

SUPERIOR COURT OF THE STATE OF CALIFORNIA  
COUNTY OF SAN FRANCISCO  
UNLIMITED JURISDICTION

)  
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. ) No. 312236  
)  
STATE OF CALIFORNIA, DELAINE )  
EASTIN, State Superintendent of )  
Public Instruction, STATE )  
DEPARTMENT OF EDUCATION, STATE )  
BOARD OF EDUCATION, )  
)  
Defendants. )  
\_\_\_\_\_ )

DEPOSITION OF MICHAEL JOHN PODGURSKY, Ph.D.  
Los Angeles, California  
Thursday, August 14, 2003  
Volume 4

Reported by:  
CAROL ANN NELSON  
CSR No. 6974  
JOB No. 885148

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BOARD OF EDUCATION, )

Defendants. )

Deposition of MICHAEL JOHN  
PODGURSKY, Ph.D., Volume 4, taken on behalf  
of Plaintiffs at 555 West Fifth Street,  
35th Floor, Los Angeles, California  
beginning at 9:11 a.m. and ending at  
5:06 p.m. on Thursday, August 14, 2003,  
before CAROL ANN NELSON, Certified Shorthand  
Reporter No. 6974.

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16 Document entitled "Certification:  
It Does Matter" by Hawk, Coble and  
Swanson; 2 pages two-sided 581

17 E mails, latest one To lmdavis from  
Michael Podgursky, dated August 13,  
2003; 4 pages 586

18 Document entitled "Teachers and  
Student Achievement in the Chicago  
Public High Schools June 2003";  
48 pages 591

19 Document entitled "How to Improve  
the Supply of High Quality Teachers";  
34 pages 597

20 Document consisting of an E mail to  
lmdavis from Michael Podgursky with  
attached document entitled "Survey and  
Analysis of Teacher Salary Trends  
2002"; 85 pages 603

21 Document entitled "The Teachers We  
Need and How to Get More of Them:  
A Manifesto"; 21 pages 610

22 Document entitled "Teach For America:  
An Evaluation of Teacher Differences  
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1 number.  
 2 BY MR. AFFELDT:  
 3 Q And if I limit the question to substitutes who  
 4 are filling in for -- filling in teacher vacancies, are  
 5 you aware of the number?  
 6 A No.  
 7 Q The same answer as to substitutes filling in  
 8 for long-term teacher absence?  
 9 A No.  
 10 Q No, you're not aware?  
 11 A No, I'm not aware.  
 12 Q Do you know if the state has any system for  
 13 counting the numbers of teacher vacancies in California?  
 14 MS. DAVIS: Vague and ambiguous.  
 15 THE WITNESS: I don't know.  
 16 BY MR. AFFELDT:  
 17 Q As part of reviewing Dr. Darling-Hammond's  
 18 expert report in this case, did you also review her  
 19 recommendations for addressing the issues she raises?  
 20 A Yes.  
 21 Q Realizing you don't agree with her idea of how  
 22 to determine a qualified teacher, but do you think if  
 23 her recommendations were followed that there would be an  
 24 increase in the numbers of preliminary and clear  
 25 credentialed teachers teaching in -- particularly in the

1 Los Angeles, California, Thursday, August 14, 2003  
 2 9:11 a.m. - 5:06 p.m.  
 3  
 4 MICHAEL JOHN PODGURSKY, Ph.D.,  
 5 having been previously sworn, was examined and testified  
 6 further as follows:  
 7  
 8 EXAMINATION (Resumed)  
 9 BY MR. AFFELDT:  
 10 Q Good morning, Dr. Podgursky.  
 11 A Good morning.  
 12 Q You realize that you're still under oath, I  
 13 assume?  
 14 A Yes.  
 15 Q Are you aware of how many teacher vacancies  
 16 generally exist in California?  
 17 A No.  
 18 Q Are you aware of how many substitutes are  
 19 teaching in California classrooms --  
 20 MS. DAVIS: Vague and ambiguous.  
 21 BY MR. AFFELDT:  
 22 Q -- on average, on an average day?  
 23 A Well, substitute teachers teach for teachers  
 24 who are sick, too. You're combining vacancies and  
 25 temporary absences. But no, I'm not aware of the

1 schools that have shortages?  
 2 MS. DAVIS: Calls for speculation. Vague and  
 3 ambiguous.  
 4 THE WITNESS: I -- I imagine there would be  
 5 since they would be forced to comply with the  
 6 requirement and if they're above that cap they'd have to  
 7 one way or the other comply.  
 8 BY MR. AFFELDT:  
 9 Q "They" meaning?  
 10 A Schools. Well, there were -- Are you talking  
 11 about the 20 percent cap or the cap for low-performing  
 12 schools or both?  
 13 Q Both and her additional recommendations. And  
 14 we can look at her report if you need to remind yourself  
 15 what all her recommendations were.  
 16 A No, I -- I imagine that there would be more  
 17 such teachers essentially if you're telling schools that  
 18 you -- you're pressuring schools to hire more teachers  
 19 with preliminary and clear credentials, then I would  
 20 imagine that you'll end up with more teachers with  
 21 preliminary and clear credentials in schools.  
 22 Q So by "they," did you mean schools and school  
 23 districts?  
 24 A I forgot -- Can you read my sentence back.  
 25 (Record read.)

1 THE WITNESS: I didn't hear the word "they."  
 2 BY MR. AFFELDT:  
 3 Q The "they" was referring to your previous  
 4 answer where you said something to the effect that you  
 5 would imagine they would have to --  
 6 A Oh. I --  
 7 MS. DAVIS: I think it's clear from his last  
 8 answer what he means but --  
 9 BY MR. AFFELDT:  
 10 Q Let me just clarify this.  
 11 Her recommendations deal with schools and  
 12 school districts.  
 13 A Yes, I believe it's likely that schools and  
 14 school districts would hire more teachers with  
 15 preliminary and clear credentials.  
 16 Q Are you a proponent of using vouchers as one  
 17 way to -- Well, just let me ask: Are you a proponent of  
 18 using vouchers?  
 19 MS. DAVIS: Vague and ambiguous.  
 20 THE WITNESS: I think vouchers are -- I think  
 21 we need to be experimenting with a variety of programs  
 22 to improve school performance and I think a good case  
 23 can be made for experiments with vouchers along with  
 24 charter schools and other magnet schools and other  
 25 ways. I think parents need to be given more choices

1 about the educational options for their children. So  
 2 yes, I support experiments with vouchers.  
 3 BY MR. AFFELDT:  
 4 Q Getting back to your empirical study that you  
 5 did as part of your expert report, when you looked at  
 6 the -- I believe you testified that you looked at fifth  
 7 grade teachers to see what percent of those at the  
 8 school level were certified; is that correct?  
 9 A Yes.  
 10 Q And what certification was it that you were  
 11 looking to see that those teachers had?  
 12 A May I look at the report?  
 13 Q Of course.  
 14 A I want to make sure I don't misspeak. That's  
 15 the wrong one.  
 16 MS. DAVIS: It's Exhibit 5.  
 17 THE WITNESS: The -- The independent variable  
 18 in Table 1 is percent of teachers without preliminary or  
 19 clear certification and then we also looked at the  
 20 percent of teachers with emergency certification. I  
 21 believe those were the variables used in the studies  
 22 that Professor Darling-Hammond cited, Betts, Gettler,  
 23 and Goe.  
 24 BY MR. AFFELDT:  
 25 Q And the teachers -- When we looked at your --

1 one of your printouts, which is one of the exhibits, but  
 2 the formula was the math teacher variable minus -- or  
 3 100 minus something --  
 4 MS. DAVIS: Asked and answered.  
 5 BY MR. AFFELDT:  
 6 Q -- do you recall that?  
 7 A Yes.  
 8 Q So what was that teacher -- what credential did  
 9 that teacher variable have? It's Exhibit 9 I'm looking  
 10 at. I think 8 or 9 had the --  
 11 MS. DAVIS: These are the preliminary --  
 12 MR. AFFELDT: He said one was the final one,  
 13 and I believe that's 8.  
 14 THE WITNESS: I didn't say it was final. I'm  
 15 saying it was consistent with what was in the table. So  
 16 it -- it was some runs we did, and I don't know if it's  
 17 the final one that I copied. But the numbers are the  
 18 same as what's in the table in the report. Okay. So  
 19 you're asking me what is "ucertem" in Exhibit 9; is that  
 20 what your question is?  
 21 BY MR. AFFELDT:  
 22 Q Well, I think you testified that was  
 23 uncertified emergency permitted teachers?  
 24 A I believe so, yes. But again, I'm -- I'm  
 25 looking at a printout from sometime ago, so I -- I mean

1 I can obviously check when I go back but that's what I  
 2 believe it is.  
 3 Q Let me ask it this way: The teachers who were  
 4 certified, what credential did they have?  
 5 A In -- Where?  
 6 Q In -- In your study. I mean you're making an  
 7 analysis comparing those who had preliminary and clear  
 8 credentials to those who -- who had some other form of  
 9 certification.  
 10 A Well, if -- it would be preliminary and clear  
 11 versus everything else.  
 12 Q I think you testified earlier that they were  
 13 math teachers with math credentials -- This is what I'm  
 14 trying to figure out -- or were they -- you can have a  
 15 preliminary and clear multiple subject credential for  
 16 elementary teachers or you can have preliminary and  
 17 clear single subject credential?  
 18 A My recollection, and I would have to go back  
 19 and check the coding, was that the data that we took off  
 20 of the CBEDS web site was the percent of math teachers  
 21 with preliminary and clear certification in math or  
 22 emergency certification in math. Again, I -- I would  
 23 have to confirm that, but I'm -- it's my understanding  
 24 that that's what's here.  
 25 Q Are you aware -- Well, do you know what the

1 general elementary school credential is for teachers  
2 teaching K to 8 in California?

3 A It's my understanding it's a multisubject  
4 credential.

5 Q So would it then also be your understanding  
6 that there are not single subject credentialed math  
7 teachers teaching fifth grade?

8 A Yes. So these -- it's my understanding that  
9 these -- for the fifth grade results are multisubject  
10 teachers with preliminary -- preliminary and clear  
11 multisubject credentials whereas in eighth grade it's  
12 math -- single subject math preliminary and clear.  
13 That's what I asked my assistant to do, to pull off of  
14 the -- off of the web files.

15 Q And are you aware that the multisubject  
16 credential extends through grade eight?

17 A I did not know that.

18 Q So are you unclear as to whether the  
19 credentialed teachers in the grades seven/eight study  
20 were -- or actually the eighth grade, although you said  
21 it was a school level variable, are you aware that the  
22 credentialed teachers in the grade eight study were  
23 multiple subject teachers also preliminary and clear or  
24 single subject math teachers?

25 A I -- I will have to check this, but I -- it was

1 your expert report. In the last paragraph --

2 A Yes.

3 Q -- you refer to the work you did for the  
4 Missouri Department of Education and the Missouri  
5 Department of Higher Education and the report or some  
6 effort called the K to 16 Task Force on Achievement Gap  
7 Elimination. You say the report was issued in Spring  
8 2002. That's not the document we were looking at  
9 yesterday, was it?

10 A No. It's a different one.

11 Q Which was Exhibit 14?

12 A No. The report we looked at yesterday was done  
13 in 1999 and that was strictly for the Department of  
14 Elementary and Secondary Education. This is a -- This  
15 was combined. That's why it's called K-16. It combined  
16 the elementary, secondary, and the higher ed people  
17 looking at, well, achievement gap elimination. That  
18 report was issued in 2002.

19 Q And what precisely were you doing for this  
20 report?

21 A Well, we did -- we did our own separate memo  
22 for the commission, and then whatever -- when the  
23 commission asked for tabulations we gave them to them.  
24 So we -- we did the background statistical work but we  
25 were -- we did what they asked us to do, so we did a

1 my understanding that they were math teachers, math --  
2 we were looking at math certification. I'll have to  
3 check that.

4 Q And your last pertains to the eighth grade?

5 A Yes.

6 Q Is it your understanding that multiple subject  
7 credentialed teachers are also authorized to teach  
8 English/language arts in the elementary school?

9 A I would imagine they are. I'm not surprised  
10 that they aren't.

11 Q Do you know what subjects multiple subject  
12 teachers are authorized to teach?

13 MS. DAVIS: Vague and ambiguous.

14 THE WITNESS: It's my understanding they teach  
15 what gets covered in -- in an elementary school  
16 classroom which is English, reading, and writing,  
17 communications, math, science. That's why it's a  
18 multisubject credential is because elementary school  
19 teachers do cover a lot of things in the classroom.

20 BY MR. AFFELDT:

21 Q Do you know what the RICA, R-I-C-A, is?

22 A I remember -- I remember seeing that term in  
23 the report but now I've forgotten what it means,  
24 so you'll have to refresh my memory.

25 Q Well, if I could ask you to turn to page 4 of

1 background memo that -- that I coauthored that was  
2 circulated to the group but then they issued a final  
3 report that -- that really just -- I did some  
4 regressions in the report that circulated to the group  
5 but they didn't report regressions in the final report,  
6 they just reported tabulations, and we did -- we did  
7 most of the tabulations for them.

8 Q Who is "we"?

9 A Don Watson and Ryan Monroe and me, my two  
10 assistants and me.

11 Q Did Ryan Monroe work on your expert report at  
12 all --

13 A No.

14 Q -- in this case?

15 A No. Well, he -- he dug up all those E mails  
16 you asked for yesterday, so I guess that would be a --  
17 that's the extent of his involvement.

18 Q What were you analyzing as part of this report?

19 A The K-16 report?

20 Q Yes.

21 A We were looking at all the measures of teacher  
22 quality I could come up with in Missouri, and so we  
23 ended up paying a lot of attention to the ACT scores of  
24 teachers because it turns out that's the most -- the  
25 most complete measure of -- it's the test that turns out

1 it's taken by more teachers than any other test in  
2 Missouri. Most of the kids who graduate from high  
3 school in Missouri take the ACT. We're an ACT state.  
4 And for a variety of reasons there were teachers who  
5 weren't taking either the PRAXIS II or our equivalent of  
6 your CBEST. We call ours CBASE, C-B-A-S-E. And but --  
7 but for reasons under the law, loopholes, not all the  
8 teachers were taking it. So we were analyzing measures  
9 of teacher quality and how teachers were distributed in  
10 terms of these quality measures.

11 Q And other than the ACT score, what other  
12 measures did you measure teacher quality by?

13 A Well, I don't think the commission used it but  
14 I believe that we looked at -- we also collected the  
15 selectivity of the college that teachers came from. We  
16 used that CBASE, C-B-A-S-E, test. I believe those were  
17 what we used.

18 Q Those three measures -- ACT, college  
19 selectivity, and CBASE?

20 A Yes. We tried to get PRAXIS scores but we  
21 couldn't.

22 Q And what did you find?

23 A Well, we found that there was a relationship  
24 between the teacher ACT scores and the -- and the MAP  
25 test scores. I should also mention we also, of course,

1 A Yes, so we were looking at what factors  
2 mattered and then we looked at how teacher quality was  
3 distributed across school districts and our focus was on  
4 ACT scores.

5 Q And you focused on ACT scores because that was  
6 the only teacher characteristic that linked to test  
7 scores?

8 A Well, it was our best available measure of  
9 teacher academic preparation and skills.

10 I should also say that the chairman of the K-16  
11 committee has been a strong advocate of raising  
12 standards for entry into schools of education and he was  
13 a strong advocate of raising standards, ACT or similar  
14 academic standards for entering teacher training  
15 programs, so he was eager to see that type of analysis  
16 as well.

17 Q And who was the chair of that commission?

18 A Charles McClellin, M-c-C-l-e-i-n.

19 Q What is his position in Missouri?

20 A Well, Charles -- I can't give you his whole  
21 life history but he's been a very important figure in  
22 higher ed. He -- And K-12.

23 He was the president of Truman State  
24 University. He's the one that transformed it from sort  
25 of a -- kind of a sleepy state college to a highly

1 had data, and so we looked at percent of teachers with  
2 master's degrees, percent of teachers who were certified  
3 at regular certification, our version of clear  
4 certification, experience, so we had those measures as  
5 well. We found that the only -- At the district level  
6 in the regressions I described yesterday, we found that  
7 the only variable that was consistently related to  
8 student achievement after you control for third to  
9 fourth grade test scores of the kids was the ACT scores  
10 of the teachers. Certification wasn't significant,  
11 master's degrees weren't significant, I believe  
12 experience generally wasn't significant but the ACT  
13 scores were significant across the board on all the  
14 tests.

15 We found that the distribution of ACTs was  
16 uneven, the mean ACT scores. St. Louis and Kansas City  
17 teachers had disturbingly low levels of average ACT  
18 scores.

19 Q So correct me if I'm wrong, as I understand it  
20 you were trying to determine the distribution of quality  
21 teachers in the state and you looked at these other --  
22 at these variables of test scores and other teacher  
23 characteristics to measure them against the MAP scores  
24 to try to determine what was the best measure of teacher  
25 quality?

1 selective liberal arts institution, and actually this  
2 gets a lot of attention. So he's -- he's won a lot of  
3 accolades for sort of transforming one of the state  
4 campuses into a very selective and very good  
5 undergraduate liberal arts institution.

6 Q I just want to know his current position.

7 A Oh, I'm sorry. Then he was commissioner of  
8 higher ed for many years in the state and now his  
9 current position is he's the court-appointed overseer in  
10 Kansas City for the -- under their desegregation  
11 program.

12 Q Is that the case that you worked on?

13 A Yes.

14 Q Did you have individual ACT scores to match up  
15 against individual student MAP scores?

16 A No. I had individual teacher ACT scores but I  
17 can only put the teachers back into a building and grade  
18 level, not in a -- I couldn't link a student to a  
19 teacher.

20 Q And what grade levels did you measure the ACT  
21 scores against?

22 A Well, I looked at all the assessments that  
23 Missouri had -- Well, specifically when I was looking at  
24 achievement gains I was looking at tenth or eleventh  
25 grade achievement scores on the -- it's the MAP,

1 Missouri Assessment of Progress. That's our assessment.  
 2 And grade ten -- The primary focus was on math and  
 3 English/language arts, or communications they call it.  
 4 Math is grade ten and communications is grade eleven,  
 5 so that was a dependent variable. And then as I  
 6 mentioned yesterday I controlled for grade three or four  
 7 scores in the district in those same tests.

8 Q And when you controlled for grade three or four  
 9 scores, was that also like your previous study where you  
 10 looked at the current grade three and four students as  
 11 opposed to the students who were in tenth or eleventh  
 12 grade seven years earlier?

13 A Well, I think you misspoke. It's unlike my  
 14 current study because I tracked a cohort in this current  
 15 study because I could do it in California, I could track  
 16 the cohort. But in Missouri, Missouri has not been  
 17 giving this test long enough to track a full cohort of  
 18 kids all the way through from grades three or four  
 19 through grade twelve. They've only been giving these  
 20 tests since about -- well, depending on the test -- '98  
 21 or '99, so I couldn't do that. So it's what you call --  
 22 Some people call it a synthetic cohort. I mean it's --  
 23 it's -- it's again, an attempt to control for sort of  
 24 what the typical level of achievement is for kids  
 25 entering a school district and when.

1 recollection, only had cross tabulations, descriptive  
 2 statistics showing -- you know, a variety of tables  
 3 showing poverty rates and ACT scores of teachers or  
 4 poverty rates and achievement. So there's lots of --  
 5 there's a lot of tables and charts in there, mostly  
 6 charts actually, showing achievement gaps and the  
 7 relation of different things to achievement gaps. So  
 8 it's not a scholarly study. It's a commission report  
 9 with descriptive tables about the problem of student  
 10 achievement gaps in Missouri with a set of  
 11 recommendations at the end.

12 Q Did you create some final memo or a series of  
 13 memos that reflects the work that you did as part of  
 14 this analysis?

15 A Yes, there's a memo that we did for the K-16  
 16 group and it's the final version. I believe it's on my  
 17 web site. If it's not, I can send it to you. It -- I  
 18 believe it's in the section on unpublished papers and  
 19 reports, as I recall.

20 MR. AFFELDT: We will check on your web site,  
 21 but then we would like it since it was referenced in  
 22 his report.

23 MS. DAVIS: It's unclear to me whether he  
 24 relied on it, so I will talk to him. But I will take  
 25 your request under advisement.

1 Q And when you measure ACT scores against the  
 2 grade ten and eleven scores, were you also taking a  
 3 building average of the teacher ACT scores for that  
 4 building?

5 A I was taking district average.

6 Q District?

7 A Yes. Because I couldn't track a cohort through  
 8 a building because kids change buildings so there would  
 9 have been no reason to do this. They're not in the same  
 10 building in grade three and four as they were in grade  
 11 ten and eleven.

12 Q And what about about on the teacher side, were  
 13 you also taking the district average ACT scores?

14 A Yes, I was just using the district average on  
 15 everything, all the teacher variables, socioeconomic  
 16 variables, and the test scores, student test scores.

17 I also correlated achievement with the -- that  
 18 CBASE test as well. I forgot. We did that, too. The  
 19 ACT it turned out was a little better predictor for  
 20 student achievement.

21 Q And how much of this analysis is reflected in  
 22 the task force report?

23 A Well, the task force -- This was presented to  
 24 the -- This was presented to the task force in their  
 25 meetings. But the task force report, in my

1 MR. AFFELDT: Okay.

2 Q Why didn't you cite your analysis here as  
 3 additional evidence that teacher certification is not  
 4 related to student achievement?

5 A Well, I don't -- I didn't consider my work in  
 6 Missouri state of the art. I did the best I could for  
 7 this commission with the data we had. It's all I ever  
 8 do, is I try to do the best I can with the available  
 9 data. But I don't consider that work to be sufficiently  
 10 sophisticated, so I didn't cite it. I cited what I  
 11 considered to be state of the art research in this area.

12 Q So this work would not meet your methodological  
 13 minimums for -- for research?

14 A That is correct.

15 Can we -- Can I just clarify? Does it meet my  
 16 methodological minimum for research on the effect of  
 17 teacher credentials on student achievement gains. I  
 18 don't want to be too critical of myself in the record.

19 Q If you could turn to page 11, note -- footnote  
 20 2, I'm going to ask you about the Hawk, Coble study so  
 21 you might take a look at that while I try to find a copy  
 22 of it.

23 MS. DAVIS: Footnote 2?

24 MR. AFFELDT: Yes.

25 THE WITNESS: Well, I don't have a copy of it

1 with me so --

2 MR. AFFELDT: That's what I'm looking for.

3 MS. DAVIS: Yes, he's going to give it to you.

4 He just wants you to look at footnote 2.

5 MR. AFFELDT: We'll have marked as Podgursky

6 Exhibit 16 the Hawk, Coble, and Swanson study,

7 Certification: It Does Matter.

8 (Podgursky Exhibit 16 was marked for

9 identification by the court reporter.)

10 BY MR. AFFELDT:

11 Q And my question is simply: What is the basis  
12 for your statement that the North Carolina study is not  
13 a study of achievement gains?

14 A Well --

15 MS. DAVIS: If you want to look that over, feel  
16 free to go ahead.

17 THE WITNESS: Okay. If you look at Table 1,  
18 page 14, the authors have reported the -- Are you with  
19 me?

20 BY MR. AFFELDT:

21 Q I'm with you.

22 A Okay. So you've got the in-field teachers and  
23 the out-of-field teachers; okay? So this is one of  
24 these paired comparison studies we discussed yesterday  
25 and you were asking me about those.

