



The Nation's Report Card and 12th Grade Academic Preparedness

National Symposium

**Edited Transcript: July 9, 2013
Washington, D.C.**

NAEP—the National Assessment of Educational Progress—is also known as The Nation's Report Card. Congressionally authorized and funded since 1969, NAEP reports to the public on the status and progress of student achievement in core subjects at grades 4, 8, and 12.

The National Assessment Governing Board that oversees NAEP is conducting a comprehensive program of research to transform it into an indicator of 12th-grade academic preparedness for college and job training.

The Governing Board established the NAEP 12th Grade Preparedness Commission to raise public awareness of and receive feedback on the Governing Board's planned research program on 12th-grade preparedness, the research results, and the potential of NAEP 12th-grade data as an indicator of academic preparedness for postsecondary education and training.

As a part of this work, the Commission has conducted a series of symposia around the nation with leaders in K-12 and higher education, business, civil rights, and legislative policy. This is a record of the symposium conducted on July 9, 2013, in Washington, D.C.

Contact: Ray Fields, Commission Staff Director, ray.fields@ed.gov

PRESIDING

Honorable Ronnie Musgrove

*Chair, NAEP 12th Grade Preparedness Commission
Former Governor of Mississippi*

OPENING REMARKS

Honorable David P. Driscoll

*Chair, National Assessment Governing Board
Former Massachusetts Commissioner of Elementary and Secondary Education*

Honorable Arne Duncan (Via video)

Secretary, U.S. Department of Education

PRESENTATION

Greg Jones

*Vice Chair, NAEP 12th Grade Preparedness Commission
President & CEO (Retired), State Farm General Insurance*

Cornelia Orr

Executive Director, National Assessment Governing Board

PANEL

Anthony P. Carnevale

Director, Georgetown University Center on Education and the Workforce

Honorable Mitchell Chester

Commissioner, Massachusetts Department of Elementary and Secondary Education

Chester E. Finn, Jr.

President, Thomas B. Fordham Institute

Glenda Baskin Glover

President, Tennessee State University

Robert T. Jones

*President, Education and Workforce Policy, LLC
Former Assistant Secretary of Labor*

Jacqueline E. King

Director, Higher Education Collaboration, Smarter Balanced Assessment Consortium

Carl Mack

Executive Director, National Society of Black Engineers

Former President, Seattle King County NAACP

Carmel Martin

Executive Vice President, Policy, Center for American Progress

Cheryl Oldham

Vice President, Education Policy, U.S. Chamber of Commerce

Vice President, Education and Workforce, U.S. Chamber of Commerce Foundation

[Begin audio]

David Driscoll: Good morning.

Audience: Good morning!

David Driscoll: Welcome everyone. I'm David Driscoll, Chair of the National Assessment Governing Board. I'm delighted to stand before an audience for which I do not have to explain what NAGB means, and NAEP means, and how NAGB relates to NAEP, all the rest of that. The alphabet soup discussion usually takes about ten minutes. We're delighted to be here today for the last symposium of this commission that has done such great work.

Next year will be the 25th anniversary of NAGB. NAGB is not as old as NAEP. NAEP testing goes back many more years.

But the National Assessment Governing Board serving as the governance structure of NAEP will have been in place 25 years next year. There have been six chairs of NAGB in that time. And four of us are with you this morning. And I want to just take a minute to recognize the past chairs.

First we begin with—you know there's term limits. You've heard of term limits? NAGB members are term limited to eight years. And so I'm delighted to introduce a former chair, who served 12 years on NAGB, Mark Musick. Where is Mark? Oh, he's up here. Naturally. We haven't figured out how he did that.

Secondly, someone who's on a panel today who probably needs no introduction to this audience, and that's Chester Finn from the Fordham Foundation.

And then my predecessor, and really the gentleman that brings us all here today because it was under his leadership that we established the whole idea of the first commission that examined 12th-grade NAEP and this commission that is hosting today's symposium, and that is Darv Winick. Where's Darv? So, how about a round of applause for those three?

[Applause]

We're here today to discuss how NAEP can report on 12th graders' academic preparedness for college and job training. Our main objective is to hear from you. We have a couple panels. One on college—what a lot of people call “readiness.” I was on the 12th-grade Commission that was established back in 2002 to

decide whether we should test 12th graders at all. And I have to tell you that the one reservation all of us had, was that 12th graders would not give their best effort for a test that was a sample survey and didn't count.

Here you've got young people that are taking SATs and ACTs and whatever else. Compass and ACCUPLACER and ASVAB and whatever else they take. And to think that 12th graders would really take seriously a test that for which they don't get results and it's only sampled was a problem. We talked a lot about this issue in our commission report at that time. People wanted to test in grade 12, but this concern about kids trying was a paramount issue. And we talked about bribing them and giving them credits or something. We even talked about whether we could develop a mini test so they'd actually get a score.

Well lo and behold, surprisingly to all of us, 12th graders have tried. They've put in a great effort. We know that because we can judge how much time they spend on the test, how many blanks they leave, whether they play the ABC game, et cetera. So to their credit, even though it doesn't count, and even though it's a sample, and even though they're over tested, at least in some ways, our results have been both valid and reliable. And so credit to our 12th graders in America for taking their responsibilities seriously.

So we produced a Commission report. And Cornelia Orr, Executive Director, will be telling you more. But one of the strong recommendations we made back in March of 2004 was for 12th grade NAEP to report on 12th-grade academic preparedness. We had actually used the word "readiness." The Governing Board corrected that and said, "We're not sure if kids are ready, but NAEP can at least talk about whether they're academically prepared." The Governing Board embraced the Commission's recommendation and, in a very deliberate way, pursued those recommendations through the work that Cornelia will describe.

And as always, the Governing Board conducted its work in a very open, transparent way. Which is why we're having this symposium—the seventh, by the way, that we've had across the country on this issue of 12th-grade academic preparedness. As I mentioned, Darv Winick established the 12th Grade Preparedness Commission that is hosting the symposium today. The Commission's job over the past few years has been to promote public discussion about the importance of academic preparedness and NAEP's work to measure and report on it.

We will be reporting today's discussion back to the full Governing Board when we meet in early August. This will help with the full Board's deliberations on the way forward with NAEP and 12th-grade preparedness. So the input you give us today—and there'll be a transcript of today's proceedings—is going to be very important to us. And this is a key time for the Board, the August meeting, as they've been deliberating about 12th-grade preparedness for quite awhile.

I now have the pleasure of introducing Governor Ronnie Musgrove, the Chair of the NAEP 12th Grade Preparedness Commission, the host of our symposium today. An educational leader and reformer as governor of Mississippi from 2000 through 2004, Governor Musgrove has continued as a strong proponent of public education. He has served in leadership roles on many boards and commissions, including the Southern Regional Education Board, SREB, the Southern Growth Policies Board, the National Assessment Governing Board, and the National Governors' Association. Please join me in welcoming Commissioner Chair Governor Ronnie Musgrove.

[Applause]

Governor Musgrove: Dave, thank you very much, and thank you all for being here this morning. I would like to take a Chair's point of personal privilege, if I could, to introduce at least one distinguished member in the audience, and we have a number. But I would like to introduce Dr. Melody Musgrove, who is the Director of the Office of Special Education, and who happens to be my wife. Would you stand up, Dr. Musgrove?

[Applause]

So I'm never too far away from education, you can rest assured, in whatever we may do.

You are education leaders who have a breadth of experience and perspective from a national vantage point. Representatives from K through 12 education and higher education, policymaking and legislative arenas, the business community, and the civil rights community. All who understand the critical importance to the individual student, and to our nation, of producing 12th graders who are well prepared academically for that next step, college and job training.

And you understand the necessity of having a trusted source to tell us whether we're succeeding or not. Are we producing well-

prepared people to help advance our nation in the global marketplace? Will our 12th graders be prepared to train to get a good job, to enter into college, and to participate effectively in society? Does our education system produce human capital with the right mix of knowledge and skills to advance the nation's economic vitality and national security? How can NAEP serve to answer these questions? All of this, we will explore today.

Let me now take a moment to introduce our distinguished panel, who are on the dais with me this morning. You have already heard from Dave Driscoll, the Chair of the Governing Board. To Dave's left is Greg Jones. Greg is the Commission Vice Chair. He's the President and retired CEO of State Farm General Insurance. He is Chairman of the California Business for Educational Excellence, former Chairman of the California Business Roundtable, and a former member of the California State Board of Education.

Next to Greg is Cornelia Orr, who is the Executive Director of the Governing Board. Cornelia will be presenting the NAEP research results today. Next to Cornelia, Michael Guerra is a Commission member, and was the Executive Director of the Secondary Schools of the National Catholic Educational Association, or NCEA, from 1982 to 2001. He was NCEA President from 2001 to 2005, and is a former Governing Board member. Michael will be moderating our second panel on Academic Preparedness for Job Training.

Mark Musick, who is sitting next to Michael, serves as an advisor to the commission. Not only was he a member of the Governing Board for 12 years, but we have him back as an advisor to the commission. He holds the James H. Quillen Chair of Excellence in Education in teaching at East Tennessee State University, is President Emeritus of the Southern Regional Education Board, and a former member and chair of the Governing Board, as has been noted. Mark will be moderating our first panel this morning on academic preparedness for college.

U.S. Secretary of Education Arne Duncan is not available to be here in person this morning, but wanted very much to address you all. Secretary Duncan has prepared a video address that we will turn to now.

Secretary Duncan: Hello. I'm Arne Duncan. The work of the National Assessment Governing Board is so critically important, and I'm sorry I can't participate in today's symposium in person. The President has set a goal for every student to graduate high school ready for

postsecondary education and training. And as all of you know, America used to be number one in the world in college completion, just a generation ago. Sadly today, we've actually dropped to number 12 among young adults. That's reality, and that's simply unacceptable.

The only way that we can promise all of our young people a genuine opportunity is through a world-class education. The problem is, a lot of children in places all across the country have not been getting that world-class education they need and deserve. For far too long, our school systems failed to tell students, families, and communities the truth. They said that kids were on track to be successful, when in reality they were not even close.

The truth was that in too many schools and systems, they set low standards for learning. In a school with 100 low-income kindergartners, 29 could expect to enroll in college, and only 9, 9 out of that original 100, could expect to actually graduate from college. For those who made it on to college, remediation rates were far too high. Our competitiveness as a nation was and is in danger. We have worked with states to set the goal of having all students graduating high school actually prepared for college and careers.

But we need to know whether we're actually reaching that goal. The nation needs a trusted measure that will tell us whether our 12th graders are actually ready for that next important step on their education journey. So I'm very pleased that the Governing Board is working to make 12th-grade NAEP into an indicator of academic preparedness. NAEP is simply an invaluable resource. It has integrity and it has credibility.

NAEP is also the only nationally representative measure of 12th-grade student achievement. So it is a vital tool to tell the country the truth about our students' academic preparedness for college and for job training. And I want to thank my friend David Driscoll and the Governing Board. And Governor Musgrove and the Commission for all the great hard work they're doing to make this a reality. And I also want to thank all of you in today's audience for joining in this important discussion and in the hard work ahead. Thank you so much.

Governor Musgrove: I want to echo Secretary Duncan in thanking all of you for joining us in the discussion today. Today's symposium is the last of seven we have been conducting across the country. The commission's job was to tell the story about the NAEP preparedness research.

And to listen to state and local leaders' reactions. We wanted to know what they thought about NAEP, about 12th-grade NAEP in particular, and whether they saw the preparedness work as meaningful and useful to them. As the research was being designed and conducted, we heard from leaders across the country. From K through 12 and post-secondary, from the business community, from the civil rights community, and from policymakers all across the country and across the political spectrum.

Everywhere we went, we heard a consistent message: NAEP is trusted and is credible, 12th-grade academic preparedness is important, and the work and the research NAEP is doing is worthwhile and potentially meaningful and useful to us across the country.

As a son of parents who never graduated from high school, I always listened and heard them say, "Make sure you get a good education. Do not forget that the road to success passes through the schoolhouse. And it's not one to just be parked on, but to absorb yourself and to really learn." That's the message that I heard from my parents. I think if we put that in today's terminology, we would simply say, "When you walk out of the 12th grade, be prepared. Be prepared for college, be prepared for the workforce."

That's the work and the talk that we will be having today. And that is why, as governor, that my main thrust of policy was education. Because it was the main lever of equality for all of us. It allowed all of us to reach the potential of success however we may have defined it. And that's why, to me, it's so important that the work we have done will continue, on behalf of all the children across the country. So today, we appreciate you being here, but we also want you to join in the discussion.

