I think what I said was sometimes when I'm  
11 talking to a -- a lay audience, it's easier for people  
12 to see a graphic than to see a regression equation.

13 Q. Of all the studies that you've reviewed, and  
14 presumably, there are numerous graphs in those studies,  
15 why this one?

16 A. I happen to have it available. Ron Ferguson  
17 was able to produce a -- a graphic representation of his  
18 findings, and it is similar to the findings of a number  
19 of other studies that find that, among school inputs,  
20 teacher qualifications matter a great deal.

21 MS. KOURY: Mark this as Exhibit 20 to the  
22 deposition transcript of Professor Darling-Hammond,  
23 which is a document bearing Bates stamp PLTF-XP-LDH 0436  
24 through 0443.

25 //

1 results from Ron Ferguson's study.

2 Q. And Ron Ferguson's study, is that the same  
3 study that is reflected in Figure 1 of Exhibit 18?

4 MR. AFFELDT: Do you have a page number?

5 MS. KOURY: I don't.

6 MR. JORDAN: Bates 2761, perhaps.

7 MS. KOURY: Yes.

8 THE WITNESS: I think we found it.

9 MS. KOURY: Q. Is that also reflected in --  
10 is Ferguson's study also reflected in Figure 1?

11 A. Yes. It's a very bad copy, but I believe it  
12 is.

13 Q. And why is it that you rely on -- or why is it  
14 that you -- you said that you oftentimes will break down  
15 the impacts on student achievement using Ferguson's  
16 study. Why is that?

17 A. I sometimes use it as an example from this  
18 particular study because it's easier for an audience to  
19 look at a graphic. And I usually use it to make the  
20 point that among school inputs, this study and a number  
21 of other studies have found that teacher qualifications,  
22 generally, can account for the lion's share of school  
23 contributions to student achievement.

24 Q. What do you mean by a "lion's share"?

25 A. At the greater share, more than -- more than

1 (Whereupon, Deposition Exhibit 20  
2 was marked for identification.)

3 MS. KOURY: Q. Could you just briefly review  
4 that?

5 For the record -- I'm sorry. Let me know when  
6 you've had an opportunity to review it.

7 A. Okay.

8 Q. Turning to page 0437 -- and for the record, it  
9 appears to be an attachment to an E-mail dated May 30th,  
10 2000, from Professor Darling-Hammond to Jack Londen and  
11 others.

12 The enclosure, which begins on 0437 through  
13 0443, which appears to be titled "State Policies that  
14 Work to Raise Teaching Quality and Student Achievement,"  
15 is this your work product?

16 A. I expect it is.

17 Q. Okay. Does it look familiar to you?

18 A. It does look familiar. I actually can't  
19 recall the context within which I produced it, but it  
20 does look familiar.

21 Q. Do you recall whether this was a presentation  
22 of some sort?

23 A. No. It looks like an internal memo. I don't  
24 believe -- I -- I don't recall that -- I, frankly, don't  
25 recall when I would have used it.

1 Q. And perhaps you don't recall whether you  
2 submitted this to some sort of governmental agency?

3 A. Well, the tail end of it, which includes a --  
4 a budget, may have been developed in response to a  
5 request from a legislator. I don't think I submitted it  
6 formally to any agency. I'm pretty confident I would  
7 not have submitted it to any agency. But I do recall  
8 the budget, and I do recall developing it when there was  
9 discussion about -- the question was raised, If you had  
10 a billion dollars to spend on teaching, how would you  
11 spend it? And that was the context within which the  
12 budget was produced.

13 Q. You refer to a discussion. When there was a  
14 discussion, what was that about?

15 A. The discussion in the legislature was  
16 occurring a couple of years ago about how to make  
17 investments in teacher quality.

18 Q. And how did you get involved in that  
19 discussion, if at all?

20 A. I'm trying to remember who was involved in the  
21 conversation, but in a variety of telephone  
22 conversations with staff in the State Senator Assembly,  
23 I was asked what my thoughts were about that question.

24 Q. Turning to the first page, if you would, Bates  
25 stamped 0437, at the top, it states, quote:

1 Q. What do you mean by that, in terms of  
2 "rivaling the effects of student family income and  
3 language background on overall performance"?

4 A. What I mean is that student family income and  
5 language background have strong effects on overall  
6 performance of -- in a number of studies. And then in  
7 the studies I had in mind here, there are some which  
8 show that teacher qualifications can account for  
9 proportions of the variance that are close to those --  
10 sometimes a little more, sometimes a little less, but in  
11 the same ballpark as those found to be predicted by  
12 student background variables like those I describe here.

13 Q. And do you recall which studies you were  
14 referring to in this particular document? I know that's  
15 a difficult question.

16 A. Yes. This was not written as a scholarly  
17 piece of work --

18 Q. Right.

19 A. -- which cited all the studies.

20 I have this quick footnote which refers to a  
21 summary of studies in a piece that I wrote called  
22 "Teacher Quality and Student Achievement." So the  
23 studies would have been included in that literature.

24 Q. Turning back to Figure 1 in Exhibit 18, if you  
25 would. Are you aware of other research -- and I believe

1 Recent studies have demonstrated that the  
2 single most important determinant of student  
3 achievement is teacher qualifications, open  
4 paren, teacher preparation, certification, and  
5 experience, close paren, rivaling the effects  
6 of student family income and language  
7 background on an overall performance, end  
8 quote.

9 Is that still your opinion?

10 A. Well, it's actually not as precisely stated as  
11 I would want to state it. What I would say -- would  
12 characterize as my opinion is that recent studies that  
13 demonstrated that the single most important school  
14 resource determinant of student achievement is teacher  
15 qualifications. And, yes, I would agree that I still  
16 hold the opinion that recent studies have demonstrated  
17 that.

18 Q. Do you still hold the opinion that -- that the  
19 school resource determinant of student achievement -- or  
20 I'm sorry -- the most important school resource  
21 determinant of student achievement is teacher  
22 qualifications and that it rivals the effects of student  
23 family income and language background?

24 A. Yes. For the studies that I had in mind in  
25 that sentence, yes.

1 you testified earlier, so to the extent you've already  
2 answered this question, I apologize -- of research  
3 showing that home and family factors contribute to -- or  
4 impact student achievement at a higher percentage than  
5 49 percent?

6 A. Oh. Yeah, there are studies that find both  
7 higher and lower proportions of variance accounted for  
8 by home and family factors and that find higher and  
9 lower proportions of the total variance in achievement  
10 explained by the regression estimate.

11 Q. With respect to studies that have shown a  
12 higher impact on student achievement attributable to  
13 home and family factors, what's the highest you've ever  
14 seen it? In other words, in your experience in  
15 reviewing this type of research and doing your own  
16 research, what's the highest percentage of impact on  
17 student achievement that you found attributable to home  
18 and family factors?

19 A. I couldn't quote you a specific figure.

20 Q. Have you seen research that estimates about a  
21 70 to 80 percent impact on student achievement  
22 attributable to home and family factors?

23 A. I might have. I wouldn't carry that in my  
24 mind, but if I -- if there were such a study, I would  
25 suspect that it did not include very substantial

1 estimates of other factors that are not home and family  
 2 factors, as I explained yesterday.  
 3 These things are not static facts. What one  
 4 finds depends on what variables you have available in a  
 5 data set on which to regress achievement. And one of  
 6 the -- so these proportions will bounce around,  
 7 depending on whether you have other variables that  
 8 absorb some of the variance that come from school-level  
 9 or other kinds of factors. And the same will be true of  
 10 a study that finds large proportions of variance  
 11 explained by school factors or other nonfamily factors.  
 12 You have to look at the total set of variables to know  
 13 what you're seeing.  
 14 Q. You said that you'd expect that such a study  
 15 would not include a substantial number of other  
 16 variables, including school-level inputs and other  
 17 variables. What other variables were you referring to?  
 18 A. Some people look beyond home and family  
 19 factors, at other community characteristics: other  
 20 resources like healthcare, toxic problems, you know,  
 21 lead paint. I mean, there's a whole variety of things  
 22 that people look at as predictors of achievement or have  
 23 looked at as related to achievement.  
 24 Q. And to the extent that you've seen other  
 25 research showing a lower impact of attributable -- let

1 me rephrase that.  
 2 Have you seen other research attributing a  
 3 higher impact to teacher qualifications as it's defined  
 4 in Figure 1 than is estimated here in Figure 1?  
 5 A. Yeah. There are some studies that do find a  
 6 higher impact.  
 7 Q. And, presumably, you have an opinion, when you  
 8 review these studies, as to which studies have quality  
 9 research and others that are of lower quality research?  
 10 A. Whenever I read a study, I look at various  
 11 aspects of how the study's conducted.  
 12 Q. In your opinion -- and maybe I should ask, Do  
 13 you have an opinion as to other research that you've  
 14 seen that attributes a higher impact on student  
 15 achievement to teacher qualifications which is, in your  
 16 opinion, of high quality?  
 17 And I can rephrase that if that was confusing.  
 18 A. Yeah. I think I understand what you're trying  
 19 to say.  
 20 One study that comes to mind -- yes, I can  
 21 think of studies that show higher impacts of teacher  
 22 qualifications in that particular study on the explained  
 23 variance that used methodologically reasonable methods.  
 24 Q. Could you tell me about those studies?  
 25 A. Well, one that comes to mind is the study by

1 Wenglinsky that I cited in my paper, which found a  
 2 greater effect on student achievement of teacher  
 3 variables than it found of student socioeconomic  
 4 variables. But, you know, in all of these analyses, you  
 5 should be -- one would want to look at what's the total  
 6 are squared? What's the total at variance explained in  
 7 the equation? What's the set of variables that are  
 8 there? What kind of proxies are available? Which is  
 9 why you're also working within a band that has a lot of  
 10 flexibility. There's not a single number out there.  
 11 Q. With respect to the study that you just  
 12 cited ...  
 13 A. Mm-hm.  
 14 Q. What made it of high quality, in your opinion?  
 15 MR. AFFELDT: Objection. Mischaracterizes her  
 16 testimony.  
 17 MS. KOURY: I'm sorry.  
 18 Q. (By Ms. Koury) How did you characterize?  
 19 A. I said it had reasonable methods.  
 20 Q. What did you mean by that?  
 21 A. It was able -- it was a study that had data  
 22 about a range of teacher variables and student  
 23 demographic variables and was able to control for some  
 24 of the student variables that would be expected to  
 25 contribute to achievement as well as to look at a range

1 of factors that describe teachers' qualifications and  
 2 practices.  
 3 Q. Are there any other studies that come to mind  
 4 aside from this one?  
 5 A. Not off the top of my head.  
 6 Q. Do you believe there's other studies in your  
 7 report which attribute a higher impact to teacher  
 8 qualifications than is reflected in Figure 1?  
 9 A. I wasn't trying to build an argument in my  
 10 report for a share of the variance explained by home and  
 11 family factors versus teacher qualifications. What I  
 12 was looking at was, among those -- particularly among  
 13 those variables that schools have control over, What are  
 14 some of the things that make an important difference?  
 15 So it was not a focus of my work.  
 16 Q. Turning to page 30 in your report, if you  
 17 would, which is Exhibit 17.  
 18 A. What are we turning to?  
 19 Q. Page 30, please.  
 20 A. Of what?  
 21 Q. Your report, Exhibit 17.  
 22 MR. JORDAN: What page?  
 23 MS. READ-SPANGLER: 30.  
 24 MS. KOURY: Q. On page 30, the last paragraph  
 25 of your report, in particular at the second sentence,

1 reads, quote:

2 "The degree of misassignment of teachers  
3 has been quite large in a number of states,  
4 including California, for more than a decade."

5 What do you mean by that?

6 A. By "the degree of misassignment"?

7 Q. Let's start with misassignment.

8 A. The sentence above defines what I mean by  
9 misassignment -- that is, the assignment of teachers to  
10 content fields they were not prepared to teach.

11 Q. And what do you mean by the degree "has been  
12 quite large"?

13 A. Well, I mean what it says, that it has been  
14 noticeable.

15 Q. In your opinion, what percentage of  
16 misassignment is quite large or noticeable?

17 A. I think anything probably above the level of  
18 about 10 percent would be noticeable.

19 Q. And what data were you referring to or relying  
20 on in determining that the misassignment in California  
21 is quite large -- that the degree of misassignment in  
22 California is quite large?

23 A. Well, I cite two studies there, and one of  
24 them, which is Darling-Hammond 1997, includes tables at  
25 the back which go state by state and show the

1 data that they may have.

2 Q. Do you know whether they follow up in terms  
3 of trying to resolve misassignments that are reported?

4 A. I do know that they have a follow-up  
5 procedure. And, in fact, I do reference one report  
6 in -- in the course of this that describes the follow-up  
7 procedures in at least one district whether there was  
8 quite a large proportion of misassignments.

9 Q. Do you have an opinion as to the efficiency or  
10 effectiveness of the CCTC's follow-up with  
11 misassignments?

12 A. Well, I do state in my report that, in the  
13 case in which I cite those data, the CCTC was going back  
14 to a district for a second time, following up on efforts  
15 to deal with misassignment that had not been corrected.  
16 So not all of the CCTC's efforts are effective at  
17 correcting the problems it has identified.

18 Q. Do you have any suggestions on how it can  
19 improve the effectiveness of misassignment?

20 A. How it can improve the effectiveness of  
21 its monitoring of misassignment?

22 Q. I'm sorry. You got it.

23 A. That's not an issue that I take up in my  
24 report.

25 Q. Turning to page 79 of your report, if you

1 proportions of teachers teaching with less than a major  
2 or a minor in the field in which they're assigned.

3 Q. Does that mean that --

4 A. So that was one source of the data that I was  
5 relying on for that statement.

6 Q. Do you know if there were any other sources  
7 that were more recent?

8 A. I don't recall at this moment.

9 Q. Do you know what the percentage of  
10 misassignment in California is on an annual basis?

11 A. At the moment, I don't know the current  
12 statistic.

13 Q. Do you know whether you were relying on any  
14 CCTC data for this statement?

15 A. I don't. The data I cite here is not CCTC's  
16 data.

17 Q. Do you know whether the CCTC has that  
18 information in terms of the amount of misassignment  
19 statewide on an annual basis?

20 A. The CCTC is supposed to monitor  
21 misassignments, so I assume they have a source of data  
22 that allows them to do that.

23 Q. And do you know how they monitor  
24 misassignments, what the procedure they follow is?

25 A. I don't know how they -- what they do with the

1 would. Focusing on the statement that, quote:

2 This is far from a constitutional  
3 standard -- which would require all students  
4 in public schools to have full access to  
5 teachers who meet the state's standards for  
6 professional teaching credentials ..., in your  
7 opinion, does the constitutional standard require  
8 that all students have full access -- I'm sorry.

9 It is your opinion that the constitutional  
10 standard requires --

11 A. I'm not seeing the place you're quoting.

12 Q. I'm sorry. It's at the bottom. It's the  
13 second-to-last paragraph.

14 A. Okay.

15 Q. And it's the second sentence.

16 A. Okay.

17 Q. In your opinion, the constitutional standard  
18 requires that all students have full access to  
19 fully credentialed teachers; isn't that correct?

20 MR. AFFELDT: Objection. Calls for a legal  
21 conclusion.

22 MS. KOURY: Q. Is that correct?

23 A. What I mean is what I say in the statement.

24 Q. Okay. And in your opinion, does the  
25 constitutional standard define what the credentialing

1 requirements are or should be?  
 2 MR. AFFELDT: Same objection.  
 3 MS. KOURY: Q. You can answer that.  
 4 A. The constitution itself does not do that.  
 5 Obviously, the legislature and the regulatory agencies  
 6 together make the determination about the content of the  
 7 standard for the credential.  
 8 I'm not sure I understand the point of your  
 9 question, but ...  
 10 Q. It's just a question. I don't know that there  
 11 was a specific point.  
 12 A. Okay.  
 13 Q. To the extent that you have an opinion that  
 14 the constitutional standard would require, quote, all  
 15 students in public schools have full access to teachers  
 16 who meet the state's standards for professional teaching  
 17 credentials, did you find that in the constitution  
 18 itself?  
 19 MR. AFFELDT: Same objection.  
 20 THE WITNESS: I think I explained yesterday  
 21 what I based that statement on, so my answer is the same  
 22 as yesterday.  
 23 MS. KOURY: Q. Do you have an opinion as to  
 24 how much, in terms of dollars, the state would need to  
 25 provide districts the ability to achieve a level where

1 all districts had no more than 20 percent uncredentialed  
 2 teachers?  
 3 A. I need you to say that again.  
 4 MS. KOURY: Sure.  
 5 (Record read.)  
 6 THE WITNESS: I find it an odd question in two  
 7 ways, so let me just respond to those -- to two  
 8 questions I have about the question. One is that the  
 9 dollar amount -- I don't have an estimate -- a specific  
 10 dollar amount in mind, but whatever that would be,  
 11 it would -- whatever it would take, it would be a  
 12 process of the state figuring how to both  
 13 allocate/reallocate existing resources in ways that are  
 14 strategic as well as allocating, perhaps, some  
 15 additional resources.  
 16 The second thing I wonder about is why we  
 17 would be trying to cost out a ratio of getting schools  
 18 to no more than 20 percent uncredentialed teachers when,  
 19 in the long run, the state ought to be trying to do a  
 20 lot better than that.  
 21 MS. KOURY: Q. And a lot better, in your  
 22 opinion, is a hundred percent credentialed teachers in  
 23 every district; is that correct?  
 24 A. Yeah.  
 25 Q. And I take it you don't have an opinion as to

1 the dollar amount that the state would be looking at in  
 2 terms of trying to achieve a hundred percent fully  
 3 credentialed teachers district-wide?  
 4 A. I do not have a specific dollar amount.  
 5 Q. Are you familiar -- and I'm actually -- do you  
 6 know whether ED Week ranks states' certification  
 7 standards?  
 8 A. They rank all kinds of things, and I've seen  
 9 some of their rankings, but I don't know if they rank  
 10 certification standards.  
 11 Q. If you could turn to page 85 of your expert  
 12 report, in the first full paragraph on page 85, your  
 13 report states, quote:  
 14 "The numbers of out-of-state entrants  
 15 increased somewhat between 1999-2000 and  
 16 2000-01 when these new rules began to take  
 17 wider effect, but have not yet returned to the  
 18 level of 1997-98."  
 19 In this particular portion of your expert  
 20 report, you're discussing the need for reciprocity; is  
 21 that correct?  
 22 A. I believe so.  
 23 Q. And the new rules that you refer to, is that  
 24 the reforms that we discussed yesterday with respect to  
 25 enhanced reciprocity that the state enacted beginning in

1 1998?  
 2 A. Yes. The -- what is called equivalences  
 3 between states.  
 4 Q. Is it your opinion that enhanced reciprocity,  
 5 beyond what the state of California currently has, would  
 6 increase the pool of out-of-state teachers coming into  
 7 California?  
 8 A. Would you say that again?  
 9 Q. Sure. Is it your opinion that enhanced  
 10 reciprocity, beyond what the state of California  
 11 currently has, should be used because it's likely to  
 12 increase the pool of out-of-state teachers coming into  
 13 California?  
 14 A. Yes. That it -- it could both increase the  
 15 share of people coming in and reduce the attrition of  
 16 teachers who are in the out-of-state category who have  
 17 already arrived in California. That's a point that was  
 18 made in some earlier reports from the CCTC on this  
 19 question.  
 20 Q. California first began implementing  
 21 out-of-state reforms or equivalences in '98. And do you  
 22 know at that time -- actually, let me rephrase that.  
 23 After the first year of the reforms regarding  
 24 equivalences or reciprocity, do you know whether the  
 25 number of out-of-state teachers increased coming into



1 California?

2 A. It's hard to say when this was actually truly  
3 being implemented, because while the legislation was  
4 passed in '98, it took the CCTC quite awhile to do the  
5 studies that it needed to do to start to establish  
6 equivalences.

7 So, as I note in the report, by 2002 there  
8 were only seven states that had been found to be  
9 fully equivalent on the elementary license. And -- and  
10 nothing is fully equivalent, because there are still  
11 some other things that everyone has to do.

12 So, I quote here the recorded figures about  
13 the numbers of in-state entrants in '99, 2000 and 2001,  
14 when the rules were beginning to take effect, but they  
15 weren't fully implemented by the time I had completed  
16 the report.

17 Q. I'm sorry.

18 A. They're still not fully implemented. They're  
19 still working to finish the rule-making and establish  
20 the equivalences.

21 Q. And, again, my question was whether you know  
22 whether the number of out-of-state teachers actually  
23 increased once they began -- at least they passed some  
24 of the equivalent procedures in '98.

25 A. What I'm saying is it's not clear to me when

1 Bates stamp PLTF-XP-LDH 4404 through 4436.  
2 (Whereupon, Deposition Exhibit 21  
3 was marked for identification.)

4 MS. KOURY: Q. This is a product of my own  
5 copying, so I apologize if they're out of order.

6 A. I have a lot of black pages.

7 Q. Yeah.

8 A. What are we looking for?

9 Q. It's kind of a ... I understand this is sort  
10 of a difficult document to look at with all the black  
11 pages, but is it familiar to you at all?

12 A. It is not. I can't even see the cover page.

13 Q. Turning to page bearing the Bates stamp 4408  
14 and 4409, perhaps a review of those two pages might give  
15 you a sense of --

16 A. Do you have a title for the document?

17 Q. From what I can see, it says "The Standard,"  
18 but the closest I come to an explanation of what it is,  
19 is on page 4405 and 4406.

20 For the record, it appears to bear the stamp  
21 of the CCTC.

22 A. I can't say that it's familiar to me, because  
23 I really can't figure out what document it is.

24 Q. Turning to --

25 MR. JORDAN: Excuse me. If it helps, at the

1 they actually began implementing the rules. There was a  
2 long process of trying to both decide which states would  
3 count and then to begin to actually apply the rules.

4 Q. Okay. What about in terms of the numbers in  
5 '98 through '99; do you know whether the number of  
6 out-of-state teachers increased coming into California  
7 in that year?

8 A. That would not be an implementation year,  
9 because the law was just passed in '98, and they had not  
10 established the rules yet. But I do have that figure  
11 here somewhere, I believe, and I would have to go find  
12 it to be able to answer your question.

13 Q. Is it your understanding that those numbers  
14 actual decreased in '98/'99?

15 A. Well, the paragraph I'm looking at does not  
16 include those data, so I need to find a paragraph that  
17 goes year by year so that I can be accurate. But, in  
18 any event, 1998-99 was not a year in which the rules had  
19 already been put in place. They were still being  
20 considered and were not yet implemented.

21 Q. Yes. I understand your opinion. I'm going to  
22 mark this as Exhibit ...

23 A. Do you know the page that ...

24 Q. I think this is Exhibit 21. Mark as document  
25 Exhibit 21 to your deposition transcript, which bears

1 bottom of 4414 it says, "CCTC Annual Report 2001,  
2 Meeting the Standard." That may be what it is.

3 THE WITNESS: This is something I might have  
4 cited in the report.

5 MS. KOURY: Q. I believe ... With respect to  
6 page 85 of your report where you cite -- where you  
7 state, quote, The numbers of out-of-state entrants  
8 increased somewhat between 1999-2000 and 2000-01, at the  
9 end of that sentence, you cite "CCTC 2001, little "A,"  
10 which, in your appendix or your references on page 102  
11 of your expert report, it states:

12 "California Commission on Teacher  
13 Credentialing (2001a). Meeting the standard:  
14 California Commission on Teachers  
15 Credentialing annual report, 2001."