1 Now, first of all, look at the column that --  
2 the column labeled Pre X bar is -- says the -- the  
3 teachers -- So these kids were tested I guess in the  
4 fall and then again in the spring, so I think that's  
5 what "Pre" and "Post" are. Let's spend a moment and  
6 just confirm that, what "Pre" refers to. They were  
7 either tested the previous year in the fall. Let's  
8 see. Do they tell us that? I don't know if they even  
9 tell us, but there's lots of things they didn't  
10 tell us in this study. But at any rate that's not an  
11 important point. It's some previous test, either in the  
12 fall or the previous year.

13 So we have in-field are the teachers who have  
14 certification in math and then the out-of-field are  
15 those that don't have certification in math; okay? So  
16 you've got 286 of the one and 283 of the other.

17 Now, the first thing to note here is the author  
18 is telling us that they picked some comparable  
19 classrooms with comparable teachers -- Okay? -- other  
20 than certification. But note here that the -- the  
21 teachers they chose who are in-field already had better  
22 students than the teachers who were out-of-field before  
23 they were even taught by the teacher. So right off the  
24 bat your comparison group isn't a good comparison group  
25 because they have higher student -- the comparison group

1 has higher student achievement -- the treatment group  
2 has higher student achievement than the -- the  
3 nontreatment group.

4 Q Where do you see that in the table?

5 A Well 23.93 is higher than 22.

6 Now, the authors note there's no statistically  
7 difference there but there is a difference. But at any  
8 rate, let's proceed. I am digressing.

9 Then you have the post test X bar, 27.14,  
10 23.98. Now, in -- as far as I can determine, the F  
11 statistic there, okay, refers to the statistical  
12 difference between 27.14 and 23.98. The text describes  
13 it that way and my own calculation suggests that this F  
14 statistic here is a test -- is a statistical test of  
15 whether the Post X bar 27.14 is different from the  
16 23.98; okay? And that's what the authors seem to be  
17 saying in the test. The results of the study indicate  
18 that student achievement is greater in general math and  
19 algebra when students are taught by teachers certified  
20 in math. So the -- the F test, the statistical test, is  
21 comparing the Post X bar scores. So it is not a test of  
22 the difference in gain-scores. It's a test of the  
23 difference in post -- in the spring scores. So what the  
24 authors should have done, what they should have done, is  
25 to compare -- is to take the difference between 27.14

1 minus 27.93 versus 23.98 minus 22. Now, I did that in  
2 the Walsh commentary that you talked about yesterday, I  
3 did that calculation, and there is no statistically  
4 significant difference in the gain-scores.

5 So as far as I can determine, these authors did  
6 not look at gain-scores. They had the data to look at  
7 gain-scores, and if you look at gain-scores there's no  
8 difference. But they didn't look at gain-scores, they  
9 looked at the levels, the end point differences. So  
10 they had longitudinal data but they treated it as  
11 cross-section data.

12 Q And what statistical analysis did you use to  
13 confirm in your mind that the F statistic was only  
14 looking at the post test scores?

15 A My -- My recollection was it was consistent  
16 with the standard deviations. I'd have to go back to a  
17 textbook and look up the calculation of a F statistic.  
18 I can't do it right here. But in the Walsh paper I sat  
19 down and did some calculations to derive the F statistic  
20 and I concluded that that's what the F statistic was, it  
21 was on the difference in the Post X bars, not the  
22 difference in the differences, which is what you would  
23 want. So I don't consider this a longitudinal study.  
24 They didn't do the test they should have done.

1 statistics textbook if I went to look -- and looked for  
2 it?

3 A If you go back, this F statistic should be the  
4 square of the T statistic that you would derive in -- in  
5 computing the difference between 27.14 and 23.98. It's  
6 my recollection that when I did those calculations  
7 that's what you found.

8 Q My question was simply: If statisticians talk  
9 about an F statistic, do they know what they're talking  
10 about? Is that a commonly used term?

11 MS. DAVIS: Vague and ambiguous.

12 THE WITNESS: Oh, yes. Yes. I mean you could  
13 double-check my statement with any statistician.

10:01:0014 BY MR. AFFELDT:

15 Q Did you do the same analysis under algebra in  
10:01:3016 Table 1 that you described under general math?

17 A Well, yes, I checked it and it seemed to be the  
18 same -- the same -- I came to the same conclusion. The  
19 authors -- The reasoning of the authors is there was no  
20 statistically significant difference in the Pre X bar,  
21 so therefore they were just going to compare the Post X  
22 bar and do a simple T test. Rather than doing a T test  
10:02:3023 on the difference, the change, they did a T test on the  
24 difference in X bar, and -- and based on my calculations  
25 I've concluded that's what they did in both general math

1 way?

2 A Well, we didn't talk for an hour. I just  
3 called him and it was a fairly short chat. I mean I --  
4 I would say 15 to 20 minutes is my recollection. It  
5 just was not -- We didn't talk for an hour, I know that.

6 Q Okay. Looking at the first page at the second  
7 full E mail which is from Professor Berk to you sent  
8 Friday, November 22, 2002 at 3:34 p.m. he comments two  
9 after thoughts. Did you go back and look at the Heckman  
10 paper?

11 A I -- I took a quick look at it, yes. It's a  
12 very long paper, complicated. But yes, I took a look at  
13 it.

14 Q And what are the -- what is Professor Berk  
15 referring to when he says "the kinds of estimation  
10:07:3016 problems you have"?

17 MS. DAVIS: Calls for speculation. Asked and  
18 answered.

19 THE WITNESS: Well, this really gets at the  
20 problem of determining causality in the evaluation of  
21 social programs. That's what this article was about.  
22 In fact, yesterday or the day before you asked me for a  
23 good citation on sort of why we need experiments or  
24 longitudinal data. This actually could be a good one.

1 and algebra. So it -- it really was not longitudinal.  
2 They didn't use -- They didn't look at a change, a  
3 gain-score. It's not an analysis of gain-scores.

4 MR. AFFELDT: We'll mark as Podgursky Exhibit  
5 17 the last of the E mails that you produced for us  
6 yesterday.

7 (Podgursky Exhibit 17 was marked for  
8 identification by the court reporter.)

9 MS. DAVIS: This is the last E mail that has  
10 sort of a string of E mails?

11 MR. AFFELDT: Exactly.

12 MS. DAVIS: Okay.

13 BY MR. AFFELDT:

14 Q If you could take a moment to review this and  
10:05:0015 let me know in this is the string of E mail  
16 correspondence you had with Professor Berk.

17 A Yes, it is.

18 Q Look at the second page, the first full E mail  
10:05:3019 there which is Thursday, November 21, 2002 at 10:37 a.m.  
20 from Professor Berk says -- to you says:

21 "I p.m. California time will work nicely.  
22 I have an hour between 1 and 2. Talk to you  
23 tomorrow."

24 Does that refresh your recollection as to how

1 us at the time. But Heckman won a Nobel prize in  
2 economics. It's -- It's a long, complicated article  
3 about how you -- the focus is really on how one can use  
4 nonexperimental data to try to infer a causality in the  
5 evaluation of -- of social programs, including education  
6 interventions or education programs. So that's what  
7 he's referring to, the general estimation problem.

8 BY MR. AFFELDT:

9 Q Do you still have a copy of the Heckman paper?

10 A Yes.

11 MR. AFFELDT: I think that's something that we  
10:09:0012 would like to get a copy of since he looked at it.

13 MS. DAVIS: I am going to see if he relied on  
14 it under, you know, the pretrial scheduling order. So I  
15 will talk to him at a break but I take your request  
16 under advisement.

17 BY MR. AFFELDT:

18 Q Is that the title of the paper in the  
10:09:3019 parentheses under number 1 in the E mail?

20 A I would have to double-check. I mean what he  
21 has in mind is their chapter in this handbook and  
10:10:0022 that -- that may be the title but I'll have to check. I  
23 mean he -- I can't -- I'm not sure one way or the other,  
24 but it's -- if it's not the exact title it's probably  
25 close.

1 Q Do you know what Professor Berk meant by "your  
2 'treatment' is very different"?

3 MS. DAVIS: Calls for speculation.

4 THE WITNESS: Well, I think what he's meaning  
5 is that these -- the econometric -- the active labor  
6 market programs what the -- the -- The focus of the  
7 papers and most of the empirical work that Heckman is  
8 talking about is looking at employment and training  
9 programs and what you're looking at in that situation  
10 are changes in earnings, so the analogy -- we're looking  
11 at changes in test scores. In this case you're looking  
12 at earnings before you get the training, earnings after  
13 you get the training, and then trying to determine  
10:11:3014 whether the training had an effect on -- or it might be,  
15 you know, hours of work or something like that as well,  
16 but some measure of labor market success before the  
17 program, labor market success after the program.

18 In this case our treatment is, you know  
19 certified teachers, so that's what he's referring to. I  
20 mean he -- We both see the analogy but the treatment  
10:12:0021 obviously is very different just in the sense of the  
22 treatment they're looking at is -- are likely CETA,  
23 Comprehensive Employment and Training Act, job training  
24 programs or -- CETA was replaced -- JTPA, Job Training  
25 Partnership Act. So it's a different -- The treatments

1 are different, that's all he's saying, it's a different  
2 treatment.

3 BY MR. AFFELDT:

4 Q Did you learn anything from reviewing the  
5 Heckman paper?

6 MS. DAVIS: Vague and ambiguous.

7 THE WITNESS: I really didn't spend much time  
8 reviewing it. I just -- Because I read it before and I  
9 know that they get into some issues that are quite  
10 complicated, but really they're issues that pertain to  
11 the use of panel data or longitudinal individual data,  
10:13:0012 and since I couldn't -- since none of us had access to  
13 that type of data in this situation, it -- it -- I  
14 thought it was of limited relevance.

15 Heckman -- In these evaluation programs you're  
16 looking at periods of where you follow people for many  
17 years or, you know, many periods, and so there's just a  
10:13:3018 lot of complicated econometric issues that are just moot  
19 as far as the data we have.

20 BY MR. AFFELDT:

21 Q In looking at the second point in Professor  
10:14:0022 Berk's E mail, about the first sentence he refers to  
23 risking the ecological fallacy. Does looking at this E  
24 mail refresh your recollection as to what he meant by  
25 "ecological fallacy"?

1 MS. DAVIS: Calls for speculation. Asked and  
2 answered.

3 THE WITNESS: Yes, it doesn't change what I  
4 said yesterday or the day before or the day before that  
5 about the -- my recollection. It's -- It's the -- I  
6 think it's the same as what we discussed, the  
7 aggregation bias issue.

8 BY MR. AFFELDT:

9 Q Did you -- Looking at his last sentence there  
10:15:0010 he says:

11 "There are some ways to address this, but  
12 they involve pretty heroic assumptions."  
13 Did you attempt to address the -- what he  
14 refers to as the ecological fallacy in any way?

15 A No.

16 MS. DAVIS: Vague and ambiguous.

17 THE WITNESS: No, I didn't try to do any  
18 more -- more complicated analyses of -- than what I  
10:15:3019 reported.

20 BY MR. AFFELDT:

10:16:0021 Q Let's mark as Exhibit 18 the Aaronson report  
10:16:3022 that you brought in for us on day one.  
23 (Podgursky Exhibit 18 was marked for  
24 identification by the court reporter.)  
25 BY MR. AFFELDT:

1 Q Do you know who Daniel Aaronson is?

2 A Well, I -- I met him at a conference and talked  
3 to him for 20 minutes. That's -- That's the extent of  
4 my knowledge of Daniel Aaronson. I know he's an  
5 economist -- or at least I'm fairly certain he's an  
6 economist. One can draw that inference knowing that  
7 you're in a research -- a research office -- the  
8 research department of a federal reserve bank. So I'm  
9 assuming he's an economist and I met him at a conference  
10:18:3010 and briefly discussed this work.

11 Q And what was the conference?

12 A The American Education Finance Association  
13 meetings which were last -- I don't know. They're in  
14 March in Orlando. So he presented this work but the  
15 paper wasn't available, but I -- he presented some of  
16 their findings at a session.

17 Q Do you know any of the other authors?

10:19:0018 A Not personally. I've read work by William  
19 Sander.

20 Q That's not the same guy in Tennessee, is it?

21 A No, that -- that's Sanders with an "S." I know  
22 it's confusing.

23 Q It's also William, though; right?

1 Q Does the federal reserve bank normally do  
2 education research?

3 MS. DAVIS: Calls for speculation. Vague and  
4 ambiguous.

5 THE WITNESS: Every federal -- There are 12  
6 federal reserve banks in the U.S. and they -- they have  
7 research departments and they hire economists, very  
8 smart economists in general, and give them a lot of  
9 degrees of freedom to do research. So while most of the  
10 research that emanates from research departments of  
11 federal reserve banks is -- is on things that you might  
12 associate with the Federal Reserve. These researchers  
13 write other papers as well. They give them a lot of  
10:20:3014 degrees of freedom in the research they pursue.

15 BY MR. AFFELDT:

16 Q And why did you bring it in for us?

17 A Well, I thought it was a very good paper and  
18 I -- I -- I would see it as -- as -- Now, there may be  
19 something I missed and it's going -- and it has not gone  
20 through peer review yet, but I think this is an  
21 important study and I think it indicated -- it  
10:21:0022 reenforces this view that there's a lot of variation in  
23 teacher performance out in the world that's not strongly  
24 associated with measured credentials of the teacher.

25 Q Is there anything else that you think is in

1 certification but they have looked at teacher pay, for  
2 example, and argued that maybe use teacher pay as a  
3 proxy for teacher quality and then looked at the pay of  
4 teachers, the relative pay of teachers, and then the  
5 future -- the earnings -- Well, they look at the current  
6 earnings of students and then look at the relative pay  
7 of teachers back when these students -- or back when  
8 these individuals were students, K through 12 students,  
9 so there's been some papers that have taken that  
10 approach. Heckman, for example, has -- has such a  
11 paper.

12 Q And I've had copies made of all the studies you  
10:24:3013 brought in, so if you need to refer to them let me know  
14 but I would prefer not to bulk up our record if we don't  
15 have to.

16 A That's fine with me.

17 Q On the Hanushek study that you brought in which  
18 is How to Improve the Supply of High Quality Teachers,  
19 why did you think that was relevant to our discussion  
20 here?

21 A Well, there were -- he has a series of -- Well,  
10:25:0022 first of all he describes this -- Well, I guess there's  
23 several contributions. First he explained why  
24 gain-score approaches are generally preferred in his  
25 research and lays out that sort of statistical

1 here that supports your expert report?

2 A Well, I didn't cite it. I just brought it in  
3 because I thought that it might -- I just -- If I  
4 referred to it in our discussions, you were going to ask  
5 for it, I assumed, and so I thought I might as well have  
6 it here. I don't -- You know, I -- I haven't combed  
7 through it to look for every bit of information that  
8 could go one way or the other on this but my -- I think  
9 it's important for the general point that there's a lot  
10:22:0010 of dispersion -- a lot of variation in teacher  
11 performance, and I think he's done a good job of pinning  
12 down that individual teacher performance and it seems to  
13 be highly idiosyncratic in that it's not well predicted  
14 by any of the things we traditionally measure about  
15 teachers, so that's what's important for me.

10:22:3016 Q You talked a moment ago about future earnings  
17 as a -- as a view of success at least in the Heckman  
18 paper analyses. Could future earnings be another  
10:23:0019 student outcome variable that one could look at in -- in  
20 analyzing teacher effects instead of student test  
21 scores?

22 A Yes, and there's some studies that have tried  
23 to do that.

24 Q What studies are those?

25 A Well, I don't recall any that have used teacher

1 argument. But then he has a series of tables -- a  
2 couple of tables really that look at the literature that  
3 meets the bar I talked about, longitudinal data, and he  
4 calls it high quality studies, and his definition of  
5 "high quality" is a gain-score or longitudinal and  
6 restricted to one state because he's concerned with  
7 exactly what we were discussing yesterday about how  
8 comparable certification is across states and  
9 measurement problems and, you know, is emergency in one  
10 state comparable to emergency in another and so on, so  
10:26:0011 he -- he prefers state studies.

12 And by the way, that same point could come up  
13 in other things. I mean it -- it could be not only on  
14 teacher licensing but other interventions could -- could  
15 vary across states. So -- So he was arguing that it's  
16 preferable to do single-state studies with gain-scores,  
17 and so he breaks out a few and looks at several  
18 variables -- master's degree, teacher experience,  
10:26:3019 teacher test scores, and pay. There may be something  
20 else but I think those were the four. And he showed in  
21 general that research is not finding these high quality  
22 studies, generally for the most part are not finding  
23 statistically significant effects of those variables on  
24 student achievement even though teachers have a big  
25 effect.

1 So in other words, even though as he points out  
2 in the text there's -- their research and the research  
3 of others suggests there's a lot of this variation in  
4 teacher quality within school buildings, within school  
5 districts, it does not seem to be strongly related to  
6 these things that we can measure -- pay, teacher test  
7 scores, master's degrees, experience. So that's the  
8 point he's -- he makes in that paper.

9 Q He looks at something called total teacher  
10:27:3010 effects. Have you seen a total teacher effects analysis  
11 before?

12 MS. DAVIS: Do you need to see the paper?

13 THE WITNESS: I would like to see the paper to  
14 refresh my memory on exactly what he meant there. I  
15 think I know but I think I'd like to see the paper  
16 first.

17 MR. AFFELDT: Sure. Let's mark this as Exhibit  
18 19.

19 (Podgursky Exhibit 19 was marked for  
20 identification by the court reporter.)

21 THE WITNESS: Can you point to where he uses  
10:28:0022 that term?

23 BY MR. AFFELDT:

24 Q Well, it does not have page numbers.

1 Q Where are you looking?

2 A I'm sorry. On the next page.

3 MS. DAVIS: Above footnote 9.

4 THE WITNESS: Yeah, footnote 9.

5 It says:

6 "A variety of studies have pursued this  
7 general approach...."

8 Bill Sanders' work, "Sanders" with an "S,"  
9 would fall under that rubric.

10 BY MR. AFFELDT:

11 Q And a couple of pages later there's some  
10:31:0012 markings. Are those yours?

13 A Yes.

14 Q What about the Wayne and Youngs -- "Youngs"  
15 with an "S" -- teacher characteristics student  
16 achievement gain, their review, why did you think that  
10:31:3017 was relevant to our discussion?

18 A Well, I -- it -- I was unaware that it was a  
19 forthcoming study when I did my report, but it turns out  
20 that they -- they set the bar essentially the same place  
21 I did, in other words they -- they agreed with the  
22 criteria that I laid out in my paper and indeed they  
23 identified the same two or three studies that would

1 I'm sorry.

2 MS. DAVIS: Do you have a section heading  
3 maybe?

4 BY MR. AFFELDT:

5 Q There's a Total Teacher Effects section heading  
6 with a "C." next to it.

7 MS. DAVIS: How far into the document?

8 MR. AFFELDT: It's above footnote 7.

9 MS. DAVIS: Okay. Okay. That's helpful.

10 THE WITNESS: Okay. There we go.

11 Okay. I know what he means. It's what -- It's  
10:29:3012 what I've been saying "teacher effects" they're calling  
13 "total teacher effects."

14 So -- I'm sorry -- could you repeat your  
15 question, then.

16 BY MR. AFFELDT:

17 Q Are you familiar with a total teacher effects  
18 analysis like Hanushek looks at here?

19 A Yes, I understand what they mean by the term.

20 Q Is that -- Who else has done a total teacher  
10:30:0021 effects analysis?

22 A Well, I think by their definition Aaronson  
23 would fall under that, their own work would fall under  
24 that. Well, he has some citations in there. An early  
25 Armor study, Murnane and Phillips --

1 Brewer studies and then the study by Maggie Raymond was  
2 not published but they do mention it. So it really  
3 boils down, the same -- this published survey of the  
4 literature reaches essentially the same conclusion that  
5 I do in the report.

6 Q And do you think their analysis is sound and  
7 state of the art as -- as you set out in your report?

8 MS. DAVIS: The Wayne and Youngs?

9 MR. AFFELDT: Yes.

10 MS. DAVIS: Vague and ambiguous.

11 THE WITNESS: Well, I think it's a good  
12 survey. I might not agree with every single point, but  
13 I -- my -- my point is that if you recall that in my  
10:33:0014 study that I said I looked at all the Professor  
15 Darling-Hammond's citation and so far as I could  
16 determine only two or maybe three met the standard I  
17 laid out. Well, these guys did a much more thorough  
18 survey of the literature and came to the same  
19 conclusion, so I think that's an important point. I --  
20 I can't claim that I surveyed all of the -- the research  
10:33:3021 and had done as thorough a search as they did, but they  
22 did a thorough search and arrived at the same  
23 conclusion.

24 BY MR. AFFELDT:

25 Q And are the standards of analysis that they

1 used methodologically sound in your view?

2 A Yes, I think that they've -- they've -- the  
3 standard they've set I think is reasonable and it's what  
4 we should -- should expect for studies of teacher  
5 characteristics and student achievement, not just  
6 certification but more generally, you know, master's  
7 degrees, experience, all of these teacher quality  
8 variables.

9 Q And the Education Commission of the States  
10 piece which for the record is titled Eight Questions on  
10:34:3011 Teacher Preparation: What Does the Research Say?  
12 Education Commission of the States August 2003, why did  
13 you think that was relevant for your testimony in this  
14 case?

15 A The Education Commission of the States sets the  
10:35:0016 bar lower, they count a lot of descriptive studies and  
17 so on using a different standard. I -- But then -- And  
18 then they sort of weight the evidence, so they put more  
19 weight on these descriptive studies than I would.  
20 However, the -- I think the most relevant point for our  
21 discussion is that their conclusion that -- their  
10:35:3022 tentative conclusion that alternate teacher  
23 certification, the evidence is limited to date but at  
24 least certainly does not suggest that it's doing any  
25 harm to students and -- and at least hints at some

1 promise as a good policy for -- for schools -- for  
2 states to pursue. I would say it's a qualified or  
3 cautious endorsement of alternate teacher certification.

4 Q Do you know how the Education Commission of the  
5 States came up with their what you described to be a  
6 lower standard of review of the research?

7 MS. DAVIS: Calls for speculation.

8 THE WITNESS: Yes, they describe it in some  
9 detail in a couple of appendices. Basically they're  
10 using the same standard that was used by -- in a study  
11 by -- Well, it's three authors and I only remember the  
12 first -- is Professor Wilson who I think is at Michigan  
13 State and then two coauthors in a study that was  
14 commissioned by the U.S. Department of Education several  
10:37:0015 years ago, and that study produced a survey of the  
16 research, and so they continued -- they use that same  
17 sort of standard for selecting studies.

18 BY MR. AFFELDT:

19 Q So would you agree at least that people in the  
20 field can disagree as to what the appropriate standard  
21 for methodologically sound research is?

10:37:3022 MS. DAVIS: Vague and ambiguous.

23 THE WITNESS: Well, I'd agree there -- there  
24 may be some disagreement, but I'd also point out that --  
25 that what Allen did is he took -- looked at all the

1 studies but he didn't give them all the same weight, so  
2 he -- he implicitly through some mechanism and  
3 subjectively discounted the descriptive studies as  
4 compared to the longitudinal studies but gave them some  
5 weight, not a zero but some weight and I don't really  
6 know what that is. So, yes, there can be some  
7 disagreement.

