

# Archived Information

A NATIONAL DIALOGUE:  
THE SECRETARY OF EDUCATION'S  
COMMISSION ON  
THE FUTURE OF HIGHER EDUCATION

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## P-R-O-C-E-E-D-I-N-G-S

1:07 p.m.

CHAIRMAN MILLER: My name is Charles Miller. As Chairman of the Secretary of Education's Commission on the Future of Higher Education, I call the meeting to order. Thank you.

I'd like to say welcome to my fellow Commission members, our excellent staff, and to all the public participants.

This is a public meeting. It will be filmed. We have a wonderful agenda to go through today. We're pleased to be here in the beautiful city of San Diego in the great state of California. It's a busy agenda. We'll work straight through this afternoon. We won't take any official breaks. You're encouraged to move around, come and go as you like. Feel very comfortable doing that.

Following the scheduled presentation, we can operate a question-and-answer period informally and we'll have as much give-and-take as we can do within the time frame that we'd like to continue.

Before we begin our presentations, I'd like to discuss a little bit about the process of the Commission, the general work plan of the Commission. The task forces which have focused on the four major issues outlined by the Secretary and the Workforce

1 Commission we added and the Accountability efforts are  
2 drawing to a close and we'll have the work product  
3 over the next few weeks. This represents the first  
4 third of our time on the Commission, the timetable.  
5 And as of today, February 2nd, we'll have exactly six  
6 months until our report is due.

7           The first stage has allowed us to work  
8 with some focus and yet with a lot of overlap. It has  
9 allowed us to get to know each other, express our  
10 ideas, and develop a group personality. We have done  
11 this with a high level of direct involvement from  
12 members of the Commission. We actually have three  
13 times the members -- three times the number of members  
14 of the Commission that we have full-time staff at  
15 work. And we've had some input and increasing input  
16 now from outside sources. We've invited input from  
17 anywhere anytime and we're accepting that all the time  
18 and collecting it in a way that's going to be useful  
19 over time, which we'll tell you about in a minute.

20           The next stage or approximately the next  
21 third will require bringing together some additional  
22 policy team members, volunteer and paid, to begin to  
23 distill, combine, edit, organize, draft, and develop  
24 input from all the sources and interfacing with the  
25 Commission's members individually or in small groups,  
26 in person and in written form.

1           The last stage or the last one third will  
2 be used to develop consensus, specifics of the report,  
3 policies, recommendations, and action steps.

4           Because of the complexity of the subject  
5 and the limited time frame in which we are working,  
6 the Commission will produce a report highly dependent  
7 on the collective knowledge and judgment of the  
8 Commission.

9           Rather than a research report, it will be  
10 the result of our combined intellectual capital.  
11 We're encouraged to produce bold ideas. As those  
12 ideas surface, we will need to be bold.

13           I would like to ask Cheryl Oldham to add a  
14 few more operational questions -- comments and then I  
15 will see if there are any questions from the  
16 Commission about the work plan.

17           MS. OLDHAM: Just a couple just process  
18 things. As you can see, we have a sign language  
19 interpreter here. If you need to use that resource,  
20 let the folks know out front at the registration desk.

21           Wanted to let you all know about some  
22 documents that you'll be getting. The  
23 Commissioners -- a couple matrices that will hopefully  
24 be a useful tool for you all we've tried to distill  
25 down from some of the major reports that are already  
26 existing out there rather than reinvent the wheel on

1 some of this to look at what's already out there --  
2 you know, "The Gathering Storm," "Innovate America," a  
3 lot of these reports -- and put it into some sort of  
4 usable format for you all so that you can see the  
5 major recommendations, where there's some cost-  
6 cutting, where there's some common themes, and then  
7 another one that's even broader than those major  
8 reports but just, you know, everything that we've been  
9 able to find out there.

10 So hopefully it will be useful to you all.

11 Take a look at it. I think we need to see where  
12 there's some gaps, where we need more information on  
13 some things, where there's some -- maybe some ideas,  
14 some things in here that we want to draw upon, so that  
15 will be coming out to all of you all via e-mail  
16 shortly.

17 Thank you.

18 CHAIRMAN MILLER: Thank you. Any  
19 questions on the process from the Commission at this  
20 stage?

21 Well, thank you. Before we begin the  
22 review of our task forces and the formal program, I'd  
23 like to invite David Dunn, Acting Undersecretary of  
24 Education, to make some comments about some of  
25 President Bush's recent initiatives.

26 MR. DUNN: Thanks, Charles. Just wanted

1 to -- thought the Commission might be interested  
2 particularly in the American Competitiveness  
3 Initiative that the President laid out on Tuesday.  
4 Those of us in the Administration truly think that  
5 this was a historic speech getting at the need to  
6 maintain and -- run faster to maintain America's  
7 competitive edge. And we're just thrilled to engage  
8 in this effort.

9           Very -- and I'll be very brief. But, very  
10 quickly, the Competitiveness Initiative includes --  
11 anticipates doubling the federal commitment for the  
12 most critical basic research and physical sciences  
13 over the next ten years, encouraging the expansion of  
14 the favorable environment for additional private  
15 sector investment and innovation. I think it's  
16 important to point out that the President clearly  
17 views the critical need or critical role the private  
18 sector plays in maintaining our competitive  
19 advantages.