16 Is it your impression that this document  
17 refers to that reference?

18 A. I really can't say.

19 Q. That's fine. Could you turn to page -- can we  
20 go off the record a second?

21 MR. AFFELDT: Mm-hm.

22 (Whereupon, a break from 10:26 to  
23 10:35 was taken.)

24 MS. KOURY: Back on the record.

25 Q. (By Ms. Koury) Professor Darling-Hammond, if

1 you would please just read the bottom of page  
 2 Bates-stamped 4418 for me where it says at the very  
 3 bottom, the footer, CCTC?  
 4 A. Yes, I see it.  
 5 Q. It says, "CCTC Annual Report 2001, Meeting the  
 6 Standard." Turning to page 102 of your references, it  
 7 says, "California Commission on Teacher Credentialing  
 8 2001. Meeting the standard: California Commission on  
 9 Teacher Credentialing annual report, 2001."  
 10 Do you have any reason to believe that this  
 11 document, which bears a prefix of your name in terms of  
 12 the Bates stamp, is not the document to which you were  
 13 referring to in your expert report?  
 14 MR. AFFELDT: Objection. Asked and answered.  
 15 MS. KOURY: Q. You can answer that.  
 16 A. I think it -- it's quite possible that it is  
 17 the same report, but I don't know for sure.  
 18 Q. And looking at that same page, there's a graph  
 19 at the bottom of the page that's titled, for the record,  
 20 "Total California Teaching Credentials Issued," and  
 21 along the left-hand side, it reads, "California IHE  
 22 prepared." Below that it's "District Prepared." And  
 23 below that, do you see where it says "Out-of-State  
 24 Prepared"?  
 25 A. Yes.

1 Q. What is the corresponding number of teaching  
 2 credentials to the out-of-state prepared for 1997-98 as  
 3 far as you can tell?  
 4 A. Is this a vision test?  
 5 Q. It is. Afterwards we're going to take a  
 6 driving test.  
 7 For the record -- I'll just represent, for the  
 8 record, it appears to say 4,837. If there's a clearer  
 9 copy that comes in, I'll ... Do you have any reason to  
 10 believe that that number's not accurate?  
 11 MR. AFFELDT: For the record, as is become  
 12 clear, this is, in many ways, an illegible copy. I  
 13 understand it's been produced from Dr. Darling-Hammond's  
 14 files, I believe. But in any event, it's not even clear  
 15 to me that the first row is 1997 to 1998. I can't read  
 16 the year.  
 17 MS. KOURY: I'm going to ask you if you could,  
 18 please, Mr. Affeldt, produce a clearer copy, if you have  
 19 one available of this document. If you could just do a  
 20 reasonable search for that and let us know, I'd  
 21 appreciate it, so that we can have a clear record on the  
 22 matter.  
 23 Q. (By Ms. Koury) But looking at the paragraph  
 24 above that graph, it says:  
 25 "The following chart shows the number of

1 teachers concerning California credentialing  
 2 for fiscal years 1997" --  
 3 A. It looks 1897.  
 4 Q. It does look like it. Presumably, it says  
 5 1997-98. The 98 seems clear --  
 6 A. Yes.  
 7 Q. -- to you; is that true? Correct?  
 8 A. Yeah. I think it probably says 1997-98.  
 9 Q. And looking back down at the graph where it  
 10 says "Out-of-State Prepared" teachers for 1998-99, which  
 11 is the column -- did you already indicate that you  
 12 couldn't read what that number was?  
 13 A. I can't read most of the numbers.  
 14 Q. Okay.  
 15 A. But, I mean, I could make out some of them.  
 16 Maybe if we get to what the point is, then --  
 17 Q. Sure.  
 18 A. -- we can figure out what we want to --  
 19 Q. Looking at the next --  
 20 A. -- what we want to say.  
 21 Q. Looking at the next column over, under  
 22 '99-2000 -- I'm sorry -- 98-99, can you see the  
 23 number 4,216?  
 24 A. I see a number that looks like 4200-something.  
 25 Q. The column over to the right of that appears

1 to be reflecting the "out-of-state prepared" teachers  
 2 for 1999-2000, and reflects a number of 3,864; is that  
 3 correct?  
 4 A. Looks like 3800-something. I can't read -- I  
 5 really can't literally --  
 6 Q. Yeah. I understand.  
 7 A. I will accept your reading of the numbers, but  
 8 I cannot read them very well.  
 9 Q. Assuming that these numbers are what that I  
 10 say that they are, that I'm representing on the record,  
 11 having that assumption mind, it appears that the  
 12 out-of-state teachers coming into California declined  
 13 despite the fact that California had at least passed  
 14 reciprocity procedures in 1998. Is that your  
 15 understanding?  
 16 A. Well, that would be a naive inference, because  
 17 the bill was enacted in 1998. I know for a fact that  
 18 there was no actual implementation of the bill for at  
 19 least a year, closer to two years, thereafter, because  
 20 they had not made any of the rules. And I actually was  
 21 following the process of the rule-making, and it took a  
 22 very long time to -- for -- for good reasons. They did  
 23 a very careful study of the requirements in every state  
 24 that they were considering for equivalences.  
 25 Q. So, in your opinion, the procedure hadn't

1 begun to take place or they weren't implemented until  
2 '99 or 2000 at the earliest?

3 A. Yeah. Really, into 2000 was when they began  
4 to have something that they could implement, and then  
5 they could only implement it for a few states because  
6 they were adding states as they confirmed the  
7 equivalences.

8 Q. And even assuming that your opinion is  
9 correct, in 2000-2001 the numbers of  
10 out-of-state-prepared teachers was (assuming that my  
11 representation is correct) 4,724, whereas the number of  
12 "out-of-state prepared" teachers in 97-98 before the  
13 implementation of the enhanced procedures or enhanced  
14 reciprocity was 4,837.

15 Given that the out-of-state-prepared teachers  
16 coming into California has declined, what data do you  
17 have to support the contention that further enhancement  
18 of reciprocity will increase the pool of out-of-state  
19 teachers coming into California?

20 A. Well, there's another way to read the data  
21 here, which is that in 1999-2000, before the rules had  
22 begun to be at all implemented, the share of teachers  
23 coming into California and out-of-state credentials had  
24 dropped to 30-some hundred. That looks like  
25 3800-something. And that, as the rules began to be

1 I did not review for this lawsuit to really give you  
2 specifics that go beyond those.

3 Q. In terms of enhancing reciprocity and in your  
4 opinion, states that have done a good job of that -- or  
5 I should ask, Is it your opinion that North Carolina and  
6 Connecticut have done a good job in terms of enhanced  
7 reciprocity?

8 A. I would want to actually go back and review  
9 data on the question to see whether I think they're  
10 among the best states that have done that. I'm simply  
11 recalling I have seen data on that issue in those  
12 states.

13 Q. Is there a risk in terms of enhancing  
14 reciprocity with other -- actually, let me ask you  
15 another question.

16 Is it your opinion that California should  
17 implement full reciprocity with certain states? In  
18 other words --

19 A. Yeah. I think that it would be sensible to --  
20 to do that, particularly when the alternative is  
21 admitting people without any training to teach on  
22 emergency credentials and waivers.

23 Q. In your opinion, could you define full  
24 reciprocity, just so I'm sure that we're on the same  
25 page?

1 implemented, that number increased.

2 So you can read the chart a couple of ways,  
3 but the basis of the opinion is that if you achieved  
4 some -- what's the word I'm looking for? If you  
5 achieved some redress to the problems with reciprocity  
6 that the CCTC itself had documented, whatever the labor  
7 market is in the country (which is going to vary from  
8 year to year), your odds of getting more people into the  
9 state and keeping them here would be greater if you have  
10 a more sensible system of both granting reciprocity and  
11 enabling people to get their California credential.

12 Q. And do you have any data showing that other  
13 states with more enhanced reciprocity have been able to  
14 increase their pool of out-of-state teachers?

15 A. I have seen data for states with high levels  
16 of reciprocity that show greater ease of entry for  
17 out-of-state individuals.

18 Q. Sorry about that.

19 What states do you have in mind when you refer  
20 to that data?

21 A. I've seen, you know, data from a lot of states  
22 over the years. The -- there's a point at which I saw  
23 data in North Carolina about their inflow and outflow of  
24 teachers. I referenced Connecticut earlier on.

25 I'd have to go back to, you know, reports that

1 A. That would be acceptance of analogous  
2 requirements from other states in lieu of -- or -- yeah,  
3 from other states in lieu of requiring  
4 California-specific redoing of those requirements.

5 So, for example, if people have already passed  
6 the basic-skills test in another state, full reciprocity  
7 on that variable would waive the CBEST for those who  
8 passed another test, perhaps, at some minimal cut score  
9 that is found to be equivalent. It would include if a  
10 candidate has completed a teacher education program in  
11 another state, acceptance of that completion in lieu of  
12 having to complete another fifth-year program in  
13 California, et cetera.

14 Q. Do you have in mind any states that California  
15 should allow for full reciprocity with?

16 A. I would want to review data to answer that.

17 Q. Yesterday you provided us a list of four  
18 states that, in your opinion, had rigorous requirements  
19 in terms of obtaining or receiving a credential.  
20 California was among those four.

21 Do you see any risk in -- risks involved in  
22 terms of the rigor in obtaining credentials -- let me  
23 rephrase that.

24 What are the risks that you see, if any, in  
25 providing full reciprocity with states that have

1 different levels -- or I'm sorry -- that have different  
2 requirements in terms of obtaining a credential?

3 MR. AFFELDT: Objection as mischaracterizing  
4 her testimony pertaining to California's fit within the  
5 category of states with rigorous credentials. She did  
6 qualify.

7 MS. KOURY: Q. You can answer that question  
8 if you remember it.

9 A. I think that -- John's point is an accurate  
10 one. But -- what's the question?

11 MS. KOURY: Could you read back the question?  
12 (Record read.)

13 THE WITNESS: There are both risks and  
14 benefits, and you have to weigh and balance those. On  
15 the risk side is the fact that if the standards in  
16 another state are extremely low or substantially less  
17 rigorous on variables that happen to matter for teacher  
18 effectiveness, then one could be potentially warranting  
19 less effective teachers than the state's standards  
20 themselves would achieve.

21 On the other hand, as I noted, one of the  
22 benefits of accepting other standards that are, you  
23 know, within a reasonable ballpark of -- of those that  
24 are related to effective teaching, which does not  
25 necessarily mean every single standard that California

1 So I don't think the question here is rigor.  
2 It's whether the standards used in other states are  
3 identical or substantially identical to California's.  
4 And the question about whether those are highly related  
5 to effective teaching is a separate question.

6 Q. Do you think that the CCTC standard, in trying  
7 to determine whether or not credentials of other  
8 states -- or credentialing requirements of other states,  
9 are substantially identical to California's requirements  
10 is not a good standard to use when trying to determine  
11 whether or not to provide full reciprocity with another  
12 state?

13 A. I think it's a well-intentioned approach, and  
14 it may -- I'm not sure how much of the approach is  
15 predicted by the legislation or predicted by the CCTC's  
16 decision about how to implement the legislation. But I  
17 think that the standard that ought to be used is one  
18 that looks for the kinds of elements of preparation that  
19 individuals have that are reasonably related to the  
20 goal, which is the goal of having a teacher with the  
21 content and teaching preparation that is needed in  
22 California.

23 The more hoops that exist, even for a person  
24 who's declared equivalent, they still have to meet  
25 California-specific standards that many people have

1 itself has perhaps, allows you to replace emergency  
2 permit teachers and those on waivers with people who  
3 have better training than they would have had.

4 So there are both risks and benefits of  
5 accepting standards that may differ in one respect or  
6 another from California's.

7 MS. KOURY: Q. Do you think it's better for  
8 California to allow teachers who have received their  
9 credential in the state in which the credentialing  
10 requirements have been determined by the CCTC not to be  
11 as rigorous as California's to come and teach in  
12 California as opposed to having an emergency permit  
13 teacher in California?

14 A. I don't think the CCTC is determining that  
15 other state standards are not as rigorous as  
16 California's. They're not identical or comparable to  
17 California.

18 So, for example, California has some standards  
19 like the passage of the CBEST, which it will not waive.  
20 There is no study that demonstrates the CBEST is somehow  
21 more rigorous test than the Praxis test that many people  
22 have taken in other states. There is no evidence that  
23 the course in the constitution that California requires  
24 is more rigorous than some other requirement that people  
25 would have met.

1 argued are substantially redundant to -- to the  
2 standards they've already met.

3 Q. With respect to your last answer -- which I  
4 don't want to mischaracterize your testimony, so I'm not  
5 going to try to summarize it -- do you think that you've  
6 articulated those points in your expert report?

7 A. I certainly have touched on those points, yes.

8 Q. Is there anything beyond what's in your expert  
9 report and what you just testified to that you would  
10 consider -- or that would be useful for the CCTC or the  
11 state in determining how to go about enhancing  
12 reciprocity?

13 MR. AFFELDT: Objection. Calls for  
14 speculation and potentially for a narrative.

15 MS. KOURY: Q. Well, to the extent that --

16 MR. AFFELDT: How is she supposed to know  
17 what's useful?

18 MS. KOURY: To the extent that you think it's  
19 speculation, I'm asking her opinion, which, I think, is  
20 the point of an expert.

21 Q. (By Ms. Koury) But putting that aside, if you  
22 don't understand the question, I can rephrase it.

23 A. I would appreciate that.

24 Q. Sure.

25 MS. KOURY: Could you repeat the question for

1 my purposes?

2 (Record read.)

3 THE WITNESS: Probably.

4 MS. KOURY: Q. I'm sorry. So you understood  
5 that question or did you want me to rephrase it?

6 A. No. I think I just answered the question. My  
7 answer to the question is probably there are things that  
8 would be useful to the CCTC to think about that go  
9 beyond what I stated in my report, because it's a very  
10 complex issue about which many things could be said.

11 Q. And earlier you stated that the CCTC has  
12 considered these issues carefully. I'm not sure that  
13 was exactly your phrasing, but something to that effect.

14 Do you think that, perhaps, there are -- or do  
15 you have an opinion as to whether or not the CCTC has  
16 not adequately researched and looked into the issue?

17 A. What I said was that they had spent a lot of  
18 time looking at the requirements of other states in  
19 order to determine these equivalences.

20 Q. Were you involved at all in that respect?

21 A. Not in any great extent. At one point, I  
22 receive a phonecall from someone at the CCTC -- and I'm  
23 not now recalling who it was or someone who was working  
24 for the CCTC on this -- asking for a list of states that  
25 I thought they ought to look at. And I recall that I

1 A. With -- with a list, yes, I think it would be  
2 a reasonable approach for the state to provide full  
3 reciprocity with a list of states that today (this was a  
4 few years ago) have standards that are, you know,  
5 reasonably rigorous.

6 Q. In your opinion, would that be a more  
7 reasonable approach than what the CCTC is currently  
8 doing?

9 A. Yes. I think it would probably end up being a  
10 more productive approach, because it would allow  
11 teachers -- some of the states would be from the parts  
12 of the country that do have declining enrollment rather  
13 than growing enrollment to have relatively high  
14 standards for entering teaching and would allow those  
15 people to come into the state without having to jump  
16 through additional hoops once they got here.

17 Q. Do you know if experts in your field consider  
18 this issue to be one that has created a lot of  
19 discussion in the last couple years?

20 A. The reciprocity issue?

21 Q. Yes.

22 A. Has been discussed certainly both within  
23 California and across the country, because some other  
24 professions do have greater reciprocity in training and  
25 movement than teaching currently has.

1 believe I did produce a list of states that I thought  
2 they ought to look at. That was the extent of my  
3 involvement.

4 Q. Not trying to test your memory, but do you  
5 recall what that list was of states?

6 A. I don't. It was several years ago.

7 Q. Do you have in mind a list of states -- or do  
8 you have an opinion as to what states have equally  
9 rigorous requirement as those in California in terms of  
10 receiving a credential?

11 A. At the time I was asked a similar question by  
12 the CCTC, I actually referred to the NASDTEC manual,  
13 which is the manual of the National Association of State  
14 Directors of Teacher Education and Certification, and  
15 gave a grounded -- somewhat grounded list of states. I  
16 would have to do that again in order to render a  
17 specific opinion on that.

18 Q. Assuming that you did do that -- in other  
19 words, you looked at the NASDTEC manual and rendered a  
20 list of states that, in your opinion, based on that  
21 manual and in your experience, have equally rigorous  
22 requirements for a teaching credential -- do you think  
23 it would -- in your opinion, would it be adequate for  
24 the state, in terms of enhancing reciprocity, to provide  
25 full reciprocity with that list of states?

1 Q. Is it your opinion that, generally, with the  
2 issue of reciprocity, that experts both in California  
3 and nationwide have differing opinions as to how to  
4 achieve the most efficient and yet still effective  
5 reciprocity?

6 A. Interestingly, outside of California, most  
7 people, when they talk about reciprocity, are talking  
8 about reciprocity. That is, they're talking about  
9 people who have graduated from an accredited institution  
10 and received a credential in one state, carrying that  
11 credential and that training with them to another state.  
12 That's the traditional meaning of the term.

13 The notion of equivalences for specific  
14 subcomponents seems to me to be unique to California.

15 Q. With respect to my question -- and I  
16 understand your answer in terms of distinguishing  
17 California's issue, but with respect to my question,  
18 could you -- could you restate it?

19 (Record read.)

20 MS. KOURY: Q. I understand the distinction  
21 that you made with respect to California. Could you  
22 answer that question, though, with respect to the issue  
23 nationwide?

24 A. I'm sure there are areas of debate in the  
25 conversations I've been involved in with a number of

1 people. There seems to have been a common idea about  
2 how to achieve reciprocity.

3 Q. And is that common idea one that you think is  
4 articulated or is set forth in your expert report?

5 A. I think it is reasonably well represented  
6 there. That was not my goal in writing the expert  
7 report, so it may not be fully or articulated.

8 Q. What do you mean by that?

9 A. I didn't set out to decide or articulate what  
10 a national view of reciprocity would be, so it may or  
11 may not be written about to any great extent in my  
12 report.

13 Q. Turning to page 61 of your report, if you  
14 would.

15 MR. HILL: I'm sorry. What page?

16 MS. KOURY: 61.

17 THE WITNESS: May I add something to the  
18 answer --

19 MS. KOURY: Of course.

20 THE WITNESS: -- made earlier?

21 I wanted to say at some point, but forgot to  
22 say, that some of the problems that I've identified --  
23 what I identify as problem with the reciprocity approach  
24 in California are not due to the way the CCTC has  
25 administered the law but are actually aspects of

1 is focused on.

2 Q. Do you think or do you have an opinion as to  
3 whether or not this requirement to which you're  
4 referring to in this sentence raised the quality of  
5 teaching preparation?

6 A. I'm not sure that it did. I think one could  
7 argue that it might have raised or lowered quality for  
8 some programs.

9 Q. In other words, researchers and experts in the  
10 field just disagree about whether or not it was  
11 effective and --

12 A. I don't think it's been studied, for one  
13 thing, as to whether it did raise quality. But  
14 researchers and experts in the field have, in other  
15 context, raised concerns about the lack of integration  
16 of subject matter and pedagogical training, which was  
17 occasioned by this reform, and have raised concerns  
18 about short nine-month credential programs that resulted  
19 from the reform.

20 Q. I'm sorry. Was your -- were you just  
21 explaining why the reform --

22 A. Why some people would probably argue -- I'm  
23 sorry (I didn't mean to interrupt you) --

24 Q. That's okay.

25 A. -- that the reform might have lowered quality

1 legislation.

2 For example, there's legislation that requires  
3 that all candidates take the CBEST whether or not  
4 they've already taken another basic-skills test or  
5 whether or not they've already passed a test that's much  
6 harder than the CBEST. So some of these issues are not  
7 issues of the CCTC's approach, which was the way we were  
8 talking about the potential solutions to the problem.

9 MS. KOURY: Q. In other words, some of the  
10 issues are actually --

11 A. Legislative issues.

12 Q. Okay. Thank you.

13 On page 61 the first sentence in the third  
14 full paragraph states, quote:

15 "Although the move to require  
16 post-baccalaureate credentialing programs was  
17 motivated by concerns for raising quality, it  
18 also sharply limited the supply of teachers,  
19 making it difficult for many young people to  
20 get the information and guidance they needed  
21 to enter teaching when considering careers in  
22 high school, community college, and college."

23 Is that still your opinion?

24 A. Yeah. I still believe that statement is  
25 accurate about the time frame within which it -- that it

1 rather than raising quality. Although I believe the  
2 legislative history suggests the move was definitely  
3 intended to raise quality.

4 Q. That was my next question. Based on your  
5 review of the legislative history and your experience  
6 and your opinion, why was the reform sought?

7 A. Well, I -- I haven't studied it in depth, but  
8 my understanding is that there were, around that time,  
9 concerns about the quality of some education programs  
10 and the fact that some of them were organized in such a  
11 way that they did not necessarily produce what was  
12 viewed as adequate subject matter background for  
13 teachers. And this was viewed as a way to ensure that  
14 teachers would get a degree in a field other than  
15 education and then add their education training onto it.

16 But I want to say that I have not done an  
17 in-depth study of this particular reform in California.  
18 So that is what I had gleaned from a modest amount of  
19 familiarity with it.

20 Q. Were you -- I'm just going to assume that you  
21 were in the field at the time.

22 A. I'm not that old.

23 Q. Okay. I didn't mean to infer that. Skip that  
24 question.

25 The report also states that:

1 "Recent regulatory changes that now allow  
2 blended programs of content professional study  
3 beginning in the undergraduate years provide  
4 new options for recruiting people into  
5 teaching, but few of these programs exist, and  
6 the incentives for colleges to create the  
7 programs are small in scale."

8 And I could point you to where that is. It's  
9 the following --

10 A. I see the sentence.

11 Q. When did the state begin improving blended  
12 programs -- or the CCTC?

13 A. Just in the last couple of years.

14 Q. And what do you mean by "blended programs"?  
15 Is that to the extent that it no longer requires a fifth  
16 year in the undergraduate program?

17 A. A blended program might or might not require a  
18 fifth year, although the legislation is still on the  
19 books requiring a fifth-year of study in California.  
20 But there are now some ways in which that can be  
21 substituted with induction.

22 But a blended program is intended to blend --  
23 the term "blended" is used because it's meant to blend  
24 study of subject matter with study of pedagogy during  
25 the undergraduate years -- at least in part during the

1 undergraduate years.

2 Q. To the extent that you state "few of these  
3 programs exist," how many programs are you aware of that  
4 exist, if any?

5 A. Well, at the time I wrote this, I was aware  
6 of, perhaps, a dozen or -- or so, maybe a couple of  
7 dozen such programs. Let me clarify that I'm talking  
8 about institutions offering such programs. Because in  
9 the CCTC's terminology, they actually approve an  
10 individual blended program for each subject area within  
11 an institution. So, I'm referring to the number of  
12 institutions rather than the number of subject area  
13 programs within institutions.

14 Q. Where you state that "incentives for colleges  
15 to create such programs are small in scale," what do you  
16 mean by that? What type of incentives?

17 A. There was a little grant program (which I  
18 don't even know if it still exists) which people could  
19 apply for that you could get something on the order of  
20 \$50,000, or perhaps less, to help facilitate starting a  
21 blended program.

22 Q. And do you have an opinion as to whether or  
23 not these incentives should be increased?

24 A. I don't have a particular opinion about that.  
25 It's not something I've -- that -- I mean, there are a

1 number of ways one could encourage greater access to  
2 undergraduate preparation for teaching that might  
3 include, but could be -- go beyond grants to  
4 institutions for blended programs in particular.