Here's our agenda for the morning. First, we will hear from Greg on the importance of preparedness from a business perspective. Cornelia will present the research. This will set the context for the two panels. The first panel will examine the research results for college, the usefulness, and policy implications. The second panel will discuss the issues and challenges in defining, measuring, and validating academic preparedness for job training. We will have some time for Q and A, concluding remarks, and adjournment at noon.

Everything this morning is being recorded, and a transcript of today's discussion will be up on the commission website in a few weeks. So for all of you who want to ask questions, to have input,

please do not give us a sermon this morning. It will be recorded for posterity. You don't want to go back and listen to it and say, "Why did I do that?" Okay. And that way it'll keep us focused. But we want to make sure that you do ask the questions that are pertinent and on your mind. Now I'd like to turn the podium over to Greg. Greg—

Greg Jones:

Okay. Thank you very much, Governor. I'm very pleased to be here. And pleased to have had the opportunity to work with Governor Musgrove. He has been a terrific chairman for this commission, and it's because of his vision and leadership that we are where we are today. We're having this seventh symposium, and we have advanced, I think, the work of the commission tremendously and helped in addressing this issue. So Governor Musgrove, it's been a privilege to serve with you, and thank you very much.

Dave Driscoll mentioned to you the commission that he served on that started us down this path. Its report is the slim blue publication in your packet. One of the problems they identified there was that too many students are graduating from high school with diplomas that may be meaningless. They thought that NAEP could serve as a truth teller, if you will, and that's sort of been our path and our mission.

Now, on this first slide, I wanted you to take a look at data reported by post-secondary institutions in a 2004 report from the National Center for Education Statistics. They indicated that 42 percent of public community college students, 28 percent of university students, and 20 percent of public four-year students need remedial courses, in reading, writing, and mathematics. Many states and postsecondary education institutions today are actually reporting similar, and now even higher percentages in some cases.

The cost to students and families is great in both money spent on non-credit remedial courses and in additional time required to finish their degree. And especially troubling is the fact that college students who need remediation are the most likely to drop out. And that minority students in particular are generally overrepresented in needing remediation in college.

Now this next slide points out that the cost of college remediation is great, to both our states and our country. Some estimates put it in the hundreds of millions of dollars, to teach students in college what frankly they should've learned in high school. The indirect costs are even more staggering than that, including dollars lost in

diminished income and annual earnings, reduced state and local taxes, and other costs as well. Now first, of course, this is a terrible waste of human potential, and it's also wasteful spending, particularly in a time when many states, like my own state of California, are facing very tight budgets for K through 12 and higher education.

Clearly, it's important to increase high school graduation rates. We all understand that and appreciate that. But frankly, just increasing the percentage of high school graduates is a bit of an empty promise or an empty goal if it is not accompanied by the goal of ensuring that the graduates are academically well prepared. And so we're trying to do both of those things. Because we know, and I know that you know, that education and training beyond high school have some very important economic implications, as this slide indicates.

Now overall, the most recent report from the Labor Department, which actually just came out last Friday, shows a direct relationship between unemployment and education, as seen here. The overall unemployment rate that was reported last week was 7.6 percent. Among those without a high school diploma, that unemployment rate is 10.7 percent. For those with a Bachelor's degree or higher, it's 3.9 percent.

There is a similar story to tell about education and earnings. You see on the right hand side of the slide that nationally, those with less than a high school diploma earn approximately 457 dollars a week, while their counterparts with a Bachelor's degree or higher earn more than two and a half times that, or about 1,189 dollars a week. Clearly a concern about our students' academic preparedness is not a mere rhetorical question. Our nation's position in the world, our global competitiveness, our security, and our economic wellbeing all hinge on it as well.

This next slide points out something that some of you may have seen in a report from the National Academy of Sciences called "Rising Above the Gathering Storm." And I think they say it well in their report. They talk about the competitive advantage that we have in the US. And that competitive advantage being in innovation and technology. Now as a businessman, this is particularly important to me, because to be globally competitive we need to educate 12th graders to—who are academically prepared for rigorous college work, and a rigorous college curriculum, and for job training as well.

When I was Chair of the California Business Roundtable, we commissioned a study from a California organization called the Public Policy Institute. Now its data confirmed what we, I guess intuitively, already knew to some degree. And that is that the California economy is increasingly dependent upon a highly educated workforce with the strong presence of technology in California.

And the conundrum is this: in California with its very diverse population, minorities, particularly Latinos and African Americans, will be the primary source of new entrants into the workforce. But these are the very same populations that are most underrepresented in college and in rigorous job training programs. And today, the most likely to be in remedial programs in college that we discussed earlier. And I can tell you that when I was with the California Business Roundtable, that CEOs in California would tell me all the time that there are thousands of jobs going unfulfilled because we can't find the applicants with the skills to fill them.

Now that's a problem not just for business, but for our state and for our national economy as well. Because for every job that goes unfilled, it means that there are goods and services that we can't deliver to the domestic and global markets, and therefore the dollars that we can't return to our economy.

Now we know from the NAEP data, that achievement gaps appear very early on. The nation's demography, not just in California where I come from, is becoming increasingly diverse.

In 1992, 73 percent of the nation's fourth graders were white. Today that number is 54 percent. And demographers tell us that trajectory will continue long into the future. Now obviously everyone in this room knows that today's fourth graders are tomorrow's leaders in business, in government, in education. They're tomorrow's scientists, tomorrow's engineers, tomorrow's poets, and artists. They're tomorrow's advanced technology workers. And frankly, they're the future caretakers of our democracy.

Clearly, the imperative to close achievement gaps, is not only to benefit those individual students, but ultimately, closing achievement gaps is an imperative essential to the future wellbeing for all of us in this country. And of course, while K through 12 education is important, again, I think those of us here understand this, it's no longer sufficient. Today, education and training beyond

high school is essential. It's the ticket in. As a policy matter, it's important to know whether our 12th graders have the knowledge and the skills to meet the challenge of today's college level academics and tomorrow's high-skilled careers.

But the challenge is this: how do we really know if our young people are academically prepared? How do we know that? Now let's think about what we do know. We have a lot of important indicators to tell us things today. These indicators can tell us things like what's the stock market—what are the daily changes in the stock market, we know that today. We know that the number of bushels of wheat that are produced every day. We know the price of gold everyday.

But I would have to say that, sadly, we cannot today answer the critical question—how well prepared academically are our 12th graders for college and for training for the good jobs? So we need a credible, trustworthy indicator to tell us that, but frankly none yet exist. And remarkably, there really is no generally accepted or understood common definition of preparedness. So to answer the question, "How are we going to know?" a program of research is being conducted to transform NAEP at the 12th-grade level in reading and math into indicators of academic preparedness for post-secondary education and training.

The first phase of that research, which has been going on now for a while, is finally completed. And I want to turn this over now to Cornelia to tell us about the 12th-grade preparedness research that has been done. So with that, Cornelia.

Cornelia Orr:

Thank you very much, Greg. I appreciate it. And thank you, Governor, for the invitation from the commission to do this for you today. I'm excited to be a part of this event. It's especially nice given all of this big group of education reformers that we're hearing from today. My challenge is to present four years' of research to you in 15 minutes or less. So I'm sure my real job is to frustrate everyone in the room. There will be some of you who want more information and some of you who want a lot less. "Okay, let's get to panels."

So I think I just want to say for those of you for whom you're seeking additional information, we do have a website with a lot of detail. There's this little flyer in your handout, and also slides 28 and 29 of your materials. And for those of you who want a lot less information, all I really have to offer is another cup of coffee. So you've heard about the work of the group of the Blue Ribbon

panel, so today I want to just talk about the three middle blocks on this particular slide.

Back in 2006, the board contracted with Achieve to review the content of NAEP and see if it was aligned well with expectations for college and career readiness. Achieve had that contract, and we did make some changes to the framework. And that was included on the 2009 assessment that I'll speak a little bit more about in a minute.

The second thing I want to point out is that there was a technical panel convened to advise us about the validity research that the board needed to conduct. And that is described in this document that you have in your materials. The members of that panel are listed on the page right before the Table of Contents. A great expert panel.

Since that report, we've been methodologically implementing this rigorous and comprehensive approach identified by the panel. Finally, I just want to mention that we first administered this newly revised framework in 2009. And fortunately, 11 courageous states agreed to participate and get state-level data on this. It was all voluntary. And we have recently, in 2013, just administered that assessment again, the 12th-grade assessment. And this time, we had 13 states, the original 11 plus 2 more, who participated.

Just to say, all of the results I'll be presenting today are based on the 2009 test administration. And we will continue the research using the 2013 data.

Before I go any further, though, I'd be remiss if I didn't acknowledge that there have been some challenges with this work. The United States higher education and job training enterprises are very, very complex. And making generalizations of this data is quite difficult. One of the complexities is the variation across and within higher education institutions and job training programs. These differences are present for both admissions and placement criteria that are being used in these institutions.

You heard Greg talk about a definition. And so the board really focused on establishing a definition that had a focus on academic preparedness. You also are probably aware there are many different conceptions of what readiness for college and career means. We are at least beginning to have this conversation about them, and so the board therefore adopted a definition that would guide our research. It was focused on academic preparedness to

qualify, without remediation, for placement into entry-level credit-bearing college courses and entry into job training programs without remediation.

So I want to focus later on those definitions a little bit more. We did not assume that these two things were the same, that is, academic preparedness for college and academic preparedness for job training. But we conducted research that we hoped would provide more information. We did assume some things though. That the education system is attempting to prepare students for their future.

This slide describes the five types of studies we conducted as part of the research.

We've been involved in over 30 studies. I will not talk about them individually today. And since this slide is quite explanatory, I won't read it to you either. But I will say that when we talk about work in the college sector, we'll be spending most of our time looking at the findings from the content comparison studies and from the statistical linking studies. For the job training sector, we'll spend some time in thinking about the content comparison studies, some standard setting that we did with job trainers, and also an analysis of the course content materials that we've conducted.

As you will see later in this presentation, the results from this research are quite promising. So I want to just spend a minute just looking at the definition. I've already mentioned these preliminary things—placement, credit-bearing courses in college, without remediation. But just a few additional things. We did not focus on the non-academic aspects of readiness. For example motivation or perseverance. We only focused on academic preparedness. We also did not focus on admissions criteria. We just sort of skipped over that because the selectivity of institutions varies greatly across the country. And we did not focus on success or completion of courses or coursework.

Because the NAEP scores represent the achievement of all 12th graders, our goal is something of a challenge—that is, to describe the typical student in the typical college. So the content comparison we did for colleges focused primarily on these three assessments—the ACT, the SAT, and the Accuplacer. We found that the content on NAEP is similar to the content of these tests. And the content of these tests is generally covered by NAEP. However, there are some ways that NAEP differs. It's generally broader. And not only was it broader, but it covers different kinds

of questions, the cognitive rigor is quite different, the reading texts are quite different on NAEP, and also the weighting and coverage of specific content in mathematics is quite different.

So that's all of that group of studies. I'm doing pretty good, right? So the statistical linking studies were next. And I want to focus our discussion today on our correlations and linking with the National SAT database. So what we did was perform statistical linking on scores on the same sets of students who took NAEP and the SAT. So if you're statistically inclined—we have data on NAEP, students who took NAEP, and also who took the SAT. So we have scores on both assessments for this entire pool of students.

As you can see, the correlation between NAEP mathematics and the SAT was quite high. The correlation for NAEP reading and the SAT was moderate, but it's typical of the size of correlations for much of the research on reading assessments. In terms of what we found, we found that the NAEP proficient score was approximately equal to the college readiness benchmarks identified by the College Board.

So right now, I'm going to just talk about the college readiness benchmarks identified by the SAT and the ACT, I'm not going to go into their definitions or their methodology. But it's enough for you to know that they use different definitions and different ones from the one we used. So when we're comparing these benchmarks, I don't want you to lose sight of the fact that the definitions are slightly different.

So I have two additional studies to talk to you about today. I have data from the NAEP high school transcript study that's conducted by NCES as a follow on to the NAEP activities. We've got data from 2005 and 2009. And these results do confirm the SAT-NAEP linking study. We also have data from a study conducted through the Florida Longitudinal Data System that links NAEP and ACT, SAT, but also their first year college GPA, placement in remedial courses, and also their college readiness benchmarks from ACT and SAT.

Now I'm going to spend a lot of time on this slide. Because I think if you don't understand this information you'll have difficulty understanding all of the research. And I think it's pretty easy to see when I explain it to you.. This left axis is the NAEP scale, so if you're looking on that slide over there, I don't know if my marker will show it. But that left axis is the NAEP scale. And the colored

bars that you're looking at, that run horizontally across the page, represent the NAEP achievement levels in mathematics.

