



**COLORADO**  
Department of Education

Colorado State Board of Education

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TRANSCRIPT OF PROCEEDINGS  
BEFORE THE  
COLORADO DEPARTMENT OF EDUCATION COMMISSION  
DENVER, COLORADO  
May 5, 2015, Part 1

BE IT REMEMBERED THAT on May 5, 2015, the  
above-entitled meeting was conducted at the Colorado  
Department of Education, before the following Board  
Members:

Marcia Neal (R), Chairman  
Angelika Schroeder (D), Vice Chairman  
Steve Durham (R)  
Valentina (Val) Flores (D)  
Jane Goff (D)  
Pam Mazanec (R)  
Debora Scheffel (R)



1 MADAM CHAIR: All right. Thank you. Come  
2 to order.

3 Would you like to call the roll, please?

4 MS. MARKEL: Steve Durham.

5 Val Flores.

6 MS. FLORES: Here.

7 MS. MARKEL: Jane Goff.

8 MS. GOFF: Here.

9 MS. MARKEL: Marcia Neal.

10 Pam Mazanec.

11 MS. MAZANEC: Here.

12 MS. MARKEL: Dr. Scheffel.

13 UNIDENTIFIED VOICE: She's got her mute on.

14 Deb.

15 MS. SCHEFFEL: Yep. I'm here.

16 (Indiscernible) I'm here. I'm here.

17 UNIDENTIFIED VOICE: Thank you.

18 MS. MARKEL: Thank you.

19 Dr. Schroeder.

20 MS. SCHROEDER: Here.

21 MADAM CHAIR: Good morning. Thank you all

22 for coming, but especially it's my pleasure to welcome

23 our panelists (indiscernible) who are with us this

24 morning: Dr. Sandra Bankes, who is vice chair of El Paso

25 Republican Party; Dr. Lorrie --



1 UNIDENTIFIED VOICE: Excuse Madam  
2 (indiscernible), doesn't Dr. Bankes have additional  
3 credentials related to education?

4 MADAM CHAIR: I'm going -- I'm definitely  
5 going to (indiscernible) --

6 UNIDENTIFIED VOICE: Oh.

7 MADAM CHAIR: -- this is all the information  
8 that we have so --

9 UNIDENTIFIED VOICE: Thank you. We have  
10 more than you have, so --

11 MADAM CHAIR: Yes. Dr. Shepard, who is the  
12 dean of College of Education at (indiscernible) Boulder;  
13 Dr. Kevin Welner, director of the National Education  
14 Policy Center, and Professor at the University of  
15 Colorado Boulder; and Dr. Derek Briggs, professor and  
16 program chair research and evaluation methodology also at  
17 the University Boulder, my alma mater.

18 Thanks so much for agreeing to participate  
19 this morning. Unfortunately, a fifth panelist, whom we  
20 did (indiscernible) invited, was unable to come, due to  
21 an accident, Dr. King Hapishaw (ph), and so  
22 unfortunately, we won't have a petitioner to speak with  
23 us this morning, but we are nevertheless thrilled to have  
24 this panel to where we (indiscernible), about PARCC  
25 assessments, about assessments in general.



1 Panelists, in order to make the most of our  
2 time this morning, I'm recommending the following. That  
3 each panelist have let's 10 to 15 minutes, due to limited  
4 time, to provide general comments on the impact on PARCC  
5 test on students on student performance and/or any other  
6 comments of the effectiveness of a PARCC test  
7 (indiscernible) other tested regimes that you'd like to  
8 provide.

9 While our panelists are speaking, we are  
10 hopefully going to be able to hold our questions, but  
11 when you're finished with your presentation, the next  
12 portion will be a discussion between you -- between us,  
13 and then following those questions, we'll hear public  
14 comment. That is not questions to you. It's just public  
15 comment. Each individual has three minutes of  
16 opportunity to speak, which is something that we often  
17 do.

18 I do know that, at least, one of us will  
19 need to leave sometime early today, and if you must leave  
20 at some point, I can't tell you (indiscernible). So I'd  
21 like to begin, based on your requests with Dr. Shepard.

22 Please proceed.

23 UNIDENTIFIED VOICE: Should we introduce  
24 ourselves? I just meant of the three of us. So I think  
25 it's fine for Dr. Bankes to begin.



1                   MADAM CHAIR: Okay. And I misunderstood  
2 (indiscernible). Right, and would -- would each of you  
3 share with us your relationship with PARCC or other  
4 statewide assessments.

5                   MS. BANKES: Thank you. I am Sandra Bankes.  
6 I came out of El Paso County. And I am a retired  
7 elementary school principal. The school, at which I was  
8 a principal, was in the top eight percent of elementary  
9 schools in the State of Colorado.

10                   I'm also and currently a field supervisor  
11 for student teachers and principal interns through the  
12 University of Phoenix and I am also a writing  
13 interventionist at the middle school level at a school in  
14 El Paso County.

15                   I also want to make sure that I represent  
16 myself, and my opinions are my own. I do not, in the  
17 comments I'm going to share with you this morning, do not  
18 represent or the opinions of the school, the school  
19 board, the superintendent, all that, it is information  
20 that voices from the peers with whom I work want to have  
21 heard, and we appreciate the fact that we are able to be  
22 here this morning and share those with you. So thank  
23 you.

24                   MADAM CHAIR: Thank you.

25                   MS. SHEPARD: So I am the dean, and also a



1 professor at the School of Education, University of  
2 Colorado in Boulder. I don't have a relationship with  
3 the PARCC test, but I have a long history as a  
4 psychometrician and someone who studies how tests are  
5 used in schools; how they do or do not support learning;  
6 and I also -- I think relevant to this discussion, I've  
7 been for 25 years on the National Assessment of Education  
8 Progress Validity Studies Panel, so that's a role I have  
9 nationally.

10 MR. WELNER: Yes. Hello. And I  
11 (indiscernible). This is Kevin Welner. I'm a professor  
12 at the University of Colorado at Boulder as well. I also  
13 I want to repeat, like Dr. Bankes said, that is for me  
14 I'm not speaking on behalf of the University. It's just  
15 my own views (indiscernible). Can -- can you hear?

16 UNIDENTIFIED VOICE: I'm not sure the volume  
17 is to hear (indiscernible). (indiscernible).

18 MR. WELNER: There is goes.

19 UNIDENTIFIED VOICE: Yes.

20 MR. WELNER: Okay.

21 UNIDENTIFIED VOICE: We can hear that.

22 UNIDENTIFIED VOICE: Thank you.

23 MR. WELNER: So my relationship  
24 with -- with -- with -- with testing is not specific to  
25 PARCC. It's just what -- what I focus on is the



1 relationship between testing and practice, in terms of  
2 how -- how testing is used within a system of -- of  
3 school improvement, and the effects of testing on school  
4 factors.

5 MR. BRIGGS: Yes. My name is Derek Briggs.  
6 I'm a professor also at the University of Colorado. And  
7 I, unlike my colleagues, I actually am (indiscernible)  
8 PARCC insider (indiscernible) that I have served on their  
9 PARCC Technical Advisory Committee the past four years.  
10 That Technical Advisory Committee consists of 14 -- 14  
11 people. We meet three times a year to discuss issues  
12 germane to the design development and implementation of  
13 PARCC. So much of what I'll have to say comes from  
14 that -- that perspective.

15 I also -- it's probably relevant to say,  
16 serve on a lot of other technical advisory committees  
17 related to large-scale assessments. A member of the  
18 Technical Advisory Committee for the Smarter Balance  
19 Assessment Consortium, and also a number of other states,  
20 including New York, and -- New York, Michigan, and -- and  
21 Tennessee. So I'll be sharing mostly perspectives from  
22 that, as -- as a psychometrician involved with working  
23 with states and other organizations interested in test  
24 development, design.

25 MADAM CHAIR: Thank you so much.



1 (Indiscernible).

2 MS. BANKES: Should I start?

3 MADAM CHAIR: I -- I think so. I got a  
4 little confused by the request, but --

5 MS. BANKES: Yeah.

6 MADAM CHAIR: -- yeah. Proceed.

7 MS. BANKES: Well, again, thank you for  
8 allowing us to -- or for me to bring you comments today  
9 from practitioners, who view -- who have a view of the  
10 standardized testing at the elementary and middle school  
11 level for this school of year. My comments are from my  
12 experiences as a field supervisor for student teachers  
13 and a language arts interventionist for sixth, seventh,  
14 and eighth graders.

15 The other comments that I will share with  
16 you this morning come from a current middle school  
17 principal, a gifted and talented teacher, who works in  
18 three schools, and a central officer administrator; all  
19 of whom are located in El Paso County, and from several  
20 different districts. And again, let me share with you  
21 that these are personal, professional vies, and not the  
22 opinions of the people for whom we work.

23 Student teachers that I supervise, in  
24 addition to their coursework, are responsible for  
25 creating their own curriculum that aligns to state



1 standards and incorporating the technology available in  
2 their schools and in their classroom. It's my  
3 responsibility to ensure the teachers I supervise get the  
4 training and experience that are necessary to make them  
5 competent first-year teachers.

6 (Indiscernible) teachers come highly  
7 recommended, and highly qualified teachers consistently  
8 pursue effective teaching strategies, develop  
9 individualized instruction for students, engage parents,  
10 and reach outside the schoolhouse walls for authentic  
11 audiences for their students to demonstrate their skills  
12 and abilities. The learning curve for this school year  
13 for both (indiscernible) teachers, and student teachers,  
14 and principals, and all staff has been sharp.

15 In looking at the calendars in several  
16 school districts, student contact days vary from 168 to  
17 179 days. In the middle school in which I serve as an  
18 interventionist, 15 of those days are test days, from  
19 April 13th to May 7th. With the prep time to familiarize  
20 staff and students on the testing format, additional time  
21 on the computer is required. This affected the whole  
22 school. As a school administrator, I used to suspend  
23 students for creating a material and substantial  
24 disruption to the educational day.

25 My experience, for example in this PARCC



1 testing, I proctored the seventh grade language arts math  
2 PARCC. The problems occurred the first day of testing  
3 were because of computer glitches on our testing  
4 location. It took an hour to get the test started. By  
5 the end of the first session students were sitting for  
6 two and a half hours.

7 In the afternoon it took a half an hour to  
8 get logged on. That meant that a hour an 50 minutes of  
9 testing conditions were required of our students.

10 Day 2, the whole computer system was down.  
11 We were at our location for an hour an and a half before  
12 word came back to class -- for word could come back to us  
13 that we could return to the classroom. Kids were sent  
14 back to class and content teachers were expected to pick  
15 up lessons that weren't scheduled for that day.

16 Skipping to the makeup day, out of 30  
17 students who were on my roster, only 16 were in  
18 attendance that day. (indiscernible) next door to me had  
19 about the same ratio. By the time we went through the  
20 testing window, teachers and students were jaded by their  
21 experience: would we test today; how long will we have  
22 to sit; kids were saying why can't we just use paper and  
23 pencil and get this done.

24 In addition to the amount of time invested  
25 in the testing window, computers throughout the school



1 were unavailable for use by other students. Every  
2 computer lab, every secure cubie hole was in use to  
3 accommodate the testing. Any computer -- any computer  
4 technical difficulties was handled by the media  
5 specialist. He was up and down the two floors to solve  
6 the problems test administrators couldn't resolve.

7           Comments that I brought to you this morning  
8 from the middle school principal had four points. The  
9 first was technology impact for schools. Due to the  
10 amount of assessments and then makeup assessments, it is  
11 not conducive for teachers to continue to infuse  
12 technology into their instruction during these past few  
13 months, i.e., the computer labs, and even the library  
14 have not been accessible in an effort to ensure that we  
15 can assess each grade level. With not being a one-to-one  
16 student-to-computer school, it requires an assessment  
17 schedule with our technology to ensure we build into our  
18 schedule the allotted testing time; possible extra school  
19 days, due to weather; and then the makeup schedule.

20           This lack of technology for schools inhibits  
21 our ability to continue our 21st century instructional  
22 practices. Our research with technology and team  
23 building goes to the back burner for several  
24 weeks -- months.

25           Second point: loss of instruction. As it



1 is well known, if a grade level takes two tests a day,  
2 along with checking in and out of materials, it can take  
3 up to two hours for each assessment. This direct impact  
4 limits the teaching and learning time in between courses  
5 for all involved.

6 The third point: opt-out option. For those  
7 parents/guardians who choose this option, it directly  
8 impacts the student and their own family. First,  
9 families who opted out were then required to adjust their  
10 daily schedules, whether they kept their students at  
11 home, or brought them back and forth between the  
12 assessments. Their daily routines were directly  
13 impacted.

14 This last point is on school culture and  
15 climate during the assessment. Teachers should be, and  
16 are expected to regularly assess student growth and  
17 achievement, as well as the effectiveness of their  
18 instruction on a weekly, monthly, or unit-by-unit basis.  
19 For us to add more assessments begin to wear on the  
20 enjoyment and engagement for our students and staff  
21 around teaching and learning.

22 It was evident on some occasions, as one  
23 student put it, "Felt like a testing factory instead of  
24 school." One teacher added through paraphrasing I didn't  
25 go to college, nor did I get into education to become a



1 trained assessment professional.

2 The school culture and climate was directly  
3 impacted by the amount of tests; the time it took to  
4 complete the assessments; and the ongoing desire to get  
5 them done versus demonstrate what we know so we can use  
6 that information for instruction and accountability  
7 purposes for students and schools.

8 The next set of comments comes from the  
9 teacher that serves three schools, as a gifted and  
10 talented teacher. My three schools have each spent six  
11 weeks testing. This means that the computers are not  
12 accessible to the younger students for five weeks. This  
13 also means that each of my schools was forced to buy two  
14 carts of Chromebooks to use that there are enough  
15 computers to get the tests done in that six-week period.

16 This testing schedule was -- has disrupted  
17 regular classroom learning since January. Since teachers  
18 were first required to learn about the new test and  
19 figure out how to make kids successful in taking it, and  
20 then administering it. When the teachers were allowed to  
21 view the practice problems -- and this is a comment I  
22 also got from a middle school department chair in the  
23 language arts department of her school -- that they  
24 weren't -- they, themselves, were not sure about what the  
25 correct answers were, due to the poor wording of the



1 questions.

2                   There have been, at least, two instances  
3 that I know of where testing was not able to be done on a  
4 certain day, due to computer glitches. The testing  
5 schedule has also disrupted the schedules of all the  
6 other students in the building, as their lunch and recess  
7 times must be rearranged in order to accommodate the  
8 testing.

9                   Other student schedules have also had to be  
10 rearranged because I, as the teacher, have had to  
11 rearrange my schedule in order to accommodate the testing  
12 schedule. In short, this whole testing situation is  
13 extremely disruptive for all the members of my three  
14 schools. It does not feature well written questions, and  
15 it will not give us any information that we could not  
16 obtain in other ways that are less disruptive.

17                   Thank you for asking for my input.

18                   I asked all of these folks, and others, to  
19 give me their input to share what it is that their  
20 concerns are when I came this morning. You see a  
21 familiar refrain through them: disruption of the school  
22 day; the glitches with the computer system.

23                   The third comment comes from central officer  
24 person and she speaks to the whole standards-based  
25 movement, which started in 1990, and the reasons for



1 testing and accountability. She ends with I also think  
2 we need to give PARCC the state and districts time to  
3 work out the bugs and the testing process, but -- and the  
4 but is in capital letters, this testing is forcing  
5 districts to update technology, which we should be doing  
6 for all of our kids in this day of technology.

7 In conclusion, throughout all of this I hope  
8 you heard that my statements are about the events in  
9 schools and the effect on the training for student  
10 teachers. Does the amount of testing interfere with  
11 instructional time, and thereby diminish the overall  
12 quality and quantity of our instruction?

13 The question I want to leave with you: is  
14 how much data do we need to formulate our curriculum,  
15 assess student achievement, and measure school  
16 accountability? Thank you for your time this morning.  
17 And thank you for listening.

18 MADAM CHAIR: Thank you very much. I think  
19 that leads right into the (indiscernible).

20 MS. SHEPARD: I suggested of the three of us  
21 that I could first because building on what's already  
22 been presented, I could give a little historical context,  
23 mention of 1990 standards-based testing, and then also  
24 say what we know from research -- actually studying the  
25 effects of large-scale high-stakes testing in schools on



1 student learning, on what teachers do with their  
2 instruction, and (indiscernible).

3 So it's actually the case that we can look  
4 back several decades to the minimum competency testing  
5 movement, which began in the '70s, and each decade has  
6 had its own character of how much testing has been added,  
7 and how much accountability pressure has been layered on  
8 with each new decade. So minimum competency testing was  
9 just about exiting from high school, so not all students,  
10 all grades were taking those tests. And if you recall "A  
11 Nation at Risk" published in 1983 it already said that  
12 there had been negative effects from that testing in the  
13 '70s; namely, the dumbing down of curriculum to only  
14 focus on minimums. So there's a long research history on  
15 how these policy intentions, which always are lovely  
16 intentions lead to unintended consequences.

17 Ross Perot famously talked about what was  
18 happening in the 1980s when it was mostly states adopting  
19 off-the-shelf standardized tests, like the CTBS, and  
20 there was -- there were about a half dozen of those kinds  
21 of tests. And the '90s standards movement showcased what  
22 had happened that was bad about all that standardized  
23 testing. Again, during that decade basic skills  
24 performance on the national assessment of educational  
25 progress went up, and higher-order thinking performance



1 went down, so the idea was oh, we need a test in the  
2 1990s that would better capture that higher-order  
3 thinking, not unlike the talk presently about critical  
4 thinking, need to assess that higher level of  
5 performance.

6 I think the takeaway messages from the  
7 research on how instruction gets changed in response to  
8 high-stakes testing, and how learning gets changed is  
9 that there are distortions that occur every time, and the  
10 amount of distortion comes with the quality of the test,  
11 and also, with the amount of pressure. So everyone is  
12 aware of the research that shows that especially in low  
13 performing schools, social studies and science are forced  
14 out of the curriculum when people are so concerned just  
15 about reading and math tests.

16 A point I try to make that I think is very  
17 important to the school climate and culture comments that  
18 we've already heard, is that a closer look, where they've  
19 actually been comparative studies about what students can  
20 and can't do compared to what's assessed on the test, is  
21 that even reading and math are not taught well if they're  
22 just practiced in formats that resemble the tests. And  
23 this, in studies done in the '80 and '90s -- this is done  
24 disproportionately in low-performing schools. An NSF-  
25 funded study, in fact, found that kids in urban



1 environments were getting things that looked just like  
2 the standardized test.

3 Nonetheless, even with all that evidence,  
4 policymakers and their -- this is -- this is a bipartisan  
5 thing, so please don't interpret when I -- with  
6 unkindness say the term policymaker, it really is shared  
7 across the parties that accountability tests could be  
8 used to leverage reform, and the imposition of sanctions  
9 could be the pressure to change, and that pressure is why  
10 people are teaching in ways that look more and more like  
11 the test.