5 Q. On page 64 of your report, if you would please  
6 turn to that page, you discuss the shortages of teachers  
7 in particular subject matter areas. And you state in  
8 the second full paragraph:

9 "The barriers described above are  
10 problematic in all fields, but are especially  
11 so in high-need fields like mathematics,  
12 science, computer technology, special  
13 education, and bilingual education/English  
14 language development where there are genuine  
15 undersupplies of candidates."

16 I'm curious: You use the term "undersupplies  
17 of candidates," and yesterday you testified that you  
18 don't like the term "undersupply of credentialed  
19 teachers."

20 Could you explain to me what and how the term  
21 "undersupplies of candidates," if at all, is  
22 distinguished from "undersupply of teachers"?

23 A. Yeah. By this I mean undersupplies of  
24 individuals being trained in the state and receiving  
25 credentials in the state as opposed to undersupplies of

1 teachers presenting themselves for employment, which  
2 could include -- well, we were using the term  
3 "undersupplies" yesterday with respect to -- we were  
4 confounding that term with respect to potential  
5 employees with the hiring of undercredentialed teachers.  
6 You can hire undercredentialed teachers for a number of  
7 reasons, which may not have to do with whether there are  
8 enough credentialed people available in the labor supply  
9 to hire.

10 So, new candidates is what I'm referring to  
11 here, who are being newly graduated from institutions of  
12 higher education in the specific fields as opposed to  
13 the whole pool of teachers, which includes people in the  
14 reserve pool. It includes people from other states. It  
15 includes experienced teachers as well as novices.

16 Q. Is it your opinion, then, that there is not an  
17 undersupply of credentialed teachers in high-need fields  
18 like mathematics, science, computer technology special  
19 education, bilingual education and English language  
20 development?

21 A. I'm not understanding what you're -- say that  
22 again.

23 MS. KOURY: Can you restate that?

24 (Record read.)

25 THE WITNESS: There may be, in some of those

1 fields at some points in time, an actual undersupply of  
2 credentialed teachers, but there may not be. It's a  
3 different -- it's a different question.

4 What the flow of new teachers is into the  
5 profession as candidates who have recently graduated  
6 from institutions and what the whole supply of potential  
7 teachers is in the labor market pool of teachers --  
8 that's the distinction I'm trying to clarify. And  
9 yesterday, when we were talking about undersupplies, we  
10 were confounding the use of that term with the hiring of  
11 uncredentialed teachers. Those are -- one can have a --  
12 the hiring of uncredentialed teachers because there is a  
13 genuine undersupply or one can hire uncredentialed  
14 teachers because of a variety of reasons that I detail  
15 in the paper. They're not the same thing.

16 MS. KOURY: Q. In the context of the total  
17 labor supply of credentialed teachers at the time you  
18 were writing this report, did you have an opinion one  
19 way or the other whether there was an undersupply of  
20 credentialed teachers in California in the fields of  
21 mathematics, science, commuter technology, special ed,  
22 bilingual education and English language development?

23 MR. AFFELDT: Objection. Compound.

24 MS. KOURY: Q. You can answer that. Unless  
25 you want it to be restated -- I mean, repeated by the

1 credentialed teachers in these particular subject areas,  
2 these high-need fields?

3 MR. AFFELDT: Objection. Asked and answered.

4 MS. KOURY: Actually, I had asked about the  
5 state of California before. I'm asking now about  
6 nationally.

7 THE WITNESS: Could you state it again or  
8 repeat the question?

9 (Record read.)

10 MR. AFFELDT: I withdraw that objection, but  
11 make the objection that it is compound.

12 THE WITNESS: I want to try and be precise  
13 here. I would say that there is -- there was a genuine  
14 undersupply of candidates (again, I'm using the term  
15 "candidates") in these fields that one would have seen  
16 on a national average -- although it wouldn't pertain to  
17 every state -- in several of these fields, nationally as  
18 well as in California. Again, I'm drawing distinction  
19 between candidates and teachers who may have been  
20 credentialed but not currently in the labor force.

21 MS. KOURY: Q. My question, actually, was  
22 specific to the labor force, and so I meant teachers,  
23 not candidates. Could you answer the question with  
24 respect to that issue -- that distinction?

25 A. What you just said is the opposite of what I

1 court reporter.

2 A. I think I don't need it repeated. I may need  
3 to break it apart. In order to answer whether there is  
4 an undersupply of teachers in these specific fields in  
5 the labor market in California, you would need to have  
6 data about the background of teachers both in the  
7 reserve pool, in the out-of-state pool, in the  
8 experienced pool, as well as the new-candidate pool.  
9 And I did not do an analysis that tried to look by field  
10 at all of those pools, at all of those content or  
11 disciplinary pools.

12 Q. In the context of the total labor supply, is  
13 it your opinion that there was -- at the time you were  
14 writing this report, that there was not an undersupply  
15 of credentialed teachers in California?

16 A. "That there was not an undersupply of  
17 credentialed teachers," yes, that -- I did state that,  
18 that I did not believe that there was a general  
19 undersupply of credentialed teachers overall.

20 Q. With --

21 A. Not with respect to specific subject areas.

22 Q. With respect to the total labor supply in a  
23 national sense, not just specific to California, at the  
24 time that you were writing this report, did you have an  
25 understanding as to whether there was an undersupply of

1 was just trying to say.

2 Q. Right. My question is --

3 A. You said teachers in the labor force.

4 Q. Correct.

5 A. As opposed to credentialed teachers available  
6 for the labor force.

7 Q. Available for --

8 A. I'm just trying to say what I want to say,  
9 okay?

10 Q. Available for the labor force is my question.

11 A. Yes. What I would agree, if I understood your  
12 point, is that in the nation, although not necessarily  
13 in every single state, but in the nation, there was a  
14 general undersupply of candidates willing to present  
15 themselves in the labor market (not necessarily  
16 credentialed teachers who held credentials and were not  
17 currently in the labor market), in several of these  
18 fields: mathematics, physical science, computer  
19 technology, special education and bilingual education.

20 Q. With respect to math and science, do you know  
21 what the current CCTC credentialing requirements are?

22 A. Yes. Reasonably well.

23 Q. Are they articulated in your expert report?

24 A. Well, the expert report was actually written  
25 before 2042 was implemented, so these are moving



1 targets.

2 Q. What is your --

3 A. What they were at the time is partially  
4 articulated here where I treat those questions.

5 Q. Is it your understanding that 2042  
6 restructured the credentialing requirements for math and  
7 science?

8 A. It restructured all teacher credentialing  
9 requirements.

10 Q. Do you have an opinion as to whether or not  
11 the restructuring of the credentialing requirements with  
12 respect to math was helpful? And let me be clear about  
13 helpful -- in terms of attracting new candidates for  
14 those programs. Let me rephrase that.

15 Do you think it was effective, the  
16 restructuring of the credentialing requirements for  
17 math?

18 A. Effective for what?

19 Q. For purposes of attracting new candidates into  
20 the program.

21 A. I don't think the purpose of 2042 was to  
22 expand supply. It was to raise standards in certain  
23 ways or to change the standards in certain ways. So I  
24 don't I don't think anybody knows whether it will or  
25 will not be effective in expanding supply.

1 Q. Do you think that it changed the standards in  
2 a positive manner?

3 A. There are a lot of ways in which the standards  
4 were changed, and I think the jury is out as to what the  
5 effects will be of those changes. They -- there have  
6 been changes in the content tests. There have been  
7 changes in the teacher performance assessments. There  
8 are a variety of changes that pertain to accreditation  
9 of schools of education that still haven't been fully  
10 implemented that then pertain to how they train math and  
11 science and other teachers.

12 So I don't -- I don't know the answer to that,  
13 whether it will have been effective at any number of  
14 goals.

15 Q. So do you have an opinion -- so you don't have  
16 an opinion as to whether or not the standards which were  
17 changed in 2042 were, in your opinion, positive or not?

18 A. Well, positive has to have a goal. Positive  
19 towards what end? There are very complex changes.  
20 They're certainly aimed at positive goals. Whether they  
21 will end up attracting more teachers, as you asked at  
22 the start of your question, is unknowable at this time.

23 Q. Leaving aside --

24 A. Some of them might attract -- expand the pool.  
25 Others might contract the pool. There are so many

1 changes that you have to really have a study that looked  
2 at the effects of different ones of them.

3 Q. Leaving aside the issue of attracting new  
4 candidates, leaving that issue completely aside, do you  
5 have an opinion one way or the other whether the  
6 standards that are reflected in 2042, with respect to  
7 math credentials, were improved in terms of quality?

8 MR. AFFELDT: Objection. Vague and ambiguous.

9 THE WITNESS: I think that it's -- it's hard  
10 to say. There were some good things about the 2042  
11 standards, but there's so many changes that I wouldn't  
12 have an overall single, dimensional opinion.

13 MS. KOURY: Q. I take it your opinion would  
14 be the same with respect to 2042 as it relates to  
15 science credentialing requirements?

16 MR. AFFELDT: Same objection.

17 THE WITNESS: And my answer would be the same,  
18 that there were certainly good things done under --  
19 intended and done under 2042, and the jury is out about  
20 the effects.

21 Just for the point of clarity on that last  
22 question, there are also other changes that have  
23 happened to the standards for math, science and other  
24 fields that were not part of 2042, so there are  
25 additional changes beyond those. They're all happening

1 at once.

2 MS. KOURY: Q. Could you please turn to  
3 page 54 of your report. The last sentence of the last  
4 paragraph on that page reads, quote:

5 "In contrast to some states that have  
6 enacted comprehensive policies to improve and  
7 equalize teaching salaries and conditions  
8 across schools in districts, teaching supports  
9 are unevenly available across California's  
10 schools."

11 Is that still your opinion today?

12 A. Yes.

13 Q. What did you mean -- or what do you mean by  
14 "equalize teaching salaries"?

15 A. I describe later in the report what I mean by  
16 that, and it includes the notion of essentially  
17 equalizing or making more equal salaries, taking into  
18 account differences in cost of living, cost of  
19 education.

20 Q. Is that in reference to page 57 of your  
21 report, 56 and 57, where you describe the adjusted cost  
22 of living and other issues you just raised?

23 A. Not exactly. 56 and 57 are estimates of the  
24 degree of inequality. My recommendations about  
25 equalizing salaries appear later in the report.

1 Q. Could you point me to where that is, the  
2 recommendations that you're --  
3 A. Mm-hm. I will have to take a moment and look  
4 for them.

5 Beginning on page 81, continuing on page 82  
6 and 83, are those recommendations.

7 Q. Turning back to page 54, where you state,  
8 "teaching supports are unevenly available across  
9 California's schools," what do you mean by "teaching  
10 supports"?

11 A. I discuss a number of kinds of teaching  
12 supports in the report that include things like  
13 materials that support teachers' ability to teach,  
14 textbooks materials, and include things like (for  
15 beginning teachers) mentoring supports, the availability  
16 of mentors to coach and advise.

17 Q. In your opinion, are teaching supports, as  
18 you've defined them, distinguishable from working  
19 conditions?

20 A. Teaching supports include certain working  
21 conditions that support teachers' ability to teach.

22 Q. Could you turn to page 55 of your report? At  
23 the bottom of page 55, in the last paragraph, your  
24 report states that:

25 "As of 1999-2000, California spent

1 example, you know, large summer school programs that are  
2 the result of not having had adequately prepared  
3 teachers in the first place or other kinds of  
4 categorical programs that exist to make up for the fact  
5 that teachers were -- there was inadequate investment in  
6 sufficiently well-qualified teachers to prevent students  
7 from having problems.

8 Q. Is your opinion, with respect to whether you  
9 would -- or with respect to the fact that you would  
10 endorse a percentage of the expenditures -- rephrase  
11 that.

12 With respect to your opinion that you would  
13 endorse a close-to-50-percent portion of the total  
14 educational expenditures on teacher salaries, is that  
15 opinion -- does that correlate to some sort of  
16 understanding that the impact on student achievement has  
17 a -- has a similar correlation in -- you know, I'm going  
18 to rephrase that completely.

19 Actually, we're coming up to an hour. Can we  
20 take a 10-minute break?

21 MR. AFFELDT: Mm-hm.

22 (Whereupon, a break from 11:29 to  
23 11:41 was taken.)

24 MS. KOURY: Q. Would you please turn to  
25 page 65 of your report? And looking at the first

1 39.5 percent of its education expenditures on  
2 teacher salaries, a decline of 13 percentage  
3 points since 1964-65, when more than  
4 50 percent of the education budget supported  
5 teachers' salaries."

6 Is it your opinion -- let me rephrase that.

7 Do you have an opinion one way or the other of  
8 what portion of the total education expenditure should  
9 be spent on teachers' salaries?

10 A. I think that the fact that more than  
11 50 percent of the education budget was once spent on  
12 teachers' salaries, and that's a proportion that is  
13 similar in -- in a number of other countries that invest  
14 more of their resources in the classroom would lead me  
15 to endorse a proportion of the budget closer to that  
16 than what it currently is.

17 Q. And what do you base that opinion on or that  
18 endorsement on?

19 A. On an argument that if one of the important  
20 determinants of student-learning is the quality of  
21 teachers and the work that they do, then a way to  
22 improve student achievement is to ensure that one is  
23 investing in effective, well-supported teachers rather  
24 than a variety of other kinds of things that might be  
25 less productive of -- of higher achievement -- for

1 paragraph on that page -- it's not even the first --  
2 it's not a full paragraph, but, nevertheless, starting  
3 with the sentence "Even with the addition of the  
4 Governors Teaching Fellowships," could you just review  
5 that and let me know when you've had an opportunity to?

6 A. Okay.

7 Q. Your report states that:

8 "The costs in professional development  
9 needs for underprepared teachers, extra  
10 services and summer school for students who  
11 are inadequately taught, and ongoing  
12 recruitment to replace emergency hires who  
13 leave quickly reach into the hundreds of  
14 millions."

15 You go on to say that, "The recently enacted  
16 Teaching as a Priority Program provides small  
17 allocations to high-need schools ...."

18 Do you have an opinion whether the state  
19 should rechannel the funds used for professional  
20 development of underprepared teachers, extra services,  
21 summer school for inadequately taught children and  
22 ongoing recruitment of emergency hires, channel those  
23 funds into funds for recruiting and retaining qualified  
24 teachers?

25 MR. AFFELDT: Objection. Compound.

1 THE WITNESS: I think that some of those --  
2 once -- the answer would be yes, in part. That is to  
3 say, that once one has hired underprepared teachers, it  
4 is important for the welfare of their students to give  
5 them some professional development supports.

6 For example, once students are badly taught,  
7 it's important to continue to provide them some  
8 additional help. However, as a matter of strategy, the  
9 state could in the long run reduce those costs by  
10 putting more money into the hiring of better qualified  
11 teachers to begin with. And it would not be  
12 inappropriate to begin to change the balance of targets  
13 for funding that the state has used in the past.

14 MS. KOURY: Q. Switching gears, do you have  
15 an opinion with respect to whether the Class Size  
16 Reduction Act was a good policy decision?

17 A. That's a very broad question. The Class Size  
18 Reduction Act was implemented too hurriedly for  
19 districts to be able to plan adequately to -- for it.  
20 The notion of reducing class sizes in the state that had  
21 allowed the class sizes to grow to such a large extent  
22 was not a bad notion.

23 The studies that the state relied on to  
24 justify class size reduction as -- as a policy did  
25 not -- were not done with samples of unqualified

1 Reduction Act was enacted and the time that it was  
2 actually enforced that that would have reduced the  
3 underqualified teachers?

4 A. There's data or research available that  
5 demonstrates the ways in which policies are implemented.  
6 And the lead time for implementing policies can make a  
7 difference in the extent to which the policies reach  
8 their intended effects without unintended consequences.  
9 Obviously, there's no research about what didn't happen  
10 specific to the implementation of this policy.

11 Q. Do you have an opinion as to whether or not --  
12 I take it from your prior answer that you do, but is it  
13 your opinion that class size reduction caused a shortage  
14 of qualified teachers in the classroom?

15 A. It's widely believed and other researchers  
16 who've looked at it closely have written that it did  
17 contribute to the teacher shortage -- to the -- to the  
18 hiring of unqualified teachers.

19 Q. Yesterday you touched on this issue, but I'm  
20 going to ask you -- actually, could you turn to  
21 page 82 -- or, yeah, of your expert report. At the  
22 bottom of page 82, you state:

23 "This strategy would establish a target  
24 minimum beginning teacher salary that is  
25 competitive in the labor market and provide

1 teachers. They did not reduce class size at the expense  
2 of teacher qualification. So the net benefits of the  
3 policy would have likely been larger had it been  
4 implemented in a way that that trade-off didn't have to  
5 be make -- made.

6 Q. What do you mean by your statement that  
7 they -- that the state implemented the CSR "too  
8 hurriedly"?

9 A. Districts had only a few weeks from the time  
10 they were -- the money was announced and allocated 'til  
11 the time they had to hire these new teachers, find  
12 building space for them, look for classrooms, and so on.  
13 Had the policy been implemented with a year's lead time  
14 so that recruitment could have been put in place -- at  
15 the time, there was a surplus of elementary schools  
16 teachers the country. There were states that actually  
17 were talking about the fact that they were training too  
18 many elementary teachers. Had there been a process by  
19 which that recruitment were adequately done and  
20 districts could have prepared, the class size reductions  
21 could have been done with many fewer underqualified  
22 teachers being hired.

23 Q. Do you have any data or research to support  
24 that -- in other words, the notion that had they had,  
25 perhaps, a year lag time between the time the Class Size

1 salary subsidies to districts to reach this  
2 target minimum salary."

3 A. I'm sorry. I'm not finding where you're  
4 looking. Could you orient me again?

5 Q. Under the --

6 MR. AFFELDT: 82.

7 THE WITNESS: 82?

8 MR. AFFELDT: Last sentence.

9 MS. KOURY: Yeah.

10 THE WITNESS: Okay.

11 MS. KOURY: Q. For the record, it's under the  
12 section:

13 "Create a finance system that ensures more  
14 market sensitive and equalized salaries across  
15 districts. Incorporate incentives for hiring  
16 fully qualified teachers."

17 The last sentence of page 82 through the first  
18 paragraph of 83.

19 A. Mm-hm. Okay.

20 Q. With respect to your suggestion that the state  
21 provide salary subsidies to districts to reach the  
22 target minimum salary, what would the minimum salary be?

23 A. What number? Are you looking for a number?

24 Q. Yes. Or an equation for it.

25 A. It would have to be established based on --

1 you know, on the moment in time such that it's  
2 competitive in the labor market. Some people have  
3 suggested that the salaries of teachers, to be  
4 competitive in the labor market, ought to be paid to be  
5 equivalent to the salaries of accountants, for example,  
6 which is sort of a mid-range professional with four  
7 years of training, potentially adjusted for  
8 differentials in the work year.

9 Q. What about --

10 A. In some places they set them comparable to  
11 engineers, although that would be a much higher level.

12 Q. In your opinion, the minimum salary for  
13 teachers across districts would not be based on  
14 equalizing the salaries that currently exist, but rather  
15 would be based on looking at comparable salaries of  
16 other occupations in the area?

17 A. I don't understand what you mean by  
18 "equalizing the salaries that currently exist."

19 Q. Your suggestion of equalizing salaries across  
20 districts; is that correct?

21 A. Well, this statement that you asked me about  
22 is about setting "a target minimum beginning teacher  
23 salary that is competitive in the labor market," and  
24 then equalizing districts' abilities to reach that  
25 target minimum salary. So both competitiveness with

1 A. In this kind of a proposal, the subsidies a  
2 state would give for districts to reach a target minimum  
3 would both be based on an adjusted target that would, in  
4 actual dollar terms, be a different number in a  
5 district, depending on its cost of living, and would --  
6 in the subsidy itself would differ based on the wealth  
7 of the district.

8 Q. Do you know how districts currently decide how  
9 much to pay their teachers?

10 A. Oh, I know that they're -- I know the factors  
11 that typically go into those kinds of decisions.

12 Q. What are they?

13 A. Depending on the district, some districts  
14 actually have the resources and can do the studies to  
15 set a competitive wage. Often, there is -- competitive  
16 with other districts in their labor market. Sometimes  
17 there are studies done.

18 Other districts don't have that luxury. They  
19 have neither the resources to try to meet the labor  
20 market nor the studies that are done to establish where  
21 that would be. And they set it based on what they think  
22 they can afford or based on what the board is willing to  
23 offer.

24 So, it can be a highly rational or somewhat  
25 less rational, and a highly supported or a

1 respect to other occupations and equalization within the  
2 existing set of -- within districts around that target  
3 are implied by this recommendation.

4 Q. Under your theory then, first, a state would  
5 have to raise -- or have to find the optimal minimum  
6 salary?

7 A. Yeah. A target minimum salary would be --  
8 need to be selected, so to speak.

9 Q. And that target minimum salary would apply to  
10 all districts across the state; is that accurate?

11 A. Adjusted -- the salary that would pertain to  
12 each district would be adjusted for cost of living  
13 across the state. So you would -- for example, you saw  
14 some adjustments that I used earlier for differentials  
15 across districts. So whatever that target minimum was,  
16 the amount that the state would subsidize people to  
17 would -- would also be adjusted for cost of living.

18 Q. So in real terms -- or I'm sorry.

19 In real dollar amounts, the minimum salary  
20 would differ from state -- from district to district  
21 given -- taking into consideration cost of living?

22 MR. AFFELDT: Objection. Inadequate  
23 hypothetical.

24 MS. KOURY: Q. You can answer that, if you  
25 can.

1 less-supported process, depending on the district.

2 Q. In your experience and in your opinion, do  
3 districts have to prioritize various resources and  
4 determine where to put their dollars?

5 A. They absolutely make decisions about where to  
6 put their dollars, and in doing so, they implicitly or  
7 explicitly are making priorities.

8 Q. And, in your opinion, do some districts  
9 prioritize teacher salaries over other resources?

10 A. Yes, some districts do that. Over -- you mean  
11 over other expenditures?

12 Q. Correct. Thank you.

13 And in your -- I'm sorry.

14 In your opinion and experience, do some  
15 districts prioritize other expenditures instead of  
16 teacher salaries?

17 A. Yes, some do, as I say, explicitly or  
18 implicitly. Sometimes it's a conscious decision.  
19 Sometimes it's less conscious.

20 Q. Why do you think, if at all, it's important to  
21 allow a district to determine how to prioritize its  
22 expenditures in terms of various expenditures, including  
23 teacher salaries?

24 A. Given an equal playing field and adequate  
25 knowledge, it's important to allow districts to

1 prioritize based on the needs of the district and the  
2 needs of the students in the district.

3 Q. Assuming that the state went ahead and  
4 implemented the theory that you set forth with respect  
5 to establishing a minimum salary for beginning teachers  
6 and provided subsidies to other districts with your --  
7 taking into consideration the adjustments for cost of  
8 living, et cetera, do you foresee any risks that  
9 districts may have an incentive to not prioritize  
10 teachers' salaries -- in other words, to expend funds in  
11 other areas, knowing that the state has an obligation  
12 and now has some sort of legislation to subsidize them?

13 A. Well, I didn't suggest that the state should  
14 set a minimum salary that it fully funds, which is a  
15 strategy that some states use, but I suggested an  
16 incentive system which the states -- establishing a  
17 target minimum salary and then subsidizing or giving  
18 people incentives to meet that -- still requires local  
19 districts to be spending the money that they would  
20 otherwise have if they want to receive the state  
21 subsidies. So I don't think it would create  
22 disincentives for districts to allocate their funds  
23 towards that goal. It would, actually, create  
24 incentives for that to be the case.

25 Q. I'm sorry. I don't understand that. Having

1 through a reallocation of education expenditures that  
2 currently exist or do you perceive that that will  
3 require new funds?