So you can see that green dotted line that runs across the middle of the page. That's actually the NAEP Proficient cut point. So what you have in the little white circles, you can probably see this better on your printouts that you have, are the NAEP average scores for that particular group of students. So the one that's showing on the screen right now shows for students who scored at the college readiness benchmark of the SAT, that is 500, their NAEP score was 163. So what's showing is the NAEP score and what will change is the group that we're looking at. So this is the group of students who scored 500 on the SAT and their NAEP score was 163.

And so the whiskers on this plot are the interquartile ranges, with the lower one being the 25th percentile and the upper one being the 75th percentile. So you can see there's some variation in that data. Now I want to bring in additional information. This is showing the SAT data for the group that was taken from the high school transcript study. The first slide is 2005, and then we're looking at the SAT data. Now to the right side of the slide, that was taken from the Florida data. So all students in Florida who had taken the SAT and scored at the College Board College Readiness Benchmark scored 160 on NAEP. Think you've got it? Ready to go faster? Okay.

Now let's look at what we've learned about the ACT. From the high school transcripts of these students, we have two scores there that show the average scores for the NAEP. And then I'm going to go to the Florida data again for the ACT score. And I'm going to pause just a minute and spend a little bit more time. In the Florida database, we have collected longitudinal data about what happened with students after they took NAEP. And so the first data element I'm going to show you is their first year GPA.

So this is the average NAEP score for students who had a first year GPA greater than or equal to 2.76, or a B-. The next one is the NAEP score for students who took no remedial coursework in their college in Florida. And the final one is the NAEP score for those students who had to take a remedial class in mathematics. This data is mathematics. I'll show you a reading graph a little bit later. Now just remember, this bottom row of data are for students who scored exactly at the college readiness benchmark on the ACT. If you were to look at all the students who scored at or above that

college readiness benchmark, this upper row displays their average NAEP scores.

Alright. I think you've got it. So let's look at reading and we'll go just a little bit faster here. So we don't have the high school transcript study data here because the high school transcript study is only done for math and science courses. So we begin with the SAT and then we add in the ACT from Florida and the SAT data from Florida. We can also look at the first year GPA data, the no remediation group, and then those who took remedial work. And for those who scored at or above, these are the data on that chart.

So the data are read in exactly the same way. And you can use those graphs that you have at your table to keep referring to that. So what are our key takeaways? Obviously the content is very similar and students that—the students on which we had data, across content assessments, looked very similar. You can look at those. We concluded that all students scoring at or above proficient are academically prepared for college. So we could conclude that.

We have to also conclude that reading and mathematics are different on this point, and that some students who fall below the NAEP proficient score are going to be successful in college. But it's also true that some who score above may not. Perhaps those are due to some of those other reasons we mentioned earlier. Now I want to switch, because I know my time is getting short, and talk about job training. Job training, the definition came out just the same as the reading one, except it's entering training without remediation.

However, I do want to point out that we picked training programs for which there was a significant amount of training required. That is two months or more. And we did not want those courses to lead to a terminal degree. So for example, you might consider an RN program, but most of those lead to a BA. So we would not have chosen that. We didn't assume that the academic preparedness was the same for college and job training. And we didn't look at success or completion of these courses. We—in terms of the content comparisons to assessment data, you probably already know there's a wide variety of diversity in the skills in the job market. But we only have WorkKeys as an assessment to look at.

So if you know anything about this, you will see that the findings are very similar. NAEP again is much broader. But the WorkKeys is almost exclusively focused on job context, and NAEP is not. So we chose five occupations, and as these come on the screen I'll just

let you look at those. They occupations with large numbers of positions in the economy that were quite stable that have the potential for growth. And they represented a range of job training areas that require this training beyond high school, and also have civilian and military counterparts. We wanted jobs that had potential for job growth as well. So that's why those were chosen.

We did bring together a group of trainers for each occupational area. So we held separate standard setting panels where we asked them, divided into their groups of reading and mathematics, "What are the knowledge and skills that are needed for your work? And where are those knowledge and skills located on the NAEP scale?" They did identify some areas there. But this is a very hard task. It was very revealing though. We did conduct what I'll call replicated panels. So, for example, in mathematics for LPNs, we had two groups.

One of the findings of this work is the replicate panel data didn't really match. They had different opinions throughout this work. And they said that many of the NAEP 12th-grade items were not required. The bottom line is the results did not support the conclusion that academic preparedness for job training is the same as for college. These findings led us to look more in-depth at what are the course requirements in job training programs.

And so we have conducted a large set of studies of course artifacts from job training programs. You can see there are 122 institutions, 85 courses, and 85 courses for math and 80 courses for reading. The one conclusion I'll draw your attention to is that most of the course prerequisites are measured by NAEP. But they represented a very small proportion of the NAEP framework. So these last two statistics are quite shocking. 64 to 78 percent of the NAEP objectives in mathematics, and 16 to 68 percent in reading, were not evident in any course materials that we looked at.

The key takeaways here are much like I just stated about the content analysis, that we found no evidence that preparedness for training was equal to preparedness for college. That said however, if a student is academically prepared for college, they most likely are prepared for job training. A final observation—designing studies to examine the prerequisites for job training is very challenging work. We will keep it up. I did not talk about these pieces of work that we've done, and I won't do that, Governor.

I do want to show this slide because the technical panel said, and this is sort of the charge to our panel discussion today, take all of

the findings as a collection in making conclusions about reporting on the preparedness of our nation's youth. I hope the panels will enlighten us, and I will just click through these last slides quickly, Governor, and turn it back to you.

Governor Musgrove: Cornelia, thank you. Now one question as I look across the room—did she clarify things? Or did she make it as clear as mud? But before we look at the panel and listen to the panel, is there a burning question? Do any of you have anything that stands out that you feel like you need to ask before we hear the panel? If so, I will take that question. Or I will refer you to someone who can answer the question. And if not, then we'll move along, and then when we go through the panel, there'll be time for questions and answers there.

We are excited to have a panel of eminent education leaders for our first panel on NAEP and academic preparedness for college. As I call your name, please come up to the seating area we have for you on the stage. First is Checker Finn. He's President of the Thomas B. Fordham Foundation and Thomas B. Fordham Institute. From 1985 to 1988, he served as Assistant Secretary for Research and Improvement and Counselor to the Secretary of Education. From 1988 to 1996, Dr. Finn served on the National Assessment Governing Board, including two years as Chair.

Glenda Glover is President of Tennessee State University. She was the former Dean of the College of Business at Jackson State University in Jackson, Mississippi, where she led the implementation of the nation's only PhD in Business at a historically black college or university. She is a certified public accountant, an attorney, and is one of two African American women to hold the PhD-CPA-JD combination in the nation.

Mitchell Chester is the Commissioner of Elementary and Secondary Education for Massachusetts. He also is the Chair of the Governing Board for the PARCC Assessment Consortium. Dr. Chester was a panelist at our symposium in Boston in October of 2011. We are pleased he can join us again today.

And Carmel Martin is the Executive Vice President for Policy at the Center for American Progress. She recently served as Assistant Secretary for Planning, Evaluation, and Policy Development in the Department of Education. She served as General Counsel and Deputy Staff Director for the late Senator Edward Kennedy when he was Chairman of the Health, Education, Labor, and Pensions Committee. Through her years in Congress, she has worked on

legislation related to education, welfare, healthcare, and other issues of national importance.

And our first panel this morning will be moderated by Mark Musick. Mark, I'll turn it over to you.

Mark Musick:

Thank you, Governor. To tell the country the truth. To tell the country the truth. NAEP is a vital tool to tell the country the truth. We just heard Secretary Duncan say that. A decade ago, or thereabouts, a NAEP panel said, "America needs to know how well prepared its high school seniors are. Only NAEP can provide this information, and it is necessary for our nation's wellbeing that it be provided." I suspect the first part of that sentence is one we could get a lot of agreement on. America needs to know how well prepared its high school seniors are. We might have some discussion on whether only NAEP can provide that. And we will here in a moment.

You heard Greg a moment ago refer to NAEP as a "truth teller." As David Driscoll said, "It's great to be in a room where you don't have to worry about explaining all of these acronyms." I look around, I see Peggy Carr, I know everything is great in the world. She knows—this is a room where we can have a discussion without having to stop and explain some things. But I would say to you, regardless of what you think about how NAEP or the Governing Board, the outcomes over the years, trying to find the truth was and I'm sure is today, is something you would be impressed with the process. With how much effort goes in, not to trying to say the truth as I see it or we see it, but really trying to discover it.

Now truth however is a little like these Georgia Vidalia onions that we like to sell in Georgia. You sometimes have to peel it off one piece at a time.

Chester Finn:

They don't make you cry, do they?

Mark Musick:

They don't—well sometimes they do. Sometimes the truth makes you cry, and I think that's part of why we're here today. We have a number of questions we're going to try to work through here quickly, and then the Governor will lead a question and response time. But Checker, you have a unique perspective on this. May 1990, you were chairing the National Assessment Governing Board when the achievement levels were approved. Which was an effort to "tell the truth" in a different kind of way. A very controversial thing.

We're here today trying to relate those achievement levels to preparedness, academic preparedness. So I know you're going to talk about it anyway, so let's just start by you reflecting on what has happened in those 23 years—is that possible—since the achievement levels were—

Chester Finn:

Sometimes you have to wait a long time to be vindicated. And this is actually in many ways very gratifying on multiple fronts. I mean, when Congress created the board in '88, and reauthorized NAEP, it almost offhandedly empowered the board to set achievement levels without anybody having a clue what that meant. Or whether it was really going to happen, or what they would be, or how many of them there would be, or any of the other things that had to be worked out over those couple of years.

And the board decided to set achievement levels. And the mantra was, "How good is good enough?" What should NAEP scores be reported in relation to? I mean, it's one thing to have a 500-point scale, but if it doesn't relate to anything at all that anybody can connect to in the education system or parents or policymakers, then what good are these numbers? To know that you got a 302 on NAEP?

And since it doesn't report on individuals anyway, it wouldn't have told you how you're doing or your kid is doing. It might tell you how your state is doing at grades 4, 8, and 12. And so we had many achievement levels to set, we took all sorts of advice. In the end, I think probably the most convincing advice was that of the late Albert Shanker, who said, "Don't just set one. It'll either be too low or too high." And we ended up with three: basic, proficient, and advanced. Whether we picked the right words is arguable, but nevertheless those are the words we picked.

And proficient was in the—clearly in the mind of the Board meant to be the level that everyone should aspire to attain. It was the aspirational level. Advanced was supposed to be "world-class," whatever that meant. Basic was supposed to show that you were literate and could make your way through the subway system. But proficient was to be the target. And we set a high—we used a lot of words to describe what we meant by "proficient," but it was meant to be a fairly high bar that all kids should attain.

And this language proficient obviously is echoed through the federal legislation, ESEA, No Child Left Behind, and so on. But immediately, the whole achievement level thing came under attack.

What right did the board have to set it? What—is there any validity to any of these lines across the scale? What does it relate to anything in the real world? A bunch of so-called experts at one point declared the entire achievement level process “fundamentally flawed.”

In technical terms, it was unclear how to apply levels to the test questions. We ended up with something that only test people have ever heard of called the modified Angoff Method for actually determining sort of which questions on the test were going to be at what point on the—how they were going to relate to the achievement levels. And there was all sorts of controversy about these achievement levels. And the recurrent theme, of course, was that proficient was way too high. That it was sort of naively ambitious and unrealistically optimistic about what kids in school should be expected to do.

And therefore, a lot of people said, “Well, you know, basic is really what we need to aspire to as a country.” And so 20 years later, 23 years later, when the phrase “college and career readiness” is on everybody’s lips, and it dominates the Common Core argument, dominates a whole lot of concern about international competitiveness, dominates what the Gates Foundation thinks its spending money on, dominates the way the Secretary of Education is talking about what the country needs, lo and behold, the definition of, whether you call it “preparedness” or “readiness,” does the college and career readiness have anything to do with NAEP?

Excellent, important question, and all this research that we’ve been hearing about was dedicated to figuring this out. And I’ve got to say, the pretty clear conclusion one reaches from a complicated slide that Cornelia put up there a minute ago is that NAEP proficient comes pretty darn close to equaling college preparedness. And it’s not therefore too ambitious, and it’s not therefore not valid in relation to anything in the real world. It is in fact a pretty good barometer of college preparedness.

Workforce is—that’s the next panel’s problem. And obviously a huge issue is whether the phrase “college and career ready” is a meaningful phrase when applied to American education and education policy. That needs discussion. But on the matter of college readiness, I think NAEP proficient is looking pretty gratifying, if I may say 23 years later.

Mark Musick:

And part of the reason I would say, Checker, this is not just an

ancient history discussion, is that some of this same discussions today about trying to put a stake in the ground about academic preparedness go back to what the National Assessment Governing Board was dealing with at that time about setting the achievement levels.