8 BY MR. AFFELDT:

9 Q Is that Alan Wilson? You said what Allen did.  
10 Is that --

11 A No, I'm sorry. Allen is -- I'm sorry. Allen  
12 is the name of the person at the Education Commission of  
13 the States.

14 Q And what was his role in --

15 A He wrote the report as far as I can determine.

16 Q And I think you were having some trouble  
10:38:3017 remembering his full name the other day?

18 A I think it was Michael. I'd have to check.

19 Q And what do you think the American Federation  
20 of Teachers report on salary shows us?

21 A Can I look at a copy? I'd like to see a copy.

10:39:0022 MR. AFFELDT: I think we have a copy. We'll  
23 mark that as Podgursky Exhibit 20.

24 (Podgursky Exhibit 20 was marked for  
25 identification by the court reporter.)

1 THE WITNESS: Let's turn to -- Are we ready?

2 BY MR. AFFELDT:

3 Q Yes.

4 A The -- Both Professor Darling-Hammond and I  
5 relied on these data from the AFT. She -- She discussed  
6 a number of their tables. The -- The new -- A new  
7 report has come out. Both of us were using -- Well, I  
8 was using 2001 data. Frankly, I don't remember which  
9 year she was -- I think she was using 2001 as well. But  
10 this is -- this just came out in July after I had  
11 submitted my report and obviously after her report and  
12 this gives the most recent data. And I guess the first  
13 thing to note in Table 1 --

14 Q What page are you on?

15 A Page 7 on Table 1, Table I-1 or I-1.

10:41:3016 (Continuing) -- is that California is now  
17 number one in terms of salary. So if I refer to my  
18 report, I believe in 2001 they were No. 6. California  
19 is now the first in the nation in terms of average  
10:42:0020 teacher salaries. Yes. So in the previous report they  
21 were sixth and now California is now in first place with  
22 average salaries of \$54,348. They've jumped up quite a  
23 bit.

24 If you go to Table 3 --

25 Q What page?

1 A Page 9.  
 2 (Continuing) -- between '99 and -- '99, '00,  
 3 2001, 2002 pay on average has gone up by 14 percent.  
 4 And then finally -- You have to be cautious with those  
 5 change figures because teacher experience changes, but  
 6 it is interesting, there is another table that attempts  
 7 to adjust for average teacher experience, and I have to  
 8 find that. Yes, that would be Table I-9.  
 9 MS. DAVIS: Page 15?  
 10 THE WITNESS: Yes, page 15, I-9.  
 10:43:3011 And you see that even if you make an adjustment  
 12 for salary -- I mean for the average experience of  
 13 teachers, California's teachers are a little bit -- have  
 14 a little less, a little lower average experience than  
 15 the nation. So in fact if you sort of adjust them, make  
 16 an adjustment for that, then that even adds more to the  
 10:44:0017 salary. That would bump the salary up to fifty --  
 18 average, adjusted average, to 56,281, and notice that  
 19 that puts with this -- after this adjustments for  
 20 experience that puts California almost \$5,000, or 10  
 21 percent, ahead of the No. 2 state, Michigan.  
 22 So -- So on the basis of the newest information  
 10:44:3023 available, most recent, California's pay position  
 24 relative to other states has -- has -- has moved up  
 25 substantially.

1 BY MR. AFFELDT:  
 2 Q Do you think it's -- In looking at salary data  
 3 across jurisdictions, do you think it's appropriate to  
 4 adjust for cost of living?  
 5 A If we had a good cost of living index -- Well,  
 6 let me back up. Living costs obviously vary across  
 7 jurisdictions. When you say "across jurisdictions," you  
 8 mean within California?  
 9 Q I used "jurisdictions" because it could be  
 10 across states or it could be across districts, depending  
 11 on what you mean.  
 12 A Obviously the cost of living, the cost of  
 13 buying the things households buy vary across regions and  
 14 jurisdictions but so do the other -- so do amenities,  
 10:46:0015 and that's part of the problem of coming up with a cost  
 16 of living adjustment, it's hard to do.  
 17 Q Well, assuming you could do it and that were a  
 18 good measure, do you think that salaries should be  
 10:46:3019 adjusted for cost of living across jurisdictions?  
 20 MS. DAVIS: Calls for speculation. Incomplete  
 21 hypothetical.  
 22 THE WITNESS: I don't think it's a very useful  
 23 exercise and I think that -- It's not why teachers --  
 24 More importantly it's -- I don't think it's an issue  
 25 of -- I don't think it's an important issue in looking

1 at teacher labor markets. And I can explain why.  
 2 Q Please do.  
 3 A Well, if you find -- There's a table in here  
 4 where they do their cost of living adjustments, "they"  
 5 being the AFT.  
 6 MS. DAVIS: And who is "they"?  
 7 THE WITNESS: Howard Nelson. I know who the  
 8 "they" is, it's Howard Nelson at the AFT. There it is.  
 9 BY MR. AFFELDT:  
 10 Q What page?  
 11 A Page 13, Table I-7. Okay.  
 12 So here we have the 50 states ranked from 1 to  
 13 50 based on the American Federation of Teachers Cost of  
 10:48:0014 Living Index which is what Professor Darling-Hammond  
 15 used. Now, I know I'm not supposed to ask questions,  
 16 but let me just pose a rhetorical question. I'm  
 17 supposed to answer questions. So we see that  
 18 Pennsylvania is No. 1, Michigan is No. 2, California  
 19 drops to 11, and South Dakota and North Dakota are 49  
 10:48:3020 and 50. So if I believe these numbers, the -- the true  
 21 pay of teachers adjusted for cost of living is \$54,960  
 22 in Pennsylvania but only \$35,000 in North Dakota, only  
 23 31 -- Let's take Hawaii. Let's keep Hawaii. That's the  
 24 best of all. It's only 31,700 in Hawaii. So my

1 move from North Dakota and Hawaii to Pennsylvania?  
 2 Particularly Hawaii, why don't they all move from Hawaii  
 3 to Pennsylvania? I don't understand it. If real pay is  
 4 so much higher in Pennsylvania, why doesn't everyone  
 5 move to Pennsylvania? I'm being glib, but the point  
 6 here is that it's not -- these labor markets are  
 7 localized.  
 8 The best way to think about it is people move  
 9 to Hawaii, they move to North Dakota, they move to South  
 10 Dakota and they decide that's where they're going to  
 11 live. These are -- Teachers don't do national teachers,  
 12 as we discussed one of the days I've been here. Most of  
 13 them end up teaching, or many of them, very near where  
 14 they graduated from college and many end up teaching  
 15 where they grew up. So the relevant comparison in -- or  
 10:50:0016 a better comparison in terms of explaining teacher  
 17 behavior is not how teachers' salaries compare between  
 18 North Dakota and Pennsylvania, because I can tell you  
 19 there's -- there's no teachers who moved from North  
 20 Dakota to Pennsylvania based on this chart. There's --  
 21 I'm unaware of any flow of teachers from North Dakota to  
 22 Pennsylvania. There's probably a few of them that moved  
 23 but I think it was probably an accident and not based on

1 teachers become teachers and stay teachers is the  
 2 relative pay of teachers within those states, not  
 3 between the states. So I think that -- And -- And so  
 4 it's -- it -- And so I think the best thing to look at  
 5 is relative pay and not some attempt at measuring a cost  
 6 of living because it's very hard to -- to come up with a  
 7 cost of living. I gave the example of Malibu in the  
 8 paper. I mean the price of a house -- housing in Malibu  
 9 is to a Missourian like me astronomical, or in San  
 10 Francisco, but that -- but partly that's a fact that  
 11 they're nice places to live so people are willing to  
 12 live in smaller houses.

13 And so what's relevant is relative pay in that  
 14 area and -- and not -- if you attempt to do a cost of  
 15 10:51:3015 living, you conclude that everyone in Malibu is unpaid  
 16 or everyone in San Francisco is underpaid because some  
 17 costs seem so high relative to Montana. So --

18 Q Have you done an analysis in California of  
 19 differential pay in -- in regional labor markets for  
 20 teachers in different districts?  
 21 10:52:0021 A The only analysis of pay that I did is in the  
 22 report and that only looks at the BLS, Bureau of Labor  
 23 Statistics, labor market areas off their web site.  
 24 That's the only analysis I did.

25 Q Do you think that differential pay crossed

1 districts within the same labor market could have an  
 2 impact on where teachers want to teach?

3 MS. DAVIS: Calls for speculation.

4 THE WITNESS: Yes, pay and working conditions.

5 MR. AFFELDT: Why don't we take a break.

6 MS. DAVIS: Sounds good.

7 (Recess.)

8 BY MR. AFFELDT:

9 Q I'll hand you what we will mark as Podgursky  
 10 10:53:3010 Exhibit 21 and let me know what this is after you've had  
 11 11:07:3011 a chance to review it.  
 12 (Podgursky Exhibit 21 was marked for  
 13 identification by the court reporter.)

14 BY MR. AFFELDT:

15 Q Do you recognize this document?  
 16 11:08:0016 A Yes, I do.  
 17 11:09:0017 Q What is this?  
 18 A This is the manifesto on teacher quality from  
 19 the Fordham Foundation.

20 Q And The Teachers We Need and How to Get More of  
 21 Them: A Manifesto?  
 22 A Yes.

23 Q Were you one of the original signatories to  
 24 this manifesto?  
 25 A I don't know if I was an original signatory.

1 I -- At some point I became a signatory.

2 MS. DAVIS: Does this have the year? I know  
 3 when you printed it. Okay. April 20, 1999.

4 Q Ms. Davis is reading from the first sentence  
 5 under the title. It says:  
 6 "This policy statement was released by the  
 7 Thomas B. Fordham Foundation on April 20, 1999  
 8 on behalf of several dozen state officials,  
 9 prominent education analysts, and veteran  
 10 practitioners. A list of the original signers  
 11 appears at the end of the document."  
 12 If you go to page 16 it indicates that the  
 13 original signers are listed below that and I believe  
 14 11:10:3014 you're one --

15 A Okay. Okay. I concede --

16 Q -- on page 19.

17 A -- I'm an original signer.

18 MS. DAVIS: Whatever they mean by that.

19 THE WITNESS: Yeah.

20 My recollection is they went around getting  
 21 signatures. They didn't start with me but they ended up  
 22 with me at some point so. . . Notice the governor of  
 23 Michigan is on there. I'm sure that he was approached  
 24 before I was so. . . Actually, the governor of

1 Services. No. No. No. That's the guy from Wisconsin.  
 2 Sorry.

3 MS. DAVIS: Thompson?

4 THE WITNESS: Thompson, yeah. Wrong state.

5 BY MR. AFFELDT:

6 Q What is this document generally speaking?  
 7 A It's a statement about -- Well, I didn't write  
 8 this so in my recollection -- May I spend a moment  
 9 and --

10 Q Sure.

11 A Okay. It's a statement arguing that or  
 12 11:12:0012 advocating policies concerning teacher quality along the  
 13 11:12:3013 lines of what we've talked about -- some of which we've  
 14 talked about over the last few days focusing on outputs  
 15 rather than inputs, that it's student achievement rather  
 16 than sort of regulating -- extensive regulation of the  
 17 labor market.

18 Q Do you believe that children that face  
 19 11:13:0019 high-stakes tests for promotion and graduation will need  
 20 instructors with more knowledge and skill than ever  
 21 before?  
 22 A I don't know that that's true. I don't know  
 23 that's true at all. I -- I don't know that it's true.

24 Q Okay. Well, you signed onto that statement and

1 A Oh, really?  
 2 Q -- in the last paragraph, third sentence.  
 3 A Page 2 where?  
 4 Q Last paragraph, third sentence.  
 5 MS. DAVIS: Read the sentence, can you?  
 6 MR. AFFELDT: "Children who face high-stakes  
 7 tests for promotion and graduation will need  
 8 instructors with more knowledge and skill than  
 9 ever before."  
 10 THE WITNESS: Let me point out that this is  
 11 a -- Let's see -- a 12-page single spaced document with  
 12 38 footnotes. I agree with the general thrust of the  
 13 policy position, that doesn't mean I agree with every  
 14 single sentence in this, so that particular one I think  
 11:14:3015 is a bit of an exaggeration. I don't know that that's  
 16 true. It may well be that the knowledge and skills that  
 17 are in the work force are adequate, they're just going  
 18 to have to work harder. So I -- I don't know that  
 19 that's true.  
 20 BY MR. AFFELDT:  
 21 Q Is it your professional practice to sign onto  
 22 documents which contain statements which you don't  
 11:15:0023 ascribe to?  
 24 MS. DAVIS: Vague and ambiguous.  
 25 THE WITNESS: No. Or wait. Is it my

1 professional -- No, it is not my practice to sign  
 2 documents with vague and ambiguous statements but I  
 3 don't think that that one is sufficiently -- How should  
 4 I say? -- objectionable that it would lead me not to  
 5 sign it. I -- I think they -- It's the -- It's the  
 6 policy -- the general thrust, the overall thrust of the  
 7 document that I think is the important point here, not  
 8 the sort of introduction.  
 9 BY MR. AFFELDT:  
 10 Q If you could turn to page 3, the second --  
 11:16:0011 Sorry -- the first paragraph, the third sentence in  
 12 says:  
 13 "Moreover teachers are often assigned to  
 14 courses outside their main teaching field as a  
 15 cost-saving measure or administrative  
 16 convenience, because of shortages in advanced  
 17 subjects such as math and science, or because  
 18 some schools--such as those in the inner-city--  
 11:16:3019 have a high turnover of teachers."  
 20 Are you aware of any evidence that underlies  
 21 that statement?  
 22 MS. DAVIS: Vague and ambiguous. Calls for  
 23 speculation.  
 24 THE WITNESS: Well, there's -- there's some

1 evidence of, you know, that shortages in math and  
 2 science lead to out-of-field assignments. In general I  
 3 think schools -- That's the strongest. The evidence on  
 4 the others I think is a little weaker, so I -- you know,  
 5 I can't name a citation right off the top of my head  
 6 that would say -- that would show that the assignment --  
 7 out-of-field assignment -- controlling for other factors  
 8 is -- is a function of turnover. It might be but I --  
 9 nothing jumps to mind immediately.  
 10 BY MR. AFFELDT:  
 11 Q Do you believe the clause saying that some  
 12 schools such as those in the inner-city have a high  
 13 turnover of teachers is true?  
 14 MS. DAVIS: Calls for speculation.  
 15 THE WITNESS: Yes, turnover is on average  
 16 higher in the inner-city schools.  
 17 BY MR. AFFELDT:  
 18 Q In the next -- The last sentence of the next  
 11:18:3019 paragraph says:  
 20 "More troubling still, children attending  
 21 school in poor and urban areas are least likely  
 22 to find themselves studying with teachers who  
 23 did engage in deep studying of their  
 24 subjects."  
 25 Do you believe that statement to be true?

1 MS. DAVIS: Calls for speculation.  
 2 THE WITNESS: I think there's some evidence to  
 3 that effect. I mean we found that ACT scores are lower,  
 4 there's fewer teachers who major in math and science, so  
 5 there's some evidence for that point.  
 6 BY MR. AFFELDT:  
 7 Q If you could turn to page 6, the first two  
 8 sentences in the last paragraph say:  
 9 "Yet outstanding candidates are often  
 10 discouraged by the hurdles that the regulatory  
 11 strategy loves to erect. Burdensome  
 12 certification requirements deter well-educated  
 13 and eager individuals who might make fine  
 14 teachers but are put off by the cost, in time  
 15 and money, of completing a conventional  
 16 preparation program."  
 11:20:3017 Are you aware of any research that meets your  
 18 methodological minimums which supports those statements?  
 19 MS. DAVIS: Vague and ambiguous. Calls for  
 20 speculation.  
 21 THE WITNESS: Well, I wouldn't state these --  
 11:21:0022 This is stated in a -- How should I say? -- a more --  
 23 This isn't a scholarly document. It's a manifesto, so  
 24 that's stated stronger.  
 25 I think there's literature that suggests -- I

1 think there's evidence suggesting that -- from a number  
 2 of sources that suggests that there are people -- The  
 3 empirical point is are there well-educated and eager  
 4 individuals who would enter teaching if we relaxed entry  
 5 barriers, put in objective terms or more objective  
 6 terms. That's the empirical point there. Are there  
 7 people who are deterred by these requirements? Let's  
 8 not call them -- Let's even use neutral language there.  
 9 People with high ACT scores, people with good content  
 11:22:0010 knowledge who would become public school teachers if we  
 11 did not have these requirements in place. So if you  
 12 restate it that way, the answer is yes.

13 I think we've seen evidence in these alternate  
 14 certification programs that individuals who have good  
 15 academic background -- former engineers, former lawyers,  
 16 Troops to Teachers folks -- enter through these routes  
 11:22:3017 and there's been a number of surveys of these  
 18 individuals saying they wouldn't -- they wouldn't have  
 19 been willing to go through a traditional training  
 20 program, and that makes economic sense because these  
 21 people have families and obligations, they need a  
 22 paycheck. That's the bottom line. They don't have the  
 23 resources or they're unwilling to commit the resources  
 24 to, you know, go back to college for a year, a year and  
 25 a half, do student teaching with no pay in order to be a

1 and -- and go through all of that training. So -- But I  
 2 can't -- You know, I can't name anything. That's what  
 3 comes to mind immediately.

4 Q Does any of the evidence you're referring to  
 5 meet your standards for randomization or rigorous  
 6 nonexperimental design?

7 A No.

8 Q On the next page, the second sentence from the  
 9 top says:

10 "There is accumulating evidence that local  
 11 school boards show little interest in hiring  
 12 the most academically qualified applicants."

11:25:3013 A Okay. I lost your page here.

14 Q Sorry.

15 A Is this getting hired -- Oh, there it is.

16 "There's accumulating evidence that local..." -- Yeah.  
 17 Okay. Hold on.

18 Q The footnote citing to your friend and  
 19 yourself --

20 A Yep. You can bet that meets my standards if  
 21 that's your next question.

22 Q That is my next question.

11:26:0023 Do the evidence cited there meet your standard  
 24 of randomized experimental or rigorous nonexperimental  
 25 design?

1 teacher. So I think we've -- that's one source of  
 2 evidence.

3 The second is we see these kinds of -- private  
 4 schools recruit these types of individuals who are  
 5 uncertified, so I think there's some evidence to support  
 6 that as well as, you know, it's consistent with economic  
 7 theory, that individuals who -- who are older and have  
 8 an opportunity cost to their time are going to be less  
 9 willing to enter these kinds of -- less willing to make  
 11:23:3010 these kinds of investments to become teachers.

11 BY MR. AFFELDT:

12 Q Can you list any of the surveys that you're  
 13 referring to?

14 A Well, I think there's evidence in our book on  
 15 this point, so if you look through our book I think you  
 16 could find some arguments there about the effect of --  
 17 the effect of these costs. I recall there was a survey  
 11:24:0018 of Troops to Teachers, a study that was done actually by  
 19 Emily Feistritzer, the same one who surveyed these  
 20 Troops to Teachers participants, and I believe there  
 21 was -- there were questions in there about their  
 22 willingness to undergo traditional approaches.

23 I believe I've seen the same questions asked of  
 24 Teach For America candidates, that they wouldn't have  
 25 been willing to -- to go to an ed school for two years

1 A Well, obviously we didn't run an experiment,  
 2 but the question -- the important -- I think your --  
 3 Sometimes you can answer questions without -- with  
 4 less -- you don't need -- you don't always need an  
 5 experiment or this kind of rigorous study design to  
 6 answer a question. Remember, I told you that one of the  
 7 reasons it was so important to have -- to determine  
 8 the -- in estimating the causal effect of certification  
 9 was because you had a powerful correlation between  
 10 certification and socioeconomic status of the students.

11:27:0011 So in that situation it makes -- it makes it very  
 12 difficult to tease out the independent effect of  
 13 certification. Now, that situation isn't reproduced  
 14 everywhere, so in this case this is a straightforward  
 15 question to answer.

16 What we looked at in our study, in the Ballou  
 17 -- Ballou is a very rigorous study that was published in  
 11:27:3018 a top journal and we did a somewhat less rigorous  
 19 version of it in our book. The question was -- You  
 20 often observe the fact -- In fact there's an empirical  
 21 regularity out there with individuals with the higher  
 22 ACT scores or measures of academic skills -- SAT scores,  
 23 ACT scores, selectivity of colleges -- even if they

1 certified are less likely to become teachers. There  
 2 have been a few studies that found that empirical fact.  
 3 Now, the question is -- the empirical question  
 4 is is that because they're choosier, that is they --  
 5 they -- you know, they don't -- is it -- an economist  
 6 would say is it a supply side, was it a decision of the  
 7 individual that you know they just didn't like teaching,  
 8 you know, and they had other choices so they didn't  
 9 become teachers or was it because they -- a demand side,  
 10 that they actually got fewer job offers. And it turns  
 11 out that the evidence in our book and in Dale's article  
 12 was that there was clear evidence that these high --  
 11:29:0013 high-skilled individuals really weren't getting more job  
 14 offers in teaching than less-skilled individuals or less  
 15 academically qualified individuals, and that was a  
 16 surprising result. I mean most people thought, well,  
 17 yeah, they got more job offers but they just turned them  
 18 down. In fact, we found no evidence that they got more  
 19 job offers and we even found some evidence that they got  
 20 fewer job offers.  
 11:29:3021 So that work met the scholarly standard of the  
 22 professions. We explored it a variety of ways and tried  
 23 to disprove the hypothesis in a variety of ways, and you  
 24 can look at the article and check it out. But it got  
 25 published in the QUARTERLY JOURNAL OF ECONOMICS which

1 is -- which is published at Harvard University, which is  
 2 one of the top journals in the economics profession and  
 3 it was peer reviewed, so I would say it met the  
 4 scholarly standards in -- in the field.  
 5 Q But it wasn't an experimental design?  
 6 A No, but you didn't need an experiment on that  
 7 point. Although, I mean, it's always desirable to have  
 8 an experiment but it would be difficult to design an  
 9 experiment on that point.  
 10 Q And it wasn't a rigorous nonexperimental  
 11:30:3011 design?  
 12 A Oh, it was rigorous. I disagree. It was -- It  
 13 was a rigorous study. It didn't need longitudinal data,  
 14 though, to answer.  
 15 Q So it was a cross-section analysis?  
 16 A Well, it's -- it was longitudinal data -- I  
 11:31:0017 take it back. It was longitudinal data because it was  
 18 from baccalaureate and beyond, so it was a longitudinal  
 19 data set that tracked individuals out of college. So in  
 20 fact we did use longitudinal data. It was not cross  
 21 sectional. So I guess I did meet my own standard. So  
 22 it was longitudinal data controlled for the background  
 11:31:3023 of the individuals.  
 24 Q How did you control for the backgrounds of the  
 25 individuals?