12 With no child left behind, it escalated  
13 another notch, because of the amount of testing, and  
14 interesting now -- now we have warring groups of parents.  
15 They don't know they're at war, but some parents want a  
16 score for their kids, and other parents want not to have  
17 their kids tested so much, so it's -- policymakers are  
18 appealing to different groups when they impose more and  
19 more every student testing so that we could have a score  
20 and measure progress grade, to grade, to grade, et  
21 cetera. And the more testing we do, the more time we  
22 spend on it, but also, what the research on learning  
23 effects tells us, the more the students can't do the same  
24 things the test was meant to measure if asked just a  
25 slightly differently way, that's a teaching the test



1 effect, even if (indiscernible), and the more that they  
2 come to have an understanding about what learning is for,  
3 that actually makes it not what we intend.

4 We want kids to learn, so that they can be  
5 good at these things, so that it can be exciting, so that  
6 they can use it in authentic context that's not like a  
7 texting drill and practice conveys. So I think  
8 that -- those are some of the important things.

9 The specific respect to PARCC, we do have an  
10 issue here, that PARCC was intended to be a broader  
11 enough test that teaching to it wouldn't hurt that  
12 generalization of skills. So that kids can do the  
13 PARCC -- they could do it if you asked them yet another  
14 way. And we are in a fix right now, or you, or the  
15 legislators across the street are in fix, because they're  
16 being forced to make a decision about a better test  
17 because of all of the layers of amount of testing that  
18 have been added, including lots of things the school  
19 districts purchased to get ready for NCLB testing that  
20 it -- are actually much worse tests than PARCC. So maybe  
21 we'll come back to what do you do with this. I think  
22 it's a genuine dilemma -- better test -- but too much of  
23 it.

24 MR. WELNER: We're lined up this way, so I  
25 (indiscernible).



1 MADAM CHAIR: Down the line (indiscernible).

2 MR. WELNER: I'll try to speak louder and  
3 more into the mic this time. Thank you. So I'm going to  
4 be relatively brief with this opening statement, and I  
5 just really wanted to make two points. The first, is  
6 that I wanted us to discuss how the use of testing has  
7 changed over the past couple of decades, not just in  
8 amount, but also in kind. And I'll explain why  
9 the -- why the issue we're discussing, I think is most  
10 productively framed as the sensible use of testing, not  
11 about the PARCC or testings at large. And then second, I  
12 want to briefly discuss the twin issues of accountability  
13 and the opportunity gap.

14 So first, the -- the use of tests, as  
15 measurement tools, is very different from the use of  
16 tests to drive policy goals, like school improvement and  
17 teacher quality. As measurement tools, tests help  
18 teachers and others reach judgments about the nature,  
19 scope, and extent of student's learning. This  
20 information can also be -- can -- can be used for  
21 summative purposes, such as grading, and placements, and  
22 admission, but tests can also be designed and used for  
23 formative purposes, such as teachers tailoring of  
24 subsequent instruction, or a policymaker's decisions  
25 about where (indiscernible) resources, and these are the



1 sensible and conventional roles for tests.

2 But the enormous expansion of tests and  
3 testing over the past couple of decades has not been  
4 driven by the mere desire to better measure and  
5 understand student learning. Instead, the intent of  
6 policies like NCLB has been to use the measurement of  
7 student learning to drive broad policy decisions and to  
8 change the behavior of teachers, principals, and others.

9 The key object of measurements has thus  
10 shifted from the students to their teachers, their  
11 principals, their schools, and their districts. So tests  
12 that were once primarily measurement tools have no -- now  
13 become policy levers, and we've seen that this use of  
14 tests is ineffective and unwise frequently leading to  
15 negative unintended consequences, and outright failing to  
16 accomplish the school improvement goals stated at the  
17 outset of the reform movement.

18 So it's the policy lever use of test that  
19 has driven the great expansion of testing. And to be  
20 clear, part of the reason why PARCC is so long, which  
21 Lorrie just touched on, why it has so many items, and  
22 different types of items is because it's trying to  
23 measure deeper learning, but it's also true that PARCC  
24 would not need so many items to be answered for each  
25 child. We wouldn't spend so long testing if we didn't



1 need scores that could then be used to precisely measure  
2 individual student growth.

3 We wouldn't need to give the whole PARCC  
4 test to each and every student. School districts, if  
5 they didn't face high-stakes consequences, wouldn't feel  
6 the need to pile on the interim assessments that Lorrie  
7 spoke of, designed to provide an advantage in bumping up  
8 all those all important test scores. None of that would  
9 happen if we were using tests sensibly and  
10 conventionally, rather than as a policy lever. It's the  
11 high-stakes test driven accountability systems that are  
12 the problem.

13 So let me shift then to this issue of  
14 accountability. Ultimately, the key goal of -- of this  
15 Board and of Colorado's schools is to increase student's  
16 opportunities to learn. The high-stakes test driven  
17 accountability system, of which PARCC is now a part, was  
18 intended to further that goal, even if it didn't happen.  
19 And to be clear, it did not.

20 A successful and wise accountability system  
21 doesn't put in place top down -- doesn't put in place a  
22 top down system of test demand and sanction. Instead, it  
23 puts in place coherent supports and demands that at all  
24 levels of the system. And this means a system of mutual  
25 and multidirectional accountability that seeks to ensure



1 that all players from top leaders to school-level  
2 educators, and students are doing their part to close the  
3 opportunity (indiscernible).

4 So that doesn't mean that we shouldn't have  
5 testing. It doesn't mean that the technically  
6 sophisticated work done to create a testings like the  
7 PARCC have gone to not. What it does mean is that school  
8 improvement efforts have to begin from a different  
9 starting point.

10 For nearly two decades now we have begun  
11 with tests and tried to figure out the right pressure  
12 points to push students, teachers, and principals, and  
13 others to do better. In truth, the policies have been  
14 powerful. They have substantially changed what happens  
15 in schools and classrooms. People do respond to strong  
16 incentives and disincentives.

17 The problem, of course, is that the  
18 responses aren't always what the policymakers hoped  
19 they'd be. So schools and teachers adopt unhelpful  
20 practices, like teaching to the test, and narrowing  
21 curriculum, and other shortcuts that undermine our broad  
22 and deep learning goals. And the end result is that the  
23 measured achievement trends haven't really changed.

24 The challenge of making good use of PARCC is  
25 just part of the general challenge of building a smart,



1 efficient, and fair school system. Yes, test like PARCC  
2 can be downsized, but they also need to be used in a way  
3 that helps the overall system. Most importantly, this  
4 means going back to a use of tests to help understand  
5 what children have learned, rather than to drive school  
6 improvement, and I hope that will be the guiding star for  
7 this -- for this Board, as it moves forward, and looks  
8 for points of agreement about how to help this  
9 (indiscernible) school system.

10 MR. BRIGGS: So let me actually start also  
11 with a disclaimer, which is that while I am on the PARCC  
12 Technical Advisory Committee, and -- and had that sort of  
13 involvement, I don't speak for the Technical Advisory  
14 Committee, nor do I speak for the developers of PARCC  
15 (indiscernible) perspectives on the test. And -- and as  
16 an (indiscernible) Technical Advisory Committee, it's  
17 worth noting that my view on -- views on PARCC are sort  
18 of like the views that I have of my own child, which is  
19 that I've -- I've gotten to -- to -- to know PARCC very  
20 well, and -- and I have some affection for it on the  
21 inside. On the other hand, I'm very hard on PARCC, just  
22 the way that I'm sometimes hard on my own child, because  
23 I have high expectations for what my child and for what  
24 PARCC could -- could extensively accomplish.

25 So I want to make three points, and I think



1 the points build on much of what has been said.  
2 And -- and the first thing I think I should note is that  
3 I -- I want to be sensitive to what my marching orders  
4 were -- or just my -- my -- the request was, and I don't  
5 think any of us necessarily had followed them very well.  
6 And I want to be clear, as to why I think that's the  
7 case.

8           So what we were asked to do was to give  
9 general comments on the impact of the PARCC test on the  
10 students and on student performance, and any comments on  
11 the effectiveness of PARCC -- of the PARCC test vis a vis  
12 other testing regimes. In that, the reason that  
13 some -- almost impossible to -- to comply with that is  
14 that we just don't know yet. It's too soon. And this  
15 really connects one of the three points I want to make,  
16 which is I think it's really, really important to see  
17 PARCC for what it is, an evolving enterprise, and not  
18 something that as it comes out of the box as a finished  
19 product, and done, and that's how it would be  
20 from -- from time -- from here on out, but as something  
21 that has seen a lot of work, and will see more work. And  
22 I think over time, given the opportunity, we'll get to  
23 learn a lot about what potential impacts are, in terms of  
24 teaching and learning, and -- and the like.

25           That said, I will be able to say something



1 about how I think PARCC compares to other testing  
2 programs that I've had the opportunity to see. So one of  
3 my main points is that -- is that PARCC should be seen as  
4 an evolving enterprise, not as a fixed product, or a  
5 finished product.

6 The -- the two other points are this. From  
7 my perspective on the Technical Advisory Committee, I  
8 feel comfortable saying that having also seen a lot of  
9 other tests designed, and -- and put out, I feel very  
10 confident saying that PARCC was very thoughtfully and  
11 conscientiously designed. It was submitted to a lot of  
12 scrutiny both public scrutiny and professional scrutiny.  
13 It continues to be submitted to a lot of public and  
14 professional scrutiny.

15 A second point I want to make is that PARCC  
16 does, in fact, have a lot of very novel features relative  
17 to tests that we've seen before. Some -- there -- there  
18 is this sense in which many of these novel features being  
19 done all at once has been quite a burden. And some of  
20 the things that, like Dr. Bankes has referred to, in  
21 terms of technological glitches, are the sorts of things  
22 that you can imagine happening when you're trying to  
23 innovate in the sense of both the kinds of item formats  
24 that you're creating on -- on the tests, and the  
25 integrations of technology all at once. So there are



1 clearly growing pains here, but I want to say something  
2 about the novel feature of the PARCC test.

3           So let me come back to these two points.  
4 The first point about the -- the -- what I've observed as  
5 the conscientiousness and the thoughtfulness that went  
6 into the design of PARCC. One of the things that is  
7 really noteworthy about the efforts to develop PARCC,  
8 and -- and that makes it quite different, and makes  
9 it -- it's very important to appreciate that a test is  
10 not a test, is not a test. And that in comparing even  
11 PARCC from what came before it, it's really critical to  
12 understand that when we think about the TCAP, or the CCAP  
13 before it, the TCAP and CCAP are not necessarily flawed  
14 or -- or -- or really problematic tests, but they were  
15 written to very different standards.

16           PARCC was written to the Common Core State  
17 Standards, and one of the things that was very noteworthy  
18 in the process of writing the test to the Common Core  
19 State Standards is that a process that has been in the  
20 psychometric community and assessment community  
21 understood for sometimes as a very principled approach  
22 for assessment design is as known as, evidence-center  
23 design. And that approach begins with saying: what are  
24 the claims that we want to make about students on the  
25 basis of their test scores; what are the sorts of things



1 we want to be able to say once we have a test score for a  
2 student that the student knows and should be able to do;  
3 and we start with that vantage point, and that -- those  
4 claims are all connected to the sorts of standards that  
5 are in the Common Core State Standards.

6 Now, when those -- when those statements  
7 have been established, the process of actually designing  
8 the test goes from those claims, and their notion is, how  
9 do we write items, and how do we think of the design of  
10 items that would best elicit or get us information about  
11 the students that would support the sorts of claims that  
12 we want the test to make. Now, this sounds  
13 straightforward and, sort of, obvious as the thing you  
14 would do, but as a process it's not something that is  
15 then implemented at scale.

16 I think before these consortia tests -- both  
17 the PARCC consortia, the Smarter Balance consortia are  
18 both taking this perspective on how they've gone about  
19 designing their test items. One of the things that's  
20 very notable as well, is that one might think that by  
21 writing a test to the Common Core State Standards it's  
22 just a matter of looking at the standards and then the  
23 items become self-evident from the standards, but that's  
24 not the case at all.

25 If you actually read carefully the Common



1 Core State Standards, and particularly in mathematics,  
2 one of the things that's very novel about the Common Core  
3 State Standards is the attempt to place equal weight on  
4 both what students know about mathematics, and how they  
5 apply their knowledge, in terms of how they reason with  
6 their knowledge, and how they problem solve with their  
7 knowledge, but how you weave those things  
8 together -- things that were more along the lines of  
9 recall, and knowledge of fractions, or decimals, and  
10 proportional reasoning, how you demonstrate that, in  
11 terms of practices, the Common Core doesn't really lay  
12 that out at all. And one of the things that the  
13 designers for PARCC had to do is actually very explicitly  
14 say how you weave together knowledge, and reasoning, and  
15 they actually had to go beyond what the Common Core lays  
16 out, and actually establish a framework for doing this.

17 Part of that framework involves actually  
18 establishing what does it mean for some items to be more  
19 cognitive -- cognitively complex than others. What are  
20 the principles by which we would establish that certain  
21 items get at higher order of thinking skills and other  
22 ones are more at that order of recall. So as a design  
23 principle, a lot of effort went in at the front end to  
24 conceptualize on how to create items to get at things in  
25 a way that we haven't gotten up to before.



1                   The other piece that is important for me to  
2 point out, in terms of novel features, one novel feature  
3 of the PARCC test that's most evident is this integration  
4 with technology: the computer-based format. But  
5 in -- in going to this computer-based format it's  
6 actually, I think, to some extent, opened the doors to  
7 different ways for students to interact with items, even  
8 if you look at the practice test that has been made  
9 available for PARCC, items that we might characterize as  
10 traditional multiple choice items, really don't look that  
11 traditional anymore.

12                   That is, typically I think when we think of  
13 a multiple choice item we think of an item that has an A,  
14 B, C, D and cues A, B, C, D. If you'll look at  
15 the -- the actual items that exist for -- in the practice  
16 test for PARCC, what you'll see in many case is that  
17 there isn't an A, B, C, D. There are entry points for  
18 selecting choices, but there might be as many as eight  
19 different choices that one has to choose from to drag  
20 into that entry field. So it'd be collected -- it'd be  
21 correct to characterize the test, in many cases, as  
22 having formats that look like selected response, but  
23 they're quite different from traditional multiple choice  
24 items.

25                   So in some sense, when people refer to



1 technology enhanced items that's not a great term. It's  
2 a very vast, broad term, but this is one example where  
3 the technology using the -- the computer interface can  
4 make things less guessable than they were in the past,  
5 and make -- make it actually much more challenging for  
6 students to take the test. That's one reason, I think,  
7 why we're hearing so much from the field about people  
8 talking about just how difficult these tests really are.

9 Another feather that's worth really  
10 noteworthy and -- and I think it's attracted a great deal  
11 of attention with the PARCC assessments is the emphasis  
12 on performance-based tasks. This is really the -- the  
13 biggest change that both the PARCC and the Smarter  
14 Balance assessment consortia have tried to implement;  
15 that is, if you believe that the Common Core gets  
16 at -- really attempts to get at higher-order thinking  
17 skills in a way that previous standards did not, well,  
18 then it stands to reason you would expect the tests have  
19 to look different; have to have the kinds of questions  
20 that really allows students to express their ideas in a  
21 much deeper way.

22 This is where I think the -- the  
23 performance-based tasks have been targeted to accomplish  
24 that. And it's very connected to this idea of -- of why  
25 we have so much of an increase in testing time. I think



1 a really large reason for that is the incorporation of  
2 these performance-based assessments -- I'm  
3 sorry -- performance-based tasks within the  
4 larger -- larger assessment. I think that along those  
5 lines Lorrie made a -- a really terrific point when she  
6 talked about the concern that in any testing enterprise  
7 there is this worry that the potential for instructional  
8 distortion is a function of two things: the quality of  
9 the test, to which instruction might be focused, and the  
10 stakes attached to the test.

11 So what we clearly have in this situation,  
12 and this bears on what Kevin mentioned as well, is the  
13 test that are very high stakes, right. And so that puts  
14 the onus on the designers of the test to really make  
15 assurances that what they have is high quality, such that  
16 if there claims that teachers are teaching to the test,  
17 how can you make it a test worth teaching to. And I  
18 think this very much was what was behind a lot of  
19 thought, in terms of the design for these tests. To  
20 really be able to argue that the PARCC test really covers  
21 the breadth and depth fully of the Common Core State  
22 Standards, such that if the -- if teachers are really  
23 teaching to PARCC, they're teaching to the full range of  
24 the Common Core, and hence that will limit distortions  
25 given the -- the high stakes nature of the test.



1 I think much, as what Kevin pointed out, if  
2 there's this concern here then that the PARCC tests are  
3 as time consuming as Dr. Bankes has -- has pointed out,  
4 and disruptive in terms of instructional time, the  
5 question is how do you jimmy that equation, given that  
6 there are still high stakes, if you decrease the amount  
7 of time, to what extent do you now have less validity  
8 behind the claim that your assessing the full breadth and  
9 depth of -- of the Common Core for each individual  
10 student, if that is seen as a real important thing. And  
11 that's a really difficult and (indiscernible) question we  
12 push to grapple.

13 The last points I'll -- I'll -- I'll make  
14 here is that there really is, I think, a deep and  
15 fundamental question that I wish that we would, as I  
16 guess society engage in, which is what is the proper role  
17 of assessment in public and private education for that  
18 matter. That -- that is, what ---assessment has to be  
19 much bigger than standardized testing. And it -- it  
20 worries me that -- actually the quote I heard from Dr.  
21 Bankes of a teacher that said, "I didn't go to college  
22 and into teaching to become a trained assessment  
23 professional." That worries me quite a bit, because  
24 frankly, who are -- you know, a teacher should be an  
25 assessment professional, in fact.



1                   The problem, I think, is that this  
2 particular teacher might think that when the word  
3 assessments is used that means standardized testing. And  
4 it worries me quite a bit that we've come to the point  
5 where whenever someone says the word assessment they  
6 think that just means a standardized test. Whereas, a  
7 standardized test needs to be a component in a broader  
8 system assessment. The assessment takes place every day,  
9 and is critical, I think, to the education of students.  
10 And what's really important to think about how tests like  
11 PARCC fit into a broader system of assessments that is  
12 balanced and thoughtful, and not distorted in one -- one  
13 (indiscernible). Thank you very much.