Chester Finn: And are facing, too, the assessment consortia that are coming up with new common core assessments which have to say, “Where is their stake in the ground going to be?”

Mark Musick: Right, right. Very good. Well, as I said, we have several questions which we’re going to kind of work our way through. Cornelia, and I’m sure we were all listening carefully when she said she hoped the panel enlightens us. So we both have been challenged by the Secretary to tell the truth, and by Cornelia to enlighten everyone. So let’s see what we can do here. I would say you do not—a good panel, all panelists do not have to answer every question, okay?

So if you have—I attended a fair number of faculty meetings and Glenda, as you probably know, you know, what is the old saying? “Everything hasn’t been said until everyone has said it” at a faculty meeting. But we don’t have to—once we’ve covered these questions, because we want to make sure there is time for questions and comments from everyone in the room. The research, you’ve heard about the research. Have we covered the waterfront? Thirty studies have been done. More are planned. Is there anything obvious, obscure, or otherwise you would say, well, something else could be done or should be done, feasible to be done? Speak up. And I can see an answer forming on your—

Glenda Glover: Well, good morning. I want to say first thank you. Thank you for the invitation, and especially to Governor Musgrove, whom I worked with in Mississippi, and loved and respect his leadership. And happy to see that commitment is still continuing in education. To cover the waterfront, well I think these are some of the most exciting times in education. Because we’re now looking at the Common Core, which is where we’re headed. It represents a national movement that’s focused on academic success of all children.

And I haven’t said that, I think we may want to look at some qualitative measures in the future. I mean, I know we’re quantitatively doing it as of this day, but I think we could expand out in two ways. One, look at qualitative measures well beyond SAT and ACT. Because other countries like South Africa have developed a whole battery of tests that, for placing students, using

qualitative measures, as well as quantitative, leadership skills, et cetera, et cetera. Because in some populations, that may be necessary.

And secondly, I think we may want to look at the schools themselves. Because we're fixing the students, but we're not fixing the schools. And the schools are not academically prepared. Many of them are not. So I think it is two more angles we could probably take a look at if we wanted to do some expansion. But over all, did we cover the waterfront? I think based on the goals and where we are now, I think we're well on the way and we did. Because we're where we think we're—I see where we're headed, and I think we're getting there on the tracks that we are on.

Mark Musick: Okay.

Mitchell Chester: Well, I'm a little concerned, Checker, because I didn't hit the Basic level this morning. I tried to use the Metro to get over here, and—

[Laughter]

somehow it wouldn't let me out once I got to the L'Enfant Plaza stop. So I—you're dealing with someone who's below the basic mark on this panel. Well, you know, to Brenda's comments, I mean, we are focused on academic preparedness, and every time I get into this conversation, I get a lot of feedback that being ready for college is a lot more than academic preparedness. But I would argue that academic preparedness is necessary. It may not be sufficient, but it's necessary. If you're not prepared academically, you're not going to make it.

I like the notion of fixing schools, not kids. And when I think about this territory, I think about what can we leverage policy wise to change the—to solve the problem that we're talking about here. We've got too many young people who do make it through high school, and show up on college campuses and find out that, at least in the judgment of the colleges, they're not ready for college level credit-bearing work. In Massachusetts, that's almost 40 percent of our public school graduates who matriculate in our higher ed campuses.

Very similar to the slide that was shown earlier in the presentation. They end up being placed in at least one non-credit-bearing course. My guess is that very few of them expected that. My guess is most of them expected that they were ready. They did well on our exit exam, which we give in 10th grade. The vast majority of our students score at our proficient level. And they've graduated high

school. But despite that, they show up not ready for college. So hence the work of the two assessment consortia. And I'll try and draw that in.

Because there's a fundamental difference in the way that the assessment consortia, and I have to put this disclaimer up front, because I know the PARCC work very well, I don't know the Smarter Balanced work anywhere near as well. Mainly because I'm involved in the PARCC work. But the PARCC work was designed to be explicit in measuring college readiness. Something that I suspect is that NAEP was not originally designed as an assessment of college readiness. Just as the legacy assessment in Massachusetts, the MCAS Assessment was not designed to be an assessment of college readiness.

So here we have some projects that are starting with a goal in mind of providing some clear signals to parents and students and educators about whether or not students are on track for success at the next level. Success at the next level in high school being defined as, "Are you ready for what employers and what colleges expect of you?" And the idea here is to set some targets, some benchmarks, some scores that are clear delineators. So how do we define clear delineators in the PARCC project?

In the PARCC project, we're actually looking at likelihood statistics that if you hit this benchmark, you've got a pretty good likelihood, and I forget the specifics. Jeff Nellhaus is here, and knows this stuff inside and out. You're 75 percent likely to get a C or better in an entry-level college course. And this is about entry-level college courses, in terms of these standards. Now the debate that went on in the PARCC project, and continues to go on, is do you err on the side of, in the statistical jargon, making false negatives or false positives?

So the challenge here that most of us have seen is that most of our students are getting false positive signals from their high school experience. They're being told they're ready for the next level, and hence the 40 percent show up not ready for a credit-bearing course. And we don't think they're getting really clear signals about the fact that they're not ready. And so we're trying to right that in the PARCC project by making sure that in the standards and the signals that we deliver to students as they move from the elementary to the middle grades, middle grades to the high school, are in fact pretty valid and reliable kinds of signals about the likelihood that when you do matriculate at college, you are in fact going to be ready for that entry level experience.

Very different design of the test to begin with. So that brings us to NAEP. Because first of all, NAEP is not going to provide signals to individual students or parents. It's not going to provide signals to individual schools. So to Glenda's comment, how do we make sure we're fixing schools? And not just letting kids carry the burden of not being ready? And that's where I think we need to triangulate the evidence that comes from these multiple assessment programs. From the PARCC and Smarter Balanced, which are very deliberately targeted at the Common Core State Standards.

From NAEP, and one of the things that NAEP contributes is it does provide us with some content specific information, performance information about what it means to score at this level as opposed to this level. What are the kinds of things you can and can't do. And it's by feeding that kind of information, that kind of curricula oriented, performance based oriented information back to states, districts, schools, that we can in fact fix schools and make sure that our course of study is aligned with what it takes to deliver to a young person the readiness for what the higher ed world and what employers are expecting.

Mark Musick:

Good, good. Carmel? Careful there.

Carmel Martin:

I'd just also like to respond to the question, and start by thanking the Governor and my good friend David Driscoll for bringing us together and their leadership around this work. I believe there's no more important question in the education sector today than, "What do children need to know to be successful?" I'm sure Tony Carnevale will speak more to this in the next panel, but I think one stat from his research that really brings home the importance of this work is the fact that by 2020, we're going to be about five million short in terms of workers who are prepared for the jobs of 2020, because they do not have a post-secondary education.

So I think this is an incredibly important topic. In terms of what I'd like to see next, which I interpret your question to be—I really appreciate the distinction between academic readiness and preparation. So I think there's lots more we could do to go beyond academic readiness to ask, "Well, what do kids need to be prepared to be successful in college?" And that could mean things like motivation, but it could also mean things like critical thinking skills. And I am not sure that the study confirms that NAEP is testing those skills.

The average worker is going to change jobs every 4.4 years, I think is the average. So we need to teach children not just to be successful in college, but to be lifelong learners. So I think we need to teach them not just content but the skill set. I know this was a focus for both consortia under the common core project. So I'm left with the question, "What do we know about NAEP in that regard?"

The other thing that I would like to see more of, and I think the study got to this by looking at the Florida Longitudinal data, I think it is super important to benchmark NAEP against ACT and SAT, because they are the tests that we use in our society to determine college readiness. But the high rate of remediation shows us that maybe those tests aren't exactly getting it right either. So to say that NAEP is aligned with those two tests is not enough for me.

I mean, it's important information. I think it's great. I think all three assessment systems need to be constantly asking the next, more important question. Not are they aligned with each other, but if people are scoring well or at the proficiency level for those assessments or college readiness for those assessments, are they going to college? Are they taking college level courses right away? And are they successful in those courses?

So I guess I'm left wanting, in terms of wanting to have more information about NAEP, in terms of what happens to the kids after they test them. And [Commissioner of Education Statistics] Jack Buckley might tell me that we can't test that yet because we don't have the longitudinal data systems in place to do it, but I know this was a big priority for the Secretary. In our era, the very first thing we did when we put the state stabilization money out on the street was to say to states, and every state said they would do this, with the exception of South Carolina, that they would put in place state longitudinal data systems that tracked their students to see whether they went on to college, and whether they completed at least one year of college level course work.

So the purpose of getting that data was to really answer the question about college readiness, which I don't think you get by merely comparing one test to other tests.

Chester Finn:

Need to get two more facts on the table in the course of this conversation. If NAEP Proficient is roughly college preparedness, in an academic sense, let's remind ourselves that only 30-some percent of in-school 12th graders are reaching the NAEP proficient

level today. And let us also remind ourselves that while there have been gains in NAEP results in grades 4 and 8 over the last 15 years or so, there've been essentially no gains in 12th-grade NAEP over the last 10 or 15 years.

So not only are we in the 30 percent, 30-some percent range of NAEP Proficient in current high school graduates, or in-school graduates, we're also not changing very much. I'm not sure there's a single state in the country—I think there isn't actually, that has its high school exit expectations anywhere near NAEP Proficient. And Massachusetts, as Mitchell just said, didn't do that with its well-regarded high school exit expectations. How is this going to work under the common core assessments is a very difficult challenging question for the country.

Mark Musick: You know—go ahead, Glenda.

Glenda Glover: I was going to say, and we have to go beyond the ACT and the SAT.

Because if we don't, we're where we've always been. And I don't want to get into the literature argument about that we only have the prediction for the first year only. It doesn't predict success in college. It only does their first year. So we need to look at a holistic approach to this, to go beyond it by relying on another approach to predicting academic performance.

In Tennessee, the average ACT score is 19. At Tennessee State, it's unfortunately 17. But do you produce the best and the brightest here? Yes. So you need—I think it's a great start. But we have to go beyond that. The standardized indicators should be only one part of a larger, holistic effort that will define academic preparedness. And these standardized indicators will identify a mastery of content, but without a different, a larger approach, we still don't know, we don't get the whole picture. So one size does not fit all.

Mitchell Chester: Just to pick up on Checker's comment, so I don't think we're ready to require that a student be academically prepared. So I'm not even going to take on the non-academic in this conversation. Be academically prepared, in order for high school, I'm sorry, for college, in order to exit high school. If we did that, we would have tremendous failure rates, right? I think the interim step is the step of the assessment projects, which is to give to students and their families some honest information as they move through their

elementary and secondary career, about whether they're on track to be ready for college or employers.

And right now, part of the argument I'm making is that we don't give kids honest information about that. And so there will be, in my mind, the right policy framework for today. And we may have a different conversation ten years from now or five years from now, when we identify, as we identify this college and career ready benchmark. What it takes to get a high school diploma, to get out of high school, is going to be somewhere below that.

The challenge for us, from a policy perspective, is to give all kids and parents information about whether they're here or whether they're somewhere below. And what that gap is, and what they can do about it. Give them that information soon enough in their schooling experience so that they can act on it. So it's not simply a postmortem on their elementary and secondary experience.

Chester Finn: This is equivalent, of course, to saying that we're going to have remediation forever, and now you're going to know in 4th grade whether you'll do remedial college courses.

Carmel Martin: I don't think that's fair, because I think that assumes that when parents and students get that information, and school systems, frankly, that they're not going to do more to change the results. Right? I mean, I think the question is, what Mitch was saying, is in the interim you can't put the burden on the student and say, "If you don't meet this mark, you don't get to advance forward." Versus giving the information to the parent, to the student, to the system so that they can do more to make sure that fewer and fewer children don't reach the mark.

Mitchell Chester: I mean, and there's another way to get at remediation forever. Colleges shouldn't take students if they're not ready. Let's—I mean, I'm just pushing this issue in ways that I don't necessarily believe. But to press the point that you made.

Mark Musick: And another way of turning it around, the remediation forever might be more like the airplane down the runway. You know at 300 yards what your speed is, and what your speed needs to be at 300 yards. And at 400 yards. You know, and you're getting that feedback along the way. Which is not necessarily remedial, but if you're leaning on the throttle or whatever—

Chester Finn: A very timely analogy.

Mark Musick: We're talking about taking off, not trajectory for landing. Mitchell, you used the term "all students." I want to get to another question that we want to get your feedback on. As you heard Cornelia say, and you've seen the materials, NAEP, this research study was trying to get at the typical student in the typical college. And I know we can all agree, well, there is no typical student and no typical college. But broad access, four-year institutions and degree credit work at community colleges was sort of the, and that tried to track the ACT and SAT. Does that—realizing you can't get all, or realizing there is no typical, is that good enough? Does that seem about right? Or is there something missing in that definition of typical?