1 A Well, we -- it's -- it was from a data -- a  
 2 data set. Actually, that one was called Survey of  
 3 Recent College Graduates that tracked cohorts of  
 4 graduates out of college into the work force. It was --  
 5 It's -- It was conducted by the U.S. Department of  
 6 Education over a number of years. We pooled a number of  
 7 the years of data and tracked graduates out, and so we  
 8 looked at those who were certified, certified and became  
 9 teachers. They ask a variety of questions about the  
 10 labor market behavior of the individuals.  
 11 Q The next sentence says:  
 12 "Districts often eschew professional  
 11:32:3013 recruiting and screening practices."  
 14 What evidence are you aware of that supports  
 15 that statement?  
 16 A Well, you're -- the two sentences really go  
 17 together, so I think they ought to be considered in  
 18 combination so I have to look at footnote 26. It seems  
 11:33:0019 to be --  
 20 Q And you're referring to the following sentence  
 21 after the one I just read which is:  
 22 "Instead, they frequently prefer to hire  
 23 their own high-school graduates after they have  
 24 become certified in a local education program,  
 25 a practice which has been found to contribute

1 to lower students' scores on the competency  
 2 achievement test."  
 3 A Okay. I -- Again, I think this -- the first  
 4 part of the second sentence is right. There's just I  
 5 think a lot of evidence that -- As we've discussed  
 6 before, these are localized labor markets. Quite often  
 7 individuals are raised in these communities, they go to  
 8 a local teacher college and will often go back to their  
 9 own district or a nearby district. It's -- The data in  
 10 Missouri, the data in New York, we see that teachers who  
 11:34:0012 graduate from these teacher training programs are  
 13 overwhelmingly employed nearby.  
 14 There have been surveys -- You know, there's  
 15 been some research on how -- what school administrators,  
 16 how they make their hiring decisions. I've seen some  
 17 survey data on that. And, you know, one source of this  
 18 localization is teacher -- student teachers. I mean the  
 11:34:3018 way that it's institutionalized is these teacher  
 19 training institutions will have student teacher programs  
 20 in nearby schools and so the typical school district  
 21 will hire a lot of their own student teachers, and so  
 22 that's -- that's the reason you -- I mean that sort of  
 23 institutionalizes a lot of the localization. So there's  
 24 evidence for that.  
 25 Now, the interpretation of whether they eschew

1 professional recruiting and screening is -- is the  
 2 writer's bit of hyperbole. But the way the market works  
 3 is the way I described it, is the typical sort of a  
 4 standard mechanism for recruiting.

5 Q The next page, page 8 --  
 6 A Okay.

7 Q -- the fourth full paragraph --  
 8 A Okay.

9 Q -- the first sentence says:  
 10 "School level managers are in the best  
 11 position to know who teaches well and who  
 12 teaches badly."  
 13 What evidence are you aware of that supports  
 14 the notion that school level managers are in the best  
 11:36:0015 position to know who teaches well and who teaches badly?  
 16 A Okay. It -- It turns out -- It's not  
 17 overwhelming but there is evidence in these studies of  
 18 student achievement gains. I'm aware of three studies  
 19 that have longitudinal data and included -- had  
 20 information on how the principal evaluated the teacher,  
 11:36:3021 and one of them is this study by Murnane that  
 22 Darling-Hammond cites.  
 23 Do you have her report? That's not in  
 24 evidence, is it?  
 25 MS. DAVIS: No.

1 THE WITNESS: Can I look at it? Well, if you  
 2 want me to -- I mean. Okay. I'll tick them off and if  
 3 you want details, I'll look.

4 It's by Murnane and it was in a book, it may be  
 5 an article that he wrote in the mid-70s. There was a  
 6 study by Armor, David Armor. It was L.A. schools  
 7 actually that had some -- similar -- it was a team of  
 8 researchers at RAND, it was a RAND report, and David  
 9 Armor was the lead researcher and it had information on  
 10 evaluations and then one of Bill Sanders' published  
 11 papers. It was published in the JOURNAL OF EVALUATION  
 11:37:3012 IN EDUCATION or something like that. He -- He didn't  
 13 report the statistics but he said -- he stated in the  
 14 article that -- he described variables that predicted --  
 15 that were associated with these positive teacher effects  
 16 and he -- he noted that the -- one of the stronger  
 17 predictors of teacher effects was an evaluation by the  
 11:38:0018 principals.

19 So I can name three studies that -- So of  
 20 the -- The only three studies I'm aware of that have  
 21 that information, had a principal evaluation and had  
 22 achievement gain-scores for students, all three found  
 23 that the principal evaluations were correlated,

1 Q Why do you say it's not overwhelming?  
 2 A Well, it's three studies. I wish it were ten.  
 3 The -- You know, you want more, you would like more  
 4 studies. I mean the Murnane study was in -- Oh, there's  
 5 more evidence. I'm sorry. There's my own. We looked  
 6 at -- I mentioned to you that I looked at NELLS, National  
 7 Educational of Longitudinal Survey, when we did that  
 8 1998 study on teacher -- teacher quality in public and  
 9 private schools. There was a question in NELLS, not  
 10 about individual teachers but the principals were asked  
 11:39:3011 about the overall quality of their work force, and that  
 12 was consistently positively associated with student  
 13 achievement gain-scores where the principal said my  
 14 teachers aren't so hot, I mean again, controlling for  
 15 other factors, there were lower gain-scores. Where the  
 16 principals said my teachers were good, there were higher  
 17 gain-scores. This was in NELLS data. So it was not an  
 18 individual teacher but it was an overall assessment of  
 11:40:0019 teacher performance. So there was that as well.

20 Again, you would like more evidence on this.  
 21 Murnane study I think was in New Haven, Armor study was  
 22 here in L.A. Sanders' study was in Tennessee. And they  
 23 were different questions, so, you know, you'd like more  
 24 studies. But, you know, what's out there is consistent

1 statement than there is for teacher certification, in my  
 2 opinion.

3 Q The evidence you've described links, as I  
 4 understand it, principal evaluations with positive --  
 5 Strike that.

6 The evidence you've described as I understand  
 7 it links principals' evaluations of their teachers with  
 8 the schools test scores; correct?  
 9 A Student achievement gains.

10 Q Okay. Student achievement gains?  
 11 A Yes.

12 Q Do any of those studies compare the principals'  
 11:41:3013 evaluations to some other mechanism's evaluations of the  
 14 teachers that have been hired in that school?  
 15 A Yes, the -- Well, I'm sorry. Do you mean do  
 11:42:0016 they compare the principal evaluations to things like  
 17 does the teacher have a master's degree, are they  
 18 certified, and so on; is that what you mean?  
 19 Q Let's go with that, with any other teacher  
 20 characteristic or -- Yeah.

21 A Okay. When we were writing our book and I was  
 22 reading the literature, I went back and looked at the  
 23 Armor and the Murnane studies carefully, and I -- I

1 effect. So Murnane didn't report standardized  
 2 coefficients which would permit comparing apples and  
 3 oranges, that is comparing different types of variables,  
 4 but with Murnane you could. And I recall -- Now, this  
 5 is, you know, six years ago, so, you know, you won't --  
 6 you will not be able to subpoena the yellow piece of  
 7 paper where I did this calculation. It's gone.  
 8 But my recollection was when I computed the  
 9 standardized coefficient, computed standardized  
 10 coefficients, in fact the teacher evaluation was --  
 11 was -- Excuse me -- the principal evaluation was big, it  
 12 was the biggest -- it had the biggest effect. And in  
 13 fact, I was on a -- an advisory panel and -- for the  
 11:43:3014 U.S. Department of Ed many years ago, probably in the  
 15 mid-nineties, and that was the first time I met Dick  
 16 Murnane. We were talking about questions on the Schools  
 17 and Staffing Survey, and I -- and Dick Murnane was in  
 18 the room and I cited that result and I argued that the  
 19 U.S. Department of Ed should be collecting this type of  
 20 assessment data, and in fact they did. You know what?  
 11:44:0021 They added that question to the survey I think because I  
 22 raised the question at that meeting. But Dick -- In my  
 23 recollection I stated that fact and Dick, in my  
 24 recollection, agreed with me that it was one of the most  
 25 powerful predictors. He didn't emphasize it in the

1 A That -- You've raised an important point.  
 2 These were low-stakes evaluations, in other words there  
 3 was -- there was nothing that hinged on them. They were  
 4 done for purposes of the survey. Now, I -- I am aware  
 5 that, for example, in New York City the -- the  
 6 principals will routinely rate all their teachers  
 7 satisfactory, and the reason is they -- if they're not  
 8 rated satisfactory they can be subject to grievances  
 9 and -- and it's a headache. So where -- where there are  
 11:47:0010 high-stakes, principals will often rank all the  
 11 teachers, you know, score them, uniformly.  
 12 Q Were the principal evaluations in the studies  
 13 you've just talked about specially created for purposes  
 14 of the research being conducted?  
 15 A Yes.  
 16 Q They weren't the typical evaluations done for  
 11:47:3017 purposes of evaluating the teacher's job performance?  
 18 A Well, I don't want to say -- Actually, I take  
 19 it back. One of them may have sort of been your  
 20 standard evaluation. I'm not sure. I'm not sure if  
 21 they drew these from administrative records and recoded  
 22 them. I believe at least one of them was customized for  
 23 the study.  
 24 Q Do you recall which one?

1 article, but I remember I talked to him. I said that,  
 2 you know, I did this calculation and that was the  
 3 biggest factor, and he was in agreement that yeah, he  
 4 just hadn't emphasized it in the article so. . .  
 5 Q What were the other teacher characteristics  
 6 that were analyzed in the Murnane article?  
 7 A I don't remember. I'm -- I'm fairly certain  
 8 master's degree was in there. I don't remember if  
 9 certification was in there. Experience, things like  
 10 that. I'd have to go back and look at the study to see  
 11 what the rest of the variables were.  
 12 Q Are you aware of evidence calling into question  
 11:45:0013 the reliability of principal ratings of teachers?  
 14 MS. DAVIS: Vague and ambiguous.  
 15 THE WITNESS: Well, I -- I know that there's  
 16 disputes about this but from -- I'm not aware of any  
 11:45:3017 evidence that links student achievement scores to these  
 18 types of assessments other than what I cited to you.  
 19 So someone may say they're not reliable but their  
 20 argument is not based on, so far as I'm aware, student  
 21 achievement gain data.  
 22 BY MR. AFFELDT:  
 23 Q Are you aware of evidence whether anecdotal or

1 Q The next sentence on page 8 says:  
 2 "They" -- referring back to school level  
 3 managers --  
 4 A Wait, can you -- Oh, "They have access."  
 5 Q "They have access to far more significant  
 6 information than state licensing boards and  
 7 government agencies."  
 8 What evidence are you aware of that supports  
 9 that statement?  
 10 A Well, I think the evidence for that is just  
 11:48:3011 common sense. They -- They're there every day. They  
 12 see what the teachers do. If the teachers are absent,  
 13 they're the ones that have to bring in substitutes.  
 14 They're the ones who field complaints from parents. You  
 15 know, they -- it -- Even if -- It's hard -- In my  
 16 opinion having studied schools it seems to me it would  
 11:49:0017 be hard -- it would be hard for a principal not to know  
 18 who was a bad teacher. If you look at the ends of the  
 19 distribution, who the very best teachers are and who the  
 20 very worst teachers are, I -- I find it utterly  
 21 implausible that a principal would not be aware of who  
 22 his worst teachers are. And there's certainly --  
 23 certainly lots of principals have told me they know who

1 very best and the very worst. Nuances in between, fine,  
2 you know, there may be some error. But as far as the  
3 very best and the very worst, they clearly have more  
4 evidence. I mean it's. . .

5 Q You're --

6 A How can someone in Sacramento know who stays  
7 after school and works with kids or who -- who has a  
8 good relationship with the parents who come to visit or  
9 who goes out of their way to take time to meet with, you  
10 know, parents who have concerns about their kids?

11 Q Your statement refers to teachers that are  
12 already teaching in the principal school. Does your  
13 common sense evidence the same with respect to a new  
14 hire?  
15 11:50:30

16 A Yes. The -- If a principal is doing his or her  
17 job -- And it doesn't have to be a principal. I mean an  
18 administrator. Someone is interviewing these teachers,  
19 someone is reviewing their transcripts, someone is  
20 reviewing their letters of recommendation, someone is  
21 asking them to teach a class or perhaps if they'd been a  
22 student teacher evaluating their performance. You know,  
23 11:51:00 this is information that's decentralized; it's in the  
24 school building, it's not in Sacramento.

25 Q Presumably the transcript would be in  
Sacramento.

1 Massachusetts is the same way, and they targeted their  
2 resources to secondary teachers. And in fact in some  
3 states they only allow alternate certification at the  
4 secondary level, so almost by definition you're going to  
5 get more math and science majors than you would as  
6 compared to -- I mean how many math and science teachers  
7 teach in elementary school? The answer is almost zero.  
8 So it -- it wouldn't surprise me that that's empirically  
9 the case in states with -- that are running large  
10 11:54:30 programs, because they're targeting -- you know, they're  
11 targeted towards shortage areas typically so. . .

12 Q And my question wasn't asking you to  
13 speculate. It was asking whether you're aware of any  
14 evidence that supports the notion that teachers with  
15 alternative certification are more likely to have  
16 11:55:00 bachelor's degrees in math and science.

17 A I -- I believe -- I believe that's true in New  
18 Jersey where there's been published data and it may be  
19 true in Texas which has published some data. That's all  
20 that comes to mind immediately.

21 Q Are you familiar with the articles cited in  
22 footnote 30?

23 A Yes, I am.

1 A Well, having observed states' Department of  
2 Education in operation, I'd say that's a probabilistic  
3 statement.

4 Q If you could turn to the next page, the second  
5 full paragraph, the third sentence from the bottom  
6 says:

7 "Teachers with alternative certification  
8 are more likely to have bachelor's degrees in  
9 math and science, two fields with chronic  
10 shortages of qualified teachers. They are also  
11 more likely to be members of minority groups."  
12 And then there's a footnote to a source.

13 What evidence are you aware of that supports  
14 11:52:30 the notion that teachers with alternative certification  
15 are more likely to have bachelor's degrees in math and  
16 science, if you think that's an accurate statement?

17 A Well, often it -- in my understanding of the  
18 11:53:00 operation of many of these state programs, it -- it  
19 wouldn't surprise me. I can't point to evidence  
20 immediately although I believe it's true in New Jersey;  
21 it may or may not be true in Texas. I don't know. I  
22 11:53:30 know it's true in Missouri, and the reason is the states  
23 generally or often will select candidates for these  
24 programs or target the programs at the secondary level  
25 and in New Jersey they started out that way.

1 A Well, I didn't know that, but the problem I  
2 think with Shen's article is he uses the Schools and  
3 Staffing Survey to analyze this, and I think it's a good  
4 example of -- of what -- of the same problem we  
5 discussed with Goldhaber and Brewer.

6 If you look at schools and staffing, a lot of  
7 teachers are asked to identify what kind of  
8 certification they have and a lot of teachers say they  
9 have alternate certification in states that don't have  
10 alternate certification programs, so I think it's a --  
11 And in fact Dale Ballou wrote a critique of this article  
12 11:56:30 that was published in a subsequent issue of Education  
13 Evaluation and Policy based essentially on that point,  
14 so there was an interchange between Ballou and Shen and  
15 a rejoinder by Shen on this point. And I just don't  
16 think it's a good data source for -- for looking at  
17 teacher certification, I mean other than the most sort  
18 11:57:00 of aggregate way, particularly on alternate  
19 certification.

20 Q The beginning of the following paragraph says:  
21 "Where personnel decisions have been  
22 deregulated" --

23 A You know, I have to interrupt because the  
24 problem is I closed the paper in between --

25 Q I'm sorry. We're on page 9.

1 MS. DAVIS: Page 9.  
 2 BY MR. AFFELDT:  
 3 Q That would be the third full paragraph, page 9  
 4 of 21.  
 5 A Oh, there is a page 9. Third full paragraph?  
 6 Q Yes.  
 7 A Go ahead.  
 8 Q "Where personnel decisions have been  
 9 deregulated, schools rush to hire well-educated  
 10 persons whether or not they possess standard  
 11 certification."  
 12 What evidence demonstrates the rush to hire  
 13 such persons?  
 14 A Oh, I think there's a bit of hyperbole there.  
 15 Well, they follow-up by discussing private schools. So  
 11:58:0016 if you treat that sentence -- that sentence and the next  
 17 as a combination, where -- if you view the "Where  
 18 personnel decisions have been deregulated," then it's  
 19 absolutely true, private schools do routinely hire  
 20 unlicensed teachers and I think that footnote 31 may  
 11:58:3021 well be me. Yep. So -- So that's true. If you think  
 22 of private schools as an example of deregulated  
 23 personnel decisions, then the first sentence is true.  
 24 Now, is there an example in the public domain  
 25 where that's true? I can't -- I can't think of one. We

1 see some evidence in charter schools. I'm -- I -- I'm  
 2 doing preliminary work on charter schools and you are  
 3 seeing them hire. For example, charter schools hire  
 4 more math and science majors. I've done work and I  
 5 found with the new -- It's not published yet or even  
 6 fully written up -- but I found evidence that charter  
 7 schools are more likely to hire math and science  
 8 majors.  
 9 Q Is your work in that -- Does your work in that  
 10 area meet your methodological minimums for sound  
 11 research?  
 12 A Well, it's -- it's descriptive so it's not --  
 11:59:3013 it's a fact. I mean I'm not -- I'm not trying to  
 14 establish causality or it's not a sophisticated causal  
 15 policy analysis. It's simply a statement, do charter  
 16 schools hire more math and science teachers? So I don't  
 17 need a fancy statistical model for that. I can use  
 18 cross-section data and I can tell you that they do.  
 19 Q The second -- Same paragraph, second sentence  
 12:00:0020 from the bottom says:  
 12:00:3021 "The few studies of alternative  
 22 certification that have been done find that  
 23 students of such teachers perform at least as  
 24 well as students of conventionally licensed  
 25 teachers."

1 There's a footnote 33.  
 2 Are you aware of any evidence that meets your  
 3 methodological minimum standards for sound research  
 4 which demonstrates that alternative certification  
 5 students perform at least as well as students of  
 6 conventionally licensed teachers vis-a-vis student  
 7 achievement gains?  
 8 A No.  
 9 Q Are you familiar with either of the two sources  
 12:01:3010 cited in footnote 33?  
 11 A I -- I've not looked at these carefully but I  
 12 don't believe these are the types of longitudinal  
 13 studies that we talked about yesterday, although I'm not  
 14 very familiar with them.  
 15 Q If you could turn to page 10, we're now into  
 12:02:0016 the section Putting Principles into Practice which makes  
 17 some recommendations, and the last two sentences on the  
 18 page say:  
 19 "Principals need accountability, too.  
 20 Their jobs and salaries ought to be tied to  
 21 their schools' performance."  
 22 Are you aware of any evidence that meets your  
 23 methodological minimums to demonstrate that tying

1 actually improves student achievement?  
 2 MS. DAVIS: Vague and ambiguous.  
 3 THE WITNESS: Well, there's two points to be  
 4 made in this regard. We are -- We're beginning to do  
 5 experiments in this area and they need to be evaluated.  
 6 Now, here I will -- I fall back on the track record of  
 7 economics. That proposition, that hypothesis, is really  
 8 just simple economics which is that incentives matter,  
 9 and I think that that has been demonstrated in so many  
 10 contexts in so many other areas that it's a reasonable  
 11 working hypothesis. Now, of course it needs to be  
 12 tested but it's not as if we're positing something that  
 13 has no evidence in other context. We have massive  
 14 evidence in other context that if you incentivize things  
 12:04:3015 people respond to incentives.  
 16 And so it's a very plausible hypothesis that  
 17 has indirect support in a wide range of other areas,  
 18 including, by the way, employment and training programs  
 19 that we were talking about earlier where employment and  
 20 training programs have incentives to, you know, place  
 21 more candidates and so on, they place more candidates.  
 12:05:0022 Now, actually, there is -- Well, let me stop it  
 23 there. There's some evidence that I haven't read  
 24 carefully yet that is sitting on my desk back at the  
 25 office and I can't even name names but -- I can't

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1 because I don't -- I mean I'll -- If I plan to cite it  
2 I'll send it to you. But there's evidence that's  
3 bubbling up out there and it needs to be carefully  
4 looked at. But -- But I think that that's a --  
5 that's on its face a very reasonable proposition and we  
6 should run experiments and evaluate them, but as an  
7 economist I think it's a very plausible proposition.  
8 Q But as of yet in this context with principals  
9 it's an unproven proposition; correct?  
10 MS. DAVIS: Mischaracterizes his testimony.  
12:06:0011 THE WITNESS: We don't have a lot of empirical  
12 evidence at this point, because again, many schools --  
13 schools have only begun to do this. We have not been  
14 doing this and therefore we haven't had empirical  
15 evidence. Now more and more schools are beginning to  
16 feel pressure to raise performance and they're now  
17 creating performance incentives for principals, and so  
18 the jury is out and we will have to see what the  
12:06:3019 evidence shows us.  
20 BY MR. AFFELDT:  
21 Q On the next page, page 11, under the second  
22 recommendation, the second sentence says:  
23 "All key personnel decisions (including  
24 hiring, promotion, retention, and compensation)  
25 should be devolved to schools."

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1 What evidence that meets your methodological  
2 minimum standards for research are you aware of exist  
3 which demonstrates that when this devolution of  
4 personnel decisions to schools happens it results in  
5 hiring teachers who are more effective with students?  
6 MS. DAVIS: Vague and ambiguous.  
7 THE WITNESS: I'm not aware of any longitudinal  
8 studies that directly test that proposition.  
9 BY MR. AFFELDT:  
10 Q Are you aware of any evidence that supports  
11 that proposition?  
12 MS. DAVIS: Vague and ambiguous.  
12:08:0013 THE WITNESS: I think that the evidence that we  
14 have on private schools -- There is a -- There is a  
15 pretty rigorous body of evidence now that suggests that  
16 private schools do a good job of raising student  
17 achievement and particularly for minority students, and  
18 I think this is -- this is one of the reasons that  
19 private schools -- one factor that makes them effective  
12:08:3020 is that these things are decentralized.  
21 BY MR. AFFELDT:  
22 Q The two paragraphs below that, the first  
23 sentence states:  
24 "States should encourage differential pay  
25 so that schools can pay outstanding teachers

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1 more. It should also be possible to adjust  
2 teacher pay for labor market conditions,  
3 subject specialty, and the challenge of working  
4 in tough schools."  
5 Are you aware of any evidence from research  
6 that meets your methodological minimum standards which  
7 supports the notion that differential and adjusted pay  
8 as set out here leads to improved student achievement?  
9 MS. DAVIS: Vague and ambiguous.  
12:09:3010 THE WITNESS: No.  
11 BY MR. AFFELDT:  
12 Q Are you aware of any other evidence that  
13 supports these propositions?  
14 MS. DAVIS: Same objection.  
15 THE WITNESS: Labor economics, modern labor  
16 economics, and the fact that the way we know -- what we  
12:10:0017 know about the way labor markets work and organizations  
18 work and -- and what we observe in many other markets  
19 and the way organizations operate.  
20 BY MR. AFFELDT:  
21 Q On page 12, the next page, the second  
12:10:3022 paragraph, first sentence says:  
23 "States should expand the pool of talented  
24 teaching candidates by allowing individuals who  
25 have not attended schools of education to

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1 teach, provided that they meet the minimum  
2 standards outlined above."  
3 What evidence are you aware of that meets your  
4 methodological minimum standards which supports the  
5 notion that allowing individuals who have not attended  
6 schools of education to teach but who meet the minimum  
7 standards outlined above will in fact lead to improved  
8 student achievement?  
9 MS. DAVIS: Vague and ambiguous.  
10 And I encourage you to read what the standards  
12:11:3011 above are.  
12 THE WITNESS: Well, the standards as I read  
12:12:0013 them are in point No. 3.  
14 BY MR. AFFELDT:  
15 Q Which are the same standards you laid out  
16 earlier in your deposition; right?  
17 A Yes.  
18 I guess I'd turn this around and I'd say  
19 where -- where is the -- where is the evidence -- which  
12:12:3020 foot is the evidentiary shoe on? The fact of the matter  
21 is we're in a situation where there's very little  
22 research that can support an argument of -- for the  
23 types of certain licensing requirements we have. I've  
24 argued earlier that it -- In terms of student  
25 achievement gains I'm aware of no research -- no

1 rigorous research that really can link any kind of  
2 teacher certificate to student achievement gain. So in  
3 that kind of situation what -- it's seems to me you  
4 ought to be asking well, then, what's my basis for  
5 excluding people who on the basis of sort of a  
6 reasonable standard seem qualified to teach in terms of  
7 content knowledge. I mean when you have a licensing  
8 barrier in place, you're saying we are not going to  
9 permit you to work in this industry.