4 A. It could be a combination of both. It would  
5 be a decision that the state would have to make.

6 Q. Have you investigated or done any sort of  
7 research in trying to decide -- or trying to determine  
8 what -- or where that would come from in terms of the  
9 budget?

10 A. Each year the -- I mean, in -- in earlier  
11 conversations that we've talked about, about advising  
12 legislators, those kind of analyses have been made at  
13 various points in time, based on what the situation is  
14 in the state. But it's impossible to predict for next  
15 year or the year after what will be a sensible way of  
16 funding a particular reform, particularly given the  
17 current budget situation.

18 So how much of it will be reallocation, how  
19 much of it will be new would have to be decided at the  
20 point in time you're doing it.

21 Q. Do you think there's a large disparity among  
22 some districts with respect to teacher salaries?

23 A. There's a large disparity across districts?

24 Q. Yes.

25 A. With respect to teacher salaries?

1 read your report and theory, I don't understand what you  
2 mean by creating incentives -- creating a target and  
3 then creating incentives for districts to reach that  
4 target.

5 A. I use the example as a partial analogy to the  
6 strategy used in Connecticut. So if I could use that as  
7 an example of how that operates as an incentive, a  
8 district does not have to -- in the same way the class  
9 size reduction funds were an incentive, districts did  
10 not have to accept that money. They didn't have to do  
11 class size reduction. But if they chose to do that, the  
12 state gave subsidies for that purpose.

13 In the same way, the state would provide  
14 subsidies for districts to meet the minimum  
15 target-salary level. But state districts would not have  
16 to do that if they chose to not accept that subsidy.  
17 They would not allocate their funds towards that end,  
18 and they would also not receive the state's portion of  
19 the funds towards that goal.

20 Q. With respect to the subsidies that the state  
21 would provide in terms of incentives, where do you see  
22 that money coming from in terms of the budget?

23 A. The money that the -- that the state would use  
24 to provide it subsidies in terms of the state's budget?

25 Q. Yes. In other words, do you see that coming

1 Q. Yes.

2 A. Yes. And I provide some data in this report  
3 to that effect.

4 Q. Right. In other words, in your opinion, are  
5 some districts not competitive because they can't -- or  
6 they don't provide teachers salaries at the same level  
7 as neighboring districts?

8 A. Yes.

9 Q. And could you identify some of the districts  
10 that you think are not competitive -- in other words,  
11 compared to their neighboring districts, they simply  
12 don't provide competitive salaries?

13 A. I would want to have the data in front of some  
14 of me that -- some of which I summarize here, to name  
15 particular districts.

16 Q. Well, looking in particular at Table 11 -- can  
17 we go off the record a second?

18 (Discussion off the record.)

19 MS. KOURY: Q. Could you turn to page 57 of  
20 your report, please. Table 11 of your report seems to  
21 identify some of the issues that we've been discussing.  
22 Or I should ask, Did you create Table 11? In other  
23 words, is this your work product?

24 A. Yes.

25 Q. And in calculating or in drafting Table 11

1 through the research that you conducted in order to draw  
2 the conclusions which appear or reflect in Table 11, did  
3 you come across any districts that, in your opinion, are  
4 not competitive because their teachers' salaries  
5 compared to their neighboring districts don't pass --  
6 are not competitive because their teachers' salaries  
7 compared to their neighboring districts are not high  
8 enough?

9 A. Yes. There are two reasons you could not be  
10 competitive. One is that competitive with other county  
11 wages that -- or other local labor-market wages, and the  
12 other is not competitive with respect to teaching wages  
13 within that county. And in the data set, one could  
14 identify districts that would fall with, for example, a  
15 low ratio on the adjusted salary indicator here.

16 Q. Keeping in mind the second definition of not  
17 competitive salaries -- in other words, salaries  
18 compared to teaching salaries of other districts -- do  
19 you have an opinion as to four or five of the worst  
20 districts that suffer from this?

21 A. I would have to go back to the data set, but  
22 the lowest are identified in this table, and those  
23 include two districts that are identified as having  
24 adjusted salaries that are very low in the state. And  
25 then I'd have to look at the other districts in their

1 Q. Could you explain to me what Figure 5 purports  
2 to show?

3 A. Figure 5 shows the beginning teaching salaries  
4 in the U.S. and in California vis-a-vis the beginning  
5 salaries in other occupations adjusted for the cost of  
6 living. That is, the -- the teaching salary in  
7 California is adjusted for the California cost of  
8 living.

9 Q. There's two asterisks next -- in the  
10 right-hand corner. At the top it says "teaching" in  
11 California, and then there's two asterisks. And the  
12 asterisk indicates "adjusted for cost of living."

13 The other factors enumerated in that column --  
14 teaching in the U.S., liberal arts occupations,  
15 sales/marketing occupations, et cetera -- don't appear  
16 to be adjusted for cost of living; is that correct?

17 A. Right. Those are national data. So the --  
18 when you adjust for the cost of living, you're adjusting  
19 relative to the national average, and so the national  
20 average is the base on which you do the adjustments.

21 Q. So the other --

22 A. For individual states. There would be no  
23 reason to adjust the other bars because they represent  
24 national averages.

25 Q. Which incorporate --

1 county to see where they fall vis-a-vis others in their  
2 county. But I'd have to go back to the data set to give  
3 you those specifics.

4 Q. For the record, with respect to the adjusted  
5 salaries, which of the districts are identified as being  
6 the lowest?

7 A. Alum Rock Union in Santa Clara County is a  
8 low -- the lowest ratio to the state average. So, I  
9 presume it's also a low ratio with respect to its county  
10 because it's the lowest. And Gilroy Unified in Santa  
11 Clara County is also identified at different levels of  
12 the salary schedule.

13 Q. Do you have an opinion as to what causes the  
14 disparity among teachers' salaries?

15 A. I think it's multiply determined, both by the  
16 resources that the district has, particularly the  
17 noncategorical funds that the district has, and the  
18 decisions that the district makes about how to spend  
19 those funds that it does have. At least both those  
20 factor in.

21 Q. Could you turn to Table 5 of your report,  
22 which is on page 44? I apologize. It's not the table I  
23 was looking for.

24 On page 56, it's Figure 5.

25 A. Okay.

1 A. Which is the base on which you would adjust  
2 for cost of living in different states. In other words,  
3 a state that had exactly the same cost of living as the  
4 national average cost of living would not be adjusted at  
5 all. But a state that has a high cost of living  
6 vis-a-vis the national average would be adjusted. So  
7 you would only adjust for individual states.

8 Q. Okay. With respect to your theory on  
9 increasing the minimum salaries for beginning teachers,  
10 do you have an opinion as to how the state should go  
11 about equalizing teacher salaries for the average  
12 teacher salary?

13 In other words -- obviously, teachers are paid  
14 throughout their career, not just the first year. How  
15 do you propose that the state go about equalizing  
16 teachers' salaries for average teachers?

17 A. I wouldn't, because the average salary is a  
18 function of both experience and base salary. And so, an  
19 average salary goes up, if people get older,  
20 irrespective of their comparables at a similar  
21 experience level. So averages would not be relevant to  
22 the question. But if your question is going to, How  
23 would you adjust across the career ...

24 Q. Yes.

25 A. Rather than just at the minimum, again, I use

1 Connecticut as an example. As in California, in  
 2 Connecticut salaries are locally bargained, and they  
 3 would still be locally bargained. And the state's  
 4 decision there was to help subsidize the higher minimum  
 5 beginning-teacher salary, which then affected the salary  
 6 scale in the ways in which local districts decided to  
 7 bargain the rest of the scale.

8 Q. Could you turn to page 85 of your expert  
 9 report?

10 A. Mm-hm.

11 Q. Under the heading "Improved Conditions and  
 12 Support" and then the numbered heading 6, the first  
 13 sentence there states:

14 "In the long run, more equalized funding  
 15 in California that takes account of  
 16 differences in the costs of education would  
 17 allow schools to improve other aspects of  
 18 their operations that influence the  
 19 recruitment and retention of well-qualified  
 20 teachers, such as facilities, availability of  
 21 materials and supplies, and class size."

22 What do you mean by that in terms of  
 23 "differences in the costs of education would allow  
 24 schools to improve other aspects of their operations"?

25 A. A job --

1 into account cost of education, that would allow them to  
 2 free up funds to, generally, improve aspects of their  
 3 operations.

4 Q. And what's the basis of that opinion?

5 A. Okay. What do you mean by -- what aspect of  
 6 the opinion? Are you asking -- I'm not sure what you're  
 7 asking.

8 Q. The basis of your opinion that that would  
 9 allow them to free up other funds.

10 A. The districts that would -- with higher costs  
 11 of education would get greater subsidies under the  
 12 proposal I just made. And, therefore, they would be in  
 13 a position to not have to trade off salaries against  
 14 other necessary expenditures for the other nonteaching  
 15 aspects of the operations in their districts, which  
 16 would put less of a squeeze on that part of their  
 17 budget.

18 Q. You mentioned earlier, with respect to your  
 19 theory for equalizing salaries among districts, that  
 20 Connecticut is a model in that regard.

21 Do you have any evidence or research that your  
 22 opinion, with respect to freeing up funds to allow  
 23 schools to improve other aspects of their operations --  
 24 do you have any research suggesting that that occurred  
 25 in Connecticut?

1 Q. Actually, can I rephrase that question before  
 2 you answer it?

3 What I meant to ask was, What do you mean by  
 4 "more equalized funding in California"?

5 A. The major proposal that I'm making that  
 6 affects kinds of core funding is the allocation of funds  
 7 towards salaries on an equalized basis. And so, a  
 8 portion of the funding system in California would become  
 9 more equalized in ways that also take into account the  
 10 cost of living or the cost of education.

11 So I'm referring, when I say more equalized  
 12 funding in California, to the previous recommendation in  
 13 that regard that we just discussed.

14 Q. And how would that allow schools to improve  
 15 other aspects of their operations, in your opinion?

16 A. Particularly high-cost-of-education  
 17 districts -- particularly urban districts, which is  
 18 where there are the biggest difficulties setting a  
 19 competitive wage for teachers and managing all of the  
 20 other costs of education, which are higher -- would be  
 21 benefitted by a system of funding that took that into  
 22 account, that took into account cost of education and  
 23 cost of living. And that would have then allowed them  
 24 to free up some other of the funds that they -- because  
 25 they would have more funds available by virtue of taking

1 A. It did occur in Connecticut, but, again, this  
 2 is also a state that has a higher funding level for  
 3 schools, in general, as well as a higher funding level  
 4 for salaries. So, while that did occur, it would be --  
 5 you'd have to parse out the aspects of its funding  
 6 system, which extend, include, but go beyond that  
 7 portion.

8 Q. Other than Connecticut, do you know of any  
 9 other states that have implemented the theory that you  
 10 articulate here in your expert report and also you  
 11 testified about with respect to increasing teacher  
 12 salaries or equalizing teacher salaries?

13 A. I'm not sure I understand the question.

14 (Record read.)

15 MS. KOURY: Q. Did you want me to rephrase  
 16 that question?

17 A. Probably.

18 Q. Okay. You mentioned that Connecticut is a  
 19 model in terms of your theory for equalizing salaries  
 20 across districts. Do you know of any other state that  
 21 has implemented a similar program?

22 A. There are other states that have raised --  
 23 I -- I talked about both raising and equalizing salaries  
 24 across districts. There are some others that have done  
 25 that, but they've done it in a variety of ways. None of

1 them are exactly identical to one another.  
 2 Q. Are there any others that you think are  
 3 comparable to Connecticut in terms of effectiveness?  
 4 A. Well, I think -- I make the argument here that  
 5 they've been the most effective state in -- in pursuing  
 6 that particular approach.

7 Q. In the next paragraph, you state:  
 8 "In the immediate run, categorical aid to  
 9 improve working conditions and teaching  
 10 conditions in hard-to-staff schools may be  
 11 necessary to stem the flood of attrition in  
 12 these schools."

13 Is that still your opinion?

14 A. Yes.

15 Q. How much money do you think will be necessary  
 16 in categorical aid to improve working conditions?

17 A. I don't set a particular dollar figure on  
 18 that.

19 Q. I understand that you don't. My question  
 20 should be, then, Do you have an opinion as to how much  
 21 it would cost?

22 A. I do not.

23 Q. And you've not attempted to formulate a figure  
 24 in that regard?

25 A. No. Because it -- again, it will depend on

1 Q. Is that articulated at all in your expert  
 2 report?

3 A. There may be some places where I mention  
 4 aspects of it. I'm sure I talk about professional  
 5 development a little bit.

6 Q. Is that something, in your opinion, that  
 7 requires more funding?

8 A. I'm hesitating because of -- in recent years,  
 9 although there are now budget cuts pending, there has  
 10 been an additional funding added to professional  
 11 development. The questions I raise about it are the  
 12 ways in which the system of professional development is  
 13 coherent and whether the funds are being spent in the  
 14 most productive ways.

15 Q. Is any of that discussion in your expert  
 16 report?

17 A. Yes.

18 Q. Could you tell me where?

19 A. I'm going to need help finding it.

20 Page 66 and 67 I include some discussion of  
 21 professional development.

22 Q. Beyond what's in your expert report --

23 MR. AFFELDT: I'm not sure she's done with it.

24 MS. KOURY: Oh, I'm sorry.

25 THE WITNESS: No. I was done. I was just

1 the point at which a remedy is put in place as to what's  
 2 needed at that time.

3 Q. Could you tell me what your role was with  
 4 respect to the Task Force of Professional Development --  
 5 or I should say, the Professional Development Task  
 6 Force?

7 MR. AFFELDT: Objection. Asked and answered.

8 MS. KOURY: Q. Did you already give me an  
 9 answer to that? I apologize.

10 Could you repeat that for me?

11 A. I was a member of the task force. I served as  
 12 a co-chair.

13 Q. And how did you come about to serve on that  
 14 task force?

15 A. I was asked to do so by Delaine Eastin, who  
 16 established the task force.

17 Q. And how long was your involvement in that?

18 A. For whatever the span of the task force was,  
 19 from the beginning of the process to the end. And my  
 20 recollection is that that might have been about a year  
 21 and a half or two years.

22 Q. Do you have an opinion about California's  
 23 professional development with respect to ongoing  
 24 professional development?

25 A. I have a number of opinions about it.

1 locating where I was discussing --

2 MS. KOURY: Yes.

3 MR. AFFELDT: There's some discussion on 86  
 4 and 87.

5 THE WITNESS: Thank you. That's what I guess  
 6 I meant to say.

7 MR. AFFELDT: Q. Beyond what's reflected in  
 8 your expert report, do you have any other opinions that  
 9 you plan -- or that you intend to offer at trial with  
 10 respect to professional development and the need for any  
 11 additional funding?

12 MR. AFFELDT: Objection. Calls for  
 13 speculation. Lacks foundation.

14 MS. KOURY: Q. You can answer that, if you  
 15 can.

16 A. It would depend on what I was asked. I know  
 17 more about professional development than I have said in  
 18 these four pages.

19 Q. But, as you sit here today, do you intend on  
 20 testifying about any issues beyond what's in your expert  
 21 report in the context of professional development?

22 MR. AFFELDT: Same objections.

23 THE WITNESS: Again, it would depend on what  
 24 I'm asked.

25 MS. KOURY: Q. Shifting gears to -- actually,



1 can we take a break for lunch? It's 12:20.  
 2 MR. AFFELDT: Sure.  
 3 (Lunch recess taken from 12:20 to  
 4 1:36.)  
 5 --oOo--  
 6 AFTERNOON SESSION  
 7 EXAMINATION BY MS. KOURY (Resumed)  
 8 MS. KOURY: Q. Hi, Professor Darling-Hammond.  
 9 Did you have a nice lunch?  
 10 A. I did.  
 11 Q. Could you please turn to Exhibit 20 for me?  
 12 A. Which one would that be?  
 13 MR. AFFELDT: That is the one.  
 14 MS. KOURY: Q. If you could turn to page 0439  
 15 of Exhibit 20. And I understand from your prior  
 16 testimony about Exhibit 20 that you think that you  
 17 drafted this under the constraints of assuming that you  
 18 had one billion dollars to work with. Is that somewhat  
 19 accurate?  
 20 A. Is this all one document? The budget was --  
 21 was done with that in mind. I don't recall whether  
 22 these were originally all part of one document.  
 23 Q. And the budget that you're referring to is on  
 24 page --  
 25 A. The last page.

1 Q. Okay.  
 2 A. 0443. And, yes, that -- that is true with  
 3 respect to that question. The question on the table  
 4 during the time of the budget surplus is, What would you  
 5 do if you had a billion dollars to spend on teaching?  
 6 Q. Turning to page 0439, where it states under  
 7 the paragraph numbered 1, "Provide incentives to raise  
 8 and equalize teacher salaries for fully qualified  
 9 teachers," open paren "600 million," close paren, it  
 10 seems to correlate with the budget that's attached to  
 11 0443, which indicates under No. 1, "Incentives to  
 12 districts to raise teacher salaries for fully qualified  
 13 teachers" and lists -- or enumerated or allocates  
 14 600 million to that. Is that your understanding?  
 15 A. I assume you're talking about the two lines  
 16 that say 75 million and 525 million?  
 17 Q. Yes.  
 18 A. Yes.  
 19 Q. Let me make this easier.  
 20 A. That does add to 600 million.  
 21 Q. Let's just stay on page 0443, if you would.  
 22 A. Okay.  
 23 Q. Do you know how you went about allocating the  
 24 600 million on page 0443 with respect to --  
 25 A. I have to reread this.

1 Q. Okay. I'll let you ...  
 2 A. Okay.  
 3 Q. Is it your opinion that -- or I'm sorry.  
 4 Let me ask my prior question, which was, How  
 5 did you go about determining an allocation of  
 6 600 million for incentives to districts to raise  
 7 teachers' salaries for qualified teachers?  
 8 A. Well, as I state here, the way the figure was  
 9 derived was to assume an average increase of \$5,000 per  
 10 beginning teacher, and that is based on 60 percent of  
 11 newly hired teachers -- 60 percent of newly hired  
 12 teachers being beginner teachers. That was the estimate  
 13 there, which, if you kind of work between the paragraph  
 14 and the budget at the back, was calculated at \$5,000  
 15 raise for qualified beginning teachers, assuming 15,000  
 16 of them annually. And then incentives to raise salary  
 17 schedules for all fully qualified teachers, and there I  
 18 took the number of teachers in the state minus the  
 19 beginning teachers and allocated a sum of money that  
 20 was -- assumed the state would take on half the costs of  
 21 a \$5,000 raise.  
 22 Q. Where would the other half come from?  
 23 A. The local district.  
 24 Q. And where did you get the assumption of 25,000  
 25 newly hired teachers?

1 A. That's the -- that was the published number at  
 2 that time for the number of newly hired teachers in  
 3 California each year. I remember it as the -- as  
 4 published in the SRI report by Shields, et al., and I  
 5 believe they got it from the state.  
 6 Q. Assuming your assumptions are  
 7 accurate today -- in other words, the 25,000 and  
 8 percentage of re-entrants --  
 9 MR. AFFELDT: Percent of beginning teachers?  
 10 MS. KOURY: No. Of re-entrants. You have 30  
 11 and 40 percent are re-entrants of the 25,000.  
 12 Q. (By Ms. Koury) Assuming those assumptions are  
 13 still correct today, do you think that this -- is this,  
 14 in your opinion, a fair estimate of how much it would  
 15 cost to equalize teacher salaries as articulated in your  
 16 expert report?  
 17 MR. AFFELDT: Objection. Inadequate proper  
 18 hypothetical. Vague and ambiguous.  
 19 THE WITNESS: The question of what it would  
 20 take to get California teachers today on average to a  
 21 competitive salary level would be a different -- would  
 22 likely be a different sum of money than it was several  
 23 years ago, when this was written. So what you'd need to  
 24 know in order to figure out how to get teachers to  
 25 competitive and equalized wages, you'd have to update

1 all of the assumptions.

2 There was, for example, a salary increase that  
3 occurred after this memo was written. So, the dollar  
4 figure would likely be different.

5 MS. KOURY: Q. And the dollar figure you're  
6 talking about is the 5,000. An average increase of  
7 5,000 would have to be increased to reflect the cost of  
8 living today?

9 A. That number might be different to get to a  
10 competitive wage, and the total dollar figure would  
11 also, consequently, likely be different. I don't know  
12 without studying whether it would be larger or smaller.

13 Q. Is the formula, though, that you set forth  
14 here, in your opinion, a proper, appropriate formula to  
15 be used in order to implement the theory of equalizing  
16 teachers' salaries as set forth in your expert report?

17 A. What's described here is not really a formula.  
18 It's just an estimate, and the basis of the estimate is  
19 described.

20 Q. What's the basis --

21 A. I'm just multiplying an -- an assumed number  
22 for purposes of estimation by the numbers of teachers in  
23 the state, and the bases for the estimate are provided.  
24 But it's not a formula that you -- it's not a formula  
25 that you would be able to carry forward. You would have

1 that are listed on your -- or the proposed budget on  
2 page 0443, do you recall how you -- actually, let me ask  
3 you one other question about the incentives to  
4 districts.

5 Did you have any input from anyone else with  
6 respect to the allocation of 600 million that you set  
7 forth on page 00 -- I'm sorry -- 0439 and 0440?

8 A. When you say "allocation," what do you mean?

9 Q. In breaking down the \$600 million and in  
10 allocating \$600 million to provide incentives to raise  
11 and equalize teacher salaries for fully qualified  
12 teachers, did you get any input from anyone else with  
13 respect to how you allocated the 600 million or in  
14 coming up with an allocation of 600 million?

15 A. No.

16 Q. And looking at the recruitment incentives,  
17 which you allocated a total of -- appears to be -- I  
18 can't do math well, but 120 million, how did you come up  
19 with that, if you recall?

20 A. Let me go back to the memo. And when you say,  
21 How did you come up with it? do you mean how -- what  
22 underlies the dollar figures there?

23 Q. Yes.

24 A. What assumptions underlie the dollar figures?

25 Q. Yes.

1 to re-adjust all of this for the number of teachers, for  
2 the size of the salary raise that was deemed to be  
3 competitive, and so on.

4 Q. Assuming that one did that, do you think it  
5 would be an appropriate way to determine how much money  
6 was needed in order to implement your theory of  
7 equalizing salaries among districts?

8 A. I'm going to try to say it -- say what I want  
9 to say clearly.

10 The -- in order to figure out how to raise and  
11 equalized salaries among districts, you would need more  
12 information than is conveyed here about what the current  
13 salary levels are, what increment would be needed on  
14 average statewide to make the average salary competitive  
15 to some target occupational level, perhaps the average  
16 of earnings for college graduates or whatever it might  
17 be.

18 One could certainly use the same procedures  
19 for then making estimates. You'd need to take the  
20 number of teachers in the state and make some estimates.  
21 But this is just an estimate. It's not a formula for  
22 calculating what would be the final for -- that -- that  
23 reveals in and of itself what wages needed to be  
24 competitive.

25 Q. With respect to the recruitment incentives

1 A. Okay. So it's broken down on page 4 of the  
2 memo, and it talks about first expanding APLE loans and  
3 CAL T Grants. And the estimate there was for 5,000  
4 grants at \$8,000 per year. The \$8,000 a year is what  
5 underwrites tuition. At 5,000 -- actually, there's a  
6 math there: 5,000 times 8,000 will be 40 million. I  
7 must have been playing with different numbers when I was  
8 working on it.

9 Oh, so in the text, it says 5,000 times 8,000,  
10 but in the budget it says 5,000 times 10,000. So that  
11 is correct math, and that would equal 50 million.