14                   MADAM CHAIR: Thank you.

15                   Thank you to all of you.

16                   I believe now it's time for my colleagues to  
17 ask questions (indiscernible). No questions?

18                   Dr. Flores.

19                   MS. FLORES: I'm concerned about the  
20 (indiscernible).

21                   MADAM CHAIR: Pardon me? I'm sorry?

22                   MS. FLORES: (Indiscernible). I'm very  
23 concerned about the (indiscernible) of teachers, who  
24 basically teach for three or four years, sometimes  
25 it's -- they don't want to teach any more, but sometimes



1 the district, you know, sends them out without any  
2 training. They come from the university. And I do think  
3 that teachers need more training while at work, and  
4 they're not given that -- that support when they're  
5 teaching.

6 And I think that also the (indiscernible), I  
7 mean, is that they never get the skills to do the  
8 formative assessments that they need, and that really  
9 is -- is a -- a very big concern for me. And I think  
10 we're -- in fact, we're going away from that. What do  
11 you think --

12 MADAM CHAIR: Do you have a question?

13 MS. FLORES: Yes, I do. That's the  
14 question. What do you think we should do about -- about  
15 that issue when -- when I think the whole reform  
16 movement -- and I -- I think it's there -- thinks that we  
17 shouldn't train teachers to -- to be skilled at formative  
18 assessments?

19 MS. SHEPARD: Well, I can -- I can give you  
20 some background and answer to that question. It's  
21 unfortunate that no child left behind happened exactly  
22 when it did, because in exactly that same year as the  
23 passage of NCLB, the National Academy of Sciences had put  
24 together a study that brought together all of the  
25 (indiscernible) science research on learning with all of



1 the measurement research, including what Dr. Briggs was  
2 talking about, regarding evidence-centered design, like  
3 how would you build assessments that -- for the large  
4 scale purpose have these properties, but also they  
5 brought together all of the formative assessment research  
6 from the preceding two decades.

7           And what they -- what they recommended was a  
8 model for assessment systems, to Dr. Briggs' point, where  
9 the large scale assessment that state's used were  
10 conceptually congruent with the assessments that  
11 classroom teachers used, that they would be different.  
12 They would be the same in -- in terms of the task  
13 demands, and the reasoning that had to go on with the  
14 content knowledge that was represented, but it wouldn't  
15 be just give that test in March, and you have the teacher  
16 use it, and have the policymaker use it. That's what  
17 they said should not happen, because the technical, and  
18 timing, and practical issues that go with what you need  
19 for the large scale comparable -- you need comparable  
20 data for the large scale assessment to have any  
21 meaning -- is very different from what the classroom  
22 teacher needs on a given day or week.

23           And it was very unfortunate that that  
24 formative assessment literature, which had been  
25 summarized in 1999 very famous meta-analysis, and then



1 that National Academy of Sciences report -- everyone was  
2 in agreement what this should look like, and instead,  
3 literally commercial sellers of assessment took the word  
4 formative assessment and they applied it to very low-  
5 level tests that were administered by computers to give  
6 teachers scores frequently. Those are called interim  
7 tests now, because we literally, in the literature, had a  
8 fight about whether they could call those things  
9 formative assessments.

10           It's true they could be used formatively,  
11 but they weren't the formative assessments grounded in  
12 instructional tasks. And the big difference that I see  
13 is the difference between giving teachers scores. They  
14 already knew who was the high scorer in their class and  
15 who was the low scorer. Instead of substantive  
16 information about what the kids understood and what they  
17 didn't understand, and even how could I ask it a  
18 different way, or propose a different set of activities  
19 to help them know.

20           So the substantive purpose of formative  
21 assessments was lost. And to your point, how could we  
22 help teachers get it: it really needs to be grounded in  
23 instructional design, so one proposal that I've made at  
24 some of these national meetings is that we go back to  
25 somethings that worked effectively in the 90s, which are



1 replacement units for teachers. That is, a three-week  
2 unit about how to teach proportional reasoning, for  
3 example, with these deep rich tasks that they could use  
4 to learn about the content themselves, because some  
5 teachers need help with the curricular changes that are  
6 being asked, or they know the curricular changes, but  
7 they haven't had much experience yet with student  
8 thinking, so us showing them tasks that elicit different  
9 levels of student thinking, those were called learning  
10 progressions.

11                   And that -- there's a huge assessment  
12 literature about how that could support teachers helping  
13 students learn with assessments, but it's very different  
14 from just adding a bunch of performance assessments to  
15 PARCC, which made it a better large-scale test, but it  
16 doesn't help -- none of that amount of time spent is  
17 helping teachers over the course of the year, so I think  
18 that, you know, we have to go back to some of those  
19 proposals.

20                   MS. BANKES: I think your comment really  
21 brings us back full circle with the teacher who said, you  
22 know, I didn't go to school to become a professional  
23 assessment administrator. The difference between  
24 assessing in your classroom is really what you just spoke  
25 to, and that is, we -- you have units to which you have



1 turned your lesson plans in. They're aligned. They are  
2 within what it is expected, whether the district has pace  
3 in curriculum, whether it has an alignment across all  
4 grade levels, a vertical alignment.

5 When teachers go to, at least the teachers  
6 that I work with, go to put their units together, they  
7 took a look at the goals and objectives. They look at  
8 the assessment piece that is going to assess the goals  
9 and -- and objectives that they have, and then they put  
10 in their learning activities to make that happen. When  
11 you move that out of that realm, and you move it into the  
12 standardized testing, to which you're speaking, the  
13 broader goals that we want to accomplish, the high stakes  
14 that are attached to those, somewhere in that gets lost  
15 this idea of I want my students to be well rounded; to be  
16 able to think critically; and to be able to work through  
17 problems. I love camping because it's always created  
18 problem solving. If you've ever gone camping -- in a  
19 camp, doing all of that. The same thing happens with  
20 what we want kids to do in finding out (indiscernible)  
21 for them to demonstrate what it is that they do.

22 The comment about being a professional  
23 assessment administrator has to deal with the protocols  
24 that are involved; the fact that you can't talk to your  
25 kids while you're -- they're testing; the fact that you



1 can't prep them for what they're going to be learning. I  
2 also was a test administrator for a NAEP -- for National  
3 Assessment of Educational Progress for two cycles. And  
4 going into a classroom where, especially for the younger  
5 folks, where they didn't know us, and now they're looking  
6 at their teacher for instruction, and the teacher can't  
7 do any. She can't even smile. She has to -- she or he  
8 has to be out of the room, or just stay at the desk.

9           There's a connection in teaching. The  
10 people I work with, and the people that are successful  
11 through the training program that I'm responsible for,  
12 are engaged with their students. They're invested in  
13 their parents, and they want to be able to provide, not  
14 only that academic piece, but also that emotional social  
15 piece that says, we want you well rounded. We have  
16 systems in place for this reform that says if you have a  
17 kindergartener, who can read on a first-grade level,  
18 second-grade math, whatever, that we allow enough  
19 flexibility in the system so that child can go up and get  
20 their math, or their reading learning, but then come back  
21 to their age-appropriate peers so that they get a chance  
22 to grow and to develop. I think that's where we should  
23 be looking when you're talking about looking at skills  
24 and abilities, and children to be able to demonstrate  
25 what it is that they know and are able to do things.



1 MR. WELNER: Let -- let me -- I'll -- I'll  
2 try to be really quick, if you don't mind. I think  
3 there's a theme that's emerging here, and I think it  
4 does -- it overlaps with this issue of teacher  
5 professionalism. And if we think about using -- using  
6 tests in a formative way, that's -- that's very much  
7 relying on teachers to -- to be professionals, right.  
8 It -- it's very much bought into this idea of developing  
9 teachers as professionals.

10 The -- the -- the model of -- of test  
11 based -- or -- or high-stakes-test-drive accountability  
12 doesn't exclude the idea of teachers as professionals,  
13 but it very much also grabs onto -- onto a -- a different  
14 model, and that's sort of a -- a -- using -- use of tests  
15 and -- and thinking about the school system in a way that  
16 involves, sort of, weeding out bad teachers; identifying  
17 flaws in the system; schools that aren't performing;  
18 districts not performing; and teachers not performing.

19 Those are two -- I mean, it -- you can have  
20 it -- people -- I think, and -- and properly, use the  
21 same test for -- for the -- for both those purposes. I  
22 don't -- I don't think that's a good idea, but we see it  
23 happening all the time, but those are -- I think it's  
24 important to recognize, even if we're talking about the  
25 same test, those are two very different purposes. And if



1 we're -- if we're trying to -- to develop a model of  
2 where -- where we are valuing teachers and developing  
3 teachers, as professionals, I think it's important to  
4 recognize that -- that we're when we're bought into  
5 a -- a high-stakes-test-driven accountability system, we  
6 are in a lot of ways undermining that, and we're in a lot  
7 of ways pursuing a different model that -- that tries to  
8 improve schools by identifying the bad schools and the  
9 bad teachers.

10 MR. BRIGGS: I'll see if I can  
11 (indiscernible) question.

12 MS. FLORES: Sure.

13 MR. BRIGGS: The -- the -- there are two  
14 things. Number one, to respond to your question, in  
15 terms of what can be done to -- to help teachers,  
16 in -- in terms of I think giving them the skills  
17 necessary to do -- give assessment practices within the  
18 classroom. And then there's a second piece to this that  
19 I think my colleagues have -- have, you know, jumped  
20 onto, but how is that connected to a test like PARCC,  
21 right. Both of these (indiscernible) go through them is  
22 important.

23 And the first thing I just want to point out  
24 is I've done a fair amount of work the past two years  
25 with some schools in Denver. I worked at Denver Public



1 Schools in which we tried to do formative assessment's  
2 project with teachers around the concept of learning  
3 progressions connected how they think about student  
4 learning objectives. That's a -- that's a  
5 (indiscernible) becoming something that many districts in  
6 the state are doing.

7 And one of the things we discovered -- the  
8 two things we discovered -- one, this has some potential.  
9 This really could be a good thing -- a good way to help  
10 teachers embed formative assessment practices in what  
11 they do; however, there's a major, major obstacle, in  
12 that teachers are pulled in so many different directions,  
13 and are hearing so many different voices from districts,  
14 particularly large urban districts, as to what the  
15 priorities are, that it's just a different flavor of the  
16 month. And if there isn't a clear voice saying  
17 assessment -- formative assessment principals and what  
18 you do, that's what we do every year when we do  
19 professional development. That's always a piece of what  
20 we do. If there isn't a clear message on that, it's very  
21 hard on the back end to create the right professional  
22 development opportunities to help this work, because any  
23 good formative assessment practice is going to take time.  
24 It's going to require an investment of time and resources  
25 for teachers to work collaboratively. And if that's not



1 built into the school day, it's very hard just to hope  
2 for, or just to legislate it, right.

3 The second piece to how it connects to the  
4 PARCC assessment -- and -- and I think this is really  
5 important -- again, with my earlier cloak that PARCC  
6 should be seen as, not a finished product, but as an  
7 evolving enterprise. I think it's also important for us  
8 to appreciate that although the Common Core has been with  
9 us for some time, for many teachers, the Common Core  
10 doesn't become real until they see these actual questions  
11 that are designed to assess the Common Core.

12 As this spring is the first time that's  
13 happening, I think we need to see a little bit whether  
14 there might be a little bit better alignment, or little  
15 better sense that what they're doing in the classroom for  
16 learning activities is seen as being more connected to  
17 the -- the PARCC test at the end of the year now that at  
18 least had this first opportunity to see some of the  
19 tasks, and to have feedback that comes back to PARCC that  
20 obviously some makes improvements on -- on the tasks.

21 And just one tiny anecdote to illustrate  
22 what I mean by this: I have a student that's in -- a son  
23 that's in fifth grade. And the -- his fifth-grade  
24 teacher sent us an email, at one point, a few months ago  
25 and said, here is a practice test for PARCC that focuses



1 on fractions, right. Please, work on this practice test  
2 with your student at home (indiscernible), right.

3 And now, let me -- there's nothing wrong  
4 with that, per se, but if the teacher had just  
5 said -- this is a small tweak -- but if the teacher had  
6 just said this we've been working on units to help your  
7 student understand fractions for the last month. You've  
8 seen the assignments we've (indiscernible). You've seen  
9 the activities and the focus of those activities on how  
10 to (indiscernible) fractions.

11 Now, here are tasks that are also along the  
12 same lines, getting at the same idea, and understanding  
13 that are the PARCC test. This is what your kid will be  
14 tested on. It's a small tweak, but what it says is  
15 first, and foremost, here is what we're trying to  
16 accomplish in the classroom. Here's the -- what --what  
17 your kid to know and understand, and now here's where you  
18 see this reflected on the PARCC test. That's where I  
19 think we need to be at. That's the hope of where this  
20 would all (indiscernible) there be greater alignment.

21 MS. FLORES: May I have another question  
22 (indiscernible) follow-up question? It has to do with  
23 time. How much time do we need to get there for teachers  
24 to -- to get there (indiscernible) to get to the point  
25 where they can do well on PARCC? Most of you



1 have -- have said that this is a better model for a test  
2 than (indiscernible) models, except that it's just too  
3 much.

4 MS. SHEPARD: Well, I was involved in  
5 (indiscernible) that U.S. Department of Education held  
6 regional hearings in four sectors of the country prior to  
7 launching the race to the top monies that funded PARCC  
8 and Smarter Balance development, and we urged them not to  
9 us it to make operational tests, but that if they wanted  
10 to -- to benefit from the research money that they were  
11 pouring into trying to develop next generation  
12 assessments -- large-scale assessments, but at that time,  
13 they actually had the ambition that they would be large-  
14 scale and formative in just the way I've described the  
15 literature said they should be. We said that would be  
16 undermined if they went to operational tests immediately.  
17 And they thought oh, no, three years is a long time. And  
18 I was an old woman, and I said, no, it isn't.

19 And I think that they -- that they should  
20 have understood that it would be a five-year development  
21 period, and then after they had the actual  
22 (indiscernible) what you see now -- the technological  
23 (indiscernible), it would be at least three to five years  
24 of piloting with volunteers, because we have lots of  
25 experience with curricular interventions. And they take



1 several years for feedback, and it -- what's interesting  
2 is in the high performing countries that we keep trying  
3 to imitate with our -- you know, we need to score higher  
4 on standardized test, we are ignoring in Singapore, in  
5 Finland, in Japan how much teachers coming back together  
6 to talk about this work, and didn't work, so a lot of the  
7 testimony here if those teachers were involved in saying  
8 what they liked about PARCC -- because some of the kids  
9 got -- get excited about oh, this is really interesting,  
10 but in the context of a pilot, it is a very different  
11 experience for those same kids that have a lot of  
12 resentment about this.

13 Had they been able, with the support of  
14 their teachers, to try it out, and then to say what they  
15 were good at, and what they weren't good at, so I'd say  
16 five years of development. That -- so that's been fore-  
17 shortened, but at least, three to five years of  
18 implementation pilot work.

19 MR. WELNER: So I -- I -- a quick point,  
20 because I don't -- I don't necessarily disagree with  
21 that, but I have a very different perspective on it I  
22 guess. I mean, it's -- all the time in the world isn't  
23 going to change the nature of the incentives and  
24 disincentives involved, so as long as we're talking  
25 about -- and the -- the way that -- that Derek's son's



1 teacher responded to the -- to the PARCC test, I don't  
2 think it's because of time, I think it's because of  
3 incentives. It's -- it's because what that teacher is  
4 thinking about is the importance of this test, not about  
5 the importance of teaching.

6 And I think that there's a -- a real danger  
7 and -- and yes, it makes more sense to -- to -- to spend  
8 more time working out all of the -- these issues, and  
9 developing, and learning, but as long as we set up a  
10 system with the incentives -- these -- these -- these  
11 tests can be in the form of capacity building. They can  
12 be in the form of resources, but as long as you attach  
13 the high stakes to them, that's going to be how it's  
14 perceived within the school and the teacher.

15 MS. SHEPARD: But we don't disagree at all.  
16 I think that that's in -- I think that's in the research  
17 literature about teacher attitudes about what it  
18 represents, and the exact same task delivered as  
19 curricular resource is treated completely differently, so  
20 we -- we don't disagree.

21 MS. FLORES: Okay.

22 MADAM CHAIR: Jane.

23 MS. GOFF: Thank you.

24 So much to think about all the time  
25 (indiscernible). I guess a basic first of all



1 definition, or outlook, or perception of two words:  
2 authentic assessment, formative assessment. Are they the  
3 same in your mind, or not? And I like -- and I want to  
4 get into the weeds about where some communication gaps  
5 have been, and some of the canons we've jumped over a  
6 little too soon, and just talking about (indiscernible),  
7 but is there -- is there a difference, and -- because I  
8 know among educators and I've used it -- I've used the  
9 word when I was teaching. That's how I viewed the world  
10 of assessment. It needs to be (indiscernible). It needs  
11 to be something that will be relevant, that will apply,  
12 that brings together PARCC (indiscernible).

13 All of their experiences -- and -- and to me  
14 it's (indiscernible) demonstrate ability competency and  
15 mastery, so I'm just curious in the -- in the undergrad  
16 and teacher prep world, and in the practitioner world,  
17 do -- are you hearing a difference between those two  
18 words? (indiscernible) --

19 MS. SHEPARD: There are two  
20 literatures -- yes, so I could explain --

21 MS. GOFF: -- (indiscernible) might --

22 MS. SHEPARD: -- that.

23 MS. GOFF: -- help a little bit. In -- in  
24 the teacher prep programs right now, which I guess it  
25 would probably be within the content methodology that



1 (indiscernible) areas, but is there -- is there a chance  
2 for, like, for teacher candidates to actually spend a lot  
3 of time in their content circles talking about this  
4 stuff, and learning about the differences, perhaps,  
5 between formative, interim, summative, authentic,  
6 whatever terms are used in that case. I'm -- I'm -- I'm  
7 an advocate for all (indiscernible) by far. I've always  
8 felt we might be missing the boat -- missing out on  
9 the -- the contribution that the non-PARCC'd, CCAP'd,  
10 TCAP'ter could bring to this conversation.

11 I think Colorado has made it very  
12 (indiscernible) within our standards (indiscernible) I'm  
13 curious as to how good teachers, and test developers,  
14 advisors, are looking at that whole realm of  
15 exactly -- with what you said thinks about why are we  
16 doing this, and is it -- is it measuring what we are  
17 hoping to (indiscernible).

18 MS. SHEPARD: I just want to invoke  
19 the -- the literature from the '90s, just because I think  
20 that I can follow exactly what you said, and make them  
21 the same, but because they're sort of a literature from  
22 the '90s that used authentic, so think Grant Wiggins, for  
23 example, and authentic meant, as you said, that the  
24 character of the tasks, and the -- it was sometimes used  
25 synonymously with performance assessment, so making what



1 we ask the kids to do authentic to real world uses of  
2 knowledge was the authentic assessment literature.