10 Now, it seems to me it's -- it -- once -- there  
11 should be a minimum do-no-harm standard. We want to  
12 make sure we don't have criminals and child molesters  
13 and -- and people that are illiterate in the classroom  
14 and it's reasonable that we should have a minimum --  
15 they should have -- they should have demonstrated  
16 knowledge of what they're going to teach. But beyond  
17 that it seems to me that anything further is -- does not  
18 12:14:0018 seem to me reasonable. It clearly restricts the  
19 applicant pool, and I'm very concerned that you don't  
20 want to restrict the applicant pool unless you have a  
21 good reason to restrict the applicant pool because there  
22 could be outstanding teachers that you're not allowing  
23 in your applicant pool; because, again, teaching is  
24 idiosyncratic, there could be one out there that you

1 that's the cost of restricting the applicant pool is  
2 you're cutting yourself off from people who could  
3 potentially be outstanding teachers.

4 MR. AFFELDT: Can you reread my question,  
5 please.

6 (Record read as follows:

7 "Q What evidence are you aware of that  
8 meets your methodological minimum standards  
9 which supports the notion that allowing  
10 individuals who have not attended schools of  
11 education to teach but who meet the minimum  
12 standards outlined above will in fact lead to  
13 improved student achievement?")

14 MS. DAVIS: Same objection.

15 12:15:0015 THE WITNESS: Is there a question?

16 BY MR. AFFELDT:

17 Q That's the question.

18 A I would say this is simple economics in action,  
19 that unless you have evidence to support restricting an  
20 applicant pool, you shouldn't do it.

21 Q Is that another way of saying you're not aware  
22 of any evidence at this time that demonstrates  
23 12:16:0023 individuals who haven't attended schools of ed and met  
24 the minimum standards have led to increased student  
25 achievement?

1 A Yes, I'm aware of no evidence they've had --  
2 they've lead to increased student achievement or reduced  
3 student achievement.

4 Q There are, are there not, tens of thousands,  
5 perhaps hundreds of thousands of individuals across the  
6 country who are teaching in public schools on emergency  
7 provisional certifications that haven't gone to schools  
8 of education that are available for research of this  
9 kind; isn't that true?

12:17:0010 A Yes.

11 Q So it's not as if there's not a pool of people  
12 out there against which the question could be studied as  
13 to whether these individuals are who meet your minimum  
14 standards as set forth here but haven't gone to school  
15 of education could -- do actually lead to better student  
16 12:17:3016 achievement?

17 MS. DAVIS: Vague and ambiguous.

18 THE WITNESS: May I disagree at this point?

19 BY MR. AFFELDT:

20 Q Certainly.

21 A You are correct that we do need evidence, we do  
22 need to evaluate the effect of emergency credentials on  
23 student achievement, but you've left out an important  
24 point here, you're not noting an important difference  
25 between what's stated here and what you just described.

1 In theory those teachers with emergency  
2 certificates were only hired because no traditional  
3 candidate, no regularly certified candidate, was  
4 available. In almost all cases in California you're not  
5 supposed to hire emergency certified teachers if -- if  
6 regularly certified preliminary or clear are available.

7 Now, what's advocated here is to open -- is to  
8 relax that requirement and -- and to -- to say -- in  
9 effect to allow a school to expand the market search.  
10 So in effect what you're saying is we're going to allow  
11 noncertified candidates to compete with certified  
12 candidates so that now an administrator could actually  
13 choose between the two; so that if I had five  
14 applicants -- Excuse me -- ten applicants, five of whom  
15 had traditional certification and five who weren't, I  
16 actually could make a choice. Now, that would generate  
17 12:19:0017 a different outcome than the one you just described  
18 where you can only hire an emergency certified person  
19 if -- if the others are unavailable. It could change  
20 the way you search, it would change the applicant pool.  
21 It's a different experiment.

22 Q How do you know it would generate a different  
23 outcome?

24 A Well, I don't know it would generate a  
25 different outcome, but it's clearly a different policy

1 and the presumption is it would therefore generate a  
2 different applicant pool.

3 MR. AFFELDT: This is a probably a good place  
4 to take a lunch break.

5 MS. DAVIS: Okay.  
6 (Lunch recess.)

7 EXAMINATION (Resumed)

8 BY MR. AFFELDT:

9 Q Dr. Podgursky, I believe you testified earlier  
10 13:26:3010 that your idea of the appropriate minimum certification  
11 13:42:3011 standards for California would include a BA, CBEST,  
12 demonstration of subject matter, competency, and  
13 13:43:0013 criminal background check. Did I get them all?

14 A Well, I -- I don't have a formula in my pocket  
15 but those seem to be a reasonable set of minimum  
16 requirements.

17 Q And what goal is it that those minimum  
18 requirements are serving?

19 MS. DAVIS: Vague and ambiguous.

20 THE WITNESS: Well, in my opinion all -- all  
21 13:43:3021 that you can really expect out of licensing is to screen  
22 out incompetent practitioners. That's really what we  
23 expect in other sectors. And so it really focuses on  
24 sort of the lower table. We don't want someone who's  
25 illiterate. We don't want someone who's simply

1 screens.

2 Q Are you aware of any evidence that suggests if  
3 there weren't those minimal screens in place that  
4 school-site administrators would hire incompetent  
5 teachers, i.e. those who didn't meet even the minimums?

6 MS. DAVIS: Vague and ambiguous.

7 THE WITNESS: Well, I think that the  
8 performance of a number of urban districts in -- in the  
9 past has indicated that the poor personnel decisions are  
10 made and it's always possible that in other districts  
11 you could have nepotism or favoritism involved in hiring  
12 13:47:3012 decisions, so I think that's always been one of the  
13 concerns with licensing is to prevent, you know,  
14 concerns about nepotism or favoritism involved in  
15 personnel decisions.

16 BY MR. AFFELDT:

17 Q Are you aware of any evidence of nepotism or  
18 favoritism in public school hiring processes?

19 13:48:0019 A Well, I've -- I mean I read about anecdotes  
20 where it's come to the floor. I don't know survey data  
21 but simply anecdotal.

22 Q Are you aware of any evidence indicating that  
23 districts made poor hiring decisions when left to their

1 incompetent intellectually to be in a classroom, but  
2 beyond that I don't think it can accomplish a lot. So  
3 those -- those -- So I'm looking at sort of the lower  
4 tail, getting -- trying to assure that clearly  
5 incompetent are never given access to the classrooms.

6 BY MR. AFFELDT:

7 Q Why under your notion of giving greater  
8 authority to school administrators, why would -- do you  
9 need to impose even those limitations on them, in other  
10 13:45:0010 words why couldn't school-site administrators screen out  
11 the truly incompetent?

12 A Well, in principle they could and I think that  
13 it's -- it's conceivable and that you could even relax  
14 13:45:3014 these further. I guess my concern is you have to make  
15 sure that parents are well informed and have choices.

16 In my opinion, a really important check on -- or a  
17 protection for parents is having these things in place  
18 and having choice, letting them -- if a teacher is doing  
19 a poor job, giving them the option of moving their child  
20 13:46:0020 to another class.

21 But returning to your question, it could be  
22 that administrators make mistakes and are -- there are  
23 incompetent administrators, so some protections are  
24 still needed. Like I said, a reasonable case can be  
25 made for -- for, you know, these sorts of minimal

1 THE WITNESS: Well, I -- I routinely hear about  
2 in commentary people who are writing about this  
3 situation in urban classrooms, for example in New York  
4 City, that you get extremely -- you get some poor  
5 quality individuals. Now, maybe these people were at  
6 one point in their careers good teachers, presumably  
7 they were good enough to get tenure at some point in the  
8 distant past, but are virtually dysfunctional yet they  
9 continue to be reappointed, although in those cases it's  
10 often because the administrators don't want to go  
11 through the onerous process of dismissing them so they  
12 13:49:3012 end up -- they take them out of the classroom.

13 I was reading about cases in New York City  
14 where they take them out of the classroom and use them  
15 as playground monitors and lunchroom monitors, just  
16 keeping them out of the classrooms but they're still on  
17 the payroll.

18 BY MR. AFFELDT:

19 13:50:0019 Q Conversely, do you believe that anyone who  
20 passes the criminal background check, the CBEST test,  
21 has a BA in subject matter, competence is minimally  
22 competent to teach?

23 MS. DAVIS: Vague and ambiguous. Calls for  
24 speculation.

25 THE WITNESS: People who pass that screen may

1 end up being very poor teachers and that's why it's so  
 2 important to monitor their performance. But by the same  
 3 token I believe that people who pass through traditional  
 4 routes may end up being poor teachers as well. But, you  
 5 know, I think that's -- it's very important to have a  
 6 supervisor and their performance should be monitored.  
 7 So there's just no substitute for that sort of  
 8 monitoring the performance of the teachers by some type  
 9 of supervisor, maybe not a principal but it could be a  
 10 senior teacher or a department head or someone  
 11 monitoring the classroom performance.

12 BY MR. AFFELDT:

13 Q Does the Teach For America study done by  
 14 Margaret Raymond which you reference in your report meet  
 13:51:3015 your minimum methodological standards for sound  
 16 research?

17 A It's -- Well, I want to see it published in a  
 18 referee journal. So it -- it looks pretty good having  
 19 read it but I think it needs to go through a refereeing  
 20 process, and I understand she's submitted it somewhere.  
 21 But I thought having read it it looked like she did a  
 22 pretty good job but I want to see her -- you know, I  
 13:52:0023 want to see it published. That's why it was not counted  
 24 in the Wayne and the other person paper I -- we talked  
 25 about earlier. It's a pretty good study, though. It

1 seems to me it was carefully done.

2 Q Have you not reviewed it carefully enough to  
 3 determine if it does meet your methodological minimums?

4 MS. DAVIS: Mischaracterizes his testimony.

5 THE WITNESS: Well, my recollection is that it  
 6 has -- it uses longitudinal data and she controls for  
 7 the available measures of free and reduced lunch status,  
 8 so I believe it does but I haven't -- I'd have to look  
 9 at it again. I haven't looked at it in five, six  
 10 months, a while.

11 BY MR. AFFELDT:

12 Q Well, let's look at it then and mark it as  
 13:53:0013 Podgursky Exhibit 22.

14 (Podgursky Exhibit 22 was marked for  
 15 identification by the court reporter.)

16 THE WITNESS: She spelled my name wrong. I

21 MS. DAVIS: Should we go back to the question?

22 MR. AFFELDT: Yeah.

23 THE WITNESS: I'm sorry. I forgot there was a  
 24 question.

25 BY MR. AFFELDT:

1 Q That's all right.

2 A Oh, does it meet my standards, that was the  
 3 question?

4 Q Yes.

5 A Okay. I'm sorry. I was just looking around,  
 6 messing around here.

7 Let's see. So we got the lag test score,  
 8 okay, student ethnicity, student poverty.

9 So yes, she has -- superficially she has met  
 10 the Podgursky standard.

11 Q And what does she need to meet the Podgursky  
 12 standard wholeheartedly?

13 A Well --

14 MS. DAVIS: Vague and ambiguous.

15 THE WITNESS: -- you have to -- No, I've read  
 16 the study and, you know, again, I -- I've -- at the time  
 13:58:0017 I read it I thought it was well done. I'd like other  
 18 people to read it and other economists and I would like  
 19 to see it published in a good economics journal or  
 20 policy analysis journal and have more eyes look at it  
 21 and think of things that I might not have thought of.  
 22 But on my reading of it I thought it was pretty well  
 23 done. It's the way we want to be approaching things.  
 24 Now, maybe there's a mistake, but I think it's the way

1 BY MR. AFFELDT:

2 Q Are you aware of any mistakes with --

3 A Not that I'm aware of. No.

4 Q Do you know to what journal you -- it's been  
5 submitted?

6 A No.

7 Q Why do you believe it's been submitted to a  
8 referee journal?

9 A I -- I have a vague recollection that she told  
10 me that, Dr. Raymond.

11 Q Do you know when was -- when was that?

12 A Oh, this was -- I saw her in some conference.  
13 It wasn't -- It was a year and a half ago or something,  
14 and I thought it had been submitted. I vaguely recall  
15 13:59:3015 that she said they'd submitted it somewhere. That's all  
16 I can remember.

17 Q Assuming it was submitted a year and a half  
18 ago, is that a long time in the area that you work for  
19 a -- an article to get published?

14:00:0020 MS. DAVIS: Vague and ambiguous. Calls for  
21 speculation.

22 THE WITNESS: No, not at all. There's --  
23 There's a long lag between initial submission and final  
24 publication for the reasons we talked about earlier --  
25 that you submit it, it's reviewed for six months, they

1 group effects. She has lag test scores for the group.

2 So, you know, she's got some measures of socioeconomics  
3 of this -- of the student themselves and the peer group  
4 because, again, there's a -- there's research suggesting  
5 there are peer group effects. And then she's got the  
6 lag test score.

7 BY MR. AFFELDT:

8 Q What do you mean "the lag test score"?

9 A Last year's test score.

10 Q That's part of controlling for prior student  
11 achievement, isn't it, as opposed to SES control?

12 A That's -- I'm sorry. That's correct. That's  
13 correct.

14 Q In your opinion does the City of Houston have  
15 14:03:0015 any parallels with any of the large urban cities in  
16 California?

17 MS. DAVIS: Vague and ambiguous.

18 THE WITNESS: Well, I -- I'd say I think there  
19 are -- Certainly they have a lot of Hispanic students,  
20 14:04:0020 they have a lot of minority students in general,  
21 Hispanic; English as a second language students; high  
22 percent of poverty rates. So, you know, I think they  
23 have a lot of the problems, I would think, that -- that  
24 some cities in California have, so that's a -- on the

1 send it back, revise it and do this, send it back in.  
2 It takes months. And then there's a backlog for a  
3 typical journal to get published, so unfortunately  
4 there's a long lag between the time papers are submitted  
5 and the time they're ultimately published, even when  
6 they're accepted.

7 BY MR. AFFELDT:

8 Q You don't know the current status of her  
9 submission, do you?

10 A No. And I'd emphasize I just have a vague  
11 recollection that she told me that she had submitted it  
12 somewhere. Now, I hope she has because I think it's  
13 important for this kind of work to get peer reviewed.

14:01:0014 Q How did they control for socioeconomic status?

15 A Well, as I'm looking at --

16 MS. DAVIS: The document speaks for itself.

17 THE WITNESS: Well, Appendix A is probably a  
18 good source. Unfortunately the pages aren't numbered.

14:01:3019 MS. DAVIS: They're numbered -- The appendix is  
20 not numbered, right.

21 THE WITNESS: The appendix.

22 She describes a model, and so she's got student  
23 poverty, free and reduced lunch and then the ethnic  
24 composition of the school and then the poverty rate  
25 overall in the school and then she looks at these peer

1 experience.

2 BY MR. AFFELDT:

3 Q What are some of the same problems that you  
4 think Houston and California cities' school districts  
5 would have?

6 A Well, I think I just mentioned them, the  
7 poverty and the high percent of minorities in the  
8 classes, English as a second language. Those are  
9 factors that are common to -- to both -- to say L.A. and  
10 Houston. Now, I don't know exactly how the means  
11 compare but I suspect there are -- I think it's -- there  
12 are substantial shares of poor and minority students  
13 and -- and high poverty -- Well, that's redundant.

14:05:3014 Q Do you know whether any of the data in the  
15 Raymond report has been criticized?

16 MS. DAVIS: Vague and ambiguous.

17 THE WITNESS: I recall that Professor  
18 Darling-Hammond stated in her report or elsewhere that  
19 14:06:0019 you were comparing TFA teachers to teachers who didn't  
20 have a baccalaureate degree, so that the comparison was  
21 against a group of teachers who weren't -- who were  
22 lacking credentials, who were poorly prepared, so it --  
23 I believe that criticism has been made.

1 teachers head to head with certified teachers in  
 2 attempting to measure effects of those teachers on  
 3 student performance?  
 4 MS. DAVIS: Vague and ambiguous.  
 5 THE WITNESS: I don't recall. I think they  
 6 just were comparing to other new teachers, it's my  
 7 recollection.  
 8 BY MR. AFFELDT:  
 9 Q If that's the case, is it true that then we  
 10 14:07:3010 don't have a clear measure of how TFA teachers performed  
 11 compared to certified new teachers?  
 12 MS. DAVIS: Vague and ambiguous.  
 13 14:08:0013 THE WITNESS: If that's true, then -- then  
 14 you've just got -- your comparison group is simply other  
 15 new teachers and not -- not broken out by type of  
 16 certificate.  
 17 BY MR. AFFELDT:  
 18 Q Are you aware of how many uncertified teachers  
 19 were in the comparison group?  
 20 14:08:3020 MS. DAVIS: The document speaks for itself.  
 21 THE WITNESS: I don't recall.  
 22 BY MR. AFFELDT:  
 23 Q Are you aware if there are large numbers of  
 24 uncertified new teachers in Houston?  
 25 A I -- I don't know the numbers.

1 biased. I think you -- you know the credential of the  
 2 teacher -- well, you know the status of the students'  
 3 teacher, they're either TFA or they're not, so I don't  
 4 believe there's a problem in that regard.  
 5 BY MR. AFFELDT:  
 6 Q Do you recall the report's findings on how  
 7 students of experienced teachers performed in comparison  
 8 to students of inexperienced teachers?  
 9 MS. DAVIS: Vague and ambiguous.  
 10 THE WITNESS: I don't remember.  
 11 BY MR. AFFELDT:  
 12 Q If you could turn to page 4.  
 13 14:12:0013 MS. DAVIS: Of Maggie Raymond's report?  
 14 14:13:0014 MR. AFFELDT: Yes, of Exhibit 22.  
 15 THE WITNESS: I'm there.  
 16 BY MR. AFFELDT:  
 17 Q The second full paragraph, it says:  
 18 "In a departure from traditional training,  
 19 TFA is structured around the idea that good  
 20 teaching skill is gained through direct  
 21 experience and interaction with other  
 22 teachers. During summer training, recruits  
 23 14:13:3023 complete insensitive pre-service coursework,  
 24 covering curricular planning, lesson planning,  
 25 classroom management, student assessment and

1 MS. DAVIS: Vague and ambiguous.  
 2 Go ahead.  
 3 THE WITNESS: I don't know the numbers.  
 4 BY MR. AFFELDT:  
 5 Q Do you know the numbers to be large?  
 6 A No. I just don't know. I'm sure there are  
 7 some, but I just don't know what their share is.  
 8 Q Are you aware of how many new teachers in  
 9 Houston lack BAs?  
 10 A I -- I understand that that issue has arisen in  
 11 this discussion, and I don't know. I don't know the  
 12 14:09:3012 answer and I'd like to see that hashed out.  
 13 Q As part of the peer review process or somewhere  
 14 else?  
 15 A Well, both. Once it's published and someone  
 16 can -- Well, it can come up as peer review and it can  
 17 come up as someone writing a rejoinder or replicating  
 18 her work. I mean that would be great to see -- to have  
 19 14:10:0019 it replicated by someone else.  
 20 Q In your opinion does this study suffer from  
 21 aggregation bias in any way?  
 22 MS. DAVIS: Vague and ambiguous.  
 23 THE WITNESS: I don't believe so. I believe

1 literacy development. They spend the balance  
 2 of the summer in classrooms as student teachers  
 3 or team teachers. Once a recruit is placed in  
 4 his/her own classroom in the fall, he/she will  
 5 participate in more professional development  
 6 activities than the typical new teacher. Some  
 7 are sponsored by the district and some are  
 8 sponsored by TFA."  
 9 Are you familiar with how the TFA training  
 10 compares to training that interns in California receive?  
 11 MS. DAVIS: Vague and ambiguous.  
 12 THE WITNESS: No, I don't know the details of  
 13 what the training -- what -- you know, the -- what the  
 14 composition of the training or the type of mentoring or  
 15 14:14:3015 what have you, no.  
 16 BY MR. AFFELDT:  
 17 Q What would you need to know in order to  
 18 comfortably extrapolate the effects of -- extrapolate  
 19 the results of this study to California interns?  
 20 A Well, I don't think you should. I don't think  
 21 it's appropriate to extrapolate this, really. I think  
 22 14:15:0022 that what -- This is a group of -- Teach For America  
 23 recruits people who are agreeing to a two-year  
 24 commitment to teaching. They're not agreeing to be  
 25 permanent teachers, whereas in the intern program is

1 meant to select people who are -- plan to make a career  
2 of teaching. So I don't -- I mean I think you ought to  
3 view this as an evaluation of a particular type of  
4 program, TFA, but I don't agree that it could  
5 necessarily generalize to the intern program. It's an  
6 accelerated entry program.

7 I guess it has some relevance, but the better  
8 way to evaluate the intern program is to evaluate the  
9 intern program. I'd rather see an evaluation of  
10 14:16:0010 California's -- Excuse me -- Texas' alternate  
11 certification program as a comparison or New Jersey's  
12 than TFA.

13 Q If you were doing a study of New Jersey's or  
14 California's alternate certification program and trying  
15 to compare it to California's interns, what would you  
16 14:16:3016 need to know to be comfortable making the comparison?

17 A Well, the same types of things we talked about  
18 over the last few days. You'd want -- You'd want to  
19 compare their -- the -- Well, you would really like to  
20 know, as you've pointed out, it would be nice to have a  
21 study that laid out all the different types of  
22 certification, you know, intern -- Well, in Texas it  
23 14:17:0023 would be -- they have alternate -- they call theirs  
24 alternate ACPs, Alternate Certification Placements, and  
25 then traditional, and I think they have something else,

1 maybe emergency. You know, to have something that  
2 classifies everyone and then does a comparison. You  
3 know, in other words, look at student achievement gains,  
4 has prior student achievement, controls for  
5 socioeconomic background, and uses some of this kind of  
6 methodology and then we could see how do the ACPs  
7 compare to the traditionals and so on. That's what I'd  
8 like to see.

9 Q Are you aware that TFA teachers receive their  
10 14:18:0010 certificate after they've been teaching for one year in  
11 Texas?

12 A You mean a permanent -- or something -- What  
13 14:19:0013 certificate?

14 Q Standard teaching credential.

15 A I didn't know that.

16 Q If you look at page 4, the last paragraph, the  
17 first sentence says:

18 "As uncertified teachers, new TFA teachers  
19 in Houston must enroll in the district  
20 14:19:3020 Alternative Certification Program....at the  
21 beginning of their first year."

22 A Okay.

23 Q The next sentence says:

24 "This program helps uncredentialed teachers  
25 earn their Texas teacher certificate in one

1 year."