12 Q. What -- yeah. I'm sorry.

13 What did you mean by "underwrites tuition"  
14 with respect to the 8,000 figure on page 0440? But I  
15 guess that would be a 10,000 figure in the budget.

16 MR. AFFELDT: Did you want her to finish  
17 answering the prior question?

18 MS. KOURY: She clued me into --

19 MR. AFFELDT: She told you about one piece of  
20 the 120 million. She hadn't explained the whole  
21 120 million.

22 MS. KOURY: Right. I sort of interceded and  
23 asked a follow-up question before she finished.

24 THE WITNESS: I'm happy to answer the  
25 follow-up question.

1 MS. KOURY: Thank you.  
 2 THE WITNESS: We'll go line by line.  
 3 MS. KOURY: Okay.  
 4 THE WITNESS: Okay. So APLE loans and CAL T  
 5 Grants are both ways of, essentially, taking care of  
 6 students' tuition while they're in teacher education  
 7 programs, and they, essentially, pay back those loans by  
 8 giving service in public schools. So for each year that  
 9 you go into a public school teaching, that portion of  
 10 your loan is forgiven from the APLE loans or you have  
 11 satisfied a portion of your service scholarship under  
 12 the Cal T Grants. Is that responsive to your question?  
 13 MS. KOURY: Yes. Thank you.  
 14 THE WITNESS: So those would be the amounts of  
 15 money that would be allocated toward that tuition.  
 16 MS. KOURY: Q. And I think you were beginning  
 17 to explain the rest of the equation, unless you  
 18 concluded.  
 19 A. I'm ready to do that.  
 20 Q. Okay.  
 21 A. Okay. So the second part was Governors  
 22 Teaching Fellowships, and the proposal there was 1,000  
 23 at \$20,000 each. At that time, there were a much  
 24 smaller number of Governors Teaching Fellowships, but I  
 25 think they were pegged at 20,000 a piece, and that could

1 underwrite tuition. I think it -- it may even have been  
 2 allowed to be used in part for stipend, but the estimate  
 3 is based on the notion there would be 1,000 of these  
 4 high-ability students granted scholarships, a  
 5 hundred percent forgivable state loan.  
 6 Is that clear enough? Do you want -- do you  
 7 have any other questions about that?  
 8 Q. With respect to the 1,000 -- I'm sorry.  
 9 Where is that assumption from -- the 1,000  
 10 high-ability high school or college students?  
 11 A. Do you mean why did I pick the number 1,000?  
 12 Q. Yes.  
 13 A. Are you asking the general question about how  
 14 many such awards I thought would be useful to have in  
 15 the state?  
 16 Q. I guess my question is a little broader than  
 17 that. What's the basis for your decision to limit it to  
 18 a thousand or ...  
 19 A. Okay. So, in general, I'm positing an  
 20 additional 6,000 people (5,000 plus 1,000) subsidized  
 21 for their teacher preparation so that they could go into  
 22 high-need schools or underperforming schools. And that  
 23 number of 6,000 is -- I'm doing a percentage in my head  
 24 really quickly. It's about a quarter of the teachers  
 25 hired in the state each year, and it was my view that

1 attracting that proportion of new entrants into  
 2 high-need schools would go along way -- perhaps would go  
 3 almost all the way -- towards offsetting what would  
 4 otherwise be the hiring of uncredentialed teachers in  
 5 those schools. So that's where the 6,000 came from.  
 6 The Governors Teaching Fellowships, which are  
 7 a larger amount of money in a smaller number, are -- are  
 8 targeted in this proposal, and when such a thing was  
 9 enacted, were targeted then towards high-ability high  
 10 school or college students who met some high standards.  
 11 That was a new idea, to supplement the existing APLE  
 12 loans and Cal T Grants. So it was a more elite group  
 13 and therefore a smaller number.  
 14 Q. Do you know whether the APLE loans or the Cal  
 15 T Grants have been expanded since the time that you  
 16 drafted this memo?  
 17 A. They were expanded over the period of the late  
 18 '90s. And, frankly, I don't know -- I don't have a  
 19 recollection of the exact date of this, but I suspect  
 20 that they were expanded past the time that this memo was  
 21 drafted. Yes.  
 22 Q. Assuming that your assumptions regarding the  
 23 proportion of newly hired teachers is accurate today, do  
 24 you think that the calculations that you -- or the  
 25 estimates that you set forth in paragraph A and B on

1 page 0440 are an appropriate method to determine how  
 2 much would be needed to increase attractions to teaching  
 3 in shortage fields and high-priority schools?  
 4 A. Yes. Taking into account that one would need  
 5 to update, you know, figures and assumptions from the  
 6 time that this was done about how many people would be  
 7 needed and -- and whether tuitions had changed  
 8 substantially.  
 9 Q. Could you tell me how you estimated 40 million  
 10 or came to that estimate, 40 million, in paragraph C on  
 11 page 0440?  
 12 A. I don't remember all the things I had in mind  
 13 at that moment. But the general proposal here is a  
 14 combination of two kinds of strategies that -- one of  
 15 which was being discussed in California, which became  
 16 ultimately the Teachers as a Priority Program, which was  
 17 to provide target incentives for improving mentoring and  
 18 other working conditions. And so I was making some of  
 19 those estimates based on ideas about per-pupil  
 20 allocations to those schools, much like the TAP  
 21 provided.  
 22 The other policy idea is the -- that I mention  
 23 here is the recently enacted Federal Small Schools Act,  
 24 which provides incentives for school -- new school  
 25 designs, particularly because very, very large high

1 schools are hard to staff -- have tended to be hard to  
2 staff, and the federal allocation for that was about  
3 75 million. And I remember that I had in mind that a --  
4 a -- an allocation in California of about 15 million  
5 would be sensible if one wanted to get the same kind of  
6 energy going towards new school designs that had been  
7 sought in the national program.

8 Q. With respect to improving teacher quality and  
9 retention, which it appears you allocated or estimated  
10 80 million to those efforts and that's reflected on  
11 0443, and it also appears to be reflected on 0441, do  
12 you recall how you -- actually, you seem to have broken  
13 it down a little bit, and with respect to expanding BTSA  
14 programs, in an effort to improve teacher quality and  
15 retention, you allocated 80 million. It states  
16 specifically, "mostly from existing BTSA funds plus  
17 20 million in new funds -- about 80 million total."

18 How did you estimate the 80 million? What's  
19 the basis for that estimate? Sorry.

20 A. I'd to have to go back and reread, see if I  
21 can recall what ... I'd have to go back to notes that I  
22 don't even know if I already still have about what  
23 specifics I had in mind.

24 But I know that in recalling this, one of the  
25 components -- one of the components that I viewed as

1 important to add, which is in the budgets as a  
2 \$10 million component of the 80 million, was grants to  
3 create support providers for training mentors and  
4 organizing/supporting high-quality programs. And I  
5 specifically mentioned the new teacher center at UC  
6 Santa Cruz which does that kind of work. And so that  
7 10 million was estimated based on services provided by  
8 the new teachers center and what it would take to create  
9 a couple more centers like that in the state.

10 The other component I note here would come  
11 largely from existing BTSA funds, but with an  
12 orientation for -- toward being sure that mentors are  
13 provided through those funds. The remainder, the -- the  
14 increment had to do with building capacity for  
15 disseminating models and so on. So I was, obviously,  
16 making estimates about what I thought it would take to  
17 do that dissemination and create that infrastructure  
18 rather than to start a new program.

19 Q. Is it --

20 A. Which was already well funded at that time.

21 Q. Understanding that the actual dollar amount  
22 would have likely changed between 2000 and the present  
23 time, is it still your opinion that this framework, in  
24 terms of funding mechanisms, is appropriate in order to  
25 improve teacher quality and retention?

1 MR. AFFELDT: Objection. Vague.

2 THE WITNESS: Could you clarify what you mean?

3 MS. KOURY: Q. Sure. Paragraph A on  
4 page 0441, to the extent that it outlines a methodology  
5 for expanding BTSA and, as you articulated, funding for  
6 improved teacher quality and retention, do you still  
7 think that this is an appropriate method to use in terms  
8 of increasing funding?

9 MR. AFFELDT: Same objection.

10 MS. KOURY: Q. Taking into consideration,  
11 obviously, the dollar amounts that you've estimated here  
12 would change.

13 A. In this case, as in some of the other cases,  
14 some of these proposals here were subsequently adopted,  
15 so the landscape has change. So whether one would need  
16 all of the same things that you needed then, whether  
17 you'd need other things, we're now looking at some  
18 budget cuts that will eliminate some programs that used  
19 to be funded. So what you'd need would depend on where  
20 you are in a moment of time.

21 Q. With respect to BTSA and PAR, are those still  
22 in the budget, as far as you know?

23 A. You know, in these last few months when my  
24 daughter was undergoing surgery, I was not paying  
25 attention to the legislature.

1 Q. I understand.

2 A. I don't know what's in and out at this moment  
3 in time. It was a shifting picture when I last looked  
4 at it.

5 Q. Turning back to paragraph D at the top of  
6 page 0441 where you outline various ways to eliminate  
7 the hiring of unqualified teachers, in particular it  
8 states:

9 "Require overhaul of dysfunctional  
10 recruitment and hiring systems. Assist and  
11 upgrade urban personnel office so that they  
12 can engage in timely hiring and national  
13 recruitment."

14 Is it still your opinion -- or is it your  
15 opinion that this is necessary?

16 A. Yes. There are still certainly some urban  
17 personnel offices that need technology investments and  
18 so on.

19 Q. Is it your opinion that the \$8 million figure  
20 is an appropriate figure for achieving that goal?

21 MR. AFFELDT: Objection. Vague and lacks  
22 foundation.

23 THE WITNESS: Again, at a moment in -- in  
24 time, you'd have to look at where things are. This is  
25 some time ago when this was written.

1 MS. KOURY: Q. In the next bullet point, it  
 2 says, quote:  
 3 "Conduct external review of district  
 4 hiring practices in districts that routinely  
 5 hire large numbers of underqualified teachers  
 6 and assure that they hire qualified teachers  
 7 who apply. Require all districts applying for  
 8 emergency permits and waivers to demonstrate  
 9 an adequate search ...."  
 10 And you go on to list other items. Is that  
 11 still your opinion that this is necessary as well?  
 12 A. I'm going to reread that bullet.  
 13 Q. Sure.  
 14 A. Yes. In general terms, those kinds of things,  
 15 I would agree, would still be necessary in some cases.  
 16 Q. Sorry.  
 17 A. Yeah.  
 18 Q. In this memo, you've estimated 2 million for  
 19 purposes of achieving that.  
 20 Do you have an opinion as to whether or not it  
 21 would require additional funds from the state to achieve  
 22 that goal now? And the goal, again, is as articulated  
 23 in the third bullet.  
 24 A. Again --  
 25 MR. AFFELDT: Objection. Calls for

1 speculation.  
 2 THE WITNESS: Again --  
 3 MR. AFFELDT: Lacks foundation.  
 4 THE WITNESS: Again, I'd have to have more  
 5 information about what's currently being done in order  
 6 to answer that.  
 7 MS. KOURY: Q. Okay. In paragraph B at the  
 8 bottom, "B" as in boy, at the bottom of the page, 0441,  
 9 could you just review that for me and let me know when  
 10 you ...  
 11 A. Okay.  
 12 Q. In the first bullet point under paragraph B,  
 13 it states:  
 14 "Expand the supply of high quality  
 15 professional development that is meeting  
 16 teacher needs such, as the California Subject  
 17 Matter Projects, the National Writing Project,  
 18 Reading Recovery, and selected  
 19 Summer Institutes," is it your opinion that --  
 20 that these -- that these suggestions listed in  
 21 this bullet are -- let me rephrase that.  
 22 Do you still think that these discussions, as  
 23 articulated in this first bullet, are necessary?  
 24 A. I think that it's still important to expand  
 25 the supply of high-quality professional development that

1 meets teacher needs. The professional development  
 2 landscape has changed in California so much from this  
 3 bullet that it's a very different picture. Some of the  
 4 things that were in operation then have been seriously  
 5 reduced since then. Some things have been put in their  
 6 place.  
 7 So the general point I would still agree with,  
 8 but these specific things take a very different role in  
 9 the state now than they did a few years ago.  
 10 Q. Do you recall how you came up with a  
 11 \$50 million estimate for that bullet?  
 12 A. I'd have to go back and try to find notes to  
 13 remember how that estimate was derived.  
 14 Q. I take it you don't have an estimate of how  
 15 much it would cost the state in order to implement the  
 16 necessary professional development needs that you think  
 17 are appropriate?  
 18 A. No. Because the state has added a lot of  
 19 professional development money, then taken it away, and  
 20 changed the programs.  
 21 Q. As to the second --  
 22 A. A lot of them are on the chopping block right  
 23 now.  
 24 Q. As to the second bullet:  
 25 "Encourage districts to use existing

1 categorical or other funds to redesign  
 2 professional development programs to meet the  
 3 standards above and to provide additional time  
 4 for professional development ...."  
 5 Is it still -- or do you have an opinion as to  
 6 whether or not this is necessary today?  
 7 A. Certainly --  
 8 MR. AFFELDT: Do you need a minute?  
 9 She needs to change her paper.  
 10 MS. KOURY: Sure.  
 11 (Record read.)  
 12 THE WITNESS: Certainly, the portion of the  
 13 bullet that talks about providing additional time for  
 14 professional development is needed today.  
 15 MS. KOURY: Q. Were you finished?  
 16 A. Yes.  
 17 Q. Do you have an opinion as to how much that  
 18 would cost?  
 19 A. No. I'd have to look again at what the  
 20 current situation is.  
 21 Q. Could you review paragraph C on page 0442,  
 22 which, for the record, states:  
 23 "Provide challenge grants for redesign of  
 24 teacher programs reflecting features of  
 25 effective programs."

1 Just let me know when you've had an  
2 opportunity to.

3 A. Okay.

4 Q. Is it still your opinion -- or is it your  
5 opinion today that this is still necessary?

6 A. Yes. I think it is as useful now as it was  
7 then.

8 Q. With respect to paragraph D, where it states:

9 "Require accreditation for all programs  
10 that prepare teachers -- including district or  
11 university internship programs -- against a  
12 common set of professionally acceptable  
13 standards for teaching," what do you mean by  
14 that? I take that back.

15 Do you still that's an issue that needs to be  
16 addressed today?

17 A. Yes, to a certain extent. There has been some  
18 effort made to create some approach to approving  
19 internship programs, but -- but the -- there are still  
20 issues about the nature of the standards that are  
21 applied to programs.

22 Q. What do you mean by that?

23 A. That the standards applied to internship  
24 programs -- for example, with respect to such things as  
25 supervised student-teaching are not the same standards

1 the ideas here were later integrated into some of the  
2 work they were doing.

3 Q. Do you know, at the time when you drafted this  
4 memo, whether you thought that the \$1 billion that you  
5 allocated for the various incentives -- or the various  
6 items that you articulate in the memo, did you have an  
7 opinion as to whether at the \$1 billion estimate was  
8 sufficient to implement everything that's set forth in  
9 the memo?

10 A. The question that I was asked to respond to  
11 is, "If you had a billion dollars, how would you spend  
12 it? not, How would you solve all the problems that the  
13 state has with respect to teachers or teacher education?  
14 So I'm sure if I was asked the second question, I would  
15 have developed a plan that was more ambitious than this  
16 in some regards.

17 Q. What do you mean by "more ambitious"?

18 A. It could have cost more rather than trying to  
19 make trade-off decisions within a set budget. I would  
20 have been thinking about how to solve a problem that  
21 might solve it for the long run. So, I don't know that  
22 the \$1 billion would be the maximum amount that I would  
23 have set had I been asked to deal with a different  
24 question.

25 Q. Do you have an opinion as to what hierarchy of

1 as are applied to other teacher education programs.

2 Q. In the paragraph below that, this memo states,  
3 quote:

4 "Encourage national professional  
5 accreditation through N-C-A-T-E by  
6 establishing N-C-A-T-E as an option to state  
7 accreditation and by covering fees for  
8 universities seeking N-C-A-T-E approval."

9 Do you know if the state is currently doing  
10 this?

11 A. The state does have a partnership with NCATE,  
12 which is N-C-A-T-E, and so this recommendation is  
13 partially in place.

14 Q. Is it your opinion that the state needs to  
15 more substantially implement this recommendation?

16 A. It's a strategy that could be useful and  
17 result in some -- both improvement and cost savings  
18 overall.

19 Q. Did you receive any sort of response from the  
20 legislature -- the legislator that you provided this  
21 memo to?

22 A. I think I sent this to a number of people who  
23 are having conversations (staff and others in the  
24 legislature), and there were responses in the forms  
25 of -- in the form of those conversations. And some of

1 importance exist in terms of factors that impact student  
2 achievement?

3 MR. AFFELDT: Objection. Vague as to  
4 "factors."

5 THE WITNESS: Could you clarify?

6 MS. KOURY: Q. Earlier you testified that  
7 there are several factors that impact student  
8 achievement. We discussed home and family factors,  
9 which could vary from parent education to income.  
10 There's also impacts from school conditions and,  
11 obviously, teacher credentials and qualifications, which  
12 we discussed.

13 Of those various factors, do you have a  
14 hierarchy of importance of those factors on how they  
15 impact student achievement?

16 A. I would find it difficult to array factors in  
17 that way. First of all, the factors you just listed are  
18 only a small set of factors that ultimately can affect  
19 student achievement. And it's almost an unanswerable  
20 question, because at the individual level, you've got a  
21 whole lot of other things that could be going on. At a  
22 community level, there would be many other factors that  
23 could make a difference, all of which could affect what  
24 matters most in a given case.

25 Q. Are you familiar with the factors that are --

1 or you're familiar with the other experts in this case,  
 2 the other expert reports in this case; is that correct?  
 3 A. I don't have -- have not read all of them.  
 4 Q. Which reports have you reviewed?  
 5 A. I haven't reviewed any of them closely.  
 6 Q. Are you familiar with the fact that Plaintiffs  
 7 in this case seek -- seek more or improved and  
 8 additional instruction materials, for example?  
 9 A. Yes.  
 10 Q. And, obviously, to the extent that your report  
 11 reflects what Plaintiffs want, there are also additional  
 12 need for qualified teachers; is that correct?  
 13 A. Yes.  
 14 Q. Are you familiar with Plaintiffs' request for  
 15 additional improvement to facilities?  
 16 A. Not in specific terms, but in general terms,  
 17 yes.  
 18 Q. Keeping these three broad factors in mind, do  
 19 you have an opinion as to how the state (if it were  
 20 limited in funding), assuming that it had a finite  
 21 budget, how it would prioritize among the three of those  
 22 factors?  
 23 A. No. I think that, again, the decisions have  
 24 to be made in the context of what the conditions are at  
 25 a moment in time and in different communities. They

1 might even prioritize among those differently for  
 2 different communities.  
 3 Q. And do you know whether Plaintiffs have a set  
 4 of priorities in mind in terms of the various factors  
 5 that they seek in this case?  
 6 A. I don't. I've never heard that there was such  
 7 a --  
 8 Q. What do you mean by that?  
 9 A. -- set of priorities on the part of the  
 10 plaintiffs.  
 11 Q. Understanding that -- you testified (correct  
 12 me if I'm wrong) that states regular -- or I should say,  
 13 that regular certification standards vary widely across  
 14 states; is that correct?  
 15 A. They vary across states. I don't know what  
 16 one would consider widely.  
 17 Q. What do you consider widely?  
 18 A. That was not my question.  
 19 Q. That's my question.  
 20 MR. AFFELDT: Objection. Vague and overbroad.  
 21 MS. KOURY: Q. When I say the phrase that  
 22 regular certification standards vary widely across  
 23 states, what do you think that means?  
 24 A. Well, what do I think it means?  
 25 Q. Yes. Do you have an understanding as to what

1 that means?  
 2 A. I don't know what you mean by it. So, it's --  
 3 I don't know how to answer your question.  
 4 Q. Well, my question is, What is your  
 5 understanding as to what that means?  
 6 MR. AFFELDT: Same objection.  
 7 THE WITNESS: Yeah, I mean ... I mean, I  
 8 understand the words that you're using, which is that  
 9 you're asserting that certification standards vary  
 10 widely across states. I don't know what you would call  
 11 wide. If you're asking me, Do I agree with that  
 12 sentence? -- is that what you're asking?  
 13 MS. KOURY: Q. Well, that was my initial  
 14 question, yes.  
 15 A. I would say that regular certification  
 16 standards have varied even -- have varied across states  
 17 widely in the past. They vary much less across states  
 18 now than they did 10 or 15 years ago. There has been a  
 19 movement towards more regularization of those standards  
 20 over time.  
 21 Q. Does the variance of regular certification  
 22 standards among states make it difficult to generalize  
 23 about national samples in terms of studies dealing with  
 24 the impacts of certifications on student achievement?  
 25 A. Could you say it again?

1 Q. Sure.  
 2 MS. KOURY: Can you repeat that?  
 3 (Record read.)  
 4 MS. KOURY: Q. Do you need me to rephrase  
 5 that?  
 6 A. Let me -- let me see if I can -- let me see if  
 7 I can say what I think it is and answer it.  
 8 I think you're asking whether the variation  
 9 and certification standards across states makes it hard  
 10 to generalize from national samples about the effect of  
 11 certification on student achievement. Is that --  
 12 Q. Thank you. Yes.  
 13 A. Is that what you're trying to say?  
 14 Q. Yes.  
 15 A. It could. It could -- it could affect the  
 16 extent to which one could generalize, depending on what  
 17 aspects of certification standards are being looked at  
 18 in a given study.  
 19 Q. How do you take that into account when you're  
 20 looking at these studies? How do you take the variance  
 21 into account when you're reviewing and analyzing  
 22 studies?  
 23 A. Well, when you have a study that's a state  
 24 study, single state study, then you can look at that  
 25 question knowing something about what the certification

1 standards are in the state, and a number of studies are  
2 within state studies. Relatively fewer studies have  
3 looked at the issue of certification as a variable in a  
4 national sample.

5 And when you look in a study that has a  
6 national sample, it's important to be able to look at  
7 whatever the findings are and try to be very, very  
8 precise about the definitions of each of the  
9 certification-related variables to make a judgment about  
10 what you can and can't infer.

11 Q. For studies reviewing a state certification  
12 and the impact of that state's certification on student  
13 achievement that involves a state other than California,  
14 how do you take into account the variance between the  
15 certification systems in generalizing about California?

16 A. That question was not meaningful to me.

17 Q. Okay. Let me -- thank you for your honesty.  
18 Let me try and rephrase.

19 A. I'm trying.

20 MS. READ-SPANGLER: Maybe we should just have  
21 her ask the questions.

22 MS. KOURY: Q. To the extent that you're  
23 reviewing a study that considers a state's certification  
24 system that is outside of California's and that looks at  
25 how that state's certification system impacts student

1 done on them were or were not comparable in California  
2 or in what ways they were similar.

3 Q. To the extent I have asked this question  
4 already, let me know, but I wasn't sure that I had.

5 The database that you received from the RAND  
6 Corporation and in which you used as reflected in  
7 portions of your report, was that database of a teacher  
8 survey?

9 A. You're talking about the class size reduction,  
10 CSR database?

11 Q. Yes.

12 A. Yeah, it was a teacher survey.

13 Q. And shifting gears, do you think the current  
14 system in California allows for flexibility in terms of  
15 hiring teachers at the local -- at districts?

16 A. Yes.

17 Q. Do you think that -- why do you think --  
18 actually, let me ask the first question.

19 Do you think it's important for local  
20 districts and even school sites to have flexibility in  
21 deciding who to hire?