3

4 The formative assessment literature, of  
5 course, assumes that, right. So they are overlapping  
6 ideas, but the formative assessment refers more to the  
7 process of how the teacher uses it interactively with  
8 kids, so it's a writing task. They don't need call it a  
9 test. They call it an assignment, and they're working on  
10 this set of tasks, and then a kid sits and author's  
11 chair, for example, and the kids in the classroom learn  
12 to ask questions that might help; have you thought of  
13 doing this to improve your work. And we model feedback  
14 as an example of a process that's part of the formative  
15 assessments iterative.

16 So yes, about authentic tasks, but now we  
17 move over into this furthering of how would we interact  
18 around the authentic task to further learning, and that's  
19 the formative assessment literature.

20 MS. BANKES: When you first posed that  
21 question, the -- two incidences that came to mind for  
22 authentic assessment is history day and science fair.  
23 Those are our authentic assessments. The formative part  
24 of that is, the process. Just as you've said is, to say,  
25 you know, these are the identifiable parts. These are



1 the components. You teach those components. Kids are  
2 set to their own interests, so that they can take that  
3 interest and use that template and process, in order to  
4 pull together their authentic assessment. Then  
5 they -- their audience becomes the adults, who have  
6 volunteered to come in, and have that level of  
7 conversation.

8           Those are the two -- and I say those two,  
9 because that's what we've just done in this last  
10 semester, so it's really on my mind, but that authentic  
11 piece, really talking to people who make a difference.  
12 So you see a lot of community service projects in the  
13 same vein. It takes more skills than sitting around  
14 talking about it, reading a book, getting research,  
15 looking it up on the computer, and being able to talk to  
16 your (indiscernible) about when you extend beyond the  
17 schoolhouse walls, and be able to talk to people who are  
18 not in the same classroom with you; that have other  
19 experiences that bring to it; that's what makes it  
20 authentic.

21           That formative piece has to happen prior,  
22 and the end result would be your authentic.

23           MS. SHEPARD: And -- and to your point, we  
24 do include it in the pedagogy --

25           MS. BANKES: We do.



1 MS. SHEPARD: -- of teacher preparation  
2 embedded in content methods, right. It's -- because how  
3 would you possibly teach teacher -- teacher candidates  
4 how to teacher writing without having it just be all of a  
5 piece how they are assessing, giving feedback, et cetera,  
6 so it's -- it is the pedagogy. The assessment is  
7 seamless with the pedagogy.

8 MS. GOFF: I guess -- I guess my drill down  
9 (indiscernible) granular about it, within content areas  
10 that are not necessarily goals based, so we know that  
11 English language arts now teachers will have a -- they  
12 have unique needs, and yet, there are certain areas of  
13 teaching in general, whether it's music, or art, or  
14 foreign languages, or just (indiscernible), so the  
15 authentic part of life in assessing, and experiencing,  
16 and -- and providing those kind of authentic  
17 opportunities, every -- every content area  
18 (indiscernible) has something to add to that possibility  
19 list. So I'm just curious as to how we're -- and  
20 I'm -- I'm (indiscernible) -- where the -- where the  
21 emphasis is these days on preparing teachers for  
22 authentic teaching? (indiscernible) --

23 UNIDENTIFIED VOICE: (Indiscernible) --

24 MS. GOFF: -- the process is that it takes to  
25 get here, and (indiscernible) time involved. I would



1 totally always agree with you about the value of  
2 letting -- letting these people in and saying  
3 (indiscernible) and just giving the opportunity to talk  
4 about the (indiscernible), and get ideas from each other.

5 MS. SHEPARD: No, we have to call it out as  
6 methods, but what is interesting since the era when I was  
7 being trained versus how we train teachers now -- and  
8 this does come from the Cognitive Science Research -- is  
9 that we don't offer a general teaching methods course  
10 anymore, like, you can learn strategies that generalize.  
11 There are some, for sure, management issues that  
12 generalize, but most of the methods that you need to know  
13 to be a good math teacher, and how to assess mathematics,  
14 and engage kids in those activities, have enough  
15 difference that we have to teach you how to do math  
16 assessment, and we have to teach you how to do science  
17 assessment, and we have to teach you how to do literacy  
18 assessment.

19 We can draw connections between how they're  
20 the same, so a -- a student's mental attitude about  
21 hearing the feedback and taking risks, and being a  
22 willing learning, that's a generalizable skill across,  
23 but a lot of what we teach about assessment methods is  
24 within the content -- each content area separately.

25 UNIDENTIFIED VOICE: The overall umbrella of



1 life (indiscernible) district (indiscernible) school  
2 there's also -- and I -- I believe this is true, every  
3 educator has a desire to see where they hit on being able  
4 to contribute to the overall success, so it's -- it's  
5 having the opportunities to talk about their own -- their  
6 own realm (indiscernible) with other (indiscernible).

7 MS. BANKES: And part of that is, on a  
8 professional development and the PLC time, where my  
9 student teacher, who is a -- a lower-performing school,  
10 and I had spoken to this earlier before the meeting had  
11 started, where in this school they don't score very well,  
12 as far as the state's report card is concerned, and yet,  
13 when I go into that classroom -- it's public charter  
14 school in El Paso County; it's a middle school -- when I  
15 go into that school, the teacher is a -- she's -- she's  
16 not a -- she's a student teacher, but she's getting her  
17 master's in reading and writing. So in her classroom she  
18 has students who have behaviors that perhaps would not  
19 allow them to finish out a school year.

20 She is able to teach the kids through using  
21 the processes that we're talking about to be able to  
22 write a page to a page and a half willingly over time,  
23 and that -- that's a couple of things that need to be  
24 incorporated in making sure that the message that they  
25 get, in order to be able to competently teach in their



1 content area, is that they have the smaller classroom  
2 sizes so that they can get to the students, and give them  
3 that feedback. But she's able to get them to write a  
4 full page, page and a half. They self-edit. She's got  
5 the checklist. They self-edit. And they turn out really  
6 good -- good pieces of paper for seventh graders on maybe  
7 something very close to them, like why shouldn't the  
8 school allow us to have cell phones. That's a -- a  
9 really common one.

10 Two other things about the difference  
11 between wearing uniforms in school having -- being able  
12 to wear whatever you want on the street, and the  
13 ramifications of being able to wear whatever you want on  
14 the street because it sends a message. So those deeper  
15 thinking skills that apply to their lives.

16 I know some of the kids, because I taught in  
17 that school myself. Actually, I was the assistant  
18 principal in that school before. So there's no anger in  
19 that school. There's no -- there's no confrontation.  
20 It's an opportunity for that process to -- to bubble up  
21 to the top. This is what we're going to do. This is how  
22 it works. These are the folks that you're going to share  
23 that with, and then it moves out of that school and into  
24 another arena, so that they get an opportunity to share  
25 outside of their school walls.



1                   And that comes from what we're talking about  
2                   the methods that they get in their methods class before  
3                   they even set out into the classroom, and then once  
4                   they're in the school, to have that alignment between  
5                   school principals, and the district, and what's expected  
6                   out of that school. Professional development provides  
7                   that, if there's enough time for it. My concern is, with  
8                   all the data -- and I did bring a calendar from one of  
9                   the school districts in El Paso County that you don't  
10                  have to be able to see each of it, but this is -- this is  
11                  the calendar for elementary school. It covers March,  
12                  April, May. It's all testing. This is the middle  
13                  school; March, April, May, it's all testing. This is the  
14                  high school and March has got a lot of testing, and May  
15                  has a lot of testing. A lot of testing time comes out of  
16                  there.

17                  The PLCs -- the professional learning  
18                  communities are drilled down to; what are the test  
19                  scores; how -- how did the kids test, and it takes away  
20                  from exactly what you're saying. Thank you.

21                  MADAM CHAIR: Another question?

22                  Dr. Scheffel.

23                  MS. SCHEFFEL: I'd like to ask about the  
24                  test itself. (indiscernible) test. About how many  
25                  (indiscernible) and what's your opinion of them? Are



1 they really as rigorous as we hear they are? Is this  
2 what we want testing to look like for children? Is this  
3 a good measurement of what they're learning, not  
4 accountability for schools, or teachers, or anyone else?  
5 Is this a good way to assess whether children are  
6 learning what we want them to learn? (Indiscernible).

7 MS. BANKES: That -- that's a hard question.  
8 It -- it -- it really is a hard question.

9 MS. SCHEFFEL: I think that's the hard  
10 question.

11 MS. BANKES: It is. It -- it honestly is.  
12 I guess I've been at this long enough. It -- it's  
13 whatever comes down we take a look at it, and we say we  
14 will -- we will rise up to meet it. Whether it good or  
15 not, I -- I'm not in a position to -- to say if it  
16 measures what we want. We do want some accountability.  
17 We do want to be able to say that our kids are learning.  
18 We do -- we have a high military population. We want our  
19 kids to have in our -- depends on how you outline El Paso  
20 County. I have anywhere from 10 to 15 school districts.  
21 We want our kids to be able to go from one school  
22 district to another school district across the country  
23 and be on level for where they're going. I think that  
24 it's -- it's a place for that.

25 How to measure that? Is this a really good



1 test? I -- I can't speak to that.

2 MS. SHEPARD: I -- I think I can say that it  
3 is a better test than a whole generation of state  
4 assessments. It is possibly, even, that I would have to  
5 look at more and more -- I've yet to say this, but I  
6 think it's conceivable that it would be -- you would say  
7 that the content covered in the language arts and the  
8 content covered in the mathematics assessment is even  
9 better than the -- than the current national assessment,  
10 because some of the motivations for how nationals  
11 assessment is trying to change -- national assessment in  
12 the validity studies work that we've done over decades  
13 has actually tried to "assess" higher-order thinking and  
14 higher-level --

15 MS. SCHEFFEL: Do they do it (indiscernible)  
16 NAEP?

17 MS. SHEPARD: NAEP, yeah.

18 MS. SCHEFFEL: Yeah.

19 MS. SHEPARD: Yeah. So the -- has tried to  
20 measure higher-cognitive demand, and those things keep  
21 glooping out of the (indiscernible), because truth be  
22 told, from the measurement expert's perspective, things  
23 that you intended to ask for application of thinking can  
24 feel very ambiguous to the students, so it's one reason  
25 that the actual assessments struggles to do this.



1 I think PARCC is struggling to do it. It's  
2 very hard to do it without a curriculum, but to give you  
3 some context, I think it is definitely substantively  
4 better than CSAB and TCAP. I think it is possibly on par  
5 with PISA, so if you want a large-scale  
6 assessment -- now, I don't want every kid in the country  
7 to be tested with this good test, I'm not arguing for  
8 that -- to some of the points -- but just look at it, and  
9 would you want any one of those tests to be brought into  
10 a classroom and used with kids? I would.

11 I think it's probably in the same general  
12 category as the new versions of the advanced placement  
13 exams, so it's not -- so it's grade appropriate, but  
14 it's -- they're trying to do the exact same thing: more  
15 open ended. The thing about advanced placement that  
16 PARCC doesn't have, advanced placement you know for a  
17 year you're studying for that and there's curricular  
18 resources to go with it. That's not true for PARCC.  
19 PARCC suffers from some of the things that Kevin has been  
20 talking about, which is people are trying to use it as a  
21 policy lever that they -- in our national politics they  
22 don't want to curriculum. I don't want a curriculum  
23 either. It's very hard to build challenging, reasoning,  
24 with content assessments without a curriculum, and that's  
25 what they're trying to do.



1 MS. SCHEFFEL: (Indiscernible).

2 MS. SHEPARD: Pardon?

3 MS. SCHEFFEL: What will be coming soon  
4 (indiscernible)?

5 MS. SHEPARD: Well, I think it -- people  
6 invented to do their own practice toward it, and they do  
7 some good instances of it, and some bad instances of it,  
8 but it's -- it's what you get when you want the test to  
9 be the policy lever. You don't have a content reform in  
10 your district. You have a policy lever from the top.

11 MS. SCHEFFEL: (Indiscernible) standard is  
12 always (indiscernible) --

13 MR. WELNER: Well, I think that's --

14 MS. SCHEFFEL: -- (indiscernible)?

15 MR. WELNER: Your -- your question earlier  
16 about, like, let -- let's focus on the test, and not the  
17 high stakes, or not the accountability, and I -- and I  
18 think -- that -- that makes sense, in terms of, sort of,  
19 analyzing the quality of an assessment to the test, but  
20 I -- but I think that, like, the -- the -- if we think  
21 about do we have a test worth teaching to, I think the  
22 answer always is no. And -- and you know,  
23 the -- the -- the --

24 MS. SCHEFFEL: There's never  
25 (indiscernible) --



1 MR. WELNER: -- highest -- I think that  
2 if -- if we think about the, sort of, school we want our  
3 kids to be in, I don't think we want them to be being  
4 prepared for a test day in and day out. And that the  
5 nature of a test -- if -- if -- if we have -- what is it  
6 11 hours, I think (indiscernible) -- you would need a lot  
7 more than 11 hours to -- to try to bridge -- try to bring  
8 in the scope of what you really want a rich curriculum to  
9 be, and even then, I think you'd have a problem. And so  
10 we're complaining, I think, quite rightly about a very,  
11 very long assessment.

12 And the -- the -- separating the quality of  
13 the assessment from how the -- how the assessment is  
14 being used, I think, can -- can lead us, in some ways, to  
15 the wrong question, even though I think it's an important  
16 question. I think it can lead it us to -- to the wrong  
17 question if what we're trying to do is to understand the  
18 role of test within a system. So yes, if you have -- if  
19 you have a test that you're designing as a test to be  
20 worth teaching to, or a test to be taught to, then  
21 essentially what you're doing is saying, backwards math  
22 from this test to a curriculum, and then you end up with  
23 what you're asking (indiscernible).

24 MS. SHEPARD: I do think -- I want just put  
25 one thing you said. I -- I did -- I agree with it in



1 spirit, but I think when we think about the ill effects,  
2 there is a distinction that's worth making. Standards  
3 are the curriculum. They are a curricular framework, but  
4 then what happens because they are not deeply developed,  
5 as curriculum -- and I am not advocating that we have the  
6 national or even a state curriculum -- but in the  
7 countries that people keep trying to be like, they do  
8 have assessments that are built to their curriculum, and  
9 the studies that have been done of high-performing  
10 countries notice that in some of those countries -- they  
11 are national curricula -- in some of the countries that  
12 do better than we do, they are provincial curricula, but  
13 they have the rich spelling out of how we will teach it.

14 And many of the features of what happens  
15 wrong in this country when we try to just impose a test,  
16 is what we're trying to -- not we, but whomever, is  
17 trying to get away with imposing something like a  
18 curriculum with the -- the lever that they have. And  
19 that's what leads to all this shallowness though, because  
20 then in some places and -- there's a researcher at  
21 Harvard that has looked at this extensively -- there's  
22 very unequal ways that equal then try to get ready for  
23 the test, and well-resourced schools and districts have a  
24 richer way of preparing for that test in ways that  
25 preserve the breadth and the richness that we're talking



1 about.

2 And then under-resourced schools do, kind  
3 of, a cheap version of trying to get ready for it, that  
4 has many of these layers of negative effects. So we are  
5 in agreement about why using the tests to drive how  
6 people teach is having many more negative consequences  
7 and is very different from what people are hoping for  
8 when they impose the test on the sanctions.

9 MR. BRIGGS: So just let me weigh in on this  
10 a little bit. There's a couple -- so let me first try to  
11 take your question at face value without getting to  
12 the -- the context of the particular use, as far as  
13 accountability, and just do we think this is a good test.  
14 Let me put it this way --

15 MS. SCHEFFEL: I know it's your baby.

16 MR. BRIGGS: Well, it is sort of my baby,  
17 but let me put it this way. This is a very cynical  
18 statement I made when I first the TAC when all the hopes  
19 and aspirations in the world were being laid on both  
20 PARCC and Smarter Balance -- and it's worth remembering  
21 that right now we focus on this, sort of, combined  
22 performance-based assessment end-of-year test that is  
23 part, but initially, PARCC was envisioned as actually  
24 something where the model was there would be testing  
25 throughout the year at various points, so that



1 there -- it would be more connected so that -- such that,  
2 you know, there would be some curriculum -- whatever  
3 the -- the school has in place, and then there would be a  
4 testing point. Then there'd be curriculum, and then  
5 there'd be a testing point. It wasn't -- it was trying  
6 to break away from the idea that there's just this one  
7 end-of-year test.

8 In addition, there was always a notion  
9 that -- that beyond the summative use, there would be a  
10 formative component. There would also be the interim  
11 components. Then it would be a whole assessment system,  
12 and we tend to focus only on the summative piece, but  
13 my -- my cynical comment up-- upfront when I joined the  
14 TAC was that if all that happened was that the states got  
15 together and through economies of scale threw all their  
16 existing items on the table, and designed a  
17 (indiscernible), and just picked what we thought were the  
18 best items, do we think we'd at least have a better test,  
19 because every state probably has their sticker items, and  
20 we got rid of those, and we keep the best items. Would  
21 we at least have a -- a test that was better from what  
22 went on before? My answer is yes.

23 That just through economies of scale having  
24 the -- the -- the states pool resources, bring together  
25 the best and the brightest, have them submit it the great



1 scrutiny through the form of Technical Advisory  
2 Committees, and other commitment in the other committees  
3 that were formed, I think that you're going to see a  
4 better product. So I think my worst-case scenario is  
5 that we still have a better test.

6 Now, in addition to that, I think there are  
7 reasons to believe that -- that there is a fairly high  
8 quality to -- and -- and I base this on just my looking  
9 through the practice tests that were available for the  
10 kinds of questions that are there -- and it's worth  
11 giving a specific example, because I find that a lot of  
12 these conversations about PARCC are so abstract and up  
13 here, that it helps to get very specific about what we're  
14 talking about sometimes. So let me try to be as specific  
15 as I can about one particular way that I think the PARCC  
16 tests are quite different, especially in the content area  
17 of mathematics.

18 In the past, fractions -- the understanding  
19 of fractions -- this is actually something that  
20 mathematicians see as a really key building blocks for  
21 students as they move out of elementary school and into  
22 middle school, where the focus is greatly on proportional  
23 reasoning. Basic understanding of how to work with  
24 fractions and manipulate fractions, and use them to solve  
25 problems is a really important skill.



1                   Now, on the CCAP in the past, if you look  
2                   at -- for released items on the CCAP -- and I did -- and  
3                   you look for what items can you find that -- that assess  
4                   how well students understand fractions as of grade five.  
5                   Here's an example of an item in grade five released from  
6                   the CCAP in the past. And the item shows a -- a graphic  
7                   of a pizza where there are eight position holders for  
8                   that pizza, and three of those positions include slices  
9                   of pizza that are left. Okay. And the question asks,  
10                  "Ricardo brought home a pizza from the class party, as  
11                  shown below." Okay. And it says, "What fraction of the  
12                  pizza did Ricardo bring home?" And so to answer that  
13                  question correctly, you need to count there are eight  
14                  total place holders, and there are three out of eight, so  
15                  the correct answer is three-eighths. Now, this is very  
16                  much a -- a relatively low-level question about  
17                  fractions, is can you identify a fraction in a graphical  
18                  picture.