2 So in -- in your expert report where you report  
3 that Raymond found student achievement gains of the TFA  
4 taught students to be as high as those of other  
5 teachers, were you lumping together both the uncertified  
6 TFA teachers and the certified TFA teachers in that  
7 statement?

8 A May I look at my statement?

9 Q Of course. It's on page 11, third paragraph.

10 A I think what I said is correct. I don't -- I'm  
11 14:21:0011 sorry. Could you repeat your question.

12 MR. AFFELDT: Can you reread the question,  
13 please.

14 (Record read as follows:

15 "Q So in -- in your expert report where  
16 you report that Raymond found student  
17 achievement gains of the TFA taught students to  
18 be as high as those of other teachers, were you  
19 lumping together both the uncertified TFA  
20 teachers and the certified TFA teachers in that  
21 statement?")

22 THE WITNESS: You mean to say I was -- I'm  
23 14:21:3023 combining -- Wait. Oh. I'm sorry. You're saying that  
24 when I -- that this statement about TFA includes  
25 certified and uncertified teachers?

1 BY MR. AFFELDT:

2 Q Correct.

3 A I see.

4 Yes, I believe the answer -- I believe the  
5 study is combining certified TFA and uncertified TFA.

6 MS. DAVIS: I have a belated vague and  
7 ambiguous objection as to "certified."

8 BY MR. AFFELDT:

9 Q And my question was when you're then citing  
10 this study, you're similarly lumping together certified  
11 14:22:3011 and uncertified TFA taught students --

12 MS. DAVIS: Vague and ambiguous.

13 BY MR. AFFELDT:

14 Q -- in your report?

15 MS. DAVIS: Go ahead. Are you done?

16 MR. AFFELDT: Yes.

17 MS. DAVIS: I'm sorry.

18 Vague and ambiguous.

19 THE WITNESS: Well, yes, but I think that we're  
20 splitting hairs here because we -- I mean they're  
21 certifying these people after a year. Well, I mean if  
22 you certify California interns after a year, you'd have  
23 14:23:0023 half as many of them, so I -- You're correct but I mean  
24 you're still -- she's still comparing TFAs who didn't  
25 pass through a traditional training program with

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1 those -- with all other teachers. So I -- I think  
2 you're nominally correct but I don't see that it makes a  
3 lot of difference in interpreting the results of her  
4 study. I think it's almost a semantic rather than a  
5 substantial point.  
6 BY MR. AFFELDT:  
7 Q Are you aware of what the attrition rates of  
8 TFA teachers in the study were?  
9 A I believe they were reported. I don't -- I  
10 don't have them committed to memory.  
11 Q We talked about whether or not one could  
14:26:0012 extrapolate to California. Do you think that the  
14:26:3013 findings from this study can be extrapolated to make  
14 statements about alternative certification programs  
15 generally?  
16 A No, I don't think they can.  
17 Q For the same reasons?  
18 A Not because there's anything wrong with the  
19 methodology but it's just simply looking at a particular  
14:27:0020 program, TFA. So I think that the results for TFA would  
21 be -- one might reasonably generalize those to  
22 California. I believe you have some TFAs here in some  
23 school districts; but beyond that, I -- I think that  
24 it -- it would be more problematic to talk about other  
25 programs.

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1 Q Are you familiar with the study on TFA teachers  
2 in Arizona?  
3 A You're referring to the study by Berliner and  
4 someone?  
5 Q I'm not actually sure who did it.  
6 A I'm pretty sure that's what you're talking  
7 about, so I read the study, yes.  
8 Q What did it conclude as to the effect of TFA  
9 teachers on student performance?  
10 A It found a -- The authors concluded that TFA  
11 students had lower student achievement.  
12 Q Do you have an opinion of the study?  
13 A The study did not have longitudinal data. It  
14:28:3014 was a paired comparison study that did not take account  
15 of prior student achievement, so I don't think it gives  
16 us reliable estimates.  
17 Q Do you agree that the more ways you -- the more  
14:29:0018 variables you add to your regression model the less  
14:30:3019 effect size any one variable will have?  
20 MS. DAVIS: Vague and ambiguous. Calls for  
14:31:0021 speculation.  
22 THE WITNESS: No, I don't think -- I mean in --  
23 in practice it often works out that way but there's --  
24 but it doesn't -- there's no logical reason that it has  
25 to happen; in other words, you could add variables and

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1 it could raise the effect of a factor. So -- So there's  
2 no logical reason, no mathematical reason that has to  
3 happen.  
4 BY MR. AFFELDT:  
5 Q Why do you think that practically speaking that  
6 it's often the result?  
7 A Well, even then I don't -- Often when you add  
8 other variables -- Often -- Suppose -- The question  
9 you're posing is complicated. Suppose we're interested  
10 in a particular variable X and we just do it by various  
11 study, and then as we add more variables often it's the  
12 case that some of what we attributed to -- some of the  
13 effect of X on Y that we attributed to X was really some  
14 of the things we omitted. And so as you add more  
15 things, often they will pick up some of the effect on  
14:32:3016 Y. Now, there's no logical reason. I mean it could be  
17 that once you control for something else, you know, the  
18 effect of X could actually go up. But -- But often -- I  
19 guess the point is what a researcher does is looks for  
14:33:0020 other -- the researcher adds more variables to the model  
21 in order to make a convincing case that X is really  
22 having an effect on Y, and so the researcher is looking

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1 his hypothesis, and if he adds more and more things,  
2 usually those will nibble away at the effect of X if  
3 he's really trying to disprove the hypothesis he's  
4 posed. And if he gets to the end of all of that and he  
5 can't disprove it, then you've made a pretty convincing  
6 case or at least you've gone done the best you can. So  
7 I guess that's why in practice they often go down, the  
8 coefficient often goes down, but it doesn't have to.  
9 It's not a matter of mathematics that that has to  
10 happen.  
11 Q If you could turn to page 16 in your expert  
14:34:3012 report. In the second -- In the third paragraph, second  
14:35:00  
14:35:3013 sentence you say: "Teachers make decisions to enter or  
14 remain in teaching in part on the basis of relative  
14:36:0015 pay comparisons," which as you testified earlier is your  
16 belief.  
17 When you say "in part" there, what are the  
18 other considerations?  
19 A Well, if you look at studies of why teachers  
20 quit or you just look at -- There's two kinds of  
21 evidence about teacher turnover, sort of what they  
14:36:3022 actually do, so in other words studies that look at  
23 teacher turnover as a function of relative pay and in

1 factors affect whether teachers quit. Teachers in  
2 general in high poverty school districts are more likely  
3 to quit. And there's other factors, experience of the  
4 teacher matters and so on.

5 There's also another strand of research that  
6 asks -- where they do follow-up surveys on teachers that  
7 quit and ask them why they quit, and in most of those  
8 they'll talk -- they generally talk more about working  
9 conditions than pay but they do mention pay. So that's  
10 why I said "in part." So these other factors matter as  
11 well as pay. I was trying to indicate it's not all pay,  
14:37:3012 it's pay and other factors.

13 Q Is it the case that the other factors are  
14 larger than pay based on the research you were just  
15 discussing?

16 A Well, if you look at the survey data it looks  
17 like they are, but I -- I'm skeptical of that. It's  
14:38:0018 hard when you look at the survey data to say when you  
19 ask people why they quit, I'm a little reluctant to take  
20 that at face value because pay could be lurking in some  
21 of the other answers.

22 So I prefer the first kind of study that just  
23 actually looks at actual behavior and how responsive  
24 teachers are in terms of retention decisions to pay, so

1 level of -- well, they don't always report them all, so  
2 I tried to pick a group that were consistently  
3 reported. Let's see. So I put one group -- This is a  
4 group who were professionals, people with college  
5 degrees who were consistently reported in every market;  
6 okay? And then I put in others where -- where they were  
7 available. So in other words, if someone just looked  
8 and just said well, why did you report -- The print is  
9 very fine and I apologize for that -- you know, why did  
10 you report electrical and electronic technicians in  
11 Sacramento? Well, I reported those in L.A. but I did  
12 not report them in Visalia, Tulare, and Porterville and  
13 I did in San Francisco. Well, the reason I didn't  
14:43:3014 report them in Visalia is that they weren't reported,  
15 the BLS suppressed that one and they suppress these  
16 because they don't have enough observations and it's  
17 kind of a confidentiality thing. And so that's  
18 what -- So, you know, I picked -- I picked some things  
19 that you might reasonably compare teachers to. Police  
20 and detectives, well, I don't know. Probably most  
14:44:0021 teachers who quit teaching don't become policemen, so  
22 that's probably less relevant, but it is other  
23 government state and local set of employees who -- most  
24 of whom have college degrees, so there's some element of  
25 comparability.

1 what you're asking for is like an effect size, you know,  
2 of teacher pay versus an effect size of all the other  
3 things, and off the top of my head I'm sure the other  
4 things -- Well, I'm not saying I'm sure. I think it's  
5 probably the case that the other factors -- the other  
6 environmental factors, such as the school location,  
7 poverty, minority percent in the school. I've never  
8 actually done this breakdown comparing those kinds of  
9 things to teacher pay, so actually I -- I was about to  
10 say I think they'd be more but I don't know. I just  
11 don't know. I know they play a role and I know pay  
14:39:3012 plays a role, but I'm not prepared to say one is -- you  
13 know, the other factors are twice as big as pay or the  
14 same as pay or three times as big. I just don't know,  
15 frankly. It could be done, you could do that  
16 comparison, but I've never seen anyone do it so -- so I  
17 just don't know. They both matter, we know that.

18 Q In your expert report on page 17 in the fourth  
14:40:0019 paragraph, among other categories, you compare teacher  
14:41:2920 pay to registered nurses, police, and detectives. How  
21 did you decide to pick those three?

22 A Well, if you -- if you look at the BLS data,  
14:42:0023 they -- they don't consistently report exactly the same  
24 occupations across sectors. Well, they'll have the same  
25 list of them but they don't always report with the same

1 Q Were there other options that you rejected as  
2 comparison of professions?

3 A Well, I didn't pick anything -- any blue collar  
4 jobs. I just reported blue collar all just to show the  
5 number but I didn't pick welders or sheet metal workers  
6 or something like that. I -- You know, I was trying to  
7 get some -- I was looking for things that, you know --  
8 Aside from policemen, I was looking for jobs that you  
9 might expect women either to go into in college as  
10 compared to teaching or if they quit teaching go into,  
11 you know, after they quit teaching, so I was looking for  
12 jobs like that.

13 Now, I don't know. Electrical and  
14:45:3014 electricians, I don't know. I don't know how attractive  
15 that is for women, either, but I was just picking as  
16 many of the white collar professionals that I could find  
17 generally.

18 Q In some of your charts 8 to 13 you report  
19 public school elementary and then a separate bar for  
20 public school secondary teachers, others you just have  
21 one bar for public school teachers. Was that a -- Why  
14:46:0022 do you report them differently?

23 A That's the way the BLS reported them, so you'll  
24 see in the larger labor markets they split out  
25 elementary and secondary. In smaller they only reported

1 the combined total. That doesn't apply to L.A. I have  
2 no idea why. My recollection is that's why I did it is  
3 because they -- they suppressed the difference in some  
4 and they reported them separately in others, and now my  
5 L.A. example I would have thought it was size; now I  
6 don't know why they did it one way in one and one way in  
7 another. This is what was on the web site.

8 Q Did you create these charts?

9 A I created the charts but I didn't -- these  
10 are -- these are data right off the web site.

11 Q I understand. Not one of your assistants but  
14:47:0012 you created --

13 A Oh, no, I created this. I can't blame any  
14 typos that you find on any assistants.

15 Q I have a couple that I haven't asked you about.

16 A Okay.

17 MS. DAVIS: I'm shocked.

18 THE WITNESS: He's saving them for the trial.

19 BY MR. AFFELDT:

20 Q On page 18, the last paragraph, first sentence  
14:47:3021 you say:

22 "To summarize, Darling-Hammond made no  
23 attempt to isolate the extent to which  
24 dispersion in pay between California school  
25 districts is explained by cost-of-living or

1 I mean that's really what you're talking about here, and  
2 that's the problem of saying you -- It could be that  
3 the -- you know, based on the current levels of pay, do  
4 we see teachers moving from rural California to urban  
5 districts.

6 See, in other words that would be a good piece  
7 of evidence on this. If teachers -- If these pay  
8 differentials in these rural districts actually are --  
9 if they're -- if they're under paid, quote, unquote,  
10 relative to the urban districts, then we would expect to  
11 see a net migration from the rural to the urban  
12 districts; okay? On other hand, if the -- if the rural  
13 districts were higher, you would expect to see a net  
14 migration the other way. If there's sort of a balance,  
15 then that suggests sort of an equilibrium in the wage  
16 structure, that whatever the differential is it's just  
17 about right to sort of equalize the -- the flows, and  
14:51:3018 that's what you really need in terms of a comparison.

19 Now, partly that's a matter of -- Also, then, you would  
20 also want to see how relative -- how the relative pay  
21 is.

22 For example -- This is probably easier to  
23 understand. Okay. The relative pay of teachers here in  
24 L.A., say, the pay of a teacher relative to a nurse is

1 alternative salaries."

2 What do you mean by that sentence?

3 A I hope that it's clarified in the sentences  
4 that follow. I think you need to look at the whole  
5 paragraph. I follow-up and I say:

6 "On average, rural school districts pay  
7 lower salaries than urban districts in any  
8 state. The pay in rural areas reflects not  
9 only the lower costs of living but also the  
10 preferences of residents for the amenities  
11 associated with small towns in rural locations.

12 Other things being equal this does not mean  
13 that rural teachers are of lower quality than  
14:49:3014 urban teachers."

15 So my point here is there are amenities in the  
16 rural life that, you know -- This is a complicated  
17 point, but the cost of living is lower in rural areas in  
18 some sense but the amenities are different as well. So  
19 it's hard to -- It really is difficult to sort of sort  
14:50:0020 out what -- what the -- what level of pay would give  
21 someone sort of this -- the same level of satisfaction.

22 See, because that's what you're really talking  
23 about. The right cost of living would say how much --  
24 how much would I have to change pay to induce the  
25 marginal worker to move from L.A. to rural California.

1 teachers make 20 percent more than nurses. Now,  
2 maybe -- Now, what is that ratio in a rural area?  
3 What's the ratio of teacher pay to nurses in some rural  
4 district in California? Well, if it were a lot lower  
5 than that, then that would suggest that the pay of  
6 teachers is relatively low. So I guess my -- the point  
7 here is everyone in rural areas makes less on average  
8 than most any occupation in urban areas. Lawyers make  
9 less in rural areas than they do in L.A. Teachers make  
10 less. So it's the relative comparison that matters, and  
11 that's what I'd like to see. That's what I think you  
12 should demonstrate if you're arguing that there's --  
13 that there's excessive inequality of teacher pay within  
14:53:0014 a state, then you should -- what you ought to be arguing  
15 is that you're seeing more dispersion of teacher pay  
16 relative to nonteacher pay in the state; okay? That --  
17 That's one -- the point I'm trying to make.

18 Q Is "alternative salaries" a technical term?

19 A I don't think it's very technical.

20 Q What do you mean by "alternative salaries"?  
14:53:3021 A Well, it's just what -- what the relative  
22 alternate salary of teachers is. That -- In other  
23 words, if rural -- rural school districts don't have a  
24 problem, if the teachers aren't quitting to become  
25 something else or at least they're not -- What we'd like

1 to know -- One might conclude that rural teachers are  
 2 underpaid in California, that there's inequities in the  
 3 wage structure. If we see a higher quit work rate of  
 4 rural teachers or we see relatively more teachers quit  
 5 teaching in rural areas and going to nonteaching jobs or  
 6 if we see the pay of teachers relative to nurses or real  
 7 estate agents or secretaries is lower in rural areas,  
 8 that would be evidence of an inequity. But if the  
 9 general wage structure is lower in rural areas, if  
 10 secretaries make -- You know, again, to restate the  
 11 example: So suppose we look at a -- Name a rural  
 12 district. I don't know a rural district in California.  
 13 Give me a rural district. Name one.

14 THE WITNESS: Fresno or something -- Is that  
 15 even --

16 THE WITNESS: That's not rural. Give me a  
 17 rural district.

18 BY MR. AFFELDT:

19 Q Alpine County.

20 A What?

21 Q Alpine County.

22 A Alpine County. Okay.

14:55:0023 What we'd want to know is odds are teacher pay  
 24 in Alpine County is below L.A. Unified but the pay of  
 25 secretaries is probably lower in Alpine County and the

1 pay of nurses is probably lower and the pay of lawyers  
 2 and the pay of most white collar professions. So what  
 3 we'd want to know is how teachers compare to other white  
 4 collar or professional groups within Alpine County and  
 5 see if that ratio is lower than in -- than in L.A.  
 6 And -- And then if it is, then I think you might have an  
 7 argument that, well, there's an inequity here and that  
 8 could be explaining attrition of teachers in Alpine  
 9 County.

10 But you can't just point to the fact that  
 11 teachers' salaries are lower in Alpine County and  
 12 conclude there's some inequity in the world, or at least  
 13 I don't see that as a convincing argument for  
 14 fundamental

14:56:0015 inequity.

16 Q So by "alternative salaries" you mean  
 17 supplemental salaries, second jobs?

18 A No, no, no, I mean alternative to teaching.

19 Q Okay. You mean --

20 A I'm sorry. So basically it's what -- If you  
 21 quit teaching -- There's two parts of it. If a teacher  
 22 who quits teaching, what's in their head? What's --  
 23 What do they do if they quit teaching? So that's for  
 24 incumbents and, you know. Every real estate agent I've

1 -- that may be one of them. But -- But there are other  
 2 jobs. They go into white collar jobs of various sorts.  
 3 I think a lot of these managerial governmental jobs, a  
 4 lot of women go into those. And then also you could  
 5 look at new teachers or the decision to enter teaching,  
 6 so you could -- you know, you could ask how do they  
 7 compare to nurses so. . .

8 Q Is the appropriate comparison to use in looking  
 9 for potential inequities in California the urban versus  
 10 rural in trying to determine if there's inequities in  
 14:57:3011 teacher pay?

12 MS. DAVIS: Vague and ambiguous.

13 THE WITNESS: Well, I believe that Professor  
 14 Darling-Hammond talked about rural and urban. She was  
 15 looking at statewide variation. I can go back to her  
 16 report. But my recollection is she was talking about  
 17 overall, she was looking at quintiles of pay or  
 18 something like that is my recollection, there was a lot  
 14:58:0019 of inequality. But just showing that there's inequality  
 20 of teacher pay in the state is -- it  
 21 doesn't -- to me it does not make a convincing case that  
 22 there's -- there's a -- there's inequity, again, for the  
 23 reasons I stated to you.

24 What you really would want to demonstrate is  
 25 that in those areas that there's cases of districts

1 where teacher pay is way out of line -- relative teacher  
 2 pay is way out of line with other districts and that's  
 3 hampering their ability to recruit teachers, and  
 4 I -- I haven't seen that demonstrated in this case. It  
 5 might be true but I haven't seen any evidence that --  
 6 that demonstrates this. But you can't just point to the  
 7 fact that there's a dispersion in teacher pay, so that's  
 8 why I show it. I mean there's dispersions of teacher  
 9 pay in every state. Everywhere -- Every state I've ever  
 10 looked at rural teachers make less than urban teachers.  
 14:59:0011 BY MR. AFFELDT:

12 Q You say in that sentence that Dr.

13 Darling-Hammond didn't attempt to isolate the extent to  
 14 which dispersion in pay between California school  
 14:59:3015 districts is explained by cost of living. How could she  
 16 have attempted to do that or how do you think she should  
 17 have done that?

18 A Well, she didn't at all, period. Now, if she  
 19 had come up with some cost of living index, and some  
 20 states have attempted to do this, then at least you'd  
 15:00:0021 have a little bit of a stronger case. Some states  
 22 actually have -- And maybe you do, but I -- I don't  
 23 know -- use a pay data from the labor department to do  
 24 an adjustment. They have a -- They attempt to isolate a  
 25 cost of education, a specific cost of providing

1 education using data on salaries in local areas. So,  
 2 for example, if salaries are 30 percent higher in city A  
 3 versus city B within the state, district A versus  
 4 district B, then the presumption is that it costs 30  
 5 percent more to educate kids because most of the cost of  
 6 education is salaries. So many states have developed  
 7 these kinds of indexes. They call them cost of living  
 8 but they're primarily based on -- or cost of education  
 9 and they're primarily based on pay, teacher pay --  
 10 excuse me, not teacher pay -- actually on the market,  
 11 market averages of teacher pay, and that it seems to me  
 12 is a way you would -- you would try to demonstrate  
 13 this. I know Massachusetts has such a thing, for  
 15:01:3014 example, and I know other states do, too.

15 Q You say in the final sentence on page 18  
 16 running over to the next page:  
 17 "In any event, the dispersion of pay across  
 15:02:0018 California school districts is not obviously  
 19 out of line with that in other large states  
 20 with major urban centers."

21 I presume those other large states are the ones  
 22 in Chart 14?

23 A Yes.

24 Q To what extent do those large urban centers in  
 25 those states have shortages of credentialed teachers?

1 MS. DAVIS: Vague and ambiguous.

2 THE WITNESS: Well, I don't know. I mean the  
 3 argument -- I don't know the extent to which they have  
 4 shortages, but Professor Darling-Hammond argued that  
 5 there was -- the state was in violation of a  
 6 constitutional standard because it had a high level of  
 7 inequality of teacher pay. So all I was trying to do  
 8 here is say well, let's see how California's inequality  
 9 of pay compares to other states. She compared the level  
 10 of pay to other states; so it seems to me that if we're  
 11 going to have an informed discussion of this, we ought  
 12 to see how California stacks up to other states. So if  
 13 I had done this and I saw an inequality in California  
 15:03:3014 that was much higher than other urbanized states, then,  
 15 you know, at least that would tell us something, but I  
 16 don't see California as clearly out of line with other  
 17 states with major urban areas.

18 Now, by the way, let me return to your first  
 19 point. I'm sure if we went and did a survey of urban  
 20 school superintendents and all the rest of those, and I'll  
 21 say for sure in New York because I was an expert witness  
 22 in their litigation, they would come into you and --  
 15:04:0023 with tales of woe about being able to recruit certified  
 24 teachers. Certainly it was true in New York and it was  
 25 a major factor in their school finance case.

1 MR. AFFELDT: We've been going a while. Why  
 2 don't we take a break.

3 MS. DAVIS: Okay.  
 4 (Recess.)

5 BY MR. AFFELDT:

6 Q In your expert report you consider --  
 7 criticize, rather, the AFT cost of living index as not  
 8 being well grounded in economic theory. It's on page  
 9 16. And you say the primary factor driving the  
 10 variation in state living costs in Nelson's model is  
 11 housing cost. What are the other factors that are  
 12 considered in the AFT cost of living index?

15:25:0013 A There were just a couple of others, two or  
 14 three other variables. I mean at the point -- It was  
 15 clear from looking at the paper it was driven  
 16 overwhelmingly by housing costs, and he had, I don't  
 17 know, population density or something like that; but  
 18 these other variables just weren't important at all, it  
 15:25:3019 was housing costs. So I don't remember the other  
 20 variables, but it was pretty clear in my reading at  
 21 least that overwhelmingly it was coming from variation  
 22 in housing costs.

23 Q What economic theories are you relying on to --  
 24 for that critique?

25 A Well, I cited Roback and Chay and Greenstone as

1 two examples of -- that get into this issue of -- or at  
 2 least touch on this issue.