22 A. Depends on what you mean by "flexibility." I  
23 think some kinds of flexibility are important, and other  
24 kinds of flexibility are probably not appropriate.

25 Q. As to hiring credentialed teachers, do you

1 achievement, are you able to use that study to  
2 generalize about California's certification system and  
3 how California's certification system impacts student  
4 achievement?

5 A. Only to the extent that there's similarities  
6 in those certification systems. I mean, in general, if  
7 you're reviewing literature, as I've done for this paper  
8 or for other papers, you're asking a general question  
9 about, What do studies say about the effects of one  
10 variable on another? And you're -- and the question  
11 about, for example, whether that summary of study  
12 findings applies to California is one that you'd have to  
13 look at separately from a general summary of studies.  
14 That is, you'd have to look at it with respect to  
15 evaluating against the California credential system. I  
16 haven't -- I haven't done that in -- in places where  
17 I've looked at other states.

18 Q. When you say that, do you mean you haven't  
19 done that in your expert report when you've looked at  
20 other state studies?

21 A. Right. When I summarize studies, I ask the  
22 question about what the variables displayed in those  
23 studies found, not -- I did not ask or answer the  
24 question, in the context of this report, whether those  
25 certification systems in other states that had studies

1 think that a principal should have the flexibility to  
2 hire an uncredentialed teacher in some instances?

3 A. I think that should rarely be the case.

4 Q. Why is that?

5 A. That there should be that flexibility?

6 Q. Yes.

7 A. Because I believe that in teaching, as in  
8 other professions (law and medicine and so on), that the  
9 state owes clients a -- clients being students here -- a  
10 responsibility, protection, a safeguard, and it  
11 implements that protection or safeguard through its  
12 credentialing system and teaching, as it does in law and  
13 medicine and other fields, and that it should not be  
14 allowed to violate its own standards.

15 Q. Do you have an opinion as to when instances of  
16 hiring an uncredentialed teacher, even though a  
17 credentialed teacher is available, would be acceptable?

18 A. It's too hypothetical for me to answer.

19 Q. So you don't have an opinion in the abstract  
20 as to --

21 A. Not in the abstract.

22 Q. Okay.

23 MS. READ-SPANGLER: If you're going to switch  
24 subjects, could we take a break?

25 MS. KOURY: Sure. I am.



1 (Whereupon, a break from 2:31 to  
2 2:51 was taken.)

3 MS. KOURY: Mark that as Exhibit 21 to your  
4 deposition transcript, to Professor Darling-Hammond's  
5 transcript, which is a document bearing the Bates stamp  
6 PLTF-XP-LDH 2748.

7 Q. (By Ms. Koury) Could you just review this  
8 E-mail for me, or this document, and let me know when  
9 you finish?

10 Just so the record is clear, document  
11 PLTF-XP-LDH 2748 is Exhibit 22 to Professor  
12 Darling-Hammond's deposition transcript.

13 (Whereupon, Deposition Exhibit 22  
14 was marked for identification.)

15 THE WITNESS: Okay.

16 MS. KOURY: Q. Are you familiar with this  
17 E-mail communication?

18 A. Yeah, I recognize it.

19 Q. And just for the record, it's an E-mail  
20 communication between you and Jeannie Oakes among  
21 others, dated June 14th, 2002.

22 With respect to your E-mail response:

23 "I think you're right and I think we're in  
24 big trouble. Especially given the report Rod  
25 Paige issued two days ago," what did you mean

1 proposal still -- do you know whether it -- what  
2 happened to that proposal?

3 A. My understanding is that that initial proposal  
4 was not acceptable and is -- is or was being redefined.

5 Q. And with respect to your question in your  
6 E-mail, "What should be done?" what did you mean by  
7 that?

8 A. I'm not entirely sure what I meant at the  
9 moment, but what I think I could have meant is, What  
10 should folks who were worried about getting qualified  
11 teachers to students in California do to respond to the  
12 State Board's action?

13 Q. Was there any response to your question from  
14 anyone, that you recall?

15 A. I don't -- I don't know if there was any -- I  
16 mean, there were certainly conversations that followed  
17 this, but I don't know if there's any E-mail response or  
18 any particular correspondence.

19 Q. Did you have conversations with Jeannie Oakes  
20 or -- actually, with Jeannie Oakes regarding the No  
21 Child Left Behind Act subsequent to this E-mail?

22 A. I don't remember if I had conversations with  
23 Jeannie in particular. I had conversations with various  
24 people about it, but I don't remember if Jeannie was one  
25 of them.

1 by that?

2 A. I think that -- probably referring to the  
3 report entitled -- the U.S. Department of Education  
4 issued -- the "Secretary's Report on Teaching Quality"  
5 or something like that, and I believe that's probably  
6 the report I'm referring to.

7 And the "I think you're right" is referring to  
8 Jeannie's statement about, "Did the State Board just  
9 eliminate having a credential as its standards for being  
10 a qualified teacher in California?"

11 Q. And -- I'm sorry. Were you finished?

12 A. I was going to say the "I think we're in big  
13 trouble" refers to the children of California.

14 Q. What was the context of Jeannie Oakes's  
15 characterization that "the State Board just eliminate[d]  
16 having a credential as its standards for being a  
17 qualified teacher in California"?

18 A. I think what she's referring to here is the  
19 proposal that the State Board was making to the U.S.  
20 Department of Education for defining how it would meet  
21 the No Child Left Behind standards for highly-qualified  
22 teachers. And the State Board's proposal was setting a  
23 definition that would have allowed emergency permit  
24 teachers to be classified as highly qualified.

25 Q. Was that proposal -- do you know if that

1 Q. Do you recall whether you had any  
2 conversations regarding the NCLB and its impact on the  
3 Williams case at all?

4 A. Yeah. I had some conversations about whether  
5 it was an issue that ought -- would affect the Williams  
6 case at all.

7 Q. Do you recall who you had those discussions  
8 with?

9 A. Well, I remember having conversation with John  
10 about that.

11 Q. What was the basis of the conversation? Or  
12 could you tell me more specifically what you said with  
13 respect to that conversation?

14 A. I don't remember much in the way of specifics,  
15 but I remember my own conclusion after we talked, that  
16 the No Child Left Behind provisions, as -- as a federal  
17 piece of legislation, were not particularly related to  
18 the issues in California about whether the state's own  
19 standards were being met. I mean, this is my conclusion  
20 after some conversations, but I did decide to add a  
21 component of my paper, my expert report, addressing the  
22 significance of the No Child Left Behind definition for  
23 the Williams case.

24 Q. What did you mean by you drew your own  
25 conclusion that the NCLB didn't address the standards

1 being met in California?

2 A. That there are two different sets, like -- we  
3 talked about this a couple of days ago -- that there are  
4 two different sets of questions pertaining to the  
5 federal law and what the state obligations are to its  
6 children.

7 MS. KOURY: Mark this document as Exhibit 23  
8 to Professor Darling-Hammond's deposition transcript,  
9 which is a document bearing the Bates stamp PLTF-XP-JO  
10 12132 through 12138.

11 (Whereupon, Deposition Exhibit 23  
12 was marked for identification.)

13 MS. KOURY: Q. Hand you what we've marked  
14 Exhibit 23. Could you review that and let me know when  
15 you've had an opportunity?

16 A. Do you want me to read the whole memo?

17 Q. Actually, yes, please.

18 While you're reviewing the E-mail, just for  
19 the record, I'd like to mark, for the record,  
20 Exhibit 21-A. We got a clearer copy of what was Exhibit  
21 21.

22 (Whereupon, Deposition Exhibit 21-A  
23 was marked for identification.)

24 THE WITNESS: Is that the one we were  
25 struggling with?

1 MS. KOURY: Excuse me?

2 THE WITNESS: Is that the one we were  
3 struggling with?

4 MS. KOURY: Q. Yes. Which is titled  
5 "Honoring Thirty Years of Commitment, meeting the  
6 Standard, California Commission on Teacher  
7 Credentialing, annual report 2001," and it bears the  
8 same Bates stamp, which is 21. Just a clearer copy.

9 MR. AFFELDT: Off the record.  
10 (Discussion off the record.)

11 THE WITNESS: Okay.

12 MS. KOURY: Q. Are you familiar with this  
13 E-mail communication?

14 A. It looks familiar. I don't think I -- yes.

15 Q. The E-mail dated December 6th, 2001, from  
16 Jeannie Oakes to Lou Harris, which was then, apparently,  
17 forwarded to you, states, quote:

18 "This memo provides a preliminary set of  
19 ideas for a telephone survey of a  
20 representative sample of California teachers  
21 about the teaching and learning conditions at  
22 their schools. The survey will focus on  
23 gathering descriptive information about the  
24 extent to which schools differ in their  
25 provision of basic educational tools to

1 students, establish what most schools provide,  
2 and get a sense of the extent of the problems  
3 in schools attended by the class of students  
4 represented in Williams."

5 Do you have an understanding as to why Jeannie  
6 Oakes sent this E-mail to Lou Harris?

7 A. My assumption is that this was at the point  
8 where Lou was designing a survey, his survey.

9 Q. What do you mean by "assumption"? It's your  
10 assumption? Is that grounded in some understanding of  
11 what was going on at the time or communications you had?

12 A. Well, Lou Harris did do a survey, and my  
13 assumption is that this was -- the reason she was  
14 sending this set of preliminary ideas was because he was  
15 beginning that process or was somewhere in the process  
16 of still developing it.

17 Q. Was it your understanding that Jeannie Oakes  
18 assisted Lou Harris in designing the sample survey -- or  
19 in designing the survey?

20 A. I don't --

21 MR. AFFELDT: Objection. Vague as to  
22 "assisted."

23 THE WITNESS: I don't know how the survey got  
24 initiated in terms of whether he had already developed a  
25 whole survey. I know he did surveys in three different

1 states. So I don't know if he had started with that  
2 document, and Jeannie was asked to give additional  
3 questions, or whether she was involved in the original  
4 conceptualization of the survey. But, clearly, she was  
5 either responding to what he offered as questions or  
6 producing some questions. I know I was in the loop at  
7 the point where these questions existed and I added few  
8 others.

9 MS. KOURY: Q. Do you recall receiving the  
10 enclosure which is reflected in the document bearing the  
11 Bates stamp 12133 through 12138?

12 MR. AFFELDT: I'm sorry. Could I hear the  
13 question again?

14 (Record read.)

15 THE WITNESS: I think this is the E-mail as  
16 opposed to an attachment. And I'm confident that I  
17 received this, because I think I added some additions to  
18 it.

19 MS. KOURY: Q. What was your understanding as  
20 to why you received this E-mail?

21 A. At the point that I received it, the question  
22 was did we -- Did this survey include questions about  
23 teachers that I thought would be useful to have the  
24 answers to? And so I added some questions about things  
25 that I felt would be useful to have with respect to

1 teachers.

2 Q. Useful for what purpose?

3 A. Useful for finding out whether there were --  
4 what kind of access students in different schools would  
5 have to teachers with various kinds of qualifications.

6 Q. And that was for your use in connection with  
7 your expert report in the Williams matter?

8 A. Yes. I expected that, if we were able to get  
9 that kind of information, I would use it in my expert  
10 report.

11 Q. What input did you have in terms of commenting  
12 on this E-mail and the information regarding the design  
13 of the survey?

14 MR. AFFELDT: Objection to extent the document  
15 speaks for itself.

16 MS. KOURY: Q. And, again, my question is  
17 just what input you had in terms of giving comments on  
18 this.

19 A. Well, my E-mail says, "My comments and  
20 additions are in red below," so ...

21 Q. Your comments were in red below?

22 A. Yes.

23 Q. Unfortunately, I can't tell what is red and  
24 what's not.

25 Do you have any recollection, having reviewed

1 probably the continuation of my comment.

2 Q. Okay.

3 A. I'm pretty confident that on page 12136, where  
4 there's additional questions about training, there's --  
5 sort of at the top of the page -- what looks like the  
6 first unindented bullet, or the third bullet down, says,  
7 "Do you have specific training to teach your EL students  
8 using specific teaching and learning strategies?" that,  
9 I believe, is probably my comment because it has to do  
10 with training.

11 The one below that I don't think is mine. I  
12 don't understand what that comment says.

13 On the next page, 12137, there's a comment  
14 about a third of the way down, which would likely be  
15 mine, that says, "How do salaries and working conditions  
16 compare in this school district with others in the  
17 region?" It's a teacher question.

18 I believe the one at the bottom of the page,  
19 12137, "How long do you plan to stay in this school?  
20 (If planning to leave soon, find out what  
21 conditions ...)" is probably my comment.

22 Q. Were you finished?

23 A. Yeah.

24 Q. And on page 12135 in sort of the bottom of  
25 that page, "For Elementary or Secondary," do you believe

1 this E-mail, where your comments might have been or  
2 where your comments were?

3 A. I'm assuming -- again, this is very old --  
4 that is there are a couple of places where there are  
5 comments about credentials that look like a similar type  
6 font, that those are mine. And so -- I don't know -- do  
7 you want me to identify the comments that I think were  
8 mine?

9 Q. Would you, please?

10 A. There's one on page 12133 at the bottom that  
11 says, "What kind of credential do you have for the field  
12 in which you teach?" I believe that that's probably my  
13 comment.

14 I think it's possible, although I'm not  
15 positive, that 12134, in the middle of the page where  
16 there's a bullet which says, "How many students are in  
17 each of your classes?" --

18 Q. Could I interrupt you for a moment?

19 A. -- might be my comment also.

20 Q. At the top of 12134, do you believe that  
21 that's the continuation of your comments as well?

22 A. Yes.

23 Q. Where it starts --

24 A. "(If not on a clear credential) Are you  
25 currently pursuing a credential?" Yes, I believe that's

1 that that might have been a comment of yours?

2 A. "For Elementary or Secondary Social Studies  
3 Teachers," is that the one you're looking at?

4 Q. Yes.

5 A. It could have been. It's -- it's that teeny,  
6 tiny font again. It's not about teachers, so I don't  
7 know for sure, but --

8 Q. Did you --

9 A. -- it could have been.

10 Q. I apologize.

11 A. Mm-hm.

12 Q. Other than the comments that appear to be  
13 reflected in this E-mail, did you have any other input  
14 on the design of the Harris survey?

15 A. I was on one phonecall, that I recall, about  
16 some of the questions on the Harris survey in addition  
17 to this, because it looks like I couldn't be on the call  
18 that pertained to this E-mail. So I did have one other  
19 occasion to comment on questions.

20 Q. Is the sun bothering you?

21 A. No. It's okay. I can deal with it.

22 Q. Because I can easily shut the curtain.

23 A. I'm fine. I'm not looking at it.

24 Q. Okay. Do you have any recollection of the  
25 nature of that conversation that you were just referring

1 to?

2 A. I just remember that I had a copy of the --  
3 some -- some of the survey questions, and we were  
4 discussing wording on questions. I don't remember any  
5 of the specifics. It was very detail-oriented.

6 Q. And do you recall who was on that call?

7 A. I don't. Lou Harris was on the call (I  
8 remember that), because I was directing most of my  
9 conversation to him. But there may have been other  
10 people from the -- perhaps from among this group, who  
11 were also on that call.

12 Q. And as far as you know, that call was,  
13 obviously, in advance of the time that Lou Harris began  
14 conducting the survey?

15 A. Yes. He was still fine-tuning questions.

16 MS. KOURY: Mark this as Exhibit 24 to  
17 Professor Darling-Hammond's deposition transcript, which  
18 is a document bearing Bates stamp PLTF-XP-JO 12130 to  
19 12131.

20 (Whereupon, Deposition Exhibit 24  
21 was marked for identification.)

22 MS. KOURY: Q. Could you please review this  
23 E-mail communication and let me know when you've had an  
24 opportunity?

25 For the record, the E-mail communication on

1 A. I think so.

2 Q. And what is that based on?

3 A. He's talking about survey data from 1998 and  
4 2000. He said, "I changed" -- "the stem had changed on  
5 the '00 question below ... so I went back to the '98  
6 survey."

7 And so the CSR had two -- two teachers  
8 surveys: one in '98, one in '00.

9 Q. And with respect to the teacher weight  
10 variable, why, if at all, is it important to add that?

11 A. You would want to add that variable so that if  
12 you're -- if you're trying to report the frequency of  
13 certain events or incidents or responses in the state,  
14 so that it properly weights it to reflect the state  
15 population.

16 Q. And is that based on some sort of research  
17 principle, the importance of that?

18 A. Yeah.

19 Q. Is there any -- is that principle -- could you  
20 expand on that in terms of what research principle you  
21 were relying on?

22 A. It's common practice, when you draw a sample  
23 (particularly if the sample is stratified in any way),  
24 to then develop sort of mathematical weights that allow  
25 you to generalize the findings back up to the population

1 page 12130 appears to be from John Luczak to Jeannie  
2 Oakes with a copy to Professor Darling-Hammond. It's  
3 dated January 28th, 2002.

4 A. Okay.

5 Q. Are you familiar with this E-mail  
6 communication or the contents of it?

7 A. I -- I understand what it's talking about. I  
8 don't -- I don't recall it at the time, but I -- what's  
9 on it makes sense to me.

10 Q. What was the "teacher weight variable"  
11 described in this E-mail?

12 A. The CSR sample, like many samples, had --  
13 well, let me back up.

14 The CSR survey data were weighted by -- or had  
15 a weighting system developed by RAND to be -- to allow  
16 the generalization of the findings from that sample to  
17 the population of teachers in the state. So the teacher  
18 weight variable would have referred to attaching those  
19 weights to the data.

20 Q. Is it your understanding -- I'm sorry. Were  
21 you finished?

22 A. Yeah.

23 Q. Is it your understanding that John Luczak is  
24 referring to the CSR data and not the Harris data in  
25 this E-mail?

1 in a way that represents the population. So it's a  
2 common practice in survey research.

3 Q. Is it your understanding that John Luczak  
4 added that variable in terms of conducting or  
5 manipulating the data, the CSR data?

6 A. No. He did not make up the variable. The  
7 variable was already in the data set. It was created by  
8 the CSR researchers, and he simply reran the data with  
9 the weight attached rather than as it looks like he had  
10 previously run it, which would have been unweighted.

11 MS. KOURY: Mark the document bearing the  
12 Bates stamp PLTF-XP-LDH 1430 Exhibit 25 to Professor  
13 Darling-Hammond's transcript.

14 (Whereupon, Deposition Exhibit 25  
15 was marked for identification.)

16 MS. KOURY: Q. Can you just review this  
17 E-mail communication for me?

18 A. Okay.

19 Q. Are you familiar with the contents of this  
20 exhibit?

21 A. Yes.

22 Q. With respect to -- well, for the record, it  
23 appears to be an E-mail communication from you to John  
24 Affeldt, with a copy to Megan Auchincloss and Jack  
25 Londen, dated February 16th, 2002.

1 Where it states, quote:

2 "I also need to know how to get the data  
3 set from Lou Harris as there are additional  
4 runs that are needed," what did you mean by  
5 that?

6 A. I probably had in my possession, at that time,  
7 the runs that Lou Harris -- or Peter Harris Research  
8 Associates had already completed on the survey data.  
9 And I, at that point, wanted to get the original data  
10 set so I could do other runs, other tabulations.

11 Q. Did you do the cross-tabulations yourself or  
12 was that John Luczak that actually did the cross  
13 tabulations?

14 MR. AFFELDT: Objection to the extent it lacks  
15 foundation and assumes facts not in evidence.

16 THE WITNESS: On the Harris data set --

17 MR. AFFELDT: It's also vague as to which  
18 cross-tabulations you're talking about.

19 THE WITNESS: Right.

20 MS. KOURY: Q. Did you do some  
21 cross-tabulations yourself on the Harris data set?

22 A. I'm trying to remember if I did or did not,  
23 and I don't recall whether I did any runs myself. I  
24 know that John Luczak did do some runs.

25 Q. Did you oversee some of those? To the extent

1 be you individually or the one that John Luczak produced  
2 on your behalf, generally, I'm curious to know what  
3 those cross-tabs consisted of. I assume there was more  
4 than one. So to the extent that you have a memory as to  
5 what those cross-tabulations consisted of, that's the  
6 information I'm trying to seek.

7 A. In general, what we were looking at, at this  
8 point, was the question of, How were various conditions  
9 in schools distributed across schools of different  
10 types? And in my expert report, I have a few tables  
11 that report data like that.

12 At one point in time, the data from Harris did  
13 some cross-tabulations that either provided row or  
14 column percents. And I recall wanting to have  
15 tabulations that provided the other -- whatever --  
16 whatever the other kind of row or column tabulations  
17 were. For example, when you do cross-tabs, you often  
18 look for statistically significant differences across  
19 cells in a cross-tabulation, and you often will show  
20 what are called "row and column" percents, which allow  
21 you to slice the data in a couple of ways. And they  
22 only produced one of those initially, and I recall  
23 wanting to know what the over percentages would have  
24 been. So this may have been the additional runs I was  
25 looking for at that time.

1 that you recall that John Luczak did some  
2 cross-tabulations, did you oversee them?

3 A. Did I oversee them?

4 Q. Did you review the cross-tabulations that he  
5 did?

6 A. Certainly, the ones I asked for, I would have  
7 reviewed, yes.

8 Q. Do you know how, whether it was you or John  
9 Luczak, generated the cross-tabs?

10 A. I don't understand.

11 Q. I'm trying to break down, generally, what it  
12 was, in terms of generating cross-tabs, what it was you  
13 were -- you were ... what the cross-tabulations  
14 consisted of.

15 A. I don't know what I was referring to  
16 specifically here, but ...

17 MR. AFFELDT: If I could just -- I'm going to  
18 object again as vague as to which cross-tabs you're  
19 talking about.

20 And just for the record, clarify, I believe  
21 Professor Darling-Hammond relied on some of the  
22 cross-tabs produced by Lou Harris himself, and then she  
23 may have produced some additional cross-tabs.

24 MS. KOURY: Q. With respect to  
25 cross-tabulations that you produced yourself, whether it

1 My recollection is that the Harris Group  
2 actually did go back later and produce the other row or  
3 column percents that were missing. So I'm not sure  
4 whether we actually ended up having to run the data set  
5 for that purpose.

6 Q. So you're not sure whether or not you used the  
7 percentages that you eventually got from Lou Harris --  
8 or the Harris Group in conducting cross-tabs?

9 A. I did use some of the -- the percentages that  
10 the Harris Group produced in some of the tables I  
11 represented, yes.

12 Q. Okay.

13 MS. KOURY: Mark this as Exhibit 26 to  
14 Professor Darling-Hammond's deposition transcript, which  
15 is a document bearing the Bates stamp PLTF-XP-LDH 1343.  
16 (Whereupon, Deposition Exhibit 26  
17 was marked for identification.)

18 MS. KOURY: Q. Can you just review this  
19 E-mail communication?

20 For the record --

21 A. Okay.

22 Q. -- this Exhibit 26 appears to have -- contains  
23 at least one E-mail communication from Jeannie Oakes to  
24 Professor Darling-Hammond and others, dated  
25 February 16th, 2002.

1 Looking at the E-mail communication on 1343  
2 from Jeannie Oakes to you, among other persons,  
3 including Matt Kreeger, John Affeldt, and others, did  
4 you have an understanding as to what Professor Oakes  
5 meant where she states:

6 "I also need some additional runs, and the  
7 explanations about the statistical tests would  
8 be useful to me as well?"

9 Specifically looking at the portion relating  
10 to "statistical tests," do you have an understanding as  
11 to what she meant there?

12 A. I don't remember. I -- I do remember, around  
13 this time, that we were -- again, they had done either  
14 row percents or column percents, and several of us  
15 wanted the missing percents in the cross-tabs. I recall  
16 that the original runs that we got from them had a lot  
17 of abbreviations for variables that were not easily  
18 interpreted if you didn't have a code book to know what  
19 they were calling certain things.