19                  Okay. I want to contrast this with a  
20                  question on fractions that I pulled from the PARCC  
21                  practice test, and it's a two-part question. The first  
22                  part says, "Amar (ph) put four-sevenths of the money he  
23                  earned raking leaves in the bank. He spent one-third of  
24                  the money on a book. Part A: drag and drop the  
25                  fractions into boxes to create an expression with common



1 denominators that can be used to find the difference  
2 between the fraction of money Amar put in the bank, and  
3 the fraction spent on the book. Fractions may be used  
4 more than once, or not at all. Drag and drop the  
5 fractions into the appropriate boxes." And there are  
6 eight different fractions that you can choose from to put  
7 into these two boxes. And then Part B then asks you to  
8 solve the problem by finding the common denominator, and  
9 then finding the difference between the two fractions.

10 So I just think, as a very concrete example  
11 when we're talking about a particular area where there's  
12 a greater emphasis on fractions, and you can see this,  
13 not just in one grade, but as a -- as a running stream  
14 from grades three, four, five, and a little bit into six,  
15 but especially three, four, five. You can see very  
16 starkly the difference in what is being asked of students  
17 and what is being hoped for, in terms of their complexity  
18 of their understanding of their reasoning from what was  
19 on the CCAP in the past to what is on PARCC right now.

20 One last point I will make, which is related  
21 to this. I -- I share my colleagues concerns about  
22 possible distortions, due to teachings and tests, and  
23 that those are very difficult distortions to avoid.  
24 There is though, one interesting conundrum, which is that  
25 I think one of the reasons the testing time on PARCC is



1 so long has been incorporation of these performance-based  
2 tasks that are attempting -- in -- in your words, to be  
3 more authentic, in terms of the kinds of things students  
4 would actually encounter in the real world.

5 This is one of the reasons of adding a great  
6 deal of testing time onto that. Now, there is a hope  
7 that, to the extent that teachers react and -- and  
8 schools react to what is going to be an end-of-the-year  
9 assessment is saying this is now what is going to be  
10 valued as to what goes on in the classroom. If we think  
11 those performance-based assessments, which really invoke  
12 greater depth of knowledge and reasoning, if that could  
13 lead people to -- teachers to incorporate better  
14 activities -- deeper and richer activities into the  
15 classroom, because they saw that that was being flagged,  
16 and targeted on the end-of-year assessment, as being  
17 important. That could be a positive outcome. And  
18 that -- I -- I think it's important not to throw that  
19 piece away and I don't think we can have our head in the  
20 sand.

21 To the extent that we think there should be  
22 an end-of-year assessment at all, and even if it -- it is  
23 not tied to accountability, but if it's tied just to  
24 other -- other summative purposes, perhaps, I think it's  
25 important to realize that there needs to be a connection



1 that teachers see between what they're doing day-to-day  
2 in the classroom, and what's being signaled as -- as  
3 being valued important for the -- by the state on the  
4 end-of-the-year assessment.

5 MS. SCHEFFEL: One quick follow up.  
6 (indiscernible) to brief in our answers (indiscernible).  
7 We're running out of time quickly. Can we -- in your  
8 opinion, do you expect the students of Colorado to do as  
9 poorly on those tests as say the students in New York?  
10 And if so, what do you expect to be the response on a  
11 policy level? What -- what will that then require?

12 MR. BRIGGS: Well, let me -- let me start  
13 with that. I think that part of that is -- is a problem  
14 in communication (indiscernible) have. I think we -- we  
15 sometimes refuse testing to instead of there being a  
16 continuing of performance on the test, to the cognization  
17 of performance on the test. You either pass the test, or  
18 you don't pass the test. And people will often look for  
19 a particular point on that threshold and say well, he did  
20 pass the test or he didn't.

21 If we take that perspective, and then we  
22 just look to the new test, and say well, a level -- a  
23 level four is consider a student that is on track to be  
24 successful in college and career after they finish their  
25 public education, and we dichotomize that into pass not



1 pass, and we compare it that so the dichotomization point  
2 on the CCAP, which was asking a fundamentally different  
3 question, which is fundamentally is the student have the  
4 minimal skills necessary to go on to the next level.  
5 These are asking some of different things I think, and so  
6 it's not the pass, not pass comparison. It's clearly  
7 going to show -- if you take that perspective, it's  
8 clearly going to show fewer students passing on PARCC  
9 than were passing on TCAP, but they're fundamentally test  
10 written to different standards, so what that  
11 dichotomization is conveying is itself fundamentally  
12 differently.

13 Now, that said, I'm not naïve. I do think  
14 that it's quite likely that many people will, in fact,  
15 perceive this as being that students in Colorado have  
16 dropped in their performance if they don't take a -- a  
17 closer --

18 UNIDENTIFIED VOICE: Well, actually, that's  
19 not actually what I was (indiscernible) assuming, but  
20 (indiscernible) our children were not taught.

21 MR. BRIGGS: Yes, and so -- so I think  
22 that's exactly --

23 UNIDENTIFIED VOICE: And they are not going  
24 to do well on these tests.

25 MR. BRIGGS: -- I think it's exactly right



1 that this is a very hard test. Everything we've seen  
2 from pilot tests, and field test data, other test that  
3 have begun to implement tests the one to the Common Core  
4 suggest that you're going to see a lot of students  
5 struggling; students that didn't struggle before will  
6 struggle on this material. And, you know -- and I think  
7 this is a -- one real question as to whether I -- I  
8 started out by saying I -- I would love see PARCC seen as  
9 an evolving enterprise, and I would love to see there be  
10 again -- this is very much, I think to Lorrie's original  
11 point, was it would have been so much better if there  
12 would have been this period to pilot these things for a  
13 number of years with the curricula, so the curricula  
14 could catch up to the assessment, and then we would  
15 essentially see whether what we're seeing is  
16 fundamentally a harder test, or just a misalignment  
17 between what is being assessed and what is being taught.

18 MR. WELNER: And there's -- there's  
19 an -- there's a related issue here, so -- so your  
20 question -- and I think Derek's response address issues  
21 of cut scores of pass, no pass, but there's also, as you  
22 know, we -- we focus a lot on growth. And  
23 there's -- there's a related issue here dealing -- if you  
24 think about the old basic skills test that back to the  
25 '70s or some of the earlier tests you had a -- you had a



1 major problem with ceiling effects, that -- that you  
2 couldn't -- if you were looking at growth, and you were  
3 looking at a fairly easy test, you're not going to have a  
4 score right at the top before and after. You're not  
5 going to see what -- demonstrated through the test you're  
6 not going to see the -- the student's growth or learning.

7           With these more difficult tests, we  
8 now -- we now have the potential for a floor effect. So  
9 if you give me a test in quantum physics now and a month  
10 from now, it's just going to be measurement error either  
11 way, right. And -- and so if there's a -- if you're not  
12 testing -- if -- if a test isn't sensitive to what's  
13 actually being taught, and picking up the -- the learning  
14 that's taking place, and it's -- it's just too difficult,  
15 then we can't see the growth that's actually taking  
16 place.

17           MS. BANKES: As an old fifth-grade teacher,  
18 I want to compare the -- I want to compare the two  
19 problems that you read; one about fractions, you know,  
20 how many -- how many pieces of the pizza are there to the  
21 second question. We're pre-supposing on that second that  
22 the student can read. And any of us who have been in the  
23 classroom knows that because somebody is a really good  
24 reader, does not necessarily know the complexities  
25 of -- of math, and -- and conversely is true as well.



1                   Somebody may know math really well, but they  
2                   may not be able to read as well, and understand as well,  
3                   so that second question to go back to is this  
4                   question -- is PARCC really asking what we want to know,  
5                   I think we have to make a distinction about what it is  
6                   that we expect kids to have as skills to come in to read  
7                   as much as they are being asked to read.

8                   MADAM CHAIR:    Steve.

9                   MR. DURHAM:    Thank you, Madam Chair.  Thank  
10                  you, Madam Chair.  I apologize to the panel and my  
11                  colleagues for my tardiness.

12                  I have a, kind of, a practical question I'd  
13                  like to ask, based on legislation that passed last night  
14                  (indiscernible).  To revamp Colorado's testing in the  
15                  following way:  grades 3 -- 3-9 would continue to take  
16                  PARCC; grade 10 would take ACT Aspire; grade 11 would  
17                  take ACT.

18                  And then on top of that,  
19                  districts -- apparently, any number of districts, would  
20                  be allowed to develop a pilot test, and administer the  
21                  pilot test in addition to these tests for two years to  
22                  try and demonstrate comparability, so thus we would have  
23                  an additional test on top of the prescribed tests that I  
24                  mentioned earlier.  What, in your opinion, is -- if -- if  
25                  you were in charge of the school district, would you



1 become part of a pilot program and add those tests for  
2 two years?

3 MS. SHEPARD: Let me clear a couple of  
4 things, because I've been involved in some of those --

5 MR. DURHAM: How about yes or no, if you  
6 don't mind? I'm just -- would you -- would you advise  
7 your district to become part of the pilot or not?

8 MS. SHEPARD: I would not, because we aren't  
9 getting rid of any of the other tests.

10 MR. DURHAM: Thank you.

11 Ma'am.

12 MS. BANKES: I -- I gave more than a one-  
13 sentence answer. When the districts asked me so I don't  
14 know if you want to hear the slightly longer answer or  
15 not.

16 MR. DURHAM: Okay. Go ahead.

17 MS. BANKES: I said they should, if they  
18 were really serious about developing instructionally  
19 relevant tests for that stake, but if they were doing it  
20 just to get out of PARCC, I thought it would be misspent  
21 effort.

22 MR. WELNER: Very simple. Very -- very  
23 similar answer because the -- the nature of -- of  
24 developing the alternative is not simply a matter of  
25 flipping a switch. It would take a lot of work to -- to



1 do what -- to do right.

2 MR. BRIGGS: I -- would just echo what my  
3 colleagues Lorrie and Kevin have just said.

4 MR. DURHAM: So the collective answer is  
5 probably no is your general rule?

6 MR. BRIGGS: If they're willing to invest a  
7 three-year development process, and they're -- the -- the  
8 source of resources that we saw, and the number of  
9 parties involved that we saw PARCC (indiscernible) --

10 MR. WELNER: Or -- or consortia. In other  
11 words, district getting together and developing something  
12 together might be worth the effort.

13 MR. DURHAM: What's the -- what's the down  
14 side to students to subjecting them to an extra test?  
15 There don't appear to be -- there don't appear to be  
16 taking the test in record numbers, as is, so what's the  
17 down side in those districts where you mandate an extra  
18 test to the students?

19 MS. SHEPARD: Time away from  
20 instruction -- classroom instruction, because you hadn't  
21 gotten rid of any of the other tests that they are asked  
22 to take.

23 I do want to say something that is related  
24 to what happened last night that I think the Board could  
25 be instrumental in pursuing, and it's something I asked



1 Derek and other members of the Technical Advisory  
2 Committee to PARCC to be thinking about, and given the  
3 pressure coming from other states, I think there is a  
4 window of opportunity here to ask PARCC to think about  
5 shortening its test, and using a sampling procedure, and  
6 possibly an equating procedure to get at the fact that  
7 many of the kids who are to -- taking a test that's over  
8 their heads, it would be possible to administer slightly  
9 easier tests that were on the same scale, as the harder  
10 tests. There's some -- there's some technical things  
11 that could be done if people got clear about what they  
12 wanted PARCC for, and took away some of the necessity to  
13 give every student the long test, and I just think that  
14 that's kind of another whole meeting, but you have some  
15 of the power to be pressuring your consortium to think  
16 that way so that might be something worth a follow-up  
17 conversation.

18 MADAM CHAIR: (Indiscernible).

19 MR. DURHAM: No, I'm (indiscernible) do you  
20 have a response to that (indiscernible)?

21 MR. BRIGGS: Well, I have -- I have just  
22 one -- one thought. I mean, it -- I -- I agree that -- I  
23 think it's very clear that PARCC -- in order to survive  
24 has to be sensitive to its member states, and so there's  
25 no question that PARCC is very aware of -- of the opt-out



1 movement. PARCC is very aware of concerns about testing  
2 time, but I just want to also be clear that it wasn't  
3 that PARCC developed a long test just because it wanted  
4 to developed a long test.

5 It was also being responsive to what it  
6 thought, at the time, were the desires and needs of the  
7 states that were part of PARCC. Now, it could be that  
8 times change, and -- and the desires for what PARCC is to  
9 be used for are going to be changed. I will say, that if  
10 it's still seen in the state that fundamentally there is  
11 a -- there is a desire for high-stakes teacher  
12 evaluation -- and let me put to the side whether I think  
13 that's a good or a bad idea -- but let's say that we do  
14 have something like SB 191 remaining, and we are going to  
15 evaluate teachers with stakes attached.

16 I think there's a real question to be asked  
17 of to what extent do you think evidence of student  
18 learning should figure into those evaluations. If you  
19 think they should, the question is, what are you using,  
20 and how comparable does it need to be. The more that you  
21 put weight on comparability, and objectivity as being  
22 something that's important to you in an evaluation  
23 system, the harder it will be to pull off some of the  
24 technical solutions that Lorrie is alluding to that  
25 involve sampling of some students, and not others, or



1 shortening the test in certain ways that would suggest  
2 that it's no longer measuring what we thought it was  
3 measuring originally. I'm just saying that creates  
4 attention (indiscernible).

5           So if -- if there was a change in the state,  
6 in terms of what was seen as the need for -- so for  
7 example, if we went back and said, we still believe in  
8 accountability, but it should be at the level of grades,  
9 or it should be at a level of a school, and we don't  
10 think that information -- test-based information on  
11 growth, or for learning should be the feature -- or a tie  
12 to an individual teacher. That would be a very different  
13 conversation.

14           MR. DURHAM: Thank you. (Indiscernible).  
15 Dr. Briggs, is it -- did I understand from your comments  
16 that -- that getting the right answer on a question  
17 doesn't demonstrate an understanding of the problem  
18 necessarily? Was that a fair characterization of your  
19 desire to have the -- the test drag (indiscernible)  
20 certain things in using the computer to drag that in, or  
21 if you just get the right answer?

22           MR. BRIGGS: No.

23           MR. DURHAM: (Indiscernible) --

24           MR. BRIGGS: I think --

25           MR. DURHAM: -- is that again sufficient?



1 MR. BRIGGS: No, I think in both cases  
2 there's a correct answer, but there is a question of how  
3 easy it is to guess the question -- guess the answer, and  
4 to by -- by test taking skills process of elimination to  
5 figure out what is an answer without actually having to  
6 interact with (indiscernible) task in the way that it was  
7 intended, and sort of eliciting the reasoning skills that  
8 we think might be important.

9 There are also task vary, in terms of what  
10 they're trying to get at. There might be some tasks that  
11 could be, for example, lower level recall tasks, such as  
12 the one I read from the old TCAP, and those might go  
13 along with other questions that are harder, but I wasn't  
14 making -- certainly wasn't making a point that on PARCC  
15 there are items that don't have right answers. All the  
16 items on PARCC have correct answers.

17 MR. DURHAM: The -- I'd like to delve in  
18 just a little bit to this concept of -- of trying to  
19 teach reasoning skills (indiscernible) that's not the  
20 term you used, but cognitive -- higher cognitive  
21 skills --

22 UNIDENTIFIED VOICE: (Indiscernible).

23 MR. DURHAM: Higher order reasoning. Is  
24 it -- is it -- is it an accurate statement that -- that  
25 that's something that wasn't taught, and that kids that



1 graduated from high school 40 years ago didn't know, and  
2 can't do, or are you adding something new to -- are you  
3 adding -- is there anything new in this test that -- are  
4 we -- are we going to turn out a student that's  
5 materially better prepared if they can perform well on  
6 this test than we turned out 40 years ago?

7 MR. BRIGGS: That's a very interesting  
8 counter-factual question. I wish I had data I view to  
9 bear to answer it. I will say that the nature of what  
10 seems to be demanded of people on the workforce seems to  
11 be changing. I think there is a greater demand on people  
12 being able to have facility of mathematics, do reason,  
13 and problem solve, in -- in a more probably today than 40  
14 years ago, but again that's somewhat of a -- a debatable  
15 question, and I don't have -- it's not something I work  
16 on.

17 I will say that what I think is just  
18 fundamentally important, and what's quite different, even  
19 the way that I learned math, which wasn't 40 years ago,  
20 but it was maybe 30, that when I learned math I did  
21 learn -- I can still recall how I learned multiplication.  
22 And the way that I learned multiplication was that my  
23 mother sat me down in a room and made me memorize every,  
24 you know, 3 by -- 3 by 3s, and the 4s, and the 5s, to the  
25 12s, and we spent four of five hours with her drilling me



1 on how to -- and by the time she was done I had memorized  
2 the multiplication table, but I didn't really understand  
3 the concept of multiplication. And I think I would have  
4 been better at the math that followed if I had a deeper  
5 understanding for why those answer -- those numbers that  
6 I multiplied -- why that worked; how  
7 multiplication -- what -- how does it make sense; and how  
8 I can reason with it. It's -- that a fundamentally  
9 different way in which I think those who work in  
10 mathematics education think about why math is important.

11           And it's not enough just to remember it well  
12 enough to answer a short recall question on a test.  
13 Later -- and I have students that come and take  
14 statistics with me, and they've all gone through  
15 elementary school where, in many cases they've gotten  
16 these kinds of low, or recall questions, and they  
17 all -- it's strange -- they all say they can't do math,  
18 and they say they hate math. And I don't -- I don't  
19 think it's maybe a coincidence, because I think a lot of  
20 times things that are really fun, and enticing, and  
21 exciting about mathematics are not what has been tested  
22 in the past.

23           MS. SHEPARD: I can tell you what the  
24 advocates for the Common Core (indiscernible) me, but I  
25 could tell you what -- how they would answer the 40-year



1 ago question. They would argue that at 40 years ago an  
2 elite group of college-bound students got their rich  
3 opportunities to learn the very same things that they now  
4 want to make available, so we may disagree with their  
5 policy about how they're going to make it happen, but I  
6 think the evidence is there that historically people did  
7 get these things. They did get to reason with content.  
8 They probably memorized first, and then they got to use  
9 it in a step class or wherever they finally got to do the  
10 problem solving, and now people are saying if you  
11 integrate the problem solving with the memorization  
12 opportunities, it gives meaning from the beginning, so  
13 that's one whole argument.

14 And then another argument -- and we want it  
15 to be for everyone, not just a smaller proportion of the  
16 population who used to go to college.