3 The problem -- The Bureau of Labor Statistics  
 4 which publishes the National Consumer Price Index,  
 5 doesn't do one of these cross-section indexes and the  
 6 reason they don't it is because methodologically it's  
 7 hard to do. It -- And for the reasons I've -- I've  
 8 described here it -- it's -- part of the problem is that  
 9 you have variation in -- in costs -- in prices of  
 10 consumer goods across regions and areas but you have  
 15:27:0011 variation in amenities. And so, for example, with  
 12 housing prices, the value of the amenity gets  
 13 capitalized into the housing price. So, you know, the  
 14 point is houses are expensive in Malibu, not because  
 15 it's more costly to build -- I mean -- You know, in some  
 16 sense because wood and cement are more expensive and  
 15:27:3017 construction labor are more expensive in Malibu but  
 18 because people want to -- want to live there, they want  
 19 to be on the the beach or near the beach. So it -- if  
 20 you -- if you compensate -- In other words, if you paid  
 21 someone -- if you adjusted someone's pay enough to buy a  
 22 house in Malibu, you know, in other words if you use the  
 15:28:0023 housing prices in Malibu to construct your index of cost  
 24 of living, you'd be overcompensating someone, you know.  
 25 If we took -- If we paid lawyers in Malibu, you know,

1 300 percent what we pay lawyers in some more rural  
2 location, you'd be overcompensating them because on  
3 average it's -- most people would rather live in Malibu  
4 than in, you know, rural California because it's -- it  
5 has attractive amenities.

6 So just -- So that's your problem in using  
7 housing prices as a cost of living adjustment. The  
8 housing prices pick up the value of the sunshine and  
9 beach and nice weather, they get capitalized into the  
10 value of property and the value of a house. So to the  
15:29:0011 extent that it's a really neat, nice location, housing  
12 prices are higher and so -- Again, I'm just repeating  
13 myself. You're overcompensating people.

14 I mean in a sense that's why you have high --  
15 More generally that applies to the adjustment we talked  
15:29:3016 about for California, you have high housing prices here  
17 because it's a nice place to live.

18 Q The Roback and Chay and Greenstone pieces, they

1 Q Does Roback say that because it would be so  
2 difficult to figure out a cost of living index in a  
3 situation like ours that you just shouldn't do it?

4 A No, I don't recall her saying that.

5 Q What learned treatises can you cite me to that  
6 would say you shouldn't attempt to do a cost of living  
7 index in a -- in a situation comparable to what we're  
8 talking about here with respect to teacher pay?

9 MS. DAVIS: Vague and ambiguous.

10 THE WITNESS: Well, it's -- it's implicit in  
11 what Roback argues. So I could dig -- I mean I don't  
15:35:0012 have the article in front of me. I didn't bring it with  
13 me. If you read that carefully it clearly comes out  
14 there. And Chay and Greenstone clearly show that  
15 amenities are capitalized into housing prices, so that's  
16 all you have to know is that fact and then the story's  
17 over. If amenities get capitalized into housing prices  
18 and you're using housing prices for costs of living,  
19 then you're wrong, that's all you have to know --  
15:35:3020 Okay? -- because you're -- you're not compensating. The  
21 price of the house is already taking account of the  
22 quality of life, so you can't use it to adjust for  
23 quality of life because it's already taking account the  
24 quality of life.

25 This is like the example of those -- those --

1 because that's what quality of life means. I mean  
2 that's -- A correct cost of living index would be  
3 what -- Look. When the -- Let's think of the Consumer  
4 Price Index. Okay. So the -- You know what the  
5 Consumer Price Index is, the CPI.

6 So the CPI is supposed to tell us how much more  
7 you have to -- If the CPI goes up by 3 percent from last  
8 year to this year, then in theory it takes 3 percent  
9 more income to maintain your same standard of living, in  
10 in effect that's what she means by quality of life --  
11 Okay? -- if it's -- if it's measured correctly. Well,  
12 that's what this is supposed to be measured in, to have  
13 the same standard of living, or what she's calling  
14 quality of life or really what economists are talking  
15 about is utility, the same level of utility, what would  
16 be the right amount of compensation. So she really is  
17 just explaining in that article is complicated  
15:33:3018 interaction of asset prices, wages, and quality of life,  
19 and it's -- it's complicated. And so it's a lot more  
20 complicated to do one of these cross-section cost of  
21 living adjustment than it is a national one, and that's  
22 one of the reasons that BLS really has not done it  
23 because they -- they realize that there's a lot of  
24 conceptual problems and a lot of it is around housing  
25 prices that make it difficult to -- to work this out.

1 the Hawaii example I gave you earlier today. According  
2 to the Nelson index, not only teachers, I'm sure if you  
3 used this index everyone in Hawaii is underpaid. Are we  
4 observing teachers flocking from Hawaii to  
5 Pennsylvania? No. Then there's obviously something  
6 wrong with the index.

7 BY MR. AFFELDT:

8 Q Well, you would agree that people decide on  
9 their profession based on other things than simply pay?

10 A We can agree on that.

11 Q So it's not just a salary that's going to drive  
12 someone to go from Hawaii to Pennsylvania?

13 A That's correct.

14 Q In your book Teacher Pay and Teacher Quality,  
15 did you use the same hourly pay analysis that you use in  
15:37:3016 your expert report?

17 A No, that data from the National Compensation  
18 Survey wasn't available, at least I wasn't aware of it  
19 but I don't think it was available. It was a new  
20 program so it's been producing data for the last couple  
21 of years.

22 Q Do you recall when that -- when it started  
15:38:0023 producing data?

24 A I believe around 2000. It's a new program.

25 Q Would you have used it if you had it for your

1 book?

2 MS. DAVIS: Calls for speculation.

3 THE WITNESS: Well, I -- it depends. If I  
4 could -- Remember, I was trying to -- The question I had  
5 in our book is how changes in teacher pay affected  
6 teacher quality, or at least that was an important  
7 piece. So if I could have -- I needed measures of  
8 teacher quality that were in -- in the same geographic  
9 area as the pay data. So if I could get that then, yes,  
10 I would have used it. Or at least -- Yeah, I think it  
11 15:39:0011 would be useful, but you'd need measures of teacher  
12 quality that correspond to the geographic units of the  
13 National Compensation Survey.

14 BY MR. AFFELDT:

15 Q Did you use the hourly pay analysis in your  
16 study Teacher Effort in Industrial Relations?  
17 15:39:3017 MS. DAVIS: Vague and ambiguous.

18 THE WITNESS: No, I think in most of those  
19 studies I used annual earnings. But remember in those  
20 cases, certainly in the effort pay, I was comparing  
21 teachers to teachers, I wasn't comparing teachers to  
22 nonteachers. So since they all work about the same  
23 number of hours, then it doesn't matter.

1 weeks per year for teachers in the BLS NCS computation?

2 A They -- They don't do weeks per year. They  
3 just ask for hourly earnings or pay for the period in  
4 which you're working and then they collect schedules --  
5 data on scheduled hours, and I believe for teachers  
6 they're using -- well, on the national data it's 37.5.  
7 I think they collect that by market by market but they  
8 don't report it market by market so -- so I don't know.  
9 It's about 37-and-a-half hours.

10 BY MR. AFFELDT:

11 Q Did they compute days per year?

12 A No, I believe that they're -- they only collect  
13 weekly earnings. So -- So that's all they needed was  
14 15:42:3014 weekly pay, or monthly pay if you're paid monthly, and  
15 then they just backed out the implied scheduled hourly  
16 rate.

17 Q So is the 185 days in your expert report for an  
18 annual teacher year, page 17, third paragraph, your own  
19 computation?

20 A Well, the -- Yeah, the 180 is actually the  
21 15:43:0021 median. It comes from the Schools and Staffing Survey.  
22 And when I did a tabulation that was 180. I believe  
23 this similar date data is reported by the National  
24 Center for Education Statistics in the digest, so I  
25 don't think that's a controversial number. But in any

1 event, that is a question in the Schools and Staffing  
2 Survey and that was the median response was 180 days.

3 Q My question went to the 185.

4 A Oh, well that's a guess. I don't really know.

5 Q Is that your guess?

6 A Yes.

7 Q That's not from any source?

8 A I don't know of a source. Let me think a  
9 moment. I really don't know a source. I've looked at a  
10 lot of collective bargaining agreements and that's my  
11 best guess, a reasonable guess.

12 Q Isn't it true that teachers routinely tend to  
13 15:44:0013 work more than the minimum number of hours that are --  
14 daily hours that are set forth in the union contracts?

15 MS. DAVIS: Calls for speculation.

16 THE WITNESS: On-site or at home?

17 BY MR. AFFELDT:

18 Q On-site or at home.

19 15:44:3019 A On-site I don't -- I don't know that that's the  
20 case. At home, they report that they do work at home,  
21 and as I've indicated that's -- but it's attractive to  
22 be able to go home at 2:30, 3 o'clock and, you know, sit  
23 on your deck and grade papers or think about the lesson  
24 plan for tomorrow. On-site I've never really seen any  
25 good evidence on that. And I guess my question is if --

1 if teachers are spending much more time on-site than is  
2 in the contract, then why do they put it in the contract  
3 and why do they resist taking it out of the contract,  
4 the unions.

5 Q So the seven-and-a-half hours a day on-site is  
6 primarily taken up with classroom duties; correct?

7 MS. DAVIS: Calls for speculation. Vague and  
8 ambiguous.

9 THE WITNESS: Well, first of all, it's not  
10 seven-and-a-half in L.A. Unified. It's more like six  
11 forty-five. And, you know, it's -- the majority of time  
12 is classroom duties but, you know, most of these  
13 15:46:0013 contracts call for -- Well, you have a duty free lunch,  
14 first of all, and almost universally in the collective  
15 bargaining agreements that may be a half hour, 45  
16 minutes, and then you have professional preparation time  
17 or whatever they call it, free -- it goes under names  
18 but basically at least one period off, and there may be  
19 some other factors. But most of the time the scheduled  
20 15:46:3020 work time is classroom, unless you're not in a  
21 classroom. I mean there are teachers who don't teach  
22 that are doing curriculum planning, things like that.

23 BY MR. AFFELDT:

24 Q For the teachers that teach, they generally  
25 have to grade papers on their own time whether it's at

1 home or on-site; right?

2 MS. DAVIS: Calls for speculation.

3 THE WITNESS: That is speculation. I don't  
4 know how many papers a second grade teacher is grading  
5 or a first grade teacher. But there are others. I  
6 would imagine it's fairly uneven. I imagine -- I would  
7 hope English teachers are spending a good deal of time  
8 grading, but there are a lot of other kinds of teachers  
9 in schools who may not spend much time grading papers.  
10 Phys. ed teachers, I can tell you that in my whole K-12  
11 career I don't think I was ever assigned homework from a  
12 phys. ed teacher.

15:47:3013 BY MR. AFFELDT:

14 Q For those teachers who are assigning homework,  
15 they spend a lot of time during the regular workday to  
16 grade papers; would you agree with that?

17 MS. DAVIS: Calls for speculation. Vague and  
18 ambiguous.

19 THE WITNESS: I would hope that they could --  
20 they were assigning enough homework that it took more  
21 than 50 minutes to grade. But I don't know of any  
22 evidence one way or the other on this.

15:48:0023 BY MR. AFFELDT:

24 Q It's not a question you've looked into?

25 A Well, I did report -- I'm sorry. I did report

20 Q Are you aware of any other evidence indicating

1 homework time -- and estimate -- self-reported homework  
2 time in the article in EDUCATION NEXT, and the teachers  
3 reported I think it was seven or eight hours a week of  
4 homework time. That is not -- Let me clarify. Work at  
5 home which could be lesson planning, reading, grading  
6 papers, what have you, making up tests, that was  
7 self-reported data.

8 BY MR. AFFELDT:

9 Q So that's basically another day a week under  
10 your 37.5 hour workweek; right?

11 A Well, if it's accurate it would be. But other  
12 people take briefcases home, too.

13 Q Other than your -- Where did you get the data  
15:49:0014 for this seven-, eight-hour estimate?

15 A That was in the teacher survey in the Schools  
16 and Staffing Surveys and it's reported in that article  
17 that was in EDUCATION NEXT.

18 Q Fringe Benefits?

19 A Yes.

1 staffing. I think it's the most reliable national  
2 data.

3 BY MR. AFFELDT:

4 Q Why do you think the NEA is reliable?

5 A I just don't remember. They do an annual  
6 survey, and I -- I -- my recollection is they may have  
7 raised that question. But I -- the -- the bureau of --  
8 the National Center for Education Statistics is very  
9 careful about -- is very rigorous in terms of the way  
10 they collect data and maintaining high response rates  
11 and statistics -- standards for statistical reliability  
12 and they're an arm's length organization. I mean they  
13 don't have an ax to grind, so that's why I like to -- my  
14 preferred source on these types of sources is the  
15 National Center for Education Statistics.

15:51:0016 Q Those are the folks who did the Schools and  
17 Staffing Survey?

18 A That's correct.

19 Q Do you know whether the BLS data includes  
20 holidays and vacations for calculating teacher pay?

21 A No, it's a scheduled work time so it's what  
15:51:3022 your -- the hours of work you were scheduled, so I do  
23 not believe it would include those. It's the amount of  
24 time you were scheduled to work in that week.

25 Q Does it include holidays and vacations for

1 professions other than teachers?  
 2 A I believe that they're focusing on periods when  
 3 you're not taking a holiday or vacation, so a scheduled  
 4 workweek.

5 Q So you think --

6 A So they're not looking at a work year. If you  
 7 were looking at a year then you'd have to worry about  
 8 this. But what they're trying to get at is what's a  
 9 sort of standard workweek, scheduled workweek.

10 Q What would you have to worry about if you were  
 15:52:3011 looking at a work year that teachers were treated  
 12 differently?

13 A Well, I think the way you'd get at what you're  
 14 talking about is that's considered a benefit. So time  
 15 paid not worked, actually the data on that is  
 16 collected -- the BLS collects data on that but calls it  
 17 a fringe benefit. So that would be when you look at --  
 15:53:0018 when they report statistics like fringe benefit rates  
 19 for white collar workers, that includes vacation time,  
 20 sick time, holidays. So that's the way it's counted is  
 21 as a fringe benefit.

22 Q So do you include paid vacations and holidays

1 you're saying it's a fringe -- No, it's not included and  
 2 it should be viewed as a fringe benefit. The way I've  
 3 discussed it in other -- for example, in the EDUCATION  
 4 NEXT piece is it's -- you would think of this as a  
 5 fringe benefit; Okay? And then you get into the  
 6 challenge of comparing those sorts of things between  
 7 teachers and nonteachers. Obviously teachers have all  
 8 of summer off but it's not counted as a fringe benefit  
 9 because they're not employed. They have -- They're on a  
 10 nine-and-a-half or a ten-month contract. So I'm not  
 11 counting it for either side. I mean I'm just looking at  
 12 scheduled weekly pay.

13 Q When you in that same paragraph we last looked  
 15:55:3014 at say an accountant or lawyer with two weeks of paid  
 15 vacation and ten holidays or personal days will work 240  
 15:56:0016 days annually or 30 percent more days per year, are you  
 17 counting the vacation and holidays as workdays or not?

18 MS. DAVIS: Vague and ambiguous.

19 THE WITNESS: The point here is I'm --  
 20 Professor Darling-Hammond in her report was explicitly  
 21 comparing nine-and-a-half or ten-month teacher pay with  
 22 the annual pay of accountants or lawyers. Now, that's

1 hourly rates of pay for scheduled time at work. So if  
 2 you're -- So the numbers on reporting from the BLS are  
 3 only looking at the time individuals are at work,  
 4 they're not considering holidays or personal days or --  
 5 or vacations. They're saying this is a typical  
 6 scheduled workweek. That's what they're doing.

7 BY MR. AFFELDT:

8 Q How did you compute 240 days?

9 A Oh, I'm sorry. Well, let me think about it.

10 MS. DAVIS: Wait.

15:57:3011 THE WITNESS: I don't -- Oh, I can't write on  
 12 that. I need a piece of paper. It's always possible my  
 13 arithmetic failed me but let's see if we can work this  
 14 out. Okay. Let's see. So there's -- Okay. Step one.

15:58:0015 Let's do -- Let's do the whole thing. So then 240 --

15:58:3016 Does someone have a calculator? Am I allowed to use a  
 17 calculator or am I going to be required to do long math?

18 MS. DAVIS: I've got a calculator.

19 THE WITNESS: Okay. What a handy device.

20 MS. DAVIS: The numbers are in the --

21 THE WITNESS: Okay. Hold on. Let me make sure  
 22 I do the right arithmetic. Okay. So how do I do -- oh,

15:59:0023 there's divided. Where's equal? Equal is there?

24 MS. DAVIS: Yes.

25 THE WITNESS: I got it. Good.

1 Okay. If you take 52 weeks times 5 days per  
 2 week, that's 260 sort of business days -- Right? -- per  
 3 year?

4 BY MR. AFFELDT:

5 Q I'm with you.

6 A Okay. So if you take 10 holidays, 10 personal  
 7 days or holidays, and then 2 weeks of paid vacation,  
 8 that's 20, so that gives you 240.

9 Q Fair enough. Thanks.

16:00:0010 A You divide 240 by 185, then that's 1.3. So  
 11 that means if you accept 240 as an actual estimate,  
 12 that's 30 percent more days per year.

13 Q Got it. Thank you.

16:00:3014 A Okay.

15 Q Do you know what the length of time of the duty  
 16:01:0016 free lunch period is in California?

17 A That varies. That's collectively bargained, I  
 18 believe, and so you have to look at the collective  
 19 bargaining agreements. Was that in the statutes? I'm  
 20 not aware of that. I assume that's a topic for  
 16:02:0021 bargaining.

22 Q Are you aware of how many teachers in  
 23 California have to work during their duty free lunch  
 24 period?

25 MS. DAVIS: Vague and ambiguous. Calls for

1 speculation.

2 THE WITNESS: Well, if it's in the collective  
3 bargaining agreement that they have a duty free lunch  
4 and there's no other language on that, then I would  
5 expect if you asked the teacher to work during that duty  
6 free lunch you'd get a grievance filed. So I don't know  
7 the answer to your question but, you know, I'd have to  
8 look at the particular circumstance and the contract.

9 BY MR. AFFELDT:

10 Q Are you aware of the extent to which teachers  
11 in California have to work during their free period  
12 because there are teacher vacancies or other  
16:03:0013 circumstances requiring them to cover for someone else?

14 MS. DAVIS: It assumes facts not in evidence.  
15 Vague and ambiguous. Calls for speculation.

16 THE WITNESS: I'm unaware of any data on that,  
17 but I would observe that if the contracts -- it would  
18 put the -- that would put the school district in  
16:03:3019 violation of their collective bargaining agreement.

20 BY MR. AFFELDT:

21 Q Are you aware of the average summertime  
22 earnings for teachers in California?

23 A No.

24 Q Do most teachers obtain summer pay?

25 MS. DAVIS: Calls for speculation. Vague and

1 well, and so I don't actually have that number.

2 BY MR. AFFELDT:

3 Q Have teachers' salaries increased or decreased  
4 in comparison to the average worker over the last two  
5 decades?

6 MS. DAVIS: Vague and ambiguous.

7 THE WITNESS: In California or nationally?

8 BY MR. AFFELDT:

9 Q Nationally.

10 MS. DAVIS: Same objection.

11 THE WITNESS: They've tended to fall and it's  
16:06:0012 primarily coming from women. Most teachers are women,

13 three quarters, and they -- the annual pay of  
14 teaching -- of women in teaching has fallen relative to  
15 the annual pay of women, particularly college educated

16 women who aren't teachers; but I'd point out that the  
17 composition of jobs, you know, the nature of the

16:06:3018 nonteaching jobs have changed as well. So it could be  
19 that the nonteachers are putting in longer hours.

1 ambiguous.

2 THE WITNESS: From -- From any source or from  
3 the school?

4 BY MR. AFFELDT:

5 Q Any source.

6 A Nationally most of them don't. Well, let me  
7 take that back. I was thinking about the moonlighting  
8 rate during the school year is about 25 percent. I  
9 still think it's below 50 percent even in the summer.  
10 I'd point out that one of the attractions of teaching is  
16:04:3011 that you don't have to work during the summer.

12 Q Do you know how much teachers work compared to  
13 the average worker?

14 MS. DAVIS: Vague and ambiguous.

15 THE WITNESS: In a typical day or week or  
16 year?

17 BY MR. AFFELDT:

18 Q In a typical year compared to the average U.S.  
16:05:0019 worker.

20 A Well --

21 MS. DAVIS: Same objection.

22 THE WITNESS: I gave you estimates here and I  
23 discuss that in my -- the article in EDUCATION NEXT, so  
24 I pointed to the best available evidence I'm aware of.

25 Now, of course you mean -- you want to count homework as

20 There's been a trend towards longer hours. I'm told

1 A Yes.

2 Q Do you know what the value of benefits package  
3 is for California teachers on average?

4 MS. DAVIS: Vague and ambiguous. Calls for  
5 speculation.

6 THE WITNESS: Well, I reported the -- not  
7 counting -- not counting the time off that -- I had a  
8 number. Where is that? I showed how their benefits'  
9 package stacked up, so it was about in the Common Core  
10 of Data --

16:08:0011 BY MR. AFFELDT:

12 Q What page are you on?

13 A Page 7.

14 (Continuing) -- I looked at the -- around a  
15 little bit over 25 percent according to the Common Core  
16 of Data.

17 MS. DAVIS: That is Table 7; right? Chart 7?

18 THE WITNESS: Chart 7.

19 BY MR. AFFELDT:

20 Q The chart is entitled Ratio of Employee

1 relatively easy for teachers to take time off, personal  
2 days, sick days. And in fact you see the average --

3 This goes back to your number you talk about earlier,  
4 about the large number of substitute teachers, well,

5 there's a lot of substitute teachers that are teaching

6 on any given day because there's a lot of regular  
7 teachers who are absent, who is sick or not sick, a kid

8 is sick or they have a personal family need, and that is  
9 an attractive feature of teaching. It allows women with

10 kids to do -- you know, if the kid is sick or needs to

11 go to the doctor or something to take personal time

12 off. It's sort of routinized. That's much harder for

13 women or other workers, you know, lawyers, you know,

16:12:0014 doctors, other professionals. So these are all benefits

15 I think that are attractive and make teaching

16 attractive.

17 BY MR. AFFELDT:

1 other similar occupations?

2 MS. DAVIS: Vague and ambiguous.

3 THE WITNESS: I think they're pretty good,  
4 although, again, I discuss this in my EDUCATION NEXT  
5 article. It's hard to -- to do an overall quantitative  
6 comparison however -- because of the way the BLS reports  
7 data. But first of all, health insurance coverage is  
8 virtually universal for teachers, and the evidence I've  
9 seen from the Bureau of Labor Statistics suggests that  
10 the insurance plans are relatively generous vis-a-vis

16:10:0011 the typical private sector plan, that is the employee  
12 payment typically is lower particularly for family

13 policies. All teachers, and certainly California  
14 teachers, are in defined benefit plans that are quite  
15 generous vis-a-vis the typical defined benefit plan and

16:10:3016 we see teachers retiring at a much -- at a -- at an  
17 average age considerably younger than in a private  
18 sector plan or under the U.S. social security system.

19 So -- And it's not uncommon for teachers to have dental  
20 benefits and -- depending these are collectively  
21 bargained, you know, other types of benefits, dental  
22 benefits and so on.