20 It just wasn't clear, when you read it,  
21 what -- what they'd done at that point, and so we were  
22 seeking clarification.

23 Q. Do you know what types of -- or what  
24 statistical tests were conducted by the Harris Group?

25 A. They did "Z" tests of proportions, and they

1 difference as opposed to by chance.

2 Q. And that significance testing that you did was  
3 done on your retabulation of the Harris data. In other  
4 words, it wasn't done to the original Harris data. Is  
5 that accurate?

6 A. It would have been using the original Harris  
7 data as -- as the data set was cleaned up and, you know,  
8 finally given to us.

9 Q. What do you mean by that?

10 A. Well, the -- there were -- there was the data  
11 set we got originally. I think we talked a couple days  
12 ago about the fact that there were two or three records.  
13 There were a few records that later were found of  
14 theirs, so we got a second -- so they delivered a second  
15 set of runs and -- and data that had the cleaning done  
16 to it.

17 Q. And it was the second --

18 A. So when you say original data set, I'm simply  
19 clarifying.

20 Q. So it was the second set after it was cleaned  
21 and the additional runs were --

22 A. We probably did runs, you know, to both data  
23 sets, but what's represented in the report represents a  
24 cleaned data set.

25 MS. KOURY: Mark a document bearing Bates

1 may have had some "T" tests of -- of means. But I think  
2 it was mostly "Z" tests of proportion.

3 Q. Did you conduct any statistical -- or any  
4 statistical tests yourself?

5 A. On the Harris data?

6 Q. Yes.

7 A. If I -- in the cases where I reran it, I  
8 certainly did conduct statistical tests. If it --

9 Q. Is that, in other words, significance testing?  
10 Does that mean the same thing to you?

11 A. Yeah.

12 Q. And was it you that conducted the significance  
13 testing or was it John Luczak at your direction?

14 A. The computer actually does it for you.

15 Q. Okay.

16 A. Thank goodness. And reports it to you. So I  
17 would have just probably -- I would have decided what  
18 tests.

19 Q. And why did you do that? Why did you do  
20 statistical or significance testing?

21 A. If you're looking to know whether differences  
22 in the occurrence of something across groups are  
23 meaningful, you usually do a statistical-significance  
24 test to discover if it is a difference that's large  
25 enough to have occurred as a function of that group

1 stamp PLTF-XP-LDH 1348 as Exhibit 27 to Professor  
2 Darling-Hammond's deposition transcript.

3 (Whereupon, Deposition Exhibit 27  
4 was marked for identification.)

5 MS. KOURY: Q. Could you please review this  
6 E-mail communication and let me know when you're  
7 finished?

8 A. Okay.

9 Q. Is the content of this E-mail communication  
10 familiar to you?

11 A. Yes.

12 Q. And, for the record, it reflects an E-mail  
13 communication from John Affeldt dated February 25th,  
14 2002, to a number of folks including yourself. And it  
15 states:

16 "In response to the question: What is the  
17 definition of 'uncredentialed' Lou has used?

18 "Credential = 81 percent or more of school  
19 faculty is fully credentialed ... based on  
20 CBED's database Uncredentialed = 20 percent or  
21 more not fully credentialed."

22 Do you know how Lou -- or why Lou used this  
23 definition of "uncredentialed" -- Lou Harris?

24 A. Why he used it?

25 Q. Yes.

1 A. I -- I don't know what you're asking, really.  
 2 Q. Do you know why this definition of  
 3 "uncredentialed" was used in the Harris survey?  
 4 A. The -- the term "uncredentialed" in this memo  
 5 was referring to a heading on one of the columns in the  
 6 printouts we had, so we were seeking to know what he  
 7 meant by that term in his printout. It's just a  
 8 shorthand.  
 9 What -- it turned out that "variable" meant  
 10 was that he was making a distinction between schools in  
 11 which more than 20 percent of the faculty were  
 12 credentialed versus 20 percent or fewer. Are you asking  
 13 why he chose that particular proportion?  
 14 Q. Yes.  
 15 A. Okay. I think he probably chose it because of  
 16 the use of that kind of tipping point that we discussed  
 17 earlier in the reports that SRI had done in which they  
 18 suggested that above a level of 20 percent  
 19 uncredentialed teachers, it was clear that there was  
 20 more dysfunction in the school as a whole with respect  
 21 to the management of teaching.  
 22 Q. Is it your understanding that he also used  
 23 that definition of "uncredentialed" because that was the  
 24 definition being used in your expert report in the  
 25 Williams case, in general?

1 MR. AFFELDT: Objection. Lacks foundation.  
 2 Calls for speculation.  
 3 MS. KOURY: Q. Is that your understanding?  
 4 A. It is not.  
 5 MS. KOURY: Document bearing Bates stamp  
 6 PLTF-XP-LDH 1355, for the record, is being marked as  
 7 Exhibit 28 to Professor Darling-Hammond's deposition  
 8 transcript.  
 9 (Whereupon, Deposition Exhibit 28  
 10 was marked for identification.)  
 11 MS. KOURY: Q. Could you review this E-mail  
 12 communication? Just let me know when you've had an  
 13 opportunity.  
 14 A. Okay.  
 15 Q. Are you familiar with the contents of this  
 16 E-mail?  
 17 A. Yes.  
 18 Q. For the record, Exhibit 28 appears to contain  
 19 an E-mail dated February 25th, 2000, from John Affeldt  
 20 to Lou Harris regarding additional runs, which was then  
 21 forwarded in an E-mail communication to Professor  
 22 Darling-Hammond.  
 23 What is your understanding as to why you  
 24 received the contents of the E-mail from John Affeldt to  
 25 Lou Harris regarding these additional runs?

1 A. Why I received it?  
 2 Q. Yes.  
 3 A. I think it's intended to be a summary,  
 4 underneath where it says "LDH," of some additional runs  
 5 that I had asked to see if they could do.  
 6 Q. And how, if at all, did you use these  
 7 additional runs?  
 8 A. I'm not sure whether I ever got these  
 9 additional runs.  
 10 Q. What do you mean by that?  
 11 A. I don't remember whether I actually got them.  
 12 Not everything we asked for was readily forthcoming.  
 13 There was a period of time when people were too busy to  
 14 do additional runs, so I'm not sure that I ever -- that  
 15 I ever got these.  
 16 MS. KOURY: Mark as Exhibit 29 to the  
 17 deposition transcript of Professor Darling-Hammond a  
 18 document bearing the Bates stamp PLTF-XP-JO 08135.  
 19 (Whereupon, Deposition Exhibit 29  
 20 was marked for identification.)  
 21 MS. KOURY: Q. Could you review this E-mail  
 22 communication? Let me know when you're finished.  
 23 MR. HILL: Which exhibit is this?  
 24 MS. PEARLMAN: 29.  
 25 MS. READ-SPANGLER: Oh, sorry.

1 THE WITNESS: Okay.  
 2 MS. KOURY: Q. With respect to your  
 3 reference -- for the record, Exhibit 29 reflects an  
 4 E-mail communication from Professor Darling-Hammond to  
 5 Jeannie Oakes among other folks, dated March 10th, 2002.  
 6 With respect to your statement that the Harris  
 7 sample "very seriously underrepresents 1st and 2nd year  
 8 teachers," what did you mean by that?  
 9 A. That the proportion of first- and second-year  
 10 teachers in the state as a whole was underrepresented by  
 11 this sample, which came from a vendor's database that  
 12 had a time lag in getting teacher's names onto it.  
 13 Q. Why could this be a problem?  
 14 A. Well, it would be a problem if you were trying  
 15 to generalize about the distribution of first- and  
 16 second-year teachers in the state. But it's much less  
 17 of a problem when your goal is to represent the  
 18 school -- the conditions in schools, because the -- at  
 19 the school-level unit of analysis, the database was  
 20 quite representative.  
 21 Q. And you touched on that in your testimony on  
 22 the first day?  
 23 A. Yes.  
 24 Q. Do you have anything to add to that testimony?  
 25 A. Not at this time.

1 Q. And, in your opinion, would any adjustments  
2 need to be made to the Harris data in order to  
3 compensate for the underrepresentation of the first- and  
4 second-year teachers?

5 A. Would any adjustments need to be made?

6 Q. Yes.

7 MR. AFFELDT: Objection. Vague.

8 MS. KOURY: Q. Do you understand what I mean  
9 by "adjustments"?

10 A. I don't.

11 Q. Would you need to weight it in any way, weight  
12 the survey data?

13 A. Not if your goal is to represent schools  
14 rather than teachers. The goal in the weightings was to  
15 be sure that the data set represented the  
16 characteristics of schools in the state.

17 Q. So to the extent that the Harris survey  
18 intended to represent schools, it's your opinion that it  
19 would not -- the data would not be needed -- would not  
20 need to be weighted?

21 MR. AFFELDT: Objection. Vague and improper  
22 hypothetical.

23 THE WITNESS: Let me just answer the question  
24 about whether -- in fact, we talked about this on the  
25 first day as well. The Harris data set did have some

1 teachers -- by underrepresenting first- or second-year  
2 teachers, it also represented uncredentialed teachers.

3 Q. In this E-mail communication, you also say  
4 that the data:

5 "... should not be used to draw  
6 generalizations about the proportions of  
7 teachers with different kinds of preparation  
8 or credentialing in the state as a whole."  
9 What did you mean by that?

10 A. Well, I meant what it said. I'm not sure  
11 what's unclear about it to you.

12 Q. Do you know whether the data was used in terms  
13 of generalizing about the proportion of teachers with  
14 different kinds of preparation or credentialing in the  
15 state as a whole?

16 A. To my knowledge, it was not used in that way.

17 Q. Is it your understand that, to the extent that  
18 you rely on the Harris data in your report, it was not  
19 used to draw these types of generalizations?

20 A. I'm certain that it was not used to draw those  
21 generalizations in my report.

22 Q. If new and uncredentialed teachers are  
23 underrepresented in the Harris survey, do you have less  
24 confidence that the opinions of teachers in the survey  
25 accurately reflect an average opinion within their

1 stratified sampling for certain kinds of schools, and it  
2 did properly weight the sample to account for a  
3 stratified sample at the school level.

4 MS. KOURY: Q. How do you know that?

5 A. How do I know that it had weightings --

6 Q. Yes?

7 A. -- for that?

8 The weightings were in the data set and we  
9 used them.

10 Q. In manipulating the Harris data, did you  
11 conduct any weighting of your own?

12 A. I did not additionally weight the data.

13 Q. Do you know if John Luczak did?

14 A. No, he would not have.

15 Q. And what did you mean, with respect to your  
16 comments in this E-mail communication, that the data  
17 seriously underrepresents credentialed teachers?

18 A. Actually, I said it backwards here. I said it  
19 "seriously underrepresents uncredentialed teachers."  
20 Yeah, that's what I meant to say. Different than what  
21 you just said.

22 Q. I'm sorry. I misspoke. Uncredentialed  
23 teachers.

24 A. Right. In -- it -- because uncredentialed  
25 teachers are overwhelmingly -- first- or second-year

1 schools?

2 MR. AFFELDT: Objection. Asked and answered.

3 THE WITNESS: We talked about that on -- a  
4 couple of days ago. I don't know what an average  
5 opinion within their schools would be, but I think that  
6 teachers within schools would know the answers to the  
7 kinds of school-level questions that were asked. For  
8 example, are there rats or mice in your schools? Or are  
9 there adequate textbooks? et cetera.

10 I -- I said at that time that, to the extent  
11 that some of the questions referred to individual  
12 classrooms, the picture that the Harris sample gives  
13 might make -- if there is a bias, it would make  
14 conditions, perhaps, look a bit better than they might  
15 otherwise look because first- and second-year teachers  
16 typically have the less desirable working conditions in  
17 many schools.

18 MS. KOURY: Mark this as Exhibit 30 to the  
19 deposition transcript of Professor Darling-Hammond,  
20 which bears the Bates stamp PLTF-XP-LDH 2256.

21 (Whereupon, Deposition Exhibit 30  
22 was marked for identification.)

23 MS. KOURY: Q. Could you review this for me  
24 and let me know when you're finished?

25 A. Okay.



1 Q. Are you familiar with the contents of this  
2 E-mail?  
3 A. Yes.  
4 Q. For the record, it's an E-mail from John  
5 Affeldt to Professor Darling-Hammond, dated March 21st,  
6 2002, and it states: "Attached are the following: Your  
7 tables edited to reflect Harris' revised data as you  
8 requested."  
9 What is he referring or what was your  
10 understanding as to what he was referring to?  
11 A. I mentioned earlier that there was a point at  
12 which there were a few errors found in the data set.  
13 And so, to be accurate, the cross-tabs had to be rerun  
14 to take account of the changes in those few respondents'  
15 codings. And so these might -- I had run tables  
16 reflecting some of the data. Those were simply edited  
17 to reflect those revisions in the data set, which  
18 changed the proportions by a tiny fraction of a hair.  
19 Q. What was --  
20 A. Technical term.  
21 Q. What was your understanding as to who edited  
22 the tables?  
23 A. I think there was a research assistant of some  
24 sort that John was able to get to do that, as I was.  
25 Q. Are you referring to John Affeldt?

1 A. John Affeldt, yes.  
2 Q. With respect to --  
3 A. Or maybe someone at Harris had done it. I'm  
4 not sure.  
5 Q. In the last paragraph of that E-mail, numbered  
6 3, the E-mails states:  
7 "Quotes of students concerning teacher  
8 issue from focus groups of students we  
9 conducted at certain of the class schools. If  
10 you'd like to review the full transcriptions,  
11 let me know and I'll forward those as well."  
12 Do you recall whether he actually attached to  
13 this E-mail, he provided you with these quotes of  
14 students concerning teacher issues?  
15 A. I see an attachment on this piece of paper  
16 that's labeled "teacherquotes from focus group," which,  
17 I assume, might be the quotes of students, but I  
18 actually don't recall having opened or read that  
19 attachment.  
20 Q. Do you recall whether you used those quotes in  
21 any way?  
22 A. I don't believe I did.  
23 Q. As far as you know, did any of the other  
24 experts in this case use those quotes in their reports?  
25 A. I don't know.

1 MS. KOURY: Could we take a five-minute break?  
2 MR. AFFELDT: Mm-hm.  
3 (Whereupon, a break from 3:51 to  
4 4:01 was taken.)  
5 MS. KOURY: Mark as Exhibit 31 and attach to  
6 the deposition transcript of Professor Darling-Hammond a  
7 document bearing the Bates stamp PLTF-XP-JO 081223  
8 through 08124.  
9 (Whereupon, Deposition Exhibit 31  
10 was marked for identification.)  
11 MS. KOURY: Q. Could you review this E-mail  
12 communication and let me know when you've had an  
13 opportunity to do so?  
14 For the record, this document contains an  
15 E-mail communication dated May 20th, 2002, from Russ  
16 Rumberger to Jeannie Oakes on which Professor  
17 Darling-Hammond, among others, is copied.  
18 A. Okay.  
19 Q. Do you have an understanding as to what Russ  
20 Rumberger was referring to when he said that the, quote,  
21 not sure, end quote, answers were legitimate answers?  
22 A. I don't have a very good understanding of this  
23 set of E-mails. It's not something I was really  
24 involved in or paying attention to.  
25 Q. With respect to any of the significance

1 testing that you conducted, or that you reviewed from  
2 John Luczak, did you exclude any of the "not sure"  
3 answers?  
4 A. I didn't.  
5 MR. AFFELDT: Objection. Vague.  
6 MS. KOURY: Too late.  
7 MR. AFFELDT: I'm still going to object.  
8 THE WITNESS: I'm going to try to answer this  
9 as best I understand it.  
10 MS. KOURY: Okay.  
11 THE WITNESS: I didn't exclude any respondents  
12 in calculating proportions for the tables that I ran.  
13 MS. KOURY: Q. Do you consider the "not sure"  
14 answers with respect to the Harris survey to be  
15 legitimate answers?  
16 MR. AFFELDT: Objection. Vague.  
17 THE WITNESS: I'm not even sure where the "not  
18 sure" answers occurred on the survey at this moment.  
19 MS. KOURY: Q. So do you have any  
20 understanding as to whether some of the other experts,  
21 in manipulating the Harris data, excluded some of the  
22 "not sure" answers?  
23 A. I'm not sure.  
24 Q. Someone else is punchy.  
25 MR. JORDAN: Couldn't resist.

1 THE WITNESS: I know.  
 2 MS. KOURY: These are drawing to an end, I  
 3 promise.  
 4 THE WITNESS: Good.  
 5 MS. KOURY: Mark as Exhibit 32 to the  
 6 deposition transcript of Professor Darling-Hammond a  
 7 document bearing the Bates stamp PLTF-XP-LDH 2596  
 8 through 2597.  
 9 (Whereupon, Deposition Exhibit 32  
 10 was marked for identification.)  
 11 MS. KOURY: Q. Could you review that and let  
 12 me know when you finish?  
 13 For the record, Exhibit 32 contains an E-mail  
 14 communication from Professor Darling-Hammond to Russ  
 15 Rumberger and Jeannie Oakes with copies to other folks  
 16 dated, March 29th, 2002.  
 17 A. Okay.  
 18 Q. Do you have an understanding -- or are you  
 19 familiar with the contents of this E-mail?  
 20 A. At least the part that I was involved in, yes.  
 21 Q. Do you have an understanding -- with respect  
 22 to the E-mail communication which appears to be from  
 23 Russ Rumberger to Jeannie Oakes, which was then, it  
 24 appears, forwarded to you where he states, quote:  
 25 "We should probably agree on a way to

1 report our numbers, taking into account  
 2 standard errors. The CSR data were generated  
 3 from two-stage sampling design, which means  
 4 the standard errors are larger than the ones  
 5 computed by most statistics packages based on  
 6 simple random sampling, as the 2002 CSR report  
 7 notes," do you know what he means by "taking  
 8 into account standard errors" or "agree on a way to  
 9 report our numbers"?  
 10 A. Focus me on which part you want.  
 11 Q. Okay. "Agree on a way to report our numbers,  
 12 taking into account standard errors"?  
 13 A. Shall I tell you what my understanding is of  
 14 what he was talking about in this paragraph?  
 15 Q. Please.  
 16 A. I think what he's talking about is that --  
 17 "the CSR data were generated from a two-stage sampling  
 18 design," which means that they probably sampled schools,  
 19 and then they sampled teachers within schools. And so,  
 20 often, you make a sort of a -- an adjustment to the --  
 21 to the data to represent that.  
 22 I don't know what he meant in particular about  
 23 agreeing on a -- what was the phrase you asked about?  
 24 There was some phrase that I'm not particularly sure  
 25 what he meant by.

1 MS. KOURY: Could you repeat her answer, the  
 2 last part?  
 3 (Record read.)  
 4 MS. KOURY: Q. Right. It seems from this  
 5 E-mail that he was asking that you all agree on a way to  
 6 report your numbers, taking into account the standard  
 7 errors. Do you know whether, in fact, that was -- some  
 8 agreement was reached in that respect?  
 9 A. I'm not aware of an agreement that was reached  
 10 in that respect.  
 11 Q. Do you know whether, in fact, you -- in  
 12 analyzing the CSR data -- took into account standard  
 13 errors?  
 14 A. In analyzing the data, we ended up using the  
 15 weights that were in the data set that the RAND  
 16 Corporation and AIR had produced. I'm not sure what he  
 17 and Jeannie were talking about beyond that, because I  
 18 was not part of that conversation.  
 19 Q. At the bottom of Russ Rumberger's E-mail to  
 20 Jeannie Oakes, it states:  
 21 "As for the representativeness of the  
 22 data, in response to Linda's comment, I  
 23 thought the CSR folks reported that  
 24 uncredentialed teachers were also  
 25 underrepresented in those data as well."

1 Do you know what comment he's referring to?  
 2 A. I'm sorry. What comment are you ...  
 3 Q. Let me repeat that.  
 4 A. Yeah. Where are you reading from?  
 5 Q. Sure. It's at the bottom of Russ Rumberger's  
 6 E-mail, which is dated March 12th, 2001.  
 7 A. Ah, okay.  
 8 Q. In the last paragraph, he states:  
 9 "... in response to Linda's comment, I  
 10 thought the CSR folks reported that  
 11 uncredentialed teachers were also  
 12 underrepresented in those data as well."  
 13 A. I think he's referring, probably, to my  
 14 comment above, which says:  
 15 "Russ, you are right that the CSR data set  
 16 underrepresents uncredentialed teachers. Do  
 17 you know why?"  
 18 I think that's the comment he's referring to.  
 19 Q. Actually, your E-mail to -- above that is  
 20 dated March 29th, which is subsequent to his E-mail  
 21 dated March 12th.  
 22 A. Well, then it must have been a preceding  
 23 comment that's not here.  
 24 Q. That you don't recall?  
 25 A. Yeah. I don't recall.

1 Q. With respect to your response, dated -- in the  
2 E-mail dated March 29th, 2002, where you state: "You  
3 are right that the CSR data set underrepresents  
4 uncredentialed teachers," and you asked the question,  
5 "Do you know why?" as far as you can recall, did you get  
6 an answer to that question?

7 A. I don't think I got an answer from Russ, but I  
8 did later get an answer.

9 Q. And what --

10 A. Or I did later draw an inference about why  
11 that would be, which is that when the class size  
12 reduction law was passed, the law provided that in  
13 grades K through 3, where the CSR applied, the districts  
14 were not to place uncredentialed teachers in those grade  
15 levels. So, most of the uncredentialed teachers ended  
16 up being placed in the upper grade levels, and often  
17 teachers were moved -- credentialed teachers were moved  
18 down to Grades K through 3.

19 So the data set seemed to underrepresent the  
20 state's share of uncredentialed teachers, but, in fact,  
21 it was probably fairly representative of the actual  
22 proportion of uncredentialed teachers in Grades K  
23 through 3.

24 Q. Other than the CSR data and the Harris data,  
25 did you rely on any other teacher surveys in drafting

1 Affeldt to Linda Darling-Hammond and Russ Rumberger with  
2 copies to other folks.

3 A. Okay.

4 Q. Are you familiar with the nature of the  
5 contents of this E-mail?

6 A. Yes.

7 Q. The E-mail states:

8 "We've sent you the corrected Harris data  
9 this week. Attached is an explanatory memo  
10 from Peter Harris, revised secondary data and  
11 red-lined appendix, indicating what changes  
12 were made for which respondent schools."

13 Is it your understanding that the corrected  
14 data to which John Affeldt is referring to is the same  
15 corrected Harris data that you testified about earlier?

16 A. Well, there were two rounds of corrections, so  
17 I'm not sure which round I was referring to earlier.  
18 But there were a few corrections made in the -- what I  
19 think was around the spring of this year, and then they  
20 found a few more things in September.

21 Q. When you say two rounds of changes, are you  
22 referring to -- or is that the same type of changes as  
23 what you testified earlier about with respect to  
24 cleanup?

25 A. Cleaning the data set, yes. And the -- was

1 your expert report?

2 A. Any other original teacher surveys in  
3 California?

4 Q. Yes.

5 A. I don't recall. I'd have to go back and make  
6 sure whether I did or didn't use any other surveys.

7 Q. As far as you know, do you know -- I'm sorry.  
8 Go ahead.

9 A. I didn't do any original analyses of any other  
10 surveys in my report.

11 Q. As -- I'm sorry. Were you done?

12 A. I might have cited something that included a  
13 survey. I don't recall.

14 Sorry.

15 MS. KOURY: Mark as Exhibit 33 to the  
16 deposition transcript of Professor Darling-Hammond a  
17 document bearing the Bates stamp PLTF-XP-LDH 2852  
18 through 2854.