17 MR. DURHAM: I just have one last question.

18 MADAM CHAIR: More questions, Steve?

19 MR. DURHAM: No, just -- of all the people  
20 who play chess, five percent can think three or more  
21 moves ahead. Playing more chess doesn't increase that  
22 number very much. They can think three or more -- more  
23 moves ahead.

24 So the contention is that all students are  
25 now capable of a higher mathematical outcome than



1 students at -- at 40 years ago, or we just didn't provide  
2 opportunities for those students 40 years ago?

3 MS. SHEPARD: Well, I -- I think here I'm  
4 not just saying my opinion. I -- I do think there's lots  
5 of evidence from Cognitive Science Research. It isn't  
6 why -- is isn't easy to generalize, but the evidence is,  
7 if you have much more interactive opportunities to talk  
8 about your reasoning to be challenged; to have to explain  
9 your reasoning as you go; and teach in conceptual ways  
10 from the beginning the average student can be a standard  
11 deviation different from higher than what was average  
12 before.

13 So to the point about why you need to  
14 memorize your multiplication facts, but if you got to  
15 them from extensions that look like egg crates, et  
16 cetera -- I won't go into the curricular stuff -- that  
17 actually, that flexible understanding serves you well.  
18 And there's -- there's, I think, there's a lot of  
19 evidence about why that teaching for understanding from  
20 the beginning makes -- we used to think it was just IQ.  
21 We don't think that anymore. The amount of difference  
22 that's due to opportunity to learn is huge, and that is  
23 how the -- the -- all of the cognitive science work has  
24 shifted over the last -- I would say almost 50 years  
25 shift.



1 MR. DURHAM: Thank you.

2 MADAM CHAIR: So I'm going to take a pass  
3 (indiscernible). I think some of my colleagues have  
4 again, more questions.

5 UNIDENTIFIED VOICE: I'll say first of all,  
6 Dr. Briggs, that I had the opportunity to actually take  
7 (indiscernible), but (indiscernible) high math. I have a  
8 bachelors in math. I was asked questions about  
9 (indiscernible) that I've never been asked before, and  
10 they were general understanding of what fractions are,  
11 and what they do, and what happens just in general when  
12 you use a fraction. It made me stop and think, and I  
13 really appreciated that, knowing that fractions are a  
14 door to higher math, and so -- but -- but I want to say  
15 that I don't know that parents understand that this is so  
16 different from what we all experienced at school, and  
17 what we've experienced (indiscernible).

18 As an adult, I've not been asked those kind  
19 of questions, but I -- the kids (indiscernible) know  
20 those characteristics of fractions, and was able to go  
21 on, but have them actually able to verbalize them anyway  
22 before. It's really critical, in that, we do not know  
23 what we are preparing our kids for. We just don't -- we  
24 are trying to ensure that they can, not only learn the  
25 facts, they also can adapt, especially mathematical



1 concepts, because we don't know what will be expected of  
2 them in the next 30 years, as to when they'll be out  
3 (indiscernible) adaptation, I think, has become much more  
4 important, and acceptance being much more important.

5 So I have a couple of questions. Dr. Bankes  
6 and Dr. Briggs, I'd like you to each -- each address  
7 whether you would be more comfortable, given the  
8 technology challenges that have been experienced  
9 (indiscernible) state (indiscernible), should we be using  
10 a paper and pencil?

11 MS. BANKES: My students, after the third  
12 day of yes, we're testing, no, we're not testing, would  
13 have preferred using paper and pencil.

14 UNIDENTIFIED VOICE: Okay. (Indiscernible)  
15 grade the PARCC if we went to paper and pencil?

16 MR. BRIGGS: That's an interesting question.  
17 So -- so the -- you know, there is an empirical question  
18 here, as to whether a -- a question that's written to  
19 meant to be an interactive with technology, are you  
20 getting at the same thing --

21 UNIDENTIFIED VOICE: Yeah, but the way I  
22 did -- I did not take the technology piece --

23 MR. BRIGGS: Okay. I did.

24 UNIDENTIFIED VOICE: -- what I'm  
25 saying -- (indiscernible) take the test --



1 MR. BRIGGS: Right.

2 UNIDENTIFIED VOICE: -- I didn't have the  
3 technology in, so I don't have access.

4 MR. BRIGGS: I did -- right -- I did.

5 So -- so I -- I would -- I think it actually -- so first  
6 of all, I mean, my -- my answer is along the lines of  
7 what I -- in some ways what I wish had happened. I wish  
8 there had been a longer roll-out pilot period where we  
9 could have ironed out the technological glitches over a  
10 longer period of time.

11 If that were the case, I would very -- very  
12 clearly say, yes, we should immediately as -- as quickly  
13 as we can get students used to taking it on computer  
14 and -- and make that transition. I still think the  
15 (indiscernible) out of the box we're doing the testing  
16 now. We probably need to --

17 UNIDENTIFIED VOICE: (Indiscernible) --

18 MR. BRIGGS: -- (indiscernible) -- yeah -- I  
19 mean, we -- we need to (indiscernible) -- I will say  
20 that -- that I -- I think that that's where things are  
21 headed. I mean, that's where NAEP -- NAEP is because  
22 it's pretty soon going to be administering all of their  
23 assessments in -- in -- on technology. They don't even  
24 say computer, because they're being agnostic. They're  
25 not even clear as to whether what they'll be taking it



1 on; is it a computer that we traditionally envision right  
2 now.

3 It's even interesting that with -- with  
4 PARCC, I mean, it's -- it's quite a -- I mean, I'm not  
5 surprised there have been glitches. I'm surprised there  
6 haven't been worse glitches to some extent, because their  
7 challenge was to do this on, not just a desktop computer,  
8 but a laptop computer and tablet, and -- and -- and these  
9 are -- these are quite hard.

10 Let me just comment specifically where I  
11 think there -- that you might see differences. I suspect  
12 that it will probably be harder for some students to take  
13 the test on computer than paper and pencil when it comes  
14 to reading passages, because I think of the getting used  
15 to perhaps of the -- the scrolling back and forth.

16 On the math side, the -- it's a little bit  
17 more of an open question, because some of the tasks are  
18 very interactive, and it -- and it -- but  
19 the -- the -- the one real obstacle and problem I think  
20 that PARCC will need to grapple with is the question of  
21 whether by doing it in a -- a computer-based interface,  
22 are you removing one of the ways that students had to  
23 demonstrate understanding mathematics. In the past it  
24 would be possible in their paper and pencil you  
25 might -- you might be able to get partial credit on some



1 constructive response task, if you could draw out and  
2 show that you were making progress towards a solution and  
3 in a lot of math I think, especially with geometry.

4 UNIDENTIFIED VOICE: And you also had the  
5 manipulatives that you could use. You had a -- a compass  
6 and a protractor to use.

7 MR. BRIGGS: Now -- now, those  
8 things -- there have been attempts -- there are certainly  
9 attempts in PARCC to make, you know, compass, protractor,  
10 and things --

11 UNIDENTIFIED VOICE: Right, but it's not in  
12 your hands.

13 MR. BRIGGS: -- but it's not in their hands,  
14 so that's -- that's requiring a switch, and -- and that's  
15 obviously a tradeoff, but -- that we're making. There  
16 are affordances.

17 One of the things that we don't always  
18 appreciate with -- that's a real benefit of the computer-  
19 based interface is that it actually leads to some  
20 possible advantages, in terms of the way we provide  
21 students with accommodations. There is ability  
22 with -- through the computer to make those accommodations  
23 more standardized than they were in the past when you had  
24 them on paper and pencil. So I see a very mixed bag on  
25 the -- the -- you know, the tradeoffs between the paper



1 and pencil, and -- and the computer form.

2 And just -- just be clear, PARCC certainly  
3 didn't require districts to -- they certainly encouraged  
4 the shift to computer base, but made available the -- the  
5 paper form, as -- as an alternative, but I do think in  
6 terms of where things are headed, that's clearly  
7 the -- the shift that needs to probably take place.

8 UNIDENTIFIED VOICE: And you  
9 raised -- excuse me -- and you raised -- I'm sorry -- and  
10 you --

11 MADAM CHAIR: No.

12 UNIDENTIFIED VOICE: -- and you  
13 raised -- the -- the next question, and that is the  
14 finite number of dollars. Are we putting our dollars  
15 into technology, or are we putting our dollars into  
16 teachers, and smaller class sizes, and resources?

17 UNIDENTIFIED VOICE: Well, that's the reason  
18 why (indiscernible) because (indiscernible) --

19 UNIDENTIFIED VOICE: It is --

20 UNIDENTIFIED VOICE: -- educating our kids  
21 without technology is really unforgivable.

22 UNIDENTIFIED VOICE: But not teaching our  
23 kids -- not teaching our kids --

24 UNIDENTIFIED VOICE: Hold -- hold -- hold.

25 UNIDENTIFIED VOICE: I'm



1 interested -- I -- I appreciated the comments that Dr.  
2 Bankes made that teachers are (indiscernible) are  
3 concerned that some of the questions are actually hard.  
4 Is there -- do -- do any of you know if there's a process  
5 now for feedback from the --

6 MS. BANKES: Oh, yes.

7 UNIDENTIFIED VOICE: -- community?

8 MS. BANKES: The kids took the surveys at  
9 the end of the test --

10 UNIDENTIFIED VOICE: (Indiscernible) --

11 MS. BANKES: -- at each -- after each test.

12 After each session they were asked to take the survey.  
13 I've had kids say do I have to take it and the screen  
14 comes up. You don't have a choice. It's, like, you need  
15 to click on the blue button I guess.

16 UNIDENTIFIED VOICE: So (indiscernible)  
17 feedback from teachers to provide -- is there an  
18 opportunity (indiscernible) --

19 MS. BANKES: Not that I'm aware.

20 MR. BRIGGS: My -- my belief was that the  
21 administrator -- or there was also administrator  
22 level -- I mean, at least the field test I know there was  
23 administrator level survey that was set and that -- that  
24 was given. I don't actually know whether --

25 MS. BANKES: I -- I don't either. It didn't



1 come up in my school.

2 UNIDENTIFIED VOICE: It's kind of -- I think  
3 it's kind of important to --

4 UNIDENTIFIED VOICE: Me too.

5 UNIDENTIFIED VOICE: -- hear from them --

6 MR. BRIGGS: Absolutely.

7 UNIDENTIFIED VOICE: -- just because  
8 they're -- I have all (indiscernible) comments about the  
9 level -- the -- the level of English, the level of  
10 reading skill that's used for a particular grades.

11 MR. BRIGGS: I do want to comment briefly  
12 on -- just very briefly on that one, which is that I -- I  
13 do -- there is a fundamental question about whether the  
14 nature of the mathematics construct, the thing that we're  
15 trying to get at is changing to some extent. I  
16 think -- I think PARCC very much has made -- and -- and  
17 their interpretation of the Common Core and -- and what  
18 they're trying to measure in mathematics that -- that  
19 some element of communication of reasoning is a part of  
20 that, and so I -- I think you're right. You're right  
21 that there are -- there are ways to impasse. I think  
22 we've -- we've often tried to see math tests as trying to  
23 strip away as much language as possible, but -- but  
24 the -- the risk you run with that is then you  
25 could -- when you strip out all the context around it,



1 then is it really the same -- you know, is that the kind  
2 of thing that students will be faced with in the real  
3 world.

4 If you're trying to make it authentic, we  
5 don't (indiscernible) --

6 UNIDENTIFIED VOICE: (Indiscernible) word  
7 problems.

8 MR. BRIGGS: Right. We -- we don't -- you  
9 know, in the -- in the real world we don't run into  
10 things that are presented to us as an abstract, you know,  
11 equation with a missing piece.

12 UNIDENTIFIED VOICE: Right.

13 MR. BRIGGS: You know, we have actually  
14 figured that out.

15 MS. SHEPARD: That -- that is part of the  
16 methodology that has surrounded the Common Core, and this  
17 is -- I -- you know, I disfavor strongly. It's -- and it  
18 happened in the '90s also, which is what typified then as  
19 the field of dreams idea: build it and they will come.  
20 So similarly, this grand rhetoric -- and I can -- so I  
21 can speak and say here is what cognitive science says  
22 about what's possible, and those proofs about what is  
23 possible are supportable, but now to just suddenly  
24 declare it, and launch it on a nation, and furthermore,  
25 have kids sitting there taking something that is --



1 UNIDENTIFIED VOICE: Beyond.

2 MS. SHEPARD: -- beyond them is not good  
3 pedagogy, and it's not good measurement, even because  
4 what we know, even from a psychometric perspective, is we  
5 should be assessing in the region where they are, and  
6 getting more, and more precise about them. That's why I  
7 say, if we changed what PARCC is asked to do, you could  
8 give some out-of-level testing that equated to -- and was  
9 linked to the same scale, so I'm not giving an easier  
10 test, and saying yay, you passed, but even to the example  
11 of the text heavy mathematics real-world problems, that  
12 should be the goal, but you have in good instruction, and  
13 in good measurement access points that show  
14 approximations to that. And you give a lower, but not  
15 zero score for getting some distance to that. That's  
16 true with drawing a picture that's to -- shows you  
17 understand the problem. It's true with being able to  
18 talk to your neighbor and say what you think about it,  
19 and it's true, even for doing the easier TCAP problem, as  
20 long as those are arrayed on a scale that doesn't give  
21 you a high score for only doing the pizza problem.

22 And all of that was disallowed when people  
23 said yay, we're just going to go for it, and we're going  
24 to have these world class standards, and let the chips  
25 fall where they may, so that's -- that's part of the



1 policy thinking around the ambitions of PARCC.

2 MR. BRIGGS: Just one thing (indiscernible).  
3 I don't disagree with that, Lorrie, but -- but I  
4 will -- will just point out that there is a -- a serious  
5 constraint obstacle to making that a reality, and -- and  
6 is this fixation on grade appropriate material, like  
7 the -- the -- you -- you can't get, like -- so -- so  
8 PARCC has been laboring under the -- the -- the  
9 constraint that the test they give should be aligned to  
10 the Common Core, and what is written in the Common Core  
11 for that grade level, right.

12 And there is no question that that -- you're  
13 seeing stuff that used to be for, not the students  
14 wouldn't be hit until they were in sixth and seventh  
15 grade, is now hitting them in fifth and fourth grade.

16 UNIDENTIFIED VOICE: Right.

17 MR. BRIGGS: Right. So that's the  
18 disconnect that -- to Lorrie's -- to Lorrie's point.

19 MS. SHEPARD: And it's also the same  
20 thing -- I mean, we're basically agreeing with the  
21 dilemmas, and with the constraints that were imposed, and  
22 we can do psychometrically, or not, and this also speaks  
23 to Kevin's earlier point about now not being able to  
24 assess growth in the floor regions. So you could have  
25 teachers heroically raising kids a whole years' worth of



1 growth from the middle of third grade to the middle of  
2 fourth grade, but not getting onto the assessment,  
3 because they -- where they started was too low for that  
4 grade level PARCC.

5 MR. BRIGGS: I mean, I think it -- it's just  
6 worth saying that the Common Core is first of all, not  
7 the bible. And second of all, it was just a hypothesis  
8 about the -- for -- for example, mathematics; how, you  
9 would see knowledge and skills building over time. And  
10 they had to slap grade level markers on these things, but  
11 they were a guess, and there maybe, and also an ambition,  
12 and aspiration. And so if we -- I will -- I wish that  
13 there had been more flexibility on the assessment side to  
14 say that was a hypothesis. We're going to actually find  
15 out what -- what kids can do with particular instruction  
16 and opportunity to learn, and we're going to try to  
17 measure them where they are. That would have been  
18 terrific.

19 MS. FLORES: But I do --

20 MR. WELNER: Could I -- could I just -- if  
21 I -- I don't want to cut off --

22 MS. FLORES: Sure.

23 MR. WELNER: -- Dr. Flores, but --

24 MS. FLORES: Oh, no, no.

25 MR. WELNER: -- I just --



1 UNIDENTIFIED VOICE: I'm still going. I'm  
2 still (indiscernible) --

3 MR. WELNER: -- there's -- there's  
4 a -- there's a -- a real core issue here that  
5 I -- I -- that all this -- all the discussion -- I just  
6 wanted to bring it back -- that if -- if we -- what we're  
7 talking about are limitations of the assessment, right.  
8 We're talking about a heroic effort, and not just on the  
9 part of this third-grade teacher, but on the part of the  
10 people developing the assessments to try to come up with  
11 some way to serve all these different purposes.

12 And -- and none of that is ever  
13 going -- there are always going to be limitations,  
14 and -- and so I -- I keep coming back to use. I wrote an  
15 article years ago about value-added modeling, and I used  
16 the analogy of buying a new sports car. It's a wonderful  
17 new Ferrari, and you want to take it out. You're  
18 driving. You drive it to the lake, and it does a great  
19 job. And then you decide you're going to use it as a  
20 boat, and drive it right into the lake. All right. It's  
21 going to sink to the bottom no matter how -- what a  
22 wonderful sports car that is. You're just using it for  
23 the wrong purpose, right.

24 And I -- and I think that  
25 it's -- it's -- it's -- it's crucial, even as we talk



1 about all these technical issues, and -- and talk about  
2 the limitations of the assessment, and how -- how the  
3 people developing the assessment have tried to address  
4 that and we might tinker with it, to -- to just always  
5 keep coming back to how are we using it. And  
6 is -- is -- if our ultimate goal is to increase those  
7 opportunities to learn, is this the best way to do it.

8 UNIDENTIFIED VOICE: So I have one final  
9 area I'd like you -- all of you to address, and that is  
10 the importance of information to parents. Do -- we  
11 don't -- we get two minutes with a teacher in high school  
12 at most. Do we -- how can we use standardized  
13 assessments to help parents know (indiscernible) just  
14 (indiscernible) let's face it assessments are a proxy for  
15 we want to know if our kids are on track for learning.  
16 This means there are limitations, but from what I'm  
17 hearing, there are -- the congress bill (indiscernible)  
18 detail information (indiscernible) information for  
19 parents, our legislation requires that. How do we  
20 improve what we're doing and still be able to provide  
21 that to parents? And what I'm hearing from the social  
22 studies feedback that parents have gotten is kids, whose  
23 kids took it, they're pretty stoked on how much valuable  
24 information those -- they feel that they're getting about  
25 their kid's progress.



1 MS. FLORES: I don't know where you heard  
2 that. (Indiscernible).

3 UNIDENTIFIED VOICE: (Indiscernible). Can  
4 you stop?

5 MR. WELNER: I -- I can start very briefly.  
6 The -- I -- I think that the -- the contribution I'll  
7 make to this is -- is to think -- to think about ways to  
8 create a data dashboard, not just for parents, but for  
9 everyone using this information. So -- so it's -- it's  
10 for -- for a lot of parents it's nice to get the test  
11 score to see how a child is doing, particularly in  
12 relation to other people, but there's so much more  
13 information to put that into context of what the child is  
14 learning, and what the child -- what opportunities the  
15 child has to learn that I think is missing when you just  
16 get that one number, even when you get, you know, sort  
17 of, breakdowns with them.