16:11:0023 Another area whereas compared to white collar  
24 workers I think it's important and tends to be  
25 underappreciated is that teachers have a -- it's

18 Q Have you analyzed the extent to which benefits

19 for teachers compare to benefits for other occupations?

21 District. So my preference is to look at wages,

1 when analyzing comparability of salaries?

2 A What cost of living adjustment?

3 Q Any cost of living.

4 A Well, sure, I've used the Consumer Price Index

5 all the time, but that's -- that's different. That's

6 not a cross-section cost of living estimate. To my

7 recollection I -- I don't like using, I don't believe in

8 these -- these cross-section estimates. The government

9 doesn't publish any. They come from -- What Howard

10 Nelson used comes from a private organization called

11 ACCRA, A-C-C-R-A, which is some -- which collects some

12 of these kind of data. I'm skeptical of them.

16:14:0013 I've indicated in the report and in our

14 discussion my preferred way to compare teacher pay and

15 adequacy of teacher pay or any pay is to look at other

16 salaries, other wages, so that if you're going to

17 compare teachers in Alpine School District, then you'd

18 want to compare their pay relative to other workers in

16:14:3019 Alpine School District rather than trying to come up

20 with some cost of living index for Alpine School

1 who -- whose choice, therefore, might not be to change

2 occupations but to look for another teaching position in

3 another district in that labor market, my question is

4 under that hypothetical an Alpine County teacher looking

5 for a better paying teacher job wouldn't the more

6 relevant question would be what a neighboring school

7 district is paying?

8 MS. DAVIS: Well, incomplete hypothetical.

9 THE WITNESS: That's a good point, but the

10 question is does -- is a teacher looking at the nominal

11 pay in the neighboring school district and, you know,

12 commuting in which she doesn't care what the cost of

13 living is; okay? If she's moving, then that may be an

16:16:0014 issue. I mean I don't know. You've laid out a scenario

15 where an employee might if they moved across the state

16 then this could enter but that's why you would want to

16:16:3017 look at -- Well, see, what I'm telling you is I don't

18 know what the right number is.

19 The right number is the number that explains

20 how teachers behave. I'm telling you that Howard

21 Nelson's number doesn't really work. What we need is

22 something that would help explain the mobility of

16:17:0023 teachers between districts. And that would be one way

24 to do it, is rather than trying to measure the cost of

25 living directly, just look at the net flows of teachers

1 between districts who actually moved physically moved  
2 and that can tell you something about sort of the  
3 equilibrium or disequilibrium, that is whether their  
4 real pay is out of line in some sense.

5 BY MR. AFFELDT:

6 Q Would it tell you anything else?

7 A Well, if I wanted to know that there was a --  
8 if I wanted to know about inequities and I was concerned  
9 that a school district was disadvantaged relative to  
10 other school districts, then what you would want to look  
11 at is sort of the net outflows of teachers. If what  
12 16:18:0012 you're saying is right, if the real pay is too low in a  
13 district compared to other districts, then you'd expect  
14 to see a net outflow of teachers, a substantial net  
15 outflow. So I think first you'd want to know is there a  
16 net outflow to other districts and then what's its  
17 magnitude, I mean is it 1 percent or is it 6 percent.  
18 If it's 1 percent, yes, their relative pay may be low  
19 but is that important? Probably not. If it's 7  
20 16:18:3020 percent, it's -- it's probably a cause for concern.

21 So that's the kind of evidence I think you'd  
22 want to look at, but I don't know how to tell you to  
23 measure the cost of living -- the right cost of living

1 Q Would you agree that increasing teachers'  
2 salaries can reduce teacher turnover?

3 MS. DAVIS: Calls for speculation.

4 THE WITNESS: Yes, that's -- that's clear in  
5 the literature. Yes.

6 BY MR. AFFELDT:

7 Q How would you define what a teacher labor  
8 market is in California?

9 A Well, that's a good question. Probably a first  
10 start would be -- I think as a first cut I'd go with  
11 these BLS -- or your state Department of Labor has  
12 these -- what they call labor market areas and they're  
13 16:20:3013 sort of -- they're bigger than commuting distances but  
14 they're meant to be something like a commuting distance,  
15 and I -- I think that would be a first start.

16 But clearly teachers graduate, teachers do move  
17 between the labor markets. But for the most part  
18 teaching is not -- is pretty localized. Teachers -- As  
19 16:21:0019 I said before, you'd want to analyze your data but my  
20 guess is that if you look at the major -- because this  
21 is what we see in other states -- if you looked at the  
22 other major sources of teacher supply, which I believe  
23 is the Cal State system, I think you'd find most of the  
24 graduates who matriculate from those Cal State programs

1 schools at all are going to end up in public schools  
2 that are in fairly close proximity to those  
3 institutions, which suggests that these are fairly  
4 localized markets.

5 Now, eventually some of the teachers will move  
6 around but a lot of that isn't going to be driven by  
7 pay. They'll be if they got married and they moved to  
8 Texas or, you know, a variety of factors may be at work,  
9 but I think at least in terms of the initial employment  
10 16:22:0010 it's -- it's pretty localized.

11 Q Have you ever analyzed the disparity in teacher  
12 pay among districts in California within California  
13 labor markets as you would define California teacher  
14 labor market?

15 A No, I have not.

16 Q How would one go about doing that analysis?

17 16:22:3017 A Well, you can look at these major labor market  
18 areas and look at the differences of pay within those  
19 labor market areas and find out what they are. I also  
20 think that you ought to look at teacher flows as well  
21 and see -- you know, see if there's actually -- if the  
22 flows of teachers are following those pay  
23 differentials. I mean it may be the case that, you

1 teachers. There's probably a district in the  
2 metropolitan L.A. area that pays -- you know, a small  
3 district that pays its teachers a lot more, let's  
4 hypothetically say that's the case. But if they're not  
5 hiring, if there's not a lot of movement, it really  
6 doesn't make a lot of difference. So you want to know  
7 if they're really draining away teachers from the lower  
8 paying districts.

9 If there's no jobs available or if there's few  
10 jobs in the high paying district, then it really doesn't  
11 matter that they're high paying. They aren't bleeding  
12 teachers away from anywhere else. So I would really  
13 like to see the data on teacher mobility.

14 Q And how would -- What would you have to do to  
15 16:24:0015 see that data?

16 A You could get -- I would imagine that if you --

17 if the State Department of Education could do that

19 these teacher identifiers on the teacher records, they

18 assuming we talked about this earlier that they have

20 could compute turnover rates and interdistrict mobility

1 insurance forms?

2 A Well, that -- Actually, it would be -- My bet  
3 is there's three possible ways you could address this.  
4 One would be the records, the CBEDS records, Department  
5 of Ed; the second would be the UI, you could do the UI  
6 records, it's a little harder but you could do it; and  
7 the third my bet is the pension fund. All of these  
8 teachers are in the same pension fund.

9 Is L.A. Unified in the statewide pension fund?  
10 I think everyone's in the state pension fund. If that's  
11 the case, then probably the pension fund has that data  
12 as well. So I think one of those three would be able  
13 to -- And when teachers move, that pension fund is  
14 supposed to get updated information. So I think there  
15 16:25:3015 would be three possible sources to investigate this.

16 BY MR. AFFELDT:

17 Q What magnitude of difference would you consider  
18 to be significant when looking at disparity in teachers'  
19 salary between two districts within the same labor  
20 16:26:0020 market?

21 MS. DAVIS: Vague and ambiguous. Calls for

1 Well, I asked Mr. Salvaty if he was aware of any studies  
2 and then I also looked at the CTC web site so see if we  
3 could get any data like that or evidence on these rates  
4 of mobility and I -- and I'm not aware of any.

5 Q If there were evidence to that effect, would  
6 that justify the need for higher salaries in the high  
7 poverty districts to retain their teachers?

8 MS. DAVIS: Calls for speculation. Incomplete  
9 hypothetical.

10 THE WITNESS: Well, it certainly would be a  
11 first step in making that case. Then I'd want to know  
12 how -- how the high poverty districts are spending their  
13 money for salaries. These teachers who are moving are  
14 almost always going to be younger teachers, so the  
15 question is is the high poverty district backloading its  
16 16:29:0016 pay increases or is it -- is it making any sort of good  
17 faith effort to -- to make starting pay more  
18 competitive. But -- But that would certainly -- It  
19 would be a first step in making the case, I think.

20 BY MR. AFFELDT:

21 Q Did you say his name was Howard Melson?

22 A Howard Nelson?

1 poverty districts. Or more generally I'd like to see  
2 evidence -- Forget wages, because really the issue is  
3 are -- are low poverty districts drawing teachers away  
4 from high poverty districts. Isn't that the real  
5 ultimate issue here, the equity issue? And that's  
6 really what I think we should see a demonstration of, is  
7 that going on. If it is, then it's -- it would make --  
8 it would help support a case that the high poverty  
9 districts need more resources to retain their teachers.  
10 It really doesn't matter what their current pay is. If  
11 you're seeing that kind of movement in a substantial  
12 16:27:0012 amount, then it would make an argument for higher pay.

13 BY MR. AFFELDT:

14 Q Are you aware of any evidence that indicates in  
15 California that high poverty districts have drawn  
16 teachers away from low poverty -- Strike that.

17 A The other way.

18 Q Have you -- Are you aware of any evidence in  
19 California demonstrating that low poverty districts have  
20 16:27:3020 drawn credentialed teachers away from high poverty  
21 districts?

22 A I have not seen any such evidence cited or seen

1 Melton?

2 A Is this the fellow that does the cost of living  
3 index, another cost of living index guy?

4 Q Another cost of living index guy, yes.

5 A Yes. I read one of his papers a while back and  
6 I -- I know that he has another measure of cost of  
7 living. I don't recall the details of it. He's  
8 published his work sometime before Nelson published his,  
9 is my recollection.

10 Q Do you regard Melton as an authority?

11 A Is that his name?

12 MS. DAVIS: Vague and ambiguous. Calls for  
13 speculation.

14 THE WITNESS: Can you spell it for me? Are we  
15 talking about the same --

16 BY MR. AFFELDT:

19 THE WITNESS: I -- I don't remember enough  
 20 about -- First I want to make sure we're talking about  
 21 the same person -- I think we are -- and I just don't  
 22 remember the details of how that was done. But I just  
 23 want to say that there's nothing that's indicated to me  
 24 that anyone solved the problem I described. I have --  
 25 I've seen no work published anywhere that has solved

19 MS. DAVIS: Vague and ambiguous.

1 this problem. And he may be sophisticated or not, but I  
 2 haven't seen anyone solve the problem we talked about.  
 3 BY MR. AFFELDT:  
 4 Q Are you familiar with data compiled by the  
 5 American Chamber of Commerce Researchers Association?  
 6 MS. DAVIS: Vague and ambiguous.  
 7 THE WITNESS: That's what I referred to  
 8 earlier, ACCRA. Yes.  
 9 BY MR. AFFELDT:  
 10 Q Have you ever used or relied on data from ACCRA  
 11 in any study?  
 12 A No, I haven't.  
 16:31:3013 Q Do you know if Eric Hanushek has?  
 14 MS. DAVIS: Calls for speculation.  
 15 THE WITNESS: I don't know.  
 16 BY MR. AFFELDT:  
 17 Q What's your opinion as to whether the ACCRA  
 18 data is accurate?

20 THE WITNESS: I'm skeptical. ACCRA I'm told --

1 Statistics or National Center for Education Statistics.  
 2 I'm not confident it meets the statistical standards of  
 3 these so -- And the other point to keep in mind is  
 4 Nelson is -- is -- is leveraging on top of ACCRA data.  
 5 ACCRA collects these data at the SMSA that is --  
 6 Sorry -- SMSA essentially at the city level,  
 7 metropolitan area level. And then Nelson ran a  
 8 regression. He regressed those data on census data and  
 9 then used that to predict state level cost of living  
 10 estimates. So, you know, I think that the ACCRA data  
 11 originally is I'm not -- I don't believe it solved these  
 12 problems and I'm not -- I'm not sure about how reliable  
 13 16:33:3013 they are. And then -- Well, so I'm -- I'm not sure  
 14 about how reliable they are.

15 BY MR. AFFELDT:

16 Q Why do you question the reliability of the  
 17 ACCRA data compared to the BLS data?

18 A Well, BLS has a huge staff of professional  
 19 statisticians and economists and maintains high levels  
 20 16:34:0020 of standards for their data collection. They're  
 21 meticulous. They have paid researchers that go out and

1 Let me put it this way: I think the  
 2 evidence -- people should demonstrate and make a  
 3 convincing case that these are reliable data, you know,  
 4 first.

5 MR. AFFELDT: Why don't we take a break and  
 6 I'll see if I can finish up.

7 MS. DAVIS: Okay.

8 (Recess.)

9 BY MR. AFFELDT:

16:37:0010 Q Dr. Podgursky, are you aware of any other  
 16:44:24

16:44:3011 survey data on salaries from BLS or other sources that  
 16:48:41

16:49:0012 reflect teacher pay in comparison to other occupations?  
 16:49:39

16:50:001

14 THE WITNESS: Well, the -- Yes, there's annual  
 16:51:0015 pay data that can be -- that you can get from the Bureau  
 16 of Labor Statistics from current population survey. In  
 17 fact, you can get a weekly earnings from the current  
 18 population survey, so there's a couple of other  
 19 sources. I think they're -- they're inferior to the --  
 20 in my opinion to the National Compensation Survey data  
 21 16:51:3021 when you go down to the state level because they're  
 22 survey based so there's not a lot -- they're based on  
 23 household survey so there's not a lot of observations on

1 If you want to compare cost of living across  
 2 regions, you've got to make sure that someone is going  
 3 out and buying the same quality chicken here as in San  
 4 Bernardino as in Texas; they got to have a comparable  
 5 apartment; they got to buy a -- you know, they have to  
 6 have the same kind of auto insurance. I mean this is  
 7 really complicated, to talk about taking a bundle of  
 8 consumer goods and then making sure that you -- you've  
 9 bought the same bundle in all of the other areas. Now,  
 10 it's my understanding that ACCRA has just got a group of  
 11 volunteers that does this, so I don't -- The BLS has  
 12 detailed -- When they do consumer pricing index, you're  
 13 talking about hundreds of items and very high levels of  
 14 quality control to make sure there's comparability. You  
 15 16:35:3015 know, when they buy the goods, do they go to a  
 16 Wal-Mart? If they don't have a Wal-Mart there, where do  
 17 they go to? What if there's no discount store? You  
 18 know, it's just very complicated. What if Kmart goes  
 19 out of business, where do they go next? I mean these  
 20 sound like trivial things but they affect the numbers  
 21 you're going to get and it's a very complicated business  
 22 so -- and it's expensive. So I -- I just -- I'm

1 know, particular cities, you can't do it.

2 BY MR. AFFELDT:

3 Q What is the National Compensation Survey based  
 4 on?

5 A Well, it is based on a survey but they're  
 6 surveying these labor market areas within a state so  
 7 it's -- it's a big N for the state.

8 Q So it's not the fact that it's survey  
 9 observations, it's the N that's involved?

16:52:3010 A Right, that's -- that's -- It's also the -- the  
 11 current population survey. Or the other data sources  
 12 are based on household surveys whereas this is an  
 13 establishment-based survey. So you really don't -- So  
 14 in a sense the numbers get weighted by the number of  
 15 employees; so if they go to a business that employs 25  
 16 secretaries and they get data on secretaries -- Well,  
 17 16:53:0017 they're actually -- there unit of observation is a job.  
 18 But if there's 30 people in that job, then they're --  
 19 they're -- you know, it reflects 30 jobs; so it isn't  
 20 just one, it's 30 with that employer, so as opposed to  
 21 going to a bunch of households trying to find, say, 30  
 22 secretaries. So it's an efficient way to collect data  
 23 16:53:3023 on pay as compared to a household survey.

24 Q "It" being the National Compensation Survey?

1 Q I think you testified that the National  
2 Compensation Survey began about three years ago?  
3 A That's my recollection. It was -- You know,  
4 they're adding more cities, they're expanding it, but it  
5 really only began two or three years ago.  
6 Q And when you say you can get annual and maybe  
7 weekly earnings from BLS data, that's pursuant to not  
8 the National Compensation Survey but a separate  
9 household survey?  
10 A Yes, that would come from the current  
11 population survey which is a survey of 50,000 households  
12 monthly. So the number of observations by state is  
13 small -- I mean relatively small.  
14 Q Other than that household national population  
15 16:55:0015 survey, are you aware of any other BLS or other survey  
16 data that contains teachers' salary and other  
17 occupational salary information?  
18 A Well, I think the next best which actually was  
19 not available at the time I did my report is the census,  
20 the 2000 census. Now, there's a public-use survey  
21 16:55:3021 data. The census would be the next big one, and  
22 that's -- that wasn't available but they've only  
23 recently released Public Use Micro -- PUMS, Public Use  
24 Micro Sample data which you can break out data by

1 to metropolitan areas.  
2 Q Any other data on salaries that you're aware  
3 of?  
4 A Not that would break out teachers and  
5 nonteachers. Nothing's coming to mind. That's what you  
6 need -- Right? -- you need something that would identify  
7 teachers and nonteachers; correct? Well, there's  
8 nothing else that's coming to mind.  
9 Q Do you think a regression equation that  
10 16:57:0010 controls for only one variable like poverty has a  
11 problem in not examining other omitted variables?  
12 MS. DAVIS: Vague and ambiguous. Calls for  
13 speculation.  
14 THE WITNESS: A regression equation of what?  
15 I'm sorry. What's the dependent variable? What is  
16 the --  
17 BY MR. AFFELDT:  
18 Q Let's say student achievement.  
19 A So student achievement is the dependent  
20 variable. And what's on the right-hand side?  
21 16:57:3021 Q Take your pick. A teacher effect.  
22 MS. DAVIS: It sounds like it depends to answer  
23 your question.  
24 THE WITNESS: Well, it -- the -- I think where  
25 you're going with this is back to my regression that

1 only included poverty, but is -- you know, it -- it  
2 depends on what you're looking at I guess is the  
3 answer, what the issue is.  
4 BY MR. AFFELDT:  
5 Q Well, if you want to use your study in your  
6 report as an example.  
7 MS. DAVIS: Can you ask the question again?  
8 MR. AFFELDT: Yes.  
9 THE WITNESS: Well, I think what was in my  
10 16:58:3010 report --  
11 MS. DAVIS: Let him ask the question again.  
12 THE WITNESS: I'm sorry.  
13 BY MR. AFFELDT:  
14 Q Do you think a regression equation such as the  
15 one done in your report that controls for only one  
16 variable has a problem in not examining other omitted  
17 variables?  
18 MS. DAVIS: Calls for speculation.  
19 16:59:0019 THE WITNESS: The point I was trying to  
20 illustrate in my charts and tables is that the better  
21 you control for socioeconomic status -- when you  
22 introduce controls for socioeconomic status, you get  
23 a -- even a poor quality control you get a sharp

1 achievement, the effect basically disappears  
2 altogether.  
3 I think for the purposes that I was -- the  
4 point I was trying to make was perfectly adequate. It  
5 showed that prior student achievement is what drove the  
6 result. If I had brought in other variables, it would  
7 have complicated the interpretation. I was trying to  
8 make the point that it's critical to control for prior  
9 student achievement, it radically changes your results,  
10 and I think I demonstrated that.  
11 BY MR. AFFELDT:  
12 Q Conversely if someone were trying to establish  
13 the -- that there is a positive effect between teacher  
14 17:00:3014 certification and student achievement and only  
15 controlled for one variable, would you consider that a  
16 problematic analysis?  
17 MS. DAVIS: Vague and ambiguous.  
18 THE WITNESS: Well, I'd like to see more  
19 controls. I'd like to see if it's robust.  
20 17:01:0020 BY MR. AFFELDT:  
21 Q What additional controls would you like to see?  
22 MS. DAVIS: Calls for speculation.  
23 THE WITNESS: Other teacher characteristics.  
24 Whatever other data you had about the school, other  
25 characteristics.

<p>1 BY MR. AFFELDT:</p> <p>2 Q Do you know the extent to which students in</p> <p>3 California have equal access to instructional materials?</p> <p>4 MS. DAVIS: Vague and ambiguous.</p> <p>5 THE WITNESS: No.</p> <p>6 BY MR. AFFELDT:</p> <p>7 Q Do you know the extent to which students in</p> <p>8 California have equal access to clean and safe school</p> <p>9 facilities?</p> <p>10 MS. DAVIS: Vague and ambiguous.</p> <p>11 THE WITNESS: No.</p> <p>12 MR. AFFELDT: Dr. Podgursky, thank you for your</p> <p>13 patience and your time.</p> <p>14 THE WITNESS: Thank you.</p> <p>15 MS. DAVIS: All right. Finished up just after</p> <p>16 5:00.</p> <p>17 MR. AFFELDT: Off the record.</p>	<p>19 MS. DAVIS: We will notify you, the court</p>
<p>18 (Discussion off the record.)</p>	<p>20 reporter, of any changes within 45 days of receipt of</p>

21 the transcript.

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I, MICHAEL JOHN PODGURSKY, do hereby declare under penalty of perjury that I have read the foregoing transcript of my deposition; that I have made such corrections as noted herein, in ink, initialed by me, or attached hereto; that my testimony as contained herein, as corrected, is true and correct.

EXECUTED this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, at \_\_\_\_\_, \_\_\_\_\_.  
(City) (State)

\_\_\_\_\_  
MICHAEL JOHN PODGURSKY  
Volume 4

1 going to keep the original and will send a copy to the  
2 deponent's attorney, Ms. Davis, with an errata sheet and  
3 the court reporter will notify all parties of any  
4 changes to the original and will send a certified copy  
5 to Ryoko Kita, R-y-o-k-o K-i-t-a, at Morrison &  
6 Foerster San Francisco.

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I, the undersigned, a Certified Shorthand Reporter of the State of California, do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that any witnesses in the foregoing proceedings, prior to testifying, were placed under oath; that a verbatim record of the proceedings was made by me using a machine shorthand which was thereafter transcribed under my direction; further, that the foregoing is an accurate transcription thereof.

I further certify that I am neither financially interested in the action nor a relative or employee of any attorney of any of the parties.

IN WITNESS WHEREOF, I have this date subscribed my name.

Dated: \_\_\_\_\_

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 START @ 9:11 A.M.  
 4 END @ 5:06 P.M.  
 SUPERIOR COURT OF THE STATE OF CALIFORNIA  
 5 COUNTY OF SAN FRANCISCO  
 UNLIMITED JURISDICTION  
 6 ELIEZER WILLIAMS, a minor, by )  
 SWEETIE WILLIAMS, his guardian )  
 7 ad litem, et al., each )  
 individually and on behalf of all )  
 8 others similarly situated, )  
 Plaintiffs, )  
 9 vs. ) No. 312236  
 STATE OF CALIFORNIA, DELAINE )  
 10 EASTIN, State Superintendent of )  
 Public Instruction, STATE )  
 11 DEPARTMENT OF EDUCATION, STATE )  
 BOARD OF EDUCATION, )  
 12 Defendants. )  
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 15 VIDEOGRAPHER(S) None  
 16 DEPOSITION  
 CONCLUDED: yes  
 17 INTERPRETER(S): n/a DEPOSITION  
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 18 DATE: n/a  
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 19 WITNESS(1): MICHAEL JOHN PODGURSKY, Ph.D. PGS. 556-731  
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