Mitchell Chester: It's—yeah. Right. I mean, it's really messy, as some of the previous speakers have said, to define what it means to be college ready. Right? Colleges are all over the place, in terms of what they're looking for and what they're expecting. I do think we need a pretty broad definition that includes the four-year colleges. You know, that includes the two-year colleges. You know, the breakdown on the remediation stuff is brutal in the two-year colleges.

So in Massachusetts, about two-thirds of the students who matriculate in two-year colleges get placed in at least one non-credit-bearing course. And that figure's not far off from the national figures. So those students are showing up not ready for credit-bearing courses.

Mark Musick: Does that include the older students, as well? Or—

Mitchell Chester: No. That's—

Mark Musick: Those are the 18 and 19 year olds?

Mitchell Chester: Recent high school graduates. And so we also, I mean, one of the challenges with this college and career ready notion, and one of the challenges with the Common Core State Standards is where should you be aiming? Right? So we've talked about entry-level credit-bearing courses. And one of the things that folks learned through this exercise is that's often not very aspirational. What an entry-level, credit-bearing course in a lot of colleges represents is not a very high bar.

And so we need to give students who want to go down a STEM career pathway, an engineer, a chemist, et cetera, that that's—we need to give those students information about what they need to do

to be ready for a college program in those kinds of areas. Which is a lot more than this entry level standard. But we're just falling short right now of providing students at that entry-level threshold with good information, again, early enough in their career so that they can act on that.

Mark Musick: And I know that this is not an—well, I guess it is an academic question for you. Because as president of an institution, for you—this is up close and personal.

Glenda Glover: Well I'm looking at this remediation conversation that we will continue to have, because the expense of remediation is a zero sum cost, and we know it. But to me, that came from the special ed world. We need a new paradigm now. And I think we should focus more on the developmental learning. Developmental learning would help because we could put a student in a three-hour course, in a credit-bearing course, and not have to have them waste Pell Grant money and time and energy on remedial learning.

And we could have developmental courses, you know, in that way you have some co-teaching and—here's the student. Let's see where is the student now? I, as a teacher, will meet that student where the student is and still develop learning models that will let that student catch up and keep up. Because you have to have some tutoring, you have to have co-teaching, where you have someone to assist you. But you don't want to leave the student behind and have them—because there's a big problem in historically black colleges. Because, let's say a student has to be remediated. And they go to a community college for two years.

The Pell Grant only lasts for six years. So they've used up two years of their Pell Grant money. The average student does not finish college in four years. So that puts the students—brings the student loan debt you have got to get. Because once they've used up all their Pell Grant money, then they go to the student loan money. And it's a spiral of debt that we put them in. So I think we have to have some better strategies.

If I'm a math teacher, and I know that students need algebra basics, can I teach them algebra, multiplication and division at the same time and still keep them up with the other courses? So you need some developmental learning techniques, as opposed to always dumping a student in remedial courses.

Chester Finn: Glenda's dealing with the challenges that colleges face, with the

products of today's K-12 system. And those are indisputable. I'm trying to think about tomorrow's K-12 system, and what we should expect of kids before they get out of it. And I'm hearing, I think both Mitchell and Carmel take what I might even call a marketplace approach, a Republican approach to solving the problem. Which is to say provide information to the family and then the burden is on them to measure up if they want to. But we're not going to cause the system to require of the kids that you be on this trajectory from 4th grade to 5th grade to 6th grade to 12th-grade college readiness.

Glenda Glover: They'll trickle down or trickle up.

Mitchell Chester: Well, so, you know, it's a good point to push. Right? And I mentioned John Easton before we started. I'd love to see a policy study on all the states that are implementing these 3rd and 4th grade reading threshold requirements. Is that going to result in better reading occurring? Or is that just going to result in a lot of kids being held back and in trouble as they go forward?

I am advocating giving the consumer, the clients that assist them better information. Absolutely. I'm not—I don't want to put all this on their backs. I mean, I also have accountability structures for schools and districts about their success in closing the gap in the number of students who are in fact college and career ready and doing better by that. So I'm not at all advocating only putting this on the backs of students and their families by any means. In my mind, an appropriate approach is a balance where both individuals in the system and the system itself have stakes in the same outcomes.

Carmel Martin: Yeah. And I would agree with that. I definitely—I was saying the opposite, I think, Checker, of what you were saying. It's a market based approach, but for me the consumer isn't just the student and the family, it's the teachers, it's the system heads. But if the system has not, prior to now, been set up with the goal of college readiness and put in place the resources necessary to help students to get to college ready, to say to the student, "Well now it's on you that you didn't reach it," I mean, I think there's some innovative policy solutions around, as Mitch said, if a student's not ready at the end of high school for college, to provide them the ability to catch up before they go on to college.

But I guess I'm reacting to, in some European systems, if a student doesn't meet a certain mark by age 16, they are relegated to vocational, not CTE, but vocational type jobs. So I guess I—the

civil rights lawyer in me is just nervous about it being on the individual as opposed to on the system to get the individual there.

Mark Musick: Want to change gears just a bit, and you may have a comment or you may not. One of the things we've heard from Cornelia and earlier was about the statistics we saw, the correlation. I don't want to get into imputation and plausible values or whatever, but I'm sure there are folks in the group who would love it, who would be comfortable with that. But the correlation numbers we saw were pretty darn high, pretty darn impressive. So did you have—Checker, I know you don't live in the correlation world everyday, but you spend time—

Chester Finn: Today I'm just living in the vindication world.

Mark Musick: So any comments?

Mitchell Chester: Yeah. One thought I had that is very interesting. I mean just to—but to build on Carmel's point, given a score on a SAT demonstrates some notion of likelihood, but far from a guarantee that you're ready. Right? Even on the academic side of the ledger. And when I think about, for example where common core went in terms of putting a premium on writing in response to text, based on feedback both from higher ed and from employers. Unclear to me that NAEP does a lot of that kind of writing that the common core calls for, or the extent to which SAT does at this point, as well. Or ACT.

So there may be some content construct validity components here that are less than trivial about getting a strong bead on whether or not a young person is likely prepared for college level work.

Glenda Glover: I had a slightly different twist on that. The correlations are high, but I mean, we look at NAEP, we look at ACT and SAT, but in my mind, we have to be careful because we may be testing the—we're looking at the same logic, we're playing off the same logic. So the tests are, they're similar but they can be distinguished. But if we're, if the test works off the same logic, and the content is so similar to relevant tests, and you know, I just—the students who do well on the ACT and SAT will also do well on NAEP. So, I—the premise—so we testing the premise of what they've been exposed to, on each test. And it's going to correlate well since it follows that.

Mark Musick: And if we all agree with each other, we may not be getting at the

truth, shall we say. Let's take our last few minutes and sort of say, "Well, so what?" Checker, we started saying that when these achievement levels were set a long time ago, they set off a lot of discussion and if NAEP, if the Governing Board, pushes forward on reporting on academic preparedness, how—do you have ideas about how—what is it that parents, teachers, schools—what is it NAEP needs to report? Or how does it need to report?

Other than providing a wake up call, I must admit a pet peeve, if we get another wake up call, I don't know what we're going to do. We'll all be insomniacs or something. But what about the—what can you say about how this information might be best reported?

Carmel Martin:

I think, well with the education policy person's hat, I would say the more we can do to benchmark progress against each other, so to the extent that NAGB has the capacity to report NAEP alongside what's actually happening with students once they go on to college. So you can—I think, for parents, it's hard for them to see why it matters. So they need to be able to see what the real world implications are of your student being Proficient on NAEP. Which to me means they go on to college or they get a job. So to the extent we compare assessment results with real world results, I think that would be really helpful.

Jack knows my daughter was selected to take NAEP this year, and I spent many a dinner table hour trying to explain to her why she needed to take a test that she would actually never find out how she did on it, and that would have no consequences for her. So I do think, and—

Chester Finn:

You coached her anyway.

Carmel Martin:

I didn't ask Jack to violate the rules and get me her score results, because I'm sure she was advanced in everything. But I do think for the public, I think we're in an era where there's a lot of concern. In my like, you know, soccer mom club, there's just a tremendous amount of concern around testing at large. Not just NAEP, but things like the tests that Mitch is working so hard to accomplish. So I think the more organizations like NAGB and state actors like Mitch can do to translate for parents and students that these are a means to an end, not the end in and of itself.

Which is, I think, a repercussion of some of the NCLB accountability controversy. People felt like the test was the goal instead of learning being the goal. So I think the more we can put assessments into context for parents and families, the better off

we'll be and we'll be able to lessen the backlash against testing. Which I think is very problematic because I think we do need these—the education sector needs tests as a tool in their toolkit to be able to be successful.

Mark Musick: Okay. Anyone want to add to this?

Mitchell Chester: Yeah. I would. You got the bookends. You got the advanced and you got the not quite basic here. And I don't know if you caught this, but Glenda called me to task for referring to her as "Brenda" earlier, but that's what you get when you're next to someone who's not even basic yet. So, well said. I mean, I think that to the extent that these proficiency labels, right, get translated into, "Here's what it means." Here's what a person who's Proficient can do. Here are the kinds of academic performances that you can expect from someone who reaches this level on a test. And translate that information so that it informs the consumer, and that it informs the systems. Right? That it feeds back to our schools, to the curriculum decisions that they make, the course of study that they provide to students.

That to me is where the value is. And so that to me is where NAEP is going to be a valuable input to this conversation. So, for me, that's critical. Just to repeat what Carmel said, and I say this to a lot of my audiences, it's not about the score. It's about what the score represents. Means whether or not you're reading well, you can write well, you can do your math, you can apply it to real world situations, you're ready for what an employer is expecting of you, you're ready for what a higher ed institution's expecting of you.

Mark Musick: Okay. Checker, you started rapid fire. You want to finish us up, and then Governor's going to call for questions.

Chester Finn: Well the—I know there are a lot of people up on the podium, including some over to my right who would like NAEP and NAGB to have a more sort of dynamic role in education reform than they had up until now. But I really, truly believe that the function of NAEP here is to be the platinum yardstick that stays steady in a period of time when everything else is in flux, with regard to standards and testing in the United States. And if we have established that NAEP Proficient roughly correlates with college academic preparedness, it's a very important thing for everybody else that's coming up with new assessments and new high school exit expectations and academic standards to know and be able to relate too.

And I think that this platinum yardstick, I think they have one of those at the National Bureau of Standards, we were always told they did. And it didn't matter whether the temperature got hotter or colder, it was always the same length. The platinum yardstick is the function of NAEP. And everybody else can then measure their tests, their performance, their achievement, their standards against it, at least with regard to the things that it's valuable for. Which may turn out to not be everything. It may turn out to not apply to becoming a plumber. It may, however, turn out to apply to being ready to do college math.

Mark Musick: Very good. Very good. Governor, to tell the truth was our challenge and I'm going to close just by telling the truth on something that I know someone in the room knows and is probably saying, "Well, why didn't they say that?" And that is, and Checker, you'll recall, that in 1990 the Governing Board, we did say that the advanced level would "show readiness for rigorous college courses."

Chester Finn: Advanced level.

Mark Musick: Advanced level. So we—and we didn't have that quite—we didn't have it right at the time. But this truth telling, truth seeking is one where you admit when you don't get it right. And at the same time, take some credit for vindication.

Governor Musgrove: Something interesting to the journey of truth telling as well. Any questions that have been raised? Back here. Here and here. We have time for a couple of questions, and then we'll take a break.

Jean Gossman: I'm Jean Gossman from Education Daily, and I have a question for Dr. Glover. You spoke about certain populations might be, it might be necessary to do qualitative measures of college readiness. And I would like for you to elaborate on who those populations are, why they need that, and also what form such measurements would actually take.

Glenda Glover: Well, the populations that represent any area that's been marginalized, whether it's the African American population, a low-income population, which may be synonymous in many cases. Those populations many times are in schools where the schools are not academically prepared themselves. So it's difficult to produce students who are academically prepared from the structure that—within that structure. So I think if we were to expand studies or

have subsections that looked at various studies, perhaps that system could be fixed.

Again, we're fixing the student without fixing the schools, and it is not a one size fit all. It takes, you know, there's motivation, there's leadership, there are other characteristics that are qualitative in nature, and not necessarily quantitative, that also predict preparedness.

Jean Gossman: And how might you define and measure them though?

Glenda Glover: Well that's—in the South Africa study, they control for various measures. You know, we're not there as to how we're going to do the measurement yet. Because we're still developing the strategies and the standards that are necessary. But, you know, my role is just to define how we can make this a more complete, comprehensive, and inclusive study.

Jean Gossman: Thank you.