18 UNIDENTIFIED VOICE: But (indiscernible)  
19 part of a dashboard is that -- isn't that valuable  
20 information for parents, and how can we structure a  
21 summative assessment each year, so that  
22 parents -- parents see where there kids are?

23 MR. BRIGGS: So -- so I -- 40 years ago I  
24 was in eighth grade. I'll just -- if you go back to the  
25 40 years ago, we -- we didn't have all these assessments,



1 but -- but we certainly had information going home to  
2 parents along the way. You had -- you had interim report  
3 cards, and you had report cards. You had various other  
4 assignments that went back. So there -- for -- for  
5 parent -- for most parents, who are -- you know,  
6 following their kid's education, you know, are able to,  
7 sort of, engage with that, I think there are plenty of  
8 opportunities to get that sort of information. This  
9 would be one additional piece of information that could  
10 be valuable, but I don't want to elevate it too high.

11 UNIDENTIFIED VOICE: I agree. I'm just  
12 trying to figure out how can we make this assessment more  
13 so that particular piece that common assessment for kids  
14 in the state is available to parents and (indiscernible).  
15 I would agree with you that it's inappropriate to use  
16 that solely.

17 MR. BRIGGS: So I will say that --

18 MADAM CHAIR: Dr. Briggs.

19 MR. BRIGGS: -- I -- I will just say that a  
20 lot of thought -- and one of the things that the -- in  
21 the Technical Advisory Committee meetings that we kept  
22 putting on the agenda is the important piece was for  
23 PARCC to be thinking very carefully about how they're  
24 going to report scores, and what that interface would be,  
25 and what would be too much information, and what would be



1 not enough information.

2 Now, I don't -- I've seen mock ups that  
3 would have been great for Colorado. I think they're  
4 fairly clean. I think they provide fairly good  
5 information. They -- they provide -- if you haven't seen  
6 them, they provide one overall scale score for  
7 mathematics, and English language arts. Then in  
8 mathematics they break it down into the student's  
9 performance relative to a student that is at the level  
10 four, and say essentially whether it looks like you're  
11 performance in the focal content area, the -- the support  
12 content area, reasoning, and modeling, and those four  
13 claim areas you're compared to other students that were  
14 at the level four (indiscernible) scoring  
15 above -- performing above the level (indiscernible) sorts  
16 of things.

17 So that -- that information already is -- is  
18 more information than we've received before  
19 (indiscernible) parents will have received before  
20 on -- on TCAP, and we should hope so, right, given that  
21 much more testing there is. You should hope that more  
22 information would -- would come from it.

23 The same with the -- on the ELA there  
24 is -- it's broken down into a reading and writing score,  
25 and then reading, there's reading for information



1 literary text. There's also grammatical conventions,  
2 and -- and grammatical extensions, and -- and  
3 one -- vocabulary. So -- so there is a lot of  
4 information that's in there.

5 Now, I do think it's a little bit of an open  
6 question, and I would love it if the state was -- was  
7 either thinking about how to collect data from parents,  
8 in terms of how they -- how -- and to what extent they  
9 actually interact with these score -- score reports, and  
10 what value they get. I think we're operating on a lot of  
11 anecdotes that -- that we have. We hear somethings from  
12 some parents, somethings from the other. It's a very  
13 open question so what extent, you know, how a parents  
14 respond when they get this certain information, and what  
15 they do with it.

16 I do think we know that from the perspective  
17 of teachers, that the notion -- there is a I think a  
18 mythology that somehow if we can present this information  
19 to teachers that somehow it could then be used for  
20 formative purposes. I think that is very much a myth. I  
21 think that's unlikely. And -- and you know, so -- so I  
22 do think it essentially has some uses for teachers at the  
23 classroom level to think about for the class as whole  
24 where students seem to have perhaps some strengths and  
25 weaknesses. And at a school level, I think there's some



1 possibilities to be a little bit more diagnostic, in  
2 terms of strengths and weaknesses, but what we know right  
3 now about how this is being used, there's nothing,  
4 because it's just started, and it's the first time -- it  
5 won't be until the fall that these reports come out, and  
6 I -- you know, I hope that -- and I -- I image it's true,  
7 but I'm sure the state has plans to collect information  
8 and see -- if -- if not formally through surveys, but  
9 certainly here how -- how parents are responding to the  
10 information --

11 UNIDENTIFIED VOICE: And teachers --

12 MR. BRIGGS: -- and teachers.

13 UNIDENTIFIED VOICE: -- and administrators.

14 Yeah.

15 UNIDENTIFIED VOICE: Dr. Bankes or Dr.  
16 Shepard, do you have comments?

17 MS. SHEPARD: Well, I just want to say I  
18 don't think there's a generic parent, and so I worry  
19 about asking the question and the two you suddenly  
20 disagreeing about what parents say. Well, parents say  
21 wildly different things. And I don't think that there is  
22 an answer to what should this -- what should a good state  
23 assessment be designed to accomplish to please parents,  
24 because parents, as a group -- and it's always just like  
25 one more than half of them -- are driving things, like



1 infinite campus and the fact that teachers are having to  
2 post scores -- scores -- scores for parents, because  
3 they're tracking whether their kids are going to get into  
4 such and such a school.

5           They aren't asking a good substantive  
6 question, in my opinion, about could my student write a  
7 good freshman essay, and so if I were trying to design  
8 for the students in high school and parents, I would  
9 design much better substantive assessments where they  
10 could actually have their writing assignment in history  
11 scored the way it would be scored, and give feedback  
12 about what they would look like in -- if they took a  
13 history class at CU. And by the way, that would still be  
14 different from lots of kids coming to engineering at CU  
15 and not knowing calculus well enough -- adeptly  
16 enough -- back to the should they have memorized  
17 fractions or not -- to be able to do well. So the more  
18 you can simulate for each kid what they actually have to  
19 do, the better.

20           And my -- a prediction I would make about  
21 this opt-out movement is that it may so unseat these  
22 mandatory tests that policy makers will have to rethink  
23 what kinds of tests they can require that serve the  
24 students. Now, this is not the same as what kind of  
25 assessment would we build to get good data about



1 improving schools, but if you want to force kids to take  
2 a test, I think you're going to have to make it worth it  
3 to them, and so you're going to have to appeal to  
4 colleges and universities to use them as entrance  
5 criteria. Something that -- I'm sorry I'm forgetting his  
6 name -- but the chancellor at the California system, who  
7 hated studying for the SAT --

8 UNIDENTIFIED VOICE: (Indiscernible)  
9 Atkinson.

10 MS. SHEPARD: Thank you. Dick Atkins.  
11 Thank you. Atkinson. He said long ago that we should  
12 replace the SAT with a substantively useful assessment of  
13 what the kids can actually do; can they do college-level  
14 work? The SAT only covers ninth grade curriculum.

15 So something is going to have to change, but  
16 always you have to figure out what your purpose is, and  
17 design the assessment to that purpose.

18 MADAM CHAIR: Dr. Bankes, did you have a  
19 comment?

20 MS. BANKES: I -- I do, and I think -- I  
21 think we agree that -- that not one test result reporting  
22 out to parents is going to reach them all. So when I  
23 think about the different levels of parent involvement of  
24 the students that I've interacted with over my career, I  
25 think it comes down, for me, two things. One is, a



1 score. Folks understand a score. The other one is how  
2 does that -- how does my child compare to others, whether  
3 it's in the district or whether it's statewide, or  
4 whether it's on the national level. I think it has to  
5 have at least those two components, and then however else  
6 it needs to be devised to meet the needs of parents.

7 MADAM CHAIR: Thank you very much.

8 I had forgotten that one of my colleagues is  
9 on the phone. Debora, do you have some questions? I  
10 apologize. Out of sight, out of mind unfortunately.

11 UNIDENTIFIED VOICE: Angelika --

12 UNIDENTIFIED VOICE: She had to step away  
13 from the phone.

14 UNIDENTIFIED VOICE: -- Debora --

15 MADAM CHAIR: She's gone?

16 UNIDENTIFIED VOICE: She did -- she left for  
17 30 minutes for another meeting, and will dial back in.

18 MADAM CHAIR: So okay. Val.

19 MS. FLORES: Well, I had to ask a question  
20 about equity and quality, you know, with -- especially  
21 concerning minority kids, because we know that many  
22 minority kids do not do well on these high-stakes tests.  
23 And I'm also concerned about the teachers, and the value-  
24 added model that you talked about that is being used to  
25 evaluate teachers, so it's two. I'm concerned about



1 minority kids. And I know that many minority kids do, do  
2 well. And I'm hoping that that the state will tease  
3 those scores out so that it does show that some minority  
4 kids -- maybe many more minority kids than we think are  
5 doing well, because I -- I think it's -- it's -- it's  
6 terrible that they're going to be the people who are  
7 going to think I didn't do well; I'm a loser; and lots of  
8 other kids, not just minority kids. I'm just thinking  
9 about DSL kids. Kids who are learning English, who may  
10 not, you know, have the skills to maybe write at that  
11 level, but may do well on math, but maybe not because of  
12 the worded problems, and so I'm -- I'm concerned about  
13 those kids. What could you say about (indiscernible)?

14 MR. BRIGGS: Well, I think it's -- it's  
15 important to start from the -- from  
16 the -- start -- start -- if we go back to George W. Bush  
17 and the -- the idea of a (indiscernible) of low  
18 expectations and -- and what sort of motivations were  
19 behind a lot of the movement towards sort of standards-  
20 based -- test-based accountability policies, because if  
21 we go back to that point, that was not nirvana, right.  
22 That was particularly for -- for these students of color  
23 and -- and the one students of low-income communities.

24 There was a lot of warehousing going on.  
25 There was a lot of kids who were -- who were sort of



1 being ignored, and -- and not being challenged. And so  
2 part of the motivation behind a lot these policies was to  
3 say you can't ignore these kids anymore. We're going to  
4 just aggregate the results. We're going to demand high  
5 expectations for all kids.

6 So there is, I think, a -- a very important,  
7 and good underlying idea behind a lot of these policies.  
8 Now, unfortunately, it has not played out very well, and  
9 that's because of the negative unintended consequences  
10 that we've seen with these policies, and the fact that  
11 when -- when children are challenged and given a rich  
12 curriculum, and -- and given supports, and teachers are  
13 given supports, those children learn more. And  
14 in -- and -- and the idea behind test-based  
15 accountability policies that somehow this would  
16 pressure -- these would create pressure on the system to  
17 do all those things, and it simply hasn't done that, but  
18 it doesn't mean that in some schools, in some instances  
19 the kids who otherwise would have been warehoused are now  
20 getting a much more challenging, engaging, purposeful  
21 curriculum, but I think overall the results we're seeing  
22 are extremely disappointing.

23 And the idea that we would -- we would spend  
24 so much time focusing on (indiscernible) money and -- and  
25 focused on math and reading, and not even seeing the



1 bumps in those areas that we'd like to see, let alone the  
2 areas that are squeezed out. It's just -- it's just very  
3 disappointing. So I think there's a mixed picture here.  
4 I think that it's -- it's -- we -- we need to -- we need  
5 to be not thinking -- and I know you're not saying this,  
6 but thinking back to -- we need -- we need to go back to  
7 where we were before all this versus we need to keep what  
8 we have.

9 I think we need -- we need to open up a  
10 third door, and -- and -- and think a lot more about  
11 well, how is it that we're really going to create a -- a  
12 sustained system of rich opportunities for kids,  
13 particularly kids who have -- who have been pretty ill  
14 served over the years. The point Lorrie made earlier  
15 about different schools with different levels of  
16 resources, and different needs responding differently to  
17 these pressures is also really important to keep in mind.

18 MADAM CHAIR: Do you have a comment?

19 MS. BANKES: Classroom behavior sometimes  
20 gets in the way when you're working with kids who are  
21 struggling in school, whether it's because they are  
22 English language learners, or it's because they live in a  
23 neighborhood where basic needs, food, clothing, and  
24 shelter are not always available.

25 MS. FLORES: And don't you think that



1 sometimes that may be due to maybe not understanding, or  
2 maybe not having appropriate materials, appropriate  
3 (indiscernible) --

4 MS. BANKES: So that's where I was --

5 MS. FLORES: -- (indiscernible) --

6 MS. BANKES: -- exactly. And it kind of  
7 goes back -- excuse me -- earlier to about where are we  
8 going to put our finite dollars.

9 So one of the reasons I have a job in my  
10 retirement is because students do better, whether they're  
11 minority or not, but students do better in a -- some  
12 students do better in a small classroom setting, and so  
13 when they come to me, and we work, I'm old, and this is  
14 the way it is. A telling statement for one of my  
15 students is, when we were doing math -- I'm a philosophy  
16 major, before I got into all of this other stuff, so  
17 getting through stats for my doctorate was quite the  
18 challenge, but, you know, you rise up to it, and you go  
19 with it.

20 So I have eighth graders in my -- in my  
21 little room, and I'm working with them in math. And one  
22 of the boys says, well, Dr. Bankes, aren't you going to  
23 tell us that we're doing a good job, and I said, when you  
24 do a good job, I'll tell you. Then he goes, well, why  
25 don't you lie like all the other teachers, and I said,



1 because I'm retired, and I can tell you the truth,  
2 because we are so hung up into those test scores, and how  
3 it's going to play out in the high stakes.

4           So some of those resources I think need to  
5 be put into that engagement and really meeting kids. I  
6 have a girl that said she -- and these are anecdotal, I  
7 know, but she -- Hispanic girl, lovely girl, fiery  
8 temper, liked her a lot. She liked me, thank goodness.  
9 She didn't like her math teacher. But she's an eighth  
10 grader, and she has -- she told me she has flunked math  
11 every year since elementary school. Why is that? I'm  
12 not good in math. I said my definition of being able to  
13 do math it's not a contest how fast you can do it, but  
14 those reasoning skills that we're talking about.

15           So she came to me and we're doing  
16 intercepting lines, and complimentary angles, and things  
17 I can't even repeat back, and she did really well. I  
18 sent all of her paperwork back to her teacher. She ended  
19 up getting suspended for calling her teacher a name that  
20 we just can't find acceptable. The goal is to keep them  
21 in school, so what resources can we use to keep them in  
22 school. We hire people like me who have been around a  
23 long time. We've heard an awful lot of stuff. It  
24 doesn't matter. We have a job to do. We're just going  
25 to get it done. So I think resource is part of it.



1                   Another school that I was in I -- in  
2                   Colorado Springs and probably in other places they have  
3                   the 100 best and brightest kids the mayor's  
4                   choice -- whatever. Kids that I was invested in -- I  
5                   took one of those that sounded like the boys -- one of  
6                   the boys that I was working with. I said I want you to  
7                   take this home. I cut out the picture. I want you to  
8                   take this home. I want you to put your picture in there.  
9                   And when you take this picture home and put it on your  
10                  refrigerator that will be you in three years. I want to  
11                  see your name on this list in three years.

12                  Now, whether he does it or not, doesn't  
13                  matter, but it's kind of like what you're saying when you  
14                  see these low scores, and parents come in and say well, I  
15                  was never good in math, you may not have been fast in  
16                  math, but you are good in math. You know how to pay for  
17                  your house. You know how to finance. You know how to do  
18                  these things. So it depends on the level, at which we're  
19                  meeting our parent's needs, and that -- when we get so  
20                  focused on those scores -- and that's what I was saying  
21                  about the public charter school -- those kids -- and  
22                  those faculty people are there to meet kids who need an  
23                  awful lot of resources, so they can get through school so  
24                  they so can do something with their lives.

25                  UNIDENTIFIED VOICE: I'd just like to say



1 thank you all for coming (indiscernible).

2 MS. BANKES: Thank you for inviting.

3 MR. BRIGGS: Thank you.

4 MADAM CHAIR: Thank you very much.

5 We have some folks who want to make a  
6 comment. Do we need to take a three-minute break? We've  
7 been at this for two and a half hours, folks? Please.  
8 Okay. Two to the three minutes, if you don't mind. And  
9 then we have six speakers who would like to speak to us.

10 Thank you very, very much (indiscernible).  
11 It's very helpful.

12 (Pause)

13 MADAM CHAIR: The next portion of our  
14 meeting -- and by the way, I just want to remind all of  
15 our signed up speakers that we are talking today about  
16 PARCC, so it will -- we will expect you to be making  
17 comments about that. We will not respond, nor will our  
18 esteemed panel, but we are very anxious to hear from you.

19 So if I may, Rachel Zenzinger; is she still  
20 here? Rachel, there you are. Please come.

21 MS. ZENZINGER: Well, I -- I think it's good  
22 morning. My comments say good morning, so I'm glad we're  
23 still there. I'm Rachel Zenzinger. I'm a former  
24 educator and a former instructor with a master's of arts  
25 of education from Regis University. Especially liked



1 being in teacher leadership. And I'm also a former State  
2 Senator, who once sat on the Senate Education Committee,  
3 as well as the CBE, and CBH Committee.

4 Currently, I'm the state manager for the  
5 Colorado Ed Voice Scholarship with America Achieves. And  
6 I'm here today, not to represent my views, but the views  
7 of resident educators from the Colorado Educator Voice  
8 Fellowship.

9 The Colorado Educator Voice Fellowship, just  
10 to give you some background, focuses on the  
11 implementation of college and career-ready standards, and  
12 empowers outstanding teachers and principals to elevate  
13 their voice in public conversations about teachers  
14 learners; assume leadership roles; and implement the  
15 education policies at the local, state, and national  
16 level. I have with here today -- and I will give you a  
17 copy -- four letters from teachers, who could not be  
18 here, because they are teaching, but they did wish to  
19 express their views on this topic of assessment in PARCC.  
20 And due to time constraints, I will not read all four  
21 letters, but I will read to you one.

22 This letter comes from Pam Williamson-  
23 Rybolt. It says, "Hi. My name is Pam Williamson-Rybolt,  
24 and I'm Colorado's 2010 Title I Distinguished Teacher of  
25 the Year. This is my 20th year in education, and in this



1 time I have taught literacy in all grades 6-12. As you  
2 consider testing, I would like to share with you my  
3 experiences with standards and the PARCC.

4 First, I must say that the new Colorado  
5 state standards for reading, writing, and communicating  
6 are, by far, the best standards yet for preparing  
7 students for college and career readiness. Teaching to  
8 those standards in my literacy classes has created a new  
9 level of engagement and rigorous learning. No longer are  
10 we focused on memorizing any new literary elements, which  
11 are low-level skills. Now, instead, we are investigating  
12 rich text in a variety of genres to determine how writers  
13 develop their messages.