19 (Whereupon, Deposition Exhibit 33  
20 was marked for identification.)

21 MS. KOURY: Q. Could you review this E-mail  
22 communication and the attachment? Let me know when  
23 you ...

24 For the record, Exhibit 33 contains an E-mail  
25 communication dated September 19th, 2002, from John

1 your original question whether the -- I guess your  
2 question was whether that's what I was testifying about  
3 earlier.

4 Q. Yes. And did you receive this -- this round  
5 of corrected Harris data and explanatory memo before or  
6 after you'd finished drafting your expert memo -- your  
7 expert report?

8 A. I know that -- well, I pretty much finished my  
9 expert report by this time, but we did make these final  
10 changes in the expert report.

11 Q. In terms of the portions of your report on  
12 which you relied on the Harris data?

13 A. Yes.

14 Q. Can you turn to page 39 of your expert report?

15 A. Okay.

16 Q. And looking at Table 4, which is on page 39,  
17 did you create Table 4 using the Harris data?

18 A. Yes.

19 Q. And is Table 4 a product of a cross-tabulation  
20 that you used, using the Harris data?

21 A. Yes.

22 Q. Was this you personally that drafted Table 4  
23 or was that a product of John Luczak's work?

24 A. I probably drafted the table. I don't know if  
25 the cross-tabs came from the Harris runs or runs that we

1 might have done separately.

2 Q. Did you do any significance testing with  
3 respect to this table?

4 A. Yes. There are significance tests reported.  
5 This looks like this was actually from cross-tabs that  
6 the Harris Research Group did.

7 Q. Was there any weighting that you did with  
8 respect or in connection with this table?

9 MR. AFFELDT: Objection. Vague and ambiguous.

10 MS. KOURY: Q. Do you understand that  
11 question?

12 A. I'm going to return to the answer I made a  
13 moment ago, which is that it appears that this came from  
14 the cross-tabs that the Harris Research Group did on the  
15 data. And my understanding is that they used the  
16 weights when they did those cross-tabs.

17 Q. Okay. Can you turn to page 46 of your expert  
18 report and review Table 6 for me? I'm sorry. Table 7.

19 A. Yes.

20 Q. Is Table 7 a -- did you generate Table 7 from  
21 using the Harris data?

22 A. Yes, it relies on the Harris data.

23 Q. Is it a product of some cross-tabulations that  
24 you did with respect to Harris data -- or of the Harris  
25 data?

1 that you generated Table 12 using the Harris data?

2 A. The table is generated using the Harris  
3 table -- the Harris data, yes.

4 Q. Do you know if that's a product of  
5 cross-tabulations that you conducted?

6 A. I don't know if I conducted the  
7 cross-tabulations or Harris Research Group did.

8 Q. And with respect to Table 13, do you know  
9 whether that's a product of cross-tabulations that you  
10 conducted or -- I'll just leave it at that.

11 A. I don't know. Because I cite "Source: Harris  
12 (2002)." It may have been from the cross-tabulations  
13 they conducted, but I'd have to go back to notes to  
14 ascertain that to be sure.

15 Q. Could you review Exhibit 28, which was a  
16 couple exhibits ago. It bears Bates stamp PLTF-XP-LDH  
17 1355.

18 A. Okay.

19 (Whereupon, Ms. Read-Spangler exits  
20 the deposition room.)

21 MS. KOURY: Q. Is it your understanding that  
22 the additional runs which are included or referred to in  
23 the E-mail communication from John Affeldt, which was  
24 contained in Exhibit 28 -- is it your understanding  
25 that -- having reviewed Table 13, is that information

1 A. It is a product of cross-tabulations that were  
2 done with the Harris table. I'm not sure if I did them  
3 or if they came from the Harris Group's tabulations that  
4 they conducted.

5 MR. AFFELDT: Can you read the answer back?  
6 (Record read.)

7 MS. KOURY: Q. Could you tell me why this  
8 particular table indicates "Unweighted n = 1008"? What  
9 does that mean?

10 A. Certainly, you report the sample size, and you  
11 report the actual number of people sampled who responded  
12 to questions. So you would use the -- you would report  
13 the unweighted samples so that people would know the  
14 actual sample size.

15 A weighted sample size would weight the sample  
16 up to the population, which would give you a very large  
17 number and not reflect the actual sample. So, it's a  
18 traditional way of reporting the sample size that was  
19 used. Even if you weight the data for conducting the  
20 tabulations, you would generally report an unweighted  
21 sample size.

22 Q. Could you turn to page 59 of your expert  
23 report and review Tables 12 and 13 for me?

24 A. Okay.

25 Q. Reviewing Table 12, is it your understanding

1 reflected? Is the information from the additional runs  
2 reflected in Table 13?

3 A. I don't know. I actually don't think so,  
4 because in the E-mail, it says needs run with the most  
5 common, quote, unquote, other reasons for leaving. And  
6 what I think I had in mind there is that they had a set  
7 of categories of reasons for leaving, which, I believe,  
8 are the ones in this table. And then there was a  
9 category called "other," which was a grab bag for  
10 whatever other responses people came up to and -- came  
11 up with. And I'm, in my recollection, believing that  
12 these categories in Table 13 were categories that asked  
13 about specifically rather than that grab bag of, quote,  
14 other reasons.

15 (Whereupon, Ms. Read-Spangler  
16 re-enters the deposition room.)

17 MS. KOURY: Q. To the extent that -- or with  
18 respect to Table 13 -- I'm sorry.

19 Was it your understanding that you don't  
20 recall whether it's a product of cross-tabulations that  
21 you conducted or whether it was from Harris's  
22 cross-tabulations?

23 A. Right.

24 Q. Assuming that it was a product of  
25 cross-tabulations that you conducted, would it be your

1 assumption that you weighted the information?  
 2 A. Yes. We would have applied the weights to the  
 3 proportions.  
 4 Q. Why is that?  
 5 A. So that they reflect the population.  
 6 Q. Earlier you testified that it's your  
 7 understanding that the Harris survey results are --  
 8 purport to generalize to conditions in schools. Is that  
 9 a correct characterization?  
 10 A. It's not really precise.  
 11 Q. Sure. Let me rephrase the question.  
 12 What is the population to which the Harris  
 13 survey attempts to generalize?  
 14 A. It attempts to generalize to the populations  
 15 of California schools in the categories that they list  
 16 in their technical appendixes those that they used to  
 17 weight the data.  
 18 Q. Is it your understanding that the Harris  
 19 survey attempts to generalize to students?  
 20 A. I would say no. I would say it's using the  
 21 school as the unit of analysis.  
 22 Q. Is it your understanding that the Harris  
 23 survey attempts to generalize the results to teachers?  
 24 A. Again, I would say no. It's using the school  
 25 as a unit of analysis, and it's attempting to generalize

1 to the population of schools.  
 2 Q. Is it a basic proposition of statistics that  
 3 the unit that you sample and analyze should be the same  
 4 as the unit about which you're drawing your conclusion?  
 5 A. I don't -- I don't think so. I'm not sure  
 6 what you're trying to say.  
 7 Q. To the extent that the Harris survey has a  
 8 unit of sample -- let me ask another question.  
 9 Is it your understanding that the unit of  
 10 sample in the Harris survey was teachers or were  
 11 teachers?  
 12 MR. AFFELDT: Objection. Vague as to "unit of  
 13 sampling."  
 14 THE WITNESS: Right. I was going to say the  
 15 respondents are teachers, but "units of sample," I don't  
 16 know what that means.  
 17 MS. KOURY: Q. You said that the unit of  
 18 analysis was schools; is that correct?  
 19 A. Yeah. That's -- yes. The unit of analysis  
 20 that to which they're trying to generalize findings as  
 21 to schools.  
 22 Q. Is "unit of analysis" sort of a term of art  
 23 when you're discussing statistics and survey results?  
 24 A. I guess you could say so, yes.  
 25 Q. Have you ever heard of the term "unit of

1 sample"?  
 2 A. No.  
 3 Q. Okay. To the extent that the Harris --  
 4 A. Not -- not pertaining to -- go ahead.  
 5 Q. To the extent that the Harris survey analyzes  
 6 teachers but draws a conclusion in terms of its unit of  
 7 analysis about schools, to the extent that those two are  
 8 different, does that pose a problem in terms of  
 9 statistical analysis?  
 10 A. Not necessarily. There is the term "sampling  
 11 unit," which may be something that you're getting at.  
 12 Q. That's probably what I was trying to say.  
 13 Thank you.  
 14 A. One can have multiple sampling units and  
 15 respondents within those sampling units, but that's a  
 16 different question than the unit of analysis -- that is,  
 17 what you're trying to generalize to.  
 18 So, for example, there are many surveys that  
 19 sample at the unit of the school. They use the school  
 20 as a primary sampling unit or even use the district.  
 21 And within that, they draw the respondents. But the  
 22 research questions that are asked might be research  
 23 questions asked about the level of the school or the  
 24 district, which would be the unit of analysis for those  
 25 questions. And those might be asked of respondents who

1 are individual teachers or individual principals. So,  
 2 the respondents are not the same thing as the unit of  
 3 analysis.  
 4 Q. How is it that you can extrapolate the results  
 5 for teachers to schools? Or am I asking you for the  
 6 same answer that you just gave?  
 7 A. I'm not sure what you're trying to ask.  
 8 Q. Let me ask it a different way.  
 9 The survey results -- the Harris survey  
 10 results, in your opinion, are they necessarily  
 11 subjective?  
 12 A. I'm not sure what you're trying to ask. What  
 13 you do mean by "necessarily"?  
 14 Q. To the extent that the Harris survey asks  
 15 teachers questions about their perception of school  
 16 conditions -- first let me ask, Do you agree that the  
 17 Harris survey asks teachers about their perception of  
 18 school conditions?  
 19 A. Some of the questions are asking about  
 20 perceptions of school conditions.  
 21 Q. What types of questions?  
 22 A. Some of them are asking for opinions that you  
 23 might generally classify as subjective. That is, do you  
 24 feel something about a particular condition? Others are  
 25 asking about objective conditions. That is, are there

1 rats? How big is your class size?

2 Some parts of the Harris data set come, in  
3 fact, from the state data sets, the CBEDs that were  
4 attached to it. So there are several different parts of  
5 the data set.

6 Q. To the extent that the Harris survey asks  
7 questions about the adequacy of instruction materials,  
8 would you find that to be a subjective question?

9 A. Some of those questions might be considered  
10 subjective. Some objective. For example, if the  
11 question is, Do you have enough textbooks for every  
12 child in your classroom to have one, that's sort of a  
13 factual question. You have 30 kids. You have 15 sets  
14 of materials.

15 If the question asks something like, Do you  
16 feel like you have enough supplies? that's not -- that's  
17 a little more subjective.

18 Q. To the extent the Harris survey asks whether  
19 there is evidence of a problem with rats, do you think  
20 that question is subjective?

21 A. That depends on how you define "subjective."  
22 If you mean, Are they asking individuals -- unless you  
23 presume that people would lie about their answers,  
24 asking whether there are or aren't rats is a pretty  
25 objective question.

1 Q. How is it that the Harris survey generalizes  
2 the results of low-income schools to all schools?

3 A. I don't think they try to do that.

4 Q. What about generalizing the results of --

5 A. They're trying to generalize the results about  
6 low-income schools to low-income schools. They're  
7 generalizing within that stratum.

8 Q. And with respect to generalizing the results  
9 about schools with high concentrations of language --  
10 English learners to all schools? Did I ask a question  
11 there?

12 MR. AFFELDT: What's the question?

13 MS. KOURY: Q. How is it, in your opinion,  
14 that the Harris survey attempts to generalize results  
15 from schools with high concentrations of English  
16 learners to all schools?

17 A. I don't think they're trying to say that the  
18 factors that they find within schools with high numbers  
19 of English language learners do generalize to all  
20 schools. They're, like any surveys within those  
21 categories, seeking to generalize to other schools that  
22 exist within that category.

23 Q. Do you know, in conducting the Harris survey,  
24 whether any of the terms used in the Harris survey (such  
25 as the physical condition of textbooks), were defined

1 Q. Do you think that evidence of a problem --

2 A. People would tend to agree about whether they  
3 have or haven't seen a rat. That's what I mean by that.

4 Q. To the extent that the question is whether  
5 there's evidence of a problem with rats, do you think  
6 that that's likely to solicit differing opinions as to  
7 what that means?

8 A. I kind of doubt it. I mean, you could say  
9 that some people would see a rat and say it's not a  
10 problem, and other people would see a rat and say it is  
11 a problem. But I suspect, if people saw a rat in the  
12 school, they would generally agree that it was a  
13 problem.

14 Q. In your opinion, is there likely to be  
15 disagreement among teachers' opinions within a single  
16 school in the context of the Harris survey?

17 MR. AFFELDT: Objection. Calls for  
18 speculation.

19 MS. KOURY: Q. In your opinion.

20 A. The experiences of teachers within schools  
21 would likely be fairly common. Although it's possible  
22 that, on some classroom variables -- for example, How  
23 large is your largest class size? or something like  
24 that -- some teachers would have different experiences  
25 than others.

1 for the respondents?

2 A. I don't.

3 Q. Do you know whether any of the factors or for  
4 what factors the Harris study controlled?

5 A. I don't know what that question means.

6 Q. In other words, in analyzing survey results,  
7 most researchers control for certain factors or end up  
8 controlling for various factors; is that not correct?

9 A. Well, I think you're confusing a survey and an  
10 analysis of the survey. The survey was conducted in a  
11 way that could allow people to have the variables such  
12 as free and reduced-price lunch or English language  
13 learners or other indicators of student demographics  
14 that, in certain analyses, could be controlled.

15 Q. And in the analyses, do you know whether any  
16 of those factors were controlled?

17 A. Well, in one analysis that I used these data  
18 for, we did use those variables to control for student  
19 characteristics. It's an analysis that's referred to  
20 that was a regression analysis. Typically, in  
21 cross-tabs, what you're doing is looking for differences  
22 across groups. And in a sense, looking within the  
23 groups or across the groups is the way by which you are  
24 making a control.

25 Q. Is that -- I'm sorry.

1 A. Yeah.

2 Q. Is that reflected in your expert report?

3 MR. AFFELDT: Object. Vague as to "that."

4 MS. KOURY: Q. Were you referring to a  
5 specific table in your expert report in your testimony  
6 just now or am I misunderstanding what you were saying?

7 A. I'm just trying to understand what you're  
8 asking.

9 Q. Skip that.

10 Do you know if the researcher spoke to anyone  
11 at the school sites or -- yeah, at the school sites in  
12 the course of conducting their survey?

13 A. Again, I'm not sure what you're asking. They  
14 did call some teachers through home phone numbers and  
15 some through school phone numbers.

16 Q. And to the extent that the Harris sample  
17 consisted of -- actually, let me rephrase that question.

18 Is it your understanding that the Harris  
19 sample consisted of random-digit dialing or, you know,  
20 calling teachers off of a list, certain lists of  
21 teachers? Is that what you were testifying about  
22 earlier?

23 A. You asked something about, Did they contact  
24 people at school sites? and I simply responded that I  
25 know that they used some school phone numbers when they

1 A. And I was answering I don't know the extent to  
2 which it did reduce the randomness.

3 Q. Do you think, to the extent that only teachers  
4 who called back were part of the sample for the Harris  
5 survey, that that somehow introduces a bias?

6 A. It's conceivable. Any kind of surveying has  
7 the possibility for some kind of biases in the sample.

8 Q. What would you do to --

9 MR. AFFELDT: Were you finished answering?

10 THE WITNESS: Yes.

11 MR. AFFELDT: Okay.

12 MS. KOURY: Q. Do you know whether the Harris  
13 survey picked the same number of teachers at each school  
14 in terms of conducting its sample?

15 MR. AFFELDT: Objection. Assumes facts not in  
16 evidence.

17 THE WITNESS: And the answer is "I don't  
18 know."

19 MS. KOURY: Q. Do you know if the number of  
20 teachers selected at each school were designed to  
21 correlate proportionately with the number of students at  
22 the school?

23 A. That was not part of the sampling design that  
24 I'm aware of.

25 Q. Do you know why that is?

1 did some of their sampling.

2 Q. And as a result, the sample of data expressed  
3 in the tables in your report which rely on the Harris  
4 data also consists of respondents to these -- of  
5 teachers who the Harris Group called based on these  
6 lists. Is that correct? Or is that not understandable?

7 A. They had lists of teachers, and they called  
8 people from those lists. I'm not sure what you're  
9 trying to get at.

10 Q. I'm just trying to connect that their list,  
11 which is -- can we take a two-minute ...

12 (Whereupon, a break from 4:42 to  
13 4:43 was taken.)

14 MS. KOURY: Q. To the extent that the Harris  
15 survey relied on teachers who called back after they  
16 were initially contacted from various lists, do you  
17 think that reduces the randomness of the list -- or the  
18 randomness of the sample?

19 A. I don't -- I don't know to the extent to which  
20 it did.

21 Q. And my question more precisely was, To the  
22 extent that the Harris survey relied on teachers who did  
23 call back to the surveyor who initially called various  
24 lists of teachers, do you think that that would reduce  
25 the randomness?

1 A. Because they were using random sampling for  
2 two of the lists. If you were trying to correlate it,  
3 you wouldn't be doing random sampling.

4 Q. What's the reason why you want random  
5 sampling?

6 A. Randomness is intended to eliminate a lot of  
7 possible sources of bias.

8 Q. To the extent that the Harris survey doesn't  
9 correlate proportionately to the number of teachers at  
10 each school or doesn't sample teachers at each schools  
11 in a fashion that correlates proportionately to the  
12 number teachers at each school, in your opinion, does  
13 that mean that the Harris survey doesn't have a proper  
14 representation of teachers?

15 A. No. Because when you draw a random sample,  
16 part assumption is that you will get proportionality by  
17 choosing randomly from a list that's representative.

18 Q. In other words, does the list from which  
19 you're using your sample -- in other words, the list of  
20 teachers that you're using, do you need to ensure that  
21 that list is representative of the population of  
22 teachers?

23 A. Of the population of schools, because that's  
24 what you want to represent as your unit of analysis.

25 Q. Is that "yes" to your question, as you

1 rephrased my question? Let me re-ask that.  
 2 A. I said "yes" to my question.  
 3 MR. AFFELDT: Do you agree with yourself?  
 4 THE WITNESS: Not always, but in this case, I  
 5 think do.  
 6 MS. KOURY: Could you read back my question  
 7 before she answered my question?  
 8 (Record read.)  
 9 MS. KOURY: Q. And your answer was?  
 10 THE WITNESS: You have to -- I think -- what  
 11 was my answer?  
 12 (Record read.)  
 13 MS. KOURY: Q. So you need to ensure that the  
 14 sample list -- or I'm sorry -- the list of teachers from  
 15 which you're going to survey is representative of the  
 16 schools?  
 17 A. Right, in this case, because that's what  
 18 you're trying to generalize to.  
 19 Q. To the extent that bias is introduced when you  
 20 rely on a sample of teachers that call back after the  
 21 initial calls are made by the survey of teachers, what  
 22 would you do, in your opinion, to reduce that bias or to  
 23 compensate for that bias?  
 24 MR. AFFELDT: Objection. Assumes facts not in  
 25 evidence. Inadequate hypothetical.

1 THE WITNESS: One of the standard survey  
 2 techniques for just trying to reduce various kinds of  
 3 nonresponse bias is to call back a few times. There's  
 4 some call-back protocol.  
 5 MS. KOURY: Q. Why is the call-back  
 6 protocol -- how does that reduce the bias?  
 7 A. It increases the responses typically. In  
 8 other words, in any survey, whether it's mail or  
 9 telephone, you have some nonrespondents. And rather  
 10 than just doing it once, you try to do follow-ups to be  
 11 sure that you're increasing the responses.  
 12 Q. With respect to the work that you did with the  
 13 Harris data and to the extent that you and your research  
 14 assistant did cross-tabulations of that data, what  
 15 weighting, if any, did you do that links the results  
 16 derived with teachers to the results that one would  
 17 expect from schools generally?  
 18 Did you understand my question?  
 19 A. Let me try to answer a question that, I think,  
 20 is related to your question. The data set -- we -- we  
 21 went over this yesterday or the day before, but the data  
 22 set has, as described in the technical appendix of the  
 23 Harris report, been weighted so that it -- the  
 24 stratified sampling of teachers, who would be likely to  
 25 teach in low-income schools, does not overrepresent

1 those schools in the final analyses. So, the sample was  
 2 weighted to fairly represent the sample of schools in  
 3 the state, and those weights were used in the  
 4 cross-tabulations.  
 5 Q. Do you have an understanding as to what  
 6 "design effect" means?  
 7 A. Yes.  
 8 Q. What is your understanding of that term?  
 9 A. When you design a sample, you can have various  
 10 kinds of design effects based on how you draw the  
 11 sample. So, for example, earlier we talked about a  
 12 two-stage sample where you cluster respondents within  
 13 schools that does not pertain to the Harris survey, but  
 14 that would be called a "design effect." And then  
 15 there's usually a weighting scheme to compensate for it  
 16 or to take into account that design effect which, in  
 17 some way, introduces the possibility of a wider error.  
 18 Q. And with respect to cluster sampling, did that  
 19 produce an uncertainty that must be accounted for, and  
 20 that's why you weight those results?  
 21 A. I'm not sure I'd use the word "uncertainty."  
 22 It's Statistics 101.  
 23 If you were to draw a sample that picked 20  
 24 schools in the state of California and 20 teachers from  
 25 each school, those teachers would be less representative

1 of all the teachers in California than if you had picked  
 2 400 teachers randomly, because they're clustered within  
 3 schools. And so and those schools may not -- because  
 4 there's only 20 of them, may not fully represent the  
 5 range of schools in the state. So when you have that  
 6 kind of a design which has certain benefits, but it also  
 7 has that limitation, there's typically a weighting so  
 8 that the responses are more representative of the range  
 9 of schools. So does -- it introduces a potential bias,  
 10 if you will, in the results of the survey for certain  
 11 kinds of inferences.  
 12 Q. Is it your understanding that the Harris  
 13 survey oversamples teachers from schools with  
 14 concentrations of students with -- I'm sorry -- from  
 15 schools with high concentrations of minority students?  
 16 A. No. I think they looked for -- I believe they  
 17 oversampled teachers whose home phone numbers were in  
 18 low-income areas.  
 19 Q. Could you turn to page 1, paragraph 3, of your  
 20 expert report?  
 21 Before I dive into this issue, can we go off  
 22 the record for a second?  
 23 (Discussion off the record.)  
 24 (Whereupon, the deposition was  
 25 adjourned at 4:55 p.m.)



--oOo--

I declare under penalty of perjury that the foregoing is true and correct. Subscribed at \_\_\_\_\_, California, this \_\_\_\_ day of \_\_\_\_\_, 2003.

\_\_\_\_\_  
LINDA DARLING-HAMMOND

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CERTIFICATE OF REPORTER

I, QUYEN N. DO, a Certified Shorthand Reporter, hereby certify that the witness in the foregoing deposition was, by me, duly sworn to tell the truth, the whole truth and nothing but the truth, in the within-entitled cause;

That said deposition was taken down in shorthand by me, a disinterested person, at the time and place therein stated, and that the testimony of the said witness was thereafter reduced to typewriting, by computer, under my direction and supervision;

I further certify that I am not of counsel or attorney for either or any of the parties to the said deposition, nor in any way interested in the event of this cause, and that I am not related to any of the parties thereto.

DATED: April 15, 2003

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QUYEN N. DO, CSR 12447

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