Governor Musgrove: Last question. And when we get through here, we'll take a break 'til 11:00. Here you go.

Miguel Rosario: Good morning, and thank you for inviting me again. My name is Miguel Rosario, and I'm just going to flip the script a little bit. From 1973 to 1986, the widening gap between African Americans and white always been large, right? Since 1996 and now, the question I have for the panel is if we're measuring that, between African American, Latinos, or Asians against white children, which are called Caucasian, you know what I mean, which is the proper name, because white is a color.

My question to you, why is the gap for white—for Caucasian children still the same? They haven't grown. Our white kids hasn't grown nowhere in the educational system. And that's a fact. That's your own data, that's the data that I'm following. So you think about it. A white kid and an education—having a proper, respectful education, what makes you think that the other ethnic groups going to get a proper education?

Governor Musgrove: Mark, you want to—Chester?

Mitchell Chester: Yeah. So one of the limitations of looking at aggregate results, the larger you aggregate them, you may not see much of a story there. You know, maybe things are flat. But what you miss by not looking at below the aggregate sometimes are that some places

made gains while others might've actually lost ground. And when you aggregate them, they might look flat. So I'm going to call on Dave Driscoll on this because, you know, I inherited the system that Dave—

[Laughter]

no, this is a good news story, Dave. And if you look at the Massachusetts data over the last decade plus, what you'll see is that every group of students has made gains, steady gains, and you'll see that the groups that started out furthest behind, including black and including Latino and including low-income students, made stronger gains over that period than the white students. But they all made gains. The gaps are still there, but they're narrower now than they were 12 years ago.

So I think, you know, the national story masks some state to state variation that's probably worth looking at and figuring out what have the places that have made some progress in that time period done that we didn't see happen in other places.

Governor Musgrove: Alright. Before we thank the panel for their work, we'll take a break. We will start back with panel two at 11:00 AM this morning. Let's thank the panel for their work.

[Applause]

Governor Musgrove: Everyone, take your seat. Thank you very much. As everyone is coming back in, we'll go ahead and get started. We're now ready for our second panel to discuss the issues and challenges in defining and measuring academic preparedness for job training. Please come to the stage as I call your name, as we did earlier.

Anthony Carnevale is director of the Georgetown University Center on Education and the Workforce. Previously, he served as Vice President for Public Leadership at the Educational Testing Service. Before joining ETS, Dr. Carnevale was Director of Human Resource and Employment Studies at the Committee for Economic Development, the nation's oldest business sponsored policy research organization.

Jacqueline King is the Director of Higher Education Collaboration for the Smarter Balanced Assessment Consortium. She has had a long career in higher education, including 15 years at the American Council on Education, where she served most recently as Assistant Vice President and Policy Research Advisor. In 2000, Dr. King established the ACE Center for Policy Analysis. Before joining

ACE, she was Associate Director for Policy Analysis at the College Board.

Bob Jones is the President of Education and Workforce Policy, LLC, a policy consulting firm for the advancement of education, training, and workforce policy. He has served as President and CEO of the National Alliance of Business, as Assistant Secretary of Labor, and in senior positions in two major US corporations. Mr. Jones was responsible for the Department of Labor Secretary's Commission on Achieving Necessary Skills, which for the first time spelled out the skills necessary for successes in the workplace.

Carl Mack is Executive Director of the National Society of Black Engineers. He worked as an engineer with METRO King County in Seattle, and coordinated the county's award-winning minority engineering internship program. Dr. Mack served as President of the Seattle King County branch of the NAACP, he sits on the Minority Advisory Board of the Bagley College of Engineering at Mississippi State University, and the Board of Trustees of both the Society of Automotive Engineers Foundation and Clarkson University.

Cheryl Oldham is Vice President of Education Policy at the US Chamber of Commerce, and Vice President of the Education and Workforce Program of the US Chamber of Commerce Foundation. She has 20 years of experience in public policy development, including post-secondary, vocational, and adult education in the US Department of Education, and as Executive Director of the Commission on the Future of Higher Education.

This time Michael Guerra will moderate—Michael.

Michael Guerra: Thank you, Governor. I listened to the first panel. Having read the research, I thought the first panel has no challenge at all because the research congeals. That's not the case for this panel. And then if you recall in one of the many insights we received from Checker Finn, he said this works for us, I don't know what you do if you want to be a plumber. I presume that we now have the responsibility to speak to the dignity of the plumber.

In doing that, I am recalling the movie *Moonstruck*. An academic actually is hitting on the mother, Olympia Dukakis, and they're walking through what is Brooklyn Heights, and there's some beautiful brownstone. So there's this beautiful brownstone, and she says, "This is my home. I live here." He said, "Can I come in?"

“No, no,” she says. He said, “Well can I ask you what does your husband do?” She says, “He’s a plumber.” The academic says, “Ah, that’s why you live in that kind of a house.”

So there are ground rules that the board set up for this conversation, which is now ten years in process. I’m going to suggest these assumptions represent soft boundaries. We can push against them, and the panel can certainly challenge them, as the previous panel did. But it’s my responsibility to set them out in the beginning. The overarching question—should NAEP be reporting about 12th graders’ academic preparedness for college and for job training? And we’re going to focus on job training.

So let me try to pull apart some of the words in that question. There’s probably a rolling consensus that NAEP should do this. This open question about how and what’s implied in pursuing that goal. Academic preparedness for job training is not preparedness for the workplace, but preparedness for the training that leads to the workplace. Implicit in that is that good jobs, the jobs of the future, will require additional training before entering the workplace.

Some of the research focused on five examples of jobs. Only five. There are very many, but these are five that represent jobs requiring some training short of a Baccalaureate degree. Readiness for the training means no need for remediation. So these are the questions. Can NAEP do this? Can it do it as it’s presently configured? The assumption was also made that there is no intention to advocate either explicitly or implicitly for tracking. The assumption is that schools want to prepare all students to be able to choose the road they’re going to go down.

And so none of this research is intended to drive us or those we serve toward a commitment for tracking. All doors should remain open. The question is—can NAEP report on academic preparedness for job training? The research on this has been mixed, as Cornelia pointed out. And new research was commissioned that tried to go at this in a different way, that tried to look not just at what people said, but at textbooks and curricula, what they were actually doing in these job training programs.

And in general, the research indicated that NAEP as it’s presently arranged probably does the items a reasonable job of identifying what students need to know and be able to do to be ready for college, but only a very small number of these items relate to the job training program. The tentative conclusion is that if you look at

NAEP and say, “The evidence is that this person is academically prepared for college,” it’s probably true in most cases that the same person is academically prepared for job training.

The reverse doesn’t follow. Because there are only a few items. And so it just doesn’t work, according to the research so far. So here we are. These are the boundaries. And we’re left with a set of questions. How do we define academic preparation for job training? And what measure do we use? What is the measure that NAEP provides in its current configuration? How do we validate the measure? What research needs to be done, since we certainly don’t have a body of conclusive research. And finally, most importantly, what do we recommend that the Board report about this question?

It is the Nation’s Report Card. The gold standard. Finn would have it elevated to a platinum standard. But it carries with it a reputation for credibility. And reporting is the key. At the end of the conversation, what does the Board say about 12th-grade NAEP? And what does it say specifically about preparation for job training?

So with those soft boundaries, and I invite the panel and all of you sitting here to push and pull and reconstruct them if that would be useful. Let’s begin with definition. Bob, will you help us get started? Definition, as we’re looking at the definitions, the working definitions that the Board and the commission set up, are they working? Or do you see ways in which they need to be changed?

Bob Jones:

First, let me thank NAEP and congratulate you on the continued focus that you’ve provided to this whole debate. And I, at great risk, would agree with Checker that it is useful to have a standard against which the chaos and disruption that we’re experiencing can be constantly measured and looked at. Having said that, I think the answer to the fundamental question on job training is, “No.”

There’s enormous danger in taking a job training program or course or something else and attempting to define that in a way that relates to preparedness. And the point being that the tenure of people in their jobs today is falling at a very rapid rate. We are educating people to enter a training program in a job that will change almost immediately, in a matter of months—the skill sets, the application, the process, let alone the person moving on to other jobs.

We have to educate people for adaptability, not for technical, vocational, applied skills. Adaptability skills are academic. They are the traditional writing, communication, math skills that prepare people to move on. We see this in reality now as we are beginning to focus more and more on industry recognized certifications, stacked certifications, knowing that people are going to move through that line. The example in the prior panel was plumber. Ladies and gentlemen, plumbers all become owners. They're businessmen. If we want to prepare them, we must educate them.

Last point, what I just described also is not represented in the course you are looking at. This isn't college. Most of our job training courses are minimalistic, put in place at some point in time, haven't been updated including academic technical skills preparing them for that whole field in the next ten years. It is a lack of a system in this country for determining any job definition analysis—we have no system for doing it all across the system. We don't even have data.

As Tony will tell us, in BLS, most of the definitions are really quite outdated, let alone what would be the academic or technical skills of these jobs, and a system for continuing to improve it. So the course you're looking at is largely outdated in terms of the needs of the individual that's going into it. And last comment I would make, I think what you have stated already causes tracking. I think we need to be very, very aware that when you set a differential standard with the statistical numbers you put up showing what was in there, there are a significant portion of our political and public world who will say we don't need to have same standard for those folks.

Michael Guerra: That's a very powerful observation. Jackie?

Jacqueline King: So all that being true, I still worry about the fact that 60 percent of students don't meet the Proficient standard. And if we say that there's only one benchmark, it is college readiness, and if you don't meet it, you're really not ready for anything. I mean, that's the message we're sending to 60 percent of students. So recognizing the fact that, I mean, there's so many complexities of this, and my gosh, in Smarter Balanced we're—this is very timely, we're convening a task force to try to help us think through this starting next month.

Tony has been helping us with his colleagues to try to think through this. All the complexities that exist, we still keep coming back to the fact that there will be 60 percent somewhere if our

benchmarks are close to NAEP, and I think if they are, Checker will come after us with tar and feathers. So if we assume that about 60 percent of the students taking the Smarter Balanced exam or the PARCC exam also don't meet the benchmark, what do we say to those kids as 11th graders?

I worry very much too about the tracking. One of the questions and I think that's in the definition piece is, "Do we even talk about career readiness until high school?" We talk about students being on track to college readiness starting in the earlier grades. Do we want to leave that completely out of the discussion until we get to the high school level? I mean, I think that's one of the things we're going to wrestle with as we think about parameters and definitions because of that tracking.

The other thing I just mentioned, the words "job training" rub me the wrong way. I think of further career education and training. Job training sounds like it doesn't happen in a post-secondary institution, which isn't true. Right? We're really thinking about preparation for programs at the Associate of Applied Science level, certificates, certifications, non-transferrable coursework. If the college readiness benchmark is courses at a two or four year institution that can lead to a Bachelor's, they might terminate in an AA or AS, but they could lead to a Bachelor's degree.

And then below that line is this whole big world of other stuff that is feels to me like job training is too narrow and too focused on, yes, the very particular, technical kind of skills for a particular job, as opposed to readiness to progress through a career.

Michael Guerra: Cheryl, you're nodding in affirmation. Would you like to verbalize your affirmation?

Cheryl Oldham: No, I just think those are the things that you wouldn't be teaching in high school necessarily anyway. Right? Those very like specific sort of skills. They might be things that you learn on the job or you take something after. So I agree wholeheartedly with what you're saying and the characterization of job training. I want to step back for a second and just say, because you gave me an opportunity to talk, I do think NAEP is so, so important, and this is just sort of a broad statement. You know, I'm here representing the US Chamber of Commerce, and about six years ago, we did our first of a series of reports that's called "Leaders & Laggards."

And it—and I'm sure we weren't the first to do this, but we, maybe because we were representing the business community and we

reached a different audience and it sort of had a different level of attraction. We looked at, you know, developed an indicator known as truth in advertising. So going back to the first panel and the discussion of NAEP as sort of the truth teller and the way to kind of really show people what's really going on with our education system in the States, and we had this indicator called truth in advertising.

And we gave states, you know, Fs. And one of them was Tennessee because what they were advertising, in terms of their standards, was, when you compared it to NAEP was, you know, so, so low compared to the NAEP bar. And, you know, the Governor at the time, and this story is retold all the time, and Governor Bredesen would say it, it was that report that gave Tennessee an F, and he said, you know, he sort of embraced that F and said, "We're going to turn this around."

You know, didn't try to argue against it, but said, "Oh my God. What are we doing? What are we telling our students? What are we telling our parents? We're telling them they're fine. They're graduating from high school. They're passing our state assessments. They're—and they're, you know, they don't come close to reaching NAEP benchmarks." And so that sort of set Tennessee on the path that they are on now. And student achievement scores are advancing greatly and they're doing wonderful things, and they're considered a leader across the nation.