14 Our students are being invited into larger  
15 conversations about issues that will impact their lives.  
16 I was surprised after all the hype and sensationalism in  
17 the media about PARCC to find that it was a non-event.  
18 What were my student's reactions to the PARCC test when I  
19 asked them how they felt about it? They simply stated,  
20 Mrs. Rybolt, the test was just like what we do in class  
21 all the time. Ladies and gentlemen, that is exactly the  
22 response I like to hear. Any standard worth teaching is  
23 worth testing from an outside source to provide reliable,  
24 valid data on how I'm doing in teaching to the standards.

25 Finally, we have a test that matches the



1 rich instruction and high expectations I have for my  
2 students. We are finally on a path to truly preparing  
3 our students for the challenges of the future.

4 I understand that change is difficult, and  
5 that there are many misconceptions about the new  
6 standards, and tests among all stakeholders. As we all  
7 know, real and meaningful change takes time and  
8 persistence. I encourage you to consider our children,  
9 as you make decisions about issues that impact their  
10 futures. Our children deserve a bright future  
11 facilitated by high expectations, and rich standards.  
12 Let's not give up easily because of the growing pains of  
13 the change that can only benefit our children.

14 With regard, Pam Williamson-Rybolt, teaching  
15 partner at Aurora Frontier P-8 in Aurora, Colorado."

16 Thank you very much. Appreciate it.

17 MADAM CHAIR: Next. Sorry. Candace Green  
18 (ph), please. Do your best, please, to stick to three  
19 minutes. I try not to be a heavy, but --

20 MS. ROBINSON: Good morning. Greetings,  
21 Madam Chair --

22 MADAM CHAIR: Good morning.

23 MS. ROBINSON: Madam Vice Chair, and Members  
24 of the Board. I am not Candace Green. I am her mother  
25 Geraldine Robinson (ph).



1 MADAM CHAIR: Well --

2 MS. ROBINSON: She has to be in school  
3 today.

4 MADAM CHAIR: Okay.

5 MS. ROBINSON: Candace is a teacher at Adams  
6 12 and she's in school. I would like to read aloud her  
7 written testimony about the importance of both meaningful  
8 assessment to demonstrate our hard work and quality time  
9 to teach. These are the words -- her words and views.

10 "As a veteran master teacher and  
11 interventionist of 21 years I have witnessed and  
12 experienced extensive paradigm shifts in education. At  
13 first, I thought of the transition of the PARCC  
14 assessment as just another fad; however, after studying  
15 field reports, and the degree to which PARCC's success  
16 (indiscernible) assesses ELA and math skills in a  
17 pertinent and meaningful manner I became a strong  
18 advocate of PARCC. In my professional and highly  
19 qualified opinion, the PARCC assessment, not only proves  
20 to be efficiently aligned with Colorado academic  
21 standards, it also officially measures my student's  
22 mastery of those standards.

23 One additional hat I wear at my school,  
24 Global Village Academy, is that of site assessment  
25 coordination coordinator. The PARCC test is well



1 organized and well supported. I often hear the students  
2 say they enjoy" -- they -- they enjoy -- "the test. When  
3 ask why, their answers range from the content is  
4 interesting, to they enjoy testing on the computer. They  
5 especially like that it includes videos. I never heard  
6 these types of complements about CCAP and TCAP.

7 On a special note," -- I suggested -- "I  
8 suggest the following enhancements to the PARCC  
9 assessment. The PARCC results to be provided in a timely  
10 manner. I truly believe this assessment will provide our  
11 school with relevant results we can utilize to determine  
12 smart goals, discussing data teams, and apply to drive  
13 instruction next year; however, since we cannot  
14 immediately assess the data, the data becomes irrelevant  
15 to" -- to -- "meet the immediate needs of our students.

16 "Number two, since quality time to teach  
17 remains necessary, I would like to see the sheer number  
18 of testing days drill down in order to keep the students  
19 in the classroom engaged and learning."

20 And she has one more comment that -- and I  
21 do have papers here I should have offered to people to  
22 see I'm sorry. Her other comment. "I have the right to  
23 have my students and hard work measured by  
24 an" -- excellence -- "excellent test like PARCC."

25 MADAM CHAIR: Thank you so much.



1 MS. ROBINSON: I would like to add one more  
2 thing. I hope you people really -- I'm 84 years old -- I  
3 hope you people really, really listen to these people  
4 here today, because it all makes sense. My first grade  
5 school was at a two-room school house, and we didn't  
6 learn much. And I self-educated myself. I became an  
7 interior designer. Then I wanted to learn more, and I  
8 became an architect, and I did large buildings in Miami  
9 Beach, Fort Lauderdale, and Boca Raton, but from the two-  
10 room school house, listen to these people. Thank you.

11 MADAM CHAIR: Thank you for coming. Thank  
12 you for sharing.

13 MS. ROBINSON: I don't walk very good.

14 MADAM CHAIR: Julie Molster (ph) -- Julia,  
15 I'm sorry. I think your name.

16 MS. MOLSTER: It's all right. Yeah, Julie.  
17 Good morning. I wanted to start by quoting Laura Slover,  
18 the PARCC CEO, that the purpose of the test is to align  
19 the curriculum. That was a quote of hers.

20 I guess I'm confused, as to how we're  
21 hearing from teachers commenting on the value and success  
22 of the test that we just rolled out and we have no  
23 results back, and the teachers aren't even allowed to  
24 talk to the students, or see the tests, so that confuses  
25 me.



1 Dr. Shepard here said that PARCC is a better  
2 test. "There are tests that are much worse than PARCC."  
3 Again, I'm confused, because there's no data on PARCC  
4 whatsoever. We're basing everything of this on data that  
5 we want, but we have no data on the PARCC success, so how  
6 can we say anything positive or negative about a test  
7 without any data?

8 Children with computers at home, we know,  
9 will do significantly better on this test than children  
10 who do not even have pencils at home. How does that  
11 serve equality for everybody?

12 What we do know about this brand new test  
13 with no data is that it's shown to be two -- two to three  
14 above grade level. It has been shown to have multiple  
15 errors in the passages. Arguably, there's only 7 to 10  
16 states left in the consortium that was said to have -- be  
17 required to have 14 for comparability; 14 is long gone.  
18 Comparability is long gone.

19 Glitches nationwide. We now have seen  
20 unethical monitoring of children via social media, that  
21 we have been told that we, as taxpayers are paying  
22 for -- paying for our children to be monitored. Teachers  
23 are now being punished -- that was just in the Denver  
24 Post the other day -- for things beyond their control.  
25 What's next? Are we going to frisk the students to make



1 sure they aren't hiding cell phones?

2 You have 10-year olds spending nine hours  
3 working for the system with the burden and un-  
4 compensation -- uncompensated job of grading the  
5 teachers, instead of learning. Teaching ends right after  
6 winter break. (Indiscernible) has been anything but  
7 honest. It's a game of semantics.

8 Mr. Briggs just validated to us right here  
9 that it would take it five years for this test to have  
10 good data that we could make good decisions on. Yet, our  
11 children, teachers, and schools are being consequently  
12 effected during this pilot that they have even agreed to  
13 participate in. We should have a five-year hold  
14 harmless, based on what Mr. Briggs just said.

15 The -- we have a Colorado Constitutional  
16 right to local control, but that's eradicated when you  
17 are requiring districts to all be successful to the same  
18 test. We've all seen tests now from PARCC, because  
19 they've been leaked. And thank God that they have,  
20 because now we know that it wasn't just the cover of CMAS  
21 that manual that Pearson put out that has errors, but  
22 we've been proven -- it's been proven that there are  
23 errors in the test. There's no room for errors in high  
24 stakes.

25 Thank you.



1 MADAM CHAIR: Thank you very much.

2 Cindy McLourdess (ph).

3 I had emailed -- I have two testimonies from  
4 other people. Do you want me to read them, or are  
5 they -- I emailed them, if you want to just hand them  
6 out.

7 UNIDENTIFIED VOICE: Well, (indiscernible).

8 UNIDENTIFIED VOICE: Well, is Cindy here?

9 UNIDENTIFIED VOICE: She has  
10 (indiscernible). I have them too. I was asked to read  
11 them.

12 MADAM CHAIR: Okay. You want to do that  
13 after -- after (indiscernible). Does that sound okay?

14 UNIDENTIFIED VOICE: Sure.

15 MADAM CHAIR: Sherry Consiter.

16 MS. CONSITER: Hello. I'm Sherry Consiter.  
17 I'm a mother of two, and I'm here representing my two  
18 children. I'd like to start off by saying I find that  
19 it -- it's good that you are looking at how PARCC is  
20 impacting students and teachers, but I don't see students  
21 and teachers, and I'm wondering if you are willing to  
22 hold a panel that would include students, teachers, and  
23 parents, because I think those are the stakeholders here  
24 that are affected with these scores, yet, we're not  
25 asking them directly.



1                   And to Ms. Molster's point, teachers are not  
2 allowed to speak about the test. They have to sign a  
3 confidentiality agreement. And they're not really  
4 supposed to be standing over student's shoulders to see  
5 the test, so it'd be very difficult for them to analyze  
6 the test, if they cannot see, or speak about it.

7                   I've talked to several teachers and they  
8 can't be here today. They asked that I convey a few  
9 messages to you, being one of the biggest problems with  
10 PARCC is time away from the classroom, that not only is  
11 it the seat time, but it's also the test time, it's  
12 preparing the school, the testing window, and between  
13 March and May it's testing season, and the school  
14 essentially just changes. It shuts down. The media  
15 center becomes testing central. Specials teachers can no  
16 longer teach specials. They have to teach -- or  
17 administer the test.

18                  I know in my children's school, which is a  
19 smaller school, we don't have enough computers to test  
20 all the children. Last year we asked for paper and  
21 pencil because we didn't have the money to buy the -- the  
22 computers. We weren't allowed paper and pencil, so my  
23 children had to be bussed to another school that they  
24 were unfamiliar with and crammed (indiscernible) in, in  
25 one testing window sitting in an unfamiliar location.



1 This year we tried to get enough computers to do some  
2 grades, but we're missing so much school, because it's  
3 recess time while the rest of the kids are taking the  
4 test, because they can't get ahead of each other.

5           There are a lot of problems with this. And  
6 one of the problems that I think Mr. Briggs did a really  
7 good job of saying is we are not ready yet. This should  
8 not have been rolled out. It should have been a pilot.  
9 It should have been studied five to six years before we  
10 implemented it, and held people accountable. You're  
11 labeling our kids as unsuccessful, and we don't -- we've  
12 not seen the test, and I would beg to question whether or  
13 not the test that you have seen -- all the educators have  
14 seen was actually the test, because it's my understanding  
15 that it's the sample that I have seen. It's not the  
16 actual test.

17           Something else I'd like to say is they said  
18 we -- you know, not all parents would answer the same;  
19 not all teachers would answer the same. We do have  
20 surveys from parents -- over 700 parents in Colorado took  
21 the surveys, but they don't value these tests, because  
22 they don't see the results until the following year. And  
23 when you do get the results, it's a small snippet saying  
24 it's a cut score. It would be very nice if we had access  
25 to see my child missed this question, and this is why, so



1 I get to talk with my kids, and say okay, this is -- you  
2 didn't understand this.

3 If we have a pilot system, like what we're  
4 proposing with legislation across the street, to make a  
5 more formative or authentic type test that could both be  
6 formative and hold teacher accountable, you would be  
7 killing two birds with one stone. It would be less time  
8 away from the classroom, and it would be (indiscernible).  
9 And unfortunately, my time is over, but I really  
10 appreciate having time to interact with people. Thank  
11 you.

12 MADAM CHAIR: Thank you.

13 Michael Claw. Did I mess this up? Douglas  
14 Bissonette, I'm sorry.

15 MR. BISSONETTE: Yes, Douglas Bissonette.  
16 Madam Vice Chair, Members of the Board, Mr. Hammond,  
17 thank you for hosting this session, and allowing public  
18 input. I'm superintendent of Elizabeth School District  
19 just south of Cherry Creek and east of Castle Rock. And  
20 we saw an interesting pattern in the number of parents  
21 who requested that their children not take the PARCC  
22 test. We saw the highest request for opt-out at the high  
23 school level; approximately 60 percent. A little bit  
24 less at the middle school level; approximately 40  
25 percent. And the least opt-out requests at the



1 elementary level; approximately 20 percent.

2 I think that -- that Elizabeth School  
3 District has about 2,500 students, so it's a -- it's a  
4 reasonable size to draw some conclusions to that pattern.  
5 I think that if the State Board, and Department of  
6 Education looks at the opt-outs across the state, and  
7 thinks about PARCC, not just as one large test, but  
8 looking at it for the relevance for parents, teachers,  
9 and learning at the elementary level, at the middle  
10 school level, and at the high school level, that you'll  
11 see something different when you look at its  
12 applicability, its usefulness at each of the levels.

13 I think that the opt-out -- it doesn't give  
14 us all the information, by any means, but I do think it's  
15 data worth examining. I don't know if our district is a  
16 similar pattern, but from the other superintendents I  
17 know -- or that there's been that pattern in other  
18 districts, and I think that it should help us learn  
19 something about how parents, especially value  
20 standardized tests, as their children move through our  
21 education system. So just wanted to not have you look at  
22 PARCC as a whole, but look at PARCC as children move  
23 through, so that's all. Thank you very much.

24 MADAM CHAIR: Thank you very much.

25 And thanks to all of you for attending. I



1 believe that we are now recessed.

2 UNIDENTIFIED VOICE: (indiscernible).

3 MADAM CHAIR: Oh, my apologies. We have two  
4 letters to be read, which I -- I'm fine with that, but  
5 let's not (indiscernible). For the future, we will not  
6 ever (indiscernible).

7 UNIDENTIFIED VOICE: Patricia R. Lang (ph).

8 "I live on the western slope and could not make the  
9 meeting. My daughter currently (indiscernible) for  
10 children out of all standardized tests, with the  
11 exception of the ACT they take as juniors.

12 "My late daughter opted her daughter as  
13 well. She never took a standardized test, with the  
14 exception of the ACT. These tests take you too much  
15 learning time and cost too much money.

16 Let teachers teach, and let them evaluate  
17 students. No child learns the same, at the same rate.  
18 Every child has strengths and weaknesses and who knows"  
19 that -- "this better than the child's teacher. These  
20 tests devalue teachers, the educational process, and the  
21 students.

22 "To evaluate a teacher on an element in  
23 which he" -- he -- "or she has no control is just  
24 ludicrous. (indiscernible) saying holds true, you can  
25 lead a horse to water, but you cannot make them drink.



1 There are too many elements in a child's like that come  
2 into" -- into -- "play regarding learning to evaluating  
3 teacher on a standardized test. Evaluate me on what I  
4 teach, and how I teach, but not a score on a standardized  
5 test.

6 "In closing, take a look at Finland. They  
7 seem to have the best schools in the world. They do more  
8 tests, so they do not start school until age six or  
9 seven.

10 "Education has become to politicians, and  
11 until we get back to focusing on students, and their  
12 individualized learning, we are not going to be  
13 successful. Talk to the kids. Talk to the students.  
14 Listen to what they are saying. Dump the tests. It is  
15 killing our kids love of learning. It is destroying our  
16 educational system.

17 "We have allowed politics and politicians to  
18 run the system and until we take education back from  
19 them, we will not be successful."

20 And the second one is from Cindy --

21 UNIDENTIFIED VOICE: Regordis (ph).

22 UNIDENTIFIED VOICE: -- Regordis, parent in  
23 Littleton. "As I sit here and try to decide which of the  
24 many issues I would like to address, it keeps coming back  
25 to me that you ladies and gentlemen know these issues in



1 far more depth than I ever will. I cannot  
2 (indiscernible) knowledge; however, I can raise a few  
3 eyebrows to what I have seen in the trenches from PARCC  
4 policy.

5 "My kids attend school in Littleton, and as  
6 you know, Littleton is well known for their high-test  
7 scores, and Littleton is scrambling harder than they ever  
8 have" -- have -- "in the past to place fed students in  
9 resource schools. And I promise you this is not only in  
10 Littleton. Resource schools create a wonderful illusion  
11 to parents with special needs kiddos. They have all the  
12 assistive communication tools, the incredible staff on  
13 paper. They essentially place all of their resources in  
14 one school.

15 "Why is this wrong? It's not for the  
16 students. It's for the school. It lowers the liability  
17 these students have on the districts. I finally caved to  
18 a resource school at the beginning" -- of school -- "of  
19 next school year. Of course, the school will provide  
20 transportation, if I elect to use it, but they can't tell  
21 me is an exact amount of time it will add to the school  
22 day, or exactly what time the bus will pick up and drop  
23 off. According to his fed, the bus driver could get to  
24 1.5 hours each way, so I will be taking her to and from  
25 school, and will have two little ones in two elementaries



1 and a senior in a different district, all because PARCC  
2 wants to lower their liabilities when bringing big  
3 business to the classroom.

4 "I have seen an entire elementary lined with  
5 makeshift pile-on cones that read 'Shh PARCC testing in  
6 progress.' Every student whispering so others can  
7 concentrate. Do you know how absolutely insane it is to  
8 ask 3 to 500 kids to whisper for hours on end or not  
9 speak at all?

10 "Windows covered with black construction  
11 paper. Imagine the fallout when those students are  
12 allowed to release. God help our teachers.

13 "Ask PARCC a question and what will they  
14 answer? We are sorry, Madam Chairman, we would be in  
15 breach if we answered that question. They have covered  
16 their butts" -- since -- "as any good business would;  
17 however, big business does not belong in the classrooms.

18 "We need proven tests in our classrooms  
19 without stakes so high that they are causing the exact  
20 opposite of their intended purpose. We have a saying in  
21 our house, when something is so obvious, it's ready to  
22 hit you in the face. Duh, big red truck. And I implore  
23 you, get out of the street, because PARCC is the biggest  
24 red truck I have ever seen."

25 MADAM CHAIR: Thank you.



1                   But for future purposes, when we have  
2 constituents who want to have something read, could  
3 help -- just to (indiscernible) -- I read all the  
4 stuff --

5                   UNIDENTIFIED VOICE: (indiscernible).

6                   MADAM CHAIR: Okay. I just don't think that  
7 kind of help us in the long run, in terms of the process.  
8 You can just copy them during the (indiscernible).

9                   You guys okay (indiscernible)?

10                  So we are adjourned.

11                  Again, thank you to all of you for coming.

12 Thank you to our panelist. It was great.

13                  (Meeting adjourned)

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C E R T I F I C A T E

I, Kimberly C. McCright, Certified Vendor and Notary, do hereby certify that the above-mentioned matter occurred as hereinbefore set out.

I FURTHER CERTIFY THAT the proceedings of such were reported by me or under my supervision, later reduced to typewritten form under my supervision and control and that the foregoing pages are a full, true and correct transcription of the original notes.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 25th day of January, 2019.

/s/ Kimberly C. McCright

Kimberly C. McCright

Certified Vendor and Notary Public

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