So, in just thinking about how important it is to have that, as Checker said, that sort of, you know, stable as everything else changes, that one ruler that sort of lets everybody know how everyone's doing I think is so, so important. So if there's a way to kind of—if there's a way that we're able to figure this out, in terms of career readiness, I think it would be invaluable to everybody. I do want to ask what—so we're questioning and have this big sort of, you know, everyone understands maybe the college ready part, but the career ready is so different.

I just want to ask—what are we saying about, like we talk about college and career ready all the time. I mean, everybody talks about it like it's a given. But I think everybody here is saying we don't really know. But we talk about Common Core as if it will bring students to a college and career ready place. So why are we doing that?

Jacqueline King: It alliterates.

Cheryl Oldham: Yeah. It's a nice phrase. Right?

Jacqueline King: I literally mean, I mean, I'm joking, but I really mean that. We say college costs when we mean college prices, because college costs alliterates. Even though that's a really inaccurate term. We're great in education about making up inaccurate terms that, you know, sound good. And then unfortunately we use them over and over, and then we dig big holes that we then have to dig ourselves out of.

Cheryl Oldham: That's a big one.

Carl Mack: You know, Mike, you asked about definitions. And I have got to put a couple of flies in your ointment. I'm not sure that I've heard that the NAEP bar is the bar. Because to me, if you're talking college readiness, I don't care that we prepare children to go to college. Did they graduate? You know, as an African American parent, and so many parents that I do know, whatever financial resources we got, it's not that we claim success because the child went to college. If they went to college and dropped out because they weren't ready, it don't mean a damn thing. Period. And so this whole conversation about readiness and then job training.

[Laughter]

Okay. What the Governor did not mention is that I serve as Executive Director of the National Society of Black Engineers. You can't get a job in America that's worth a damn if you don't have at least—at our level now it's not even about a Bachelor's degree. You have got to have a graduate degree. So, you know, all this talk, and when I hear "job training," I'm thinking mechanic—what? I don't know what that is. I'm not preparing our community for job training. I'm preparing our communities to be engineers, to be entrepreneurs—we're always talking that in this nation, if our economy is to be strong, our economy must be an innovative economy.

You can't innovate by being—setting your bar to just being an employer. You have to be an innovator. You have got to have STEM. And contrary to, you know, people thinking it's a murky, cloudy picture, that picture is crystal clear when it comes to engineering. If a child is not on a certain, is not taking certain math and science courses at certain given grades, they will not. You may have your outliers, one or two on either side, but by and large, if a child is not taking algebra, for instance, by the eighth grade, if they have not had Chemistry or Physics in high school, the idea that they're going to go to Mississippi State, or any other accredited

college or university and graduate with an engineering degree is a pipe dream.

And in our community, and I'm saying the engineering community, the failure rate of children going into engineering is almost 70 percent. And there's three reasons why children fail. Three. Chemistry, Calculus, and Physics. Okay? There is no getting around that. And then when you talk about definitions, to do anything at the 12th grade is way too late. They're building prisons based on third, fourth, and fifth grade scores, and now we're going to say, "Let's assess these kids at the 12th grade"? Insane.

Change it. Your definition is wrong, as far as I'm concerned. It is horrible, horrific to my community. So the idea that I'm going to go in and take my very limited resources and hope that I can mine in the 12th grade the nuggets I need to be successful in college—I'm not doing it. Right now, we go as low as the third grade, and now trying to go and getting them when they come out of the womb. We have got to be that early on this. So I think, Honorable Chester mentioned, you know, looking at as early as third grade.

I got parents who sit in front of me, and currently we are running some of the—not some of—we are running the largest engineering programs in the country targeting black children. And from a Mississippi family in here, and especially the Governor, I'm going to meet with Governor Bryant on Thursday, because in Jackson we now have an engineering camp for third—starting as early as third grade, third through fifth grade. We got 325 third through fifth grade African American girls being taught engineering by all female collegiate engineering students. Keep in mind that this country in 2011 only awarded 881 engineering degrees to African American women. So we're starting it early.

But I can't tell you how many times I sat in a room twice as big as this filled with African American parents who were asking the question, "Dr. Mack, tell me what should my child be doing if they want to become an engineer?" We have to be able to set that. And for me to sit there with a parent whose child is about to graduate in the 12th grade and try to answer that question is useless.

Michael Guerra: Well I'm glad the panel has accepted the invitation to push ever so gently at these soft boundaries.

[Laughter]

So Tony, the world of research. You've looked at the research

others have done. You've done a lot of it yourself—

Anthony Carnevale: Well there is a—there's an underlying reality here that I think is inescapable in the end. That is college and career ready is here to stay, in spite of the fact that it's essentially a non sequitur. Beginning in the early 1980s, in '83 precisely, we had a shift in the economy driven by technology change, a shift to a service economy, and a whole new set of competitive requirements that we'd never seen before. And a richer and more competitive world.

And as a result of that, the entry level skill in most workplaces, and an increasing share of workplaces, shifted from really less than high school, because in the 70s, 70 percent of American workers had high school or less. And less was just fine. Most of those workers were in the middle class, if you measure the middle class as the middle four deciles in the family income distribution. Roughly in current dollars, between 35-grand and 85, or 35 and above, if you want to include the middle class as everyone except for people who aren't.

So in the end, that shift occurred in a system that is socially constructed. That is, there was, in the end when skill requirements increased, and it increased in a variety of ways, people had to have more knowledge, but they needed other things that we don't teach in school. That is skill. Problem solving, critical thinking ability, creativity, innovation. And more and more became important in jobs that you had interests that were consistent with the occupation you were in.

And more and more important was—we began to see research, Jim Heckman and others started to show that personality was as important beyond high school as college education in driving earnings. So there is a, there was a fundamental shift when we looked around to figure out what to do with all this. I think most employers wouldn't have chosen the post-secondary education system to do the job. It's not an institution that has traditionally been driven by employer business interest.

In fact, it has a role, an important role to stand against economic and political power. Not to join with it. And so there is a tension there. And it still exists in a very powerful way in the fight over liberal arts versus occupational and professional education and training in higher education. You don't have to go far to bump into it. You just have to walk past ACE and you can get in an argument about it.

[Laughter]

But you know, there is a—we turned around, needed the skill set, the only institution we had was what was what is now a 280-billion dollar piece of hardware, a tool. Higher education. We didn't have anything else. Bob Jones and I thought we were going to be rich and powerful because we were building a national job training system in the 70s. The last year, the last Carter budget for that system, which was the Comprehensive Employment Training Act, where it peaked in '79.

If we were still funding at that level instead of the five billion dollars for WEA, we'd be at 25 billion. Still doesn't compare very well to the 280 billion in post-secondary education. Another 600 billion in K-12. You're the horse. Like It or not, you're the job training system. You're the workforce development system. So the issue here, in large measure, is how are we going to use you for that. Or are we going to build another institution? We're not going to build another institution. We don't have the money.

So, I think this shift in NAEP is very healthy. The reason we talk about college and career ready is because that's what the public wants. And that's what political leadership is shifted to. This is not going away. Whether or not it's appropriate to do it in NAEP and all that is, in a sense, beside the point. What people really—what the public wants is for us to resolve this question, because while everybody recognizes that the purpose of an education, especially a college education, is to help people live more fully in their time, you can't live more fully in your time if you're living under a bridge out of a shopping cart. Or living in your parents' basement, if you're a recent college graduate.

So this mission has been assigned to you. Question is, do you use NAEP to measure it? I find that very difficult going. At least from a technical point of view. I do agree, I think the numbers have shown over and over and over and over again that NAEP is a good predictor of college readiness. It predicts grade point average at 2.7, it used to be 2.5 when I used to know these numbers. And—so it's apparently gotten stronger. The other thing is it does predict graduation, although in a much weaker way. And it does predict earnings in a much, much weaker way.

So we know two of the things that have happened here is that the value of education beyond high school, broadly writ, has grown since 1983. It's the major, probably the major institutional change in American life. But the other thing we know, it confronts the education system, is that mostly what you make and whether you work depends on what you take. More education doesn't bring

more earnings. Most of the earnings differences, the variation, the overall value of education has risen, but the variation within education degrees has risen much faster.

So we're talking about a system that is attempting to articulate itself with the economy, and it's doing it sort of blind, frankly. It's stumbling forward. We're beginning to see the government beginning to intercede and say, "We want to start measuring college majors in terms of the earnings gains and employability, especially relative to cost in college loans." That is the juggernaut that's headed your way. The question then becomes, and it's a question, a matter of bias how you figure this out, but do we extend this occupational perspective down to the high schools, having abandoned it in 1983 with "A Nation at Risk" when we moved to academic preparation as the singular goal of the K-12 system.

That is not working. People are stumbling on Algebra II. They're not making it. So either we find alternative pedagogies that can move people through high school and into some form of post-secondary education or training, or we give up on that 60 percent, essentially. It's not quite that big. But there's a very large share of students who are basically lost in the system and don't have much of a chance of high earnings.

The one caution I would give here is that we don't want to turn tests into [destiny]. Remember that when you're looking at—when you say that NAEP and ACT and SAT and almost any other construct you use will give you roughly the median value of—the median score on the SAT is a pretty good hash mark for predicting whether or not people will go to college, graduate, and get a good job. As is Algebra II, in spite of the fact that we know that only seven percent of jobs in the economy use any of the operations that you learn in Algebra II. Remember that STEM is five percent of American jobs. There's another 95 percent.

So that in the end, the question is, it's easy to prepare the five percent. You just give them all the math they can take. The 95 percent's more complicated.

Carl Mack: With all due respect, I disagree. Because if that was the case, why is America complaining about the fact that we don't have enough engineers? If it's so—

Anthony Carnevale: That's Bill Gates, and a lot of it—

Carl Mack: No, that's not Bill Gates. That's a whole lot of corporate America.

Anthony Carnevale: And a lot of corporations, STEM is a key asset in American—

Carl Mack: I'm just debating the word "easy."

Anthony Carnevale: So if we can—you know, we did this once before with Sputnik. We decided when the Russians put a satellite out—

Carl Mack: I'm very familiar with them. I've lived off that for 50 years. I get that.

Anthony Carnevale: Yes, you did. So in the end, when we did Sputnik, we then decided that we were going to take every American kid and push him through all the math they could handle because we wanted one more Werner von Braun. And in the end, we created math as a barrier to women becoming doctors, to lots of people entering occupations. And we're doing the same thing with STEM. We just need to be wise about it.

Michael Guerra: Well, Tony, could I ask—you said it's easy enough, you do this with the 5 percent, this with the 95 percent. How do you know which ones are the 5 percent and which ones are the 95 percent?

Carl Mack: That's then—that is the question.

Anthony Carnevale: The question is, "When do you decide?" And here's the tough part—

Michael Guerra: Well who decides? And when you decide, and I mean, there are a lot of questions about 5 and 95.

Anthony Carnevale: The question is, "Does the government decide?"

Carl Mack: No.

Anthony Carnevale: Well, okay. Then if the government doesn't decide, then we run the system as it is. We move people through the system, we give them higher and higher and more and more challenging abstract curriculums. And when we settle up this game, which is when people graduate from high school, we have the great sorting of Americans in three months. Those that go on to college by selectivity, those that don't go on, those who sort into—we know long before that where they're going. There's not much mystery. Do you do anything about it below the college level? The answer generally in the United States is, "No."

Michael Guerra: Well, these are large questions and not insignificant questions, but I want to bring us back to NAEP. What is it that NAEP can do? What is it that NAEP should do? I don't know who's going to do the 5 and 95, but it ain't going to be NAEP. And NAEP is not going to tell Mrs. Jones, "This is what's going to happen to your child." That's not NAEP's business. So the question for us is, "Is there a role for NAEP that would be constructive in helping this country deal with preparation for the workplace?" Looking at 12th graders.

Carl Mack: And let me say. Let me preface this, because I certainly have a great deal of respect for the body of work that the organization is doing. When you start talking definitions, I just think that there are certain definitions that are a little bit archaic. And desensitizing. Job training is desensitizing to me and my community. If you said "workforce development," alright, I can accept that.

Michael Guerra: That's an important intervention. Made earlier, duly noted. And I think the Board is going to replay this tape before it prepares any kind of reporting mechanism. But that focus is appropriately on what NAEP can do and what it shouldn't do. And that's a useful contribution.

Carl Mack: And although I know tracking is expensive. I get that. However, if you want to say, if you want to talk about the NAEP bar or the standard, if that bar or standard now tells me that when students reach this bar, 80, 90 percent of them graduate from college, now you're telling me something. You know, you've established yourself. Now that becomes a gold standard, a platinum standard.

But if you cannot tell me, you know, if everything is based on estimates or predictions, but not on actual data, because we've tracked that when they've hit this bar, they've proven to be successful. And then furthermore, you have got to start talking about various careers. Because I agree with it. You know, for me, I think that we ought to take the military way of education, military academy way of education. Regardless of what your major is, your engineering base as your education.

Because look, if students who came through my engineering program ultimately end up going to college, but didn't make it through college, but went into some other—I mean didn't make it through engineering, but went into some other very productive field, I feel good about that. I feel very good about that. So, you know, it's just some of the recommendations that I would consider.

Michael Guerra: Cheryl, the business community? How does the business community look at 12th-grade NAEP? Is it fine the way it is? Could it be better? Could it provide more useful information?

Cheryl Oldham: I'm not sure they look at the 12th-grade NAEP. But I think, I mean, one of the things I'll say about it, my opinion is the usefulness of it is to be able to make the distinction between, or some real value in terms of what students know and are able to do coming out of high school that differentiates it from—you know, you graduated. Because I think the general feeling from the business community, this is a generalization, big generalization I'm making, is that a high school diploma doesn't maybe mean what it used to or doesn't really mean what—

Carl Mack: It's fact. It doesn't.

Cheryl Oldham: It should mean. And so if 12th-grade NAEP is able to show that, you know, there's—you know, X percentage of students are graduating from high school in Massachusetts, but only, you know, this small percentage is Proficient on the 12th-grade assessment. I mean, I think that is—I think that is useful to the system, certainly, to help it improve and to get better.

Michael Guerra: So the auditing function. The truth in advertising.

Cheryl Oldham: Yeah. Yeah. The truth in advertising thing I think is really important. I think—it seems to me in this whole conversation we really are talking about—there's a difference between sort of what the business community needs in terms of its employees that—I mean, there's a large percentage that need students coming out of—they need employees with a Baccalaureate degree. So set those people aside, because those don't really—I mean, if you're academically prepared and NAEP can show that you're prepared for college, then you are then prepared to go on to college and prepared to be successful in college, hopefully. And then go on to be successful in a career.

But it's that other—I don't know what the percentage is, and Tony probably knows—of students that would go on to something other than a Baccalaureate, or something lower—or not lower level, but some sort of certificate or credential. And then is that—is what you need to be successful there the same as being successful in college? And I guess what they're saying is, “No.”

Bob Jones: And I would argue, “Yes.” That it is. And I think that—

Cheryl Oldham: Yeah. I mean, I feel like a general consensus.

Bob Jones: And I've said earlier, the answer to your question is, "NAEP should not set separate scores." This is all about the same thing. All of those people who aren't immediately going to college remember Tony's data. They're walking into a world where 68, 66, 68 percent of the jobs all require post-secondary education. That's not job training or workforce development. It's academic certified training programs. Many of those people are going to move on to degrees. Many of those programs increasingly carry academic, college credit by ACE and other people right now. That's going to be the model.

So unless you're prepared to discriminate directly and say, "Oh no, you're not going to get the courses and be held to the same number because you're down here," then you never get another shot. Unless you, you know, people aren't—we've heard it all morning, you're not going to come back and remediate when you're 30 years old the things you didn't get when you were in the seventh or eighth or tenth grade.

Carl Mack: But if the question is, "What can this organization do?"

Michael Guerra: What can 12th-grade NAEP do?

Carl Mack: Well, I'm done. You can't do anything at 12th grade. You have to go earlier. And I think—but I think that NAEP has all the ingredients to be the quintessential organization that can identify early. And as people said, truth in advertising—parents want to know. "Is my child on the right track?" And I think this organization could probably do that. And it would be a huge benefit.

Bob Jones: It's a challenge to the Board, and it's a challenge heard and received.

Cheryl Oldham: I mean, you're right to say it's too late at the 12th grade for those students to be able to say, "Okay, well I didn't get anything that I needed, and now I'm doomed." Right? But the importance of that 12th-grade assessment is I—I mean, in my mind—is for the system. It's not for the individuals. Right? It's to be able to say, "Okay, we've been giving out high school diplomas that don't mean anything."

And they're not actually—the students that have that diploma are not prepared to go on and do X, Y, and Z. And if you don't have that bar, then states are going to, you know, it's back to the truth in advertising. States will say, "Yeah, you're fine. You've got your diploma." And then you go on, and you're not successful in college, and you're not successful in a career. So you need that sort of independent, I think to—

Michael Guerra: So the F that Tennessee received—

Cheryl Oldham: Yeah.

Michael Guerra: Was a very fruitful grade?

Cheryl Oldham: Absolutely. I mean, we had states that said, "Oh, well you're wrong." Obviously. And they got mad, and they called up Tom Donohue, and they said, "How dare you give me an F?" And Governor Bredesen said, "You know what? You're right. We are doing a disservice to everyone in our state by telling them that they are fine in our system when they're not."

Michael Guerra: Jackie?

Jacqueline King: So wouldn't the—if there had been a value, just playing a little devil's advocate on the, you know, there's no point in NAEP looking at careers. If you could've said to Tennessee, "Well, you know what? Versus college readiness, you get an F. Because you're—this is where your exit standard is, and this is college readiness. But you know what? Versus standards for your graduates to also go on and get a certificate, or get a AAS, which can lead to very good paying jobs, right? And jobs with career potential. Well, then you're still, you're still a C right now. Because your high school graduates aren't even at that point."

You know, I've done a lot of focus groups with parents over the years. And they'll say, "Well, I don't think every kid needs to go on to college." And when they say "college," they mean a Bachelor's degree. And then you say, "So you don't want your son or daughter to go to community college?" "Oh, yeah. No, that's good. My kid should go to community college. You need that to get a job. You can't get a job without community college."

So there aren't a lot of—I don't think there are a lot of parents out there who don't want that high school diploma to at least prepare their kid to get into a program that would educate them, I'm not going to say train, educate them for a good paying entry-level job

with career potential. And if we can comment on, at a system level, because NAEP doesn't talk to individual students. We have that cross to bear in Smarter Balanced and in PARCC. But you have the luxury of not having to give individual students results, which is a big benefit in this conversation, given all the complexities.

But if you could say something about that, maybe related to the CTE standards, there are CTE standards for 16 big vocational areas. There's not enough information, but there's not no information either about what is necessary for various different kinds of broadly speaking, broad career areas. I think, you know, I think it's a goal worth working toward. It may not be something that NAEP's prepared to do quickly. It certainly is something that, you know, we don't know where we're going to come out with Smarter Balanced.

This is really hard, and even more so when you need to prepare results for individual students and parents. What do you say to individual kids? Much harder. But I think it's worth the continued exploration and discussion and bringing together of people like Tony and his labor economist colleagues and the CTE community who think a lot about what needs to be taught for career preparation.

Michael Guerra: Jackie, I'm going to hold it there. I want to give this back to the Governor, because he's going to take a few questions and then bring us to closure. It would be impossible to summarize the wisdom that has been collected from these five panelists simply. But I would say that, and I would underscore this, that there is certainly a caution about the language that the Board uses in describing moving forward. There is some sense of—there is work to be done. And that NAEP can make a contribution, and it's important work.

NAEP cannot do everything. And we haven't quite clarified the piece of it that NAEP can do and do well. But NAEP can do some things. It also has to be careful to do no harm. Especially in its language. And I'll turn that back to the Governor to bring us to closure.

Governor Musgrove: Michael, good summarization of the panel's discussion—and I think you see the benefit of the diversity of ideas that come from a broad spectrum. And I thank you very much. And let's take a moment or two for a couple of questions. But let me do this. During the break, on each table, all of you were handed out

evaluation forms. If you will, fill those out. And you just leave them on the table, if you want to, and we'll pick them up. And make sure you get those done before you leave. So that'll help out. Any questions for the panel this morning before we close? Back here.

Curtis Valentine: Good morning. I'm Curtis Valentine. My question is about international competitiveness, American competitiveness around the world, and whether there's been a study on how NAEP compares with the OECD exam that's given around the world. And whether the NAEP and the OECD exam will give you a similar readout on how well Americans can do against other students from around the world.

Cheryl Oldham: Cornelia should answer that one.

David Driscoll: Cornelia, are you available to give us that answer?

Cornelia Orr: Well, there is a website that you can go to to look at the differences in detail about these two exams, but the PISA exam tests different ages than NAEP does, and isn't dependent on school-based learning necessarily—application of learning That's about all I want to say about that. But there is a good website that has those differences listed.

Carl Mack: And I can give you just an observation from my viewpoint as Executive Director of NSBE. I went to Saint Lucia in 2010. Only eight percent of those children can even afford to pursue college degrees. Through the help of Goldman Sachs, we raised about 275,000 dollars, we partnered with the Chicago Illinois Institute of Technology, IIT in Chicago. In America, if ten African American kids enter their freshman year in engineering, seven are going to fail.

Out of those 28 students, all 28 made it in engineering. And they made it with incredible engineering scores. The scholarships that we award, if you look at the names of the scholarships, mostly international names now. Call it what you want. But I think you know the answer to that. I think a lot of us do.

Governor Musgrove: One other question here.

Ray Hart: My question was for the—and I'm Ray Hart, I'm from the Council of the Great City Schools. My question was really for the previous panel, but it was about their research, and it also pertains to this panel. Because Tony alluded to it a little bit earlier as well. Given

that our—I think one of the things that's missing from the conversation right now, and one of the things that NAEP may be able to do is our economy is changing dramatically. And so a lot of the students who are showing up on the doorsteps of universities are traditionally students who wouldn't have gone to a university historically. The longitudinal data that NAEP produced a couple of weeks ago showed that our students are actually getting better, our 13 year olds for some subgroups are performing where our 17 year olds performed back in the 70s.

So the system is getting better. But my question is—is there a way, or can we look at the changes in the economy, those jobs in Ohio that would've been a General Motors career job or a textiles career job in the South, aren't there anymore. And we need to really look at our nation's progress with preparing students for the jobs of a future economy, technically, but our current economy, economic changes. And is that a part of the research that was done by NAEP? Or could that be a part of the research done by NAEP?

Cornelia Orr:

Thank you for that question. The research to date and that is planned in 2013 is based only on reading and mathematics. But the Governing Board has adopted a new framework and will be in 2014 assessing technology and engineering literacy across the country. And so I think that that framework and the skills that are being assessed on that are more in line with the future job market and the changes that were referred to by this panel. It's only at grade eight in 2014, but we are hoping to expand that to 12th, and that would give us some 8th grade and 12th-grade data to compare.

Bob Jones:

One thing I would add to this discussion, I think it's important, your comment that things are evolving rather quickly. We're educating people for five, ten years down the road, not for today. And looking at those kinds of things is important. We ought to pay some attention to what's going on in the higher education debate and the accreditation debate around higher education, where the demand is becoming universal for graduation, for student achievement levels being set and made. In the earlier panel, a comment was made that the consumer is the parent.

I would argue that that was true 40, 50 years ago. But the public debate today is about all children being brought to a standard that enables them in that new world. And we're seeing it play out in the higher education debate, we're going to see it more and more in the job training legislation, we're going to see it in the community colleges right now. I think it informs us a little bit of what the next

three or four-year expectation for bringing all students to a level that empowers them in a post-secondary education world.

Governor Musgrove: Dave Driscoll, do you have any comments to close us out? Okay. First let me say thank you very much. When we conclude, we'll thank the panel at the same time and then be adjourned, but I wanted a couple of closing remarks, if I could. Number one, the discussion today has been a very good one for me, as Chair, to listen to diverse ideas, but also to think in real terms. I remember sitting down my first day in law school, having always wanted to go to law school, but somewhat nervous about my ability to achieve there.

And so I went 30 minutes early for my first class, thinking that I'd get 30 minutes to get prepared mentally. There were three guys already sitting in the room, and I didn't know what their deal was. So I shook hands and said hello, and then sat down beside one of them. And literally in less than five minutes, I came to two distinct conclusions. Number one, I wasn't that impressed with the guy. And number two, my wheels started turning and I thought, "If they've accepted him with the understanding that they think he can succeed," then all of a sudden I felt much better about my chances.

[Laughter]

Now I must tell you in a sense of total honesty, some time later on, that same individual stood before about 5,000 people and told that very same story in reverse. As it turned out, that was John Grisham that I had sat down beside.

[Laughter]

So I think in the world of education, we have to take the same approach that my first grade teachers did because we were devoid of kindergarten at the time. And that is—everyone who walks in that classroom door should have a chance. And should have a chance at a good education, and should have a chance at a good opportunity for their job and their career. And so I'm never far from thinking along those lines. And we will take the things that you have told us today, that you've shared with us today, back to the work that the Board will do, and that the Commission will further do. And I want to say thank you very much for being here today. It's been a pleasure to have you. Thank you. We are adjourned.

[Applause]

[End of audio]