20           Also improving the quality of education to  
21 provide American children with a strong foundation of  
22 math and science. I'll say a few more words about the  
23 education piece in a minute -- as well as some of the  
24 others -- but supporting universities that provide  
25 world-class education and research opportunities,  
26 providing job training that affords more workers and

1 manufacturers the opportunity to improve their skills,  
2 attracting and retaining -- emphasis on the word  
3 "retaining" -- the best and brightest from around the  
4 world to enhance entrepreneurship and competitiveness  
5 in this country, and in fostering a business  
6 environment that encourages entrepreneurship.

7           The initiative includes three broad  
8 segments. In the '07 budget that the President will  
9 lay out on Tuesday, there will be \$5.9 billion  
10 committed to this initiative, breaking down  
11 essentially that just over \$900 million in additional  
12 funding for this year for research and development,  
13 nearly \$400 million -- \$380 million to improve  
14 math/science education in the nation's K-12 system,  
15 and then \$4.6 billion in this year's budget by making  
16 the R&D tax credits permanent.

17           In terms of the research dollars, John and  
18 Peter may want to -- if you have questions or want a  
19 little more detail, they may want to go into a little  
20 more detail on that. But \$900 million targeted at the  
21 National Science Foundation, the Department of  
22 Energy's Office of Science, and the Department of  
23 Commerce's National Institute of Standards and  
24 Technology.

25           This -- the '07 budget includes \$137  
26 billion for federal R&D this year, which is a 50



1 percent increase since the President took office in  
2 2001.

3           And then of course, again, the President's  
4 calling on Congress to make permanent the R&D tax  
5 credits. Over ten years, that would be committing an  
6 additional \$86 billion into research and development.

7           In terms of education, the plan focuses on  
8 improving the pipeline -- K-12 pipeline, especially  
9 math and science skills of our nation's students.  
10 Specifically, the President's called on the Secretary  
11 and has asked the Secretary to create a math panel  
12 similar to the reading panel from I think 2000 to  
13 really look at and lay out the specific criteria that  
14 need to be included in effective educational  
15 instructional techniques for teaching math and  
16 science.

17           As everybody here knows, probably, the  
18 state of research, scientifically-based knowledge in  
19 terms of teaching reading, far exceeded the research  
20 base for math and science, so the math panel will be  
21 looking at what those criteria should look like.

22           The President's also calling on Congress  
23 to increase the Advanced Placement and International  
24 Baccalaureate Program to train over five years 70,000  
25 new teachers in math, science -- AP math and science  
26 and also critical languages. The President very much

1 considers this a partnership, a joint venture with the  
2 states and the private sector, and the notion is for  
3 every dollar that the -- that the Federal Government  
4 would provide to a state, the state would match a  
5 dollar and then the Federal Government -- the U.S.  
6 Department of Education would work with the state to  
7 also seek private funding so it would be a third, a  
8 third, a third between Federal Government, the state,  
9 and the private sector.

10 The President's also -- and this is  
11 something that he's called for in the past -- but  
12 going to be a renewed focus, his notion of an adjunct  
13 teacher corps which would help states -- will provide  
14 some incentives and then help states cut through some  
15 of the teacher certification obstacles so that  
16 professionals who wanted to teach a class in high  
17 school part time or take a semester sabbatical could  
18 go into the classroom providing pedagogical training  
19 so that -- kind of going -- as the Secretary says, you  
20 can't teach what you don't know, so finding some  
21 professionals who know a lot about these specific  
22 areas and get them the teacher training and get them  
23 in the classroom.

24 And then the President's also called on  
25 two programs, Math Now for elementary school students,  
26 Math Now for middle school students, to take the best

1 knowledge that we do have in terms of teaching math,  
2 promote best practices, identify best practices,  
3 develop additional best practices, and then promote  
4 them and try to get them much more widely spread  
5 throughout the schools in the country.

6           And I guess, in part, what we think is  
7 perhaps one the most important pieces of this  
8 initiative from the education side -- doesn't get a  
9 whole lot of attention -- but the President's called  
10 on -- for an evaluation. I think many of you probably  
11 have seen the GAO report identifying 207 math, science  
12 education programs at the federal level across I think  
13 ten different agencies and departments totaling \$2.8  
14 billion. And GAO rightly noted that there was little  
15 coordination, little consistency across these  
16 programs, and not necessarily geared to the  
17 objectives, the national standards and objectives as  
18 identified in No Child Left Behind. So a big part of  
19 this initiative is to take a cross-departmental look,  
20 evaluation to identify effective practices, coordinate  
21 those programs to the maximum extent possible, and  
22 align them with No Child Left Behind.

23           Another piece of the pie is the career  
24 advancement accounts. If you have more questions  
25 about that, I'm sure Mason would be thrilled to answer  
26 those questions. But it would provide training

1 opportunities to 800,000 workers annually. Those  
2 accounts would be up to \$3,000 for persons needing  
3 additional job training.

4 And then the President's also calling on  
5 to work with Congress to attract and again retain the  
6 best and the brightest high school workers from around  
7 the country to ensure that folks from -- around the  
8 world, excuse me -- that folks who come in from other  
9 countries and attain Ph.D. in critical math science or  
10 additional critical disciplines will be able to stay  
11 in this country and continue to work and help enhance  
12 the economy and our competitive edge moving forward.

13 That, I think, Charles, in a nutshell, is  
14 the proposal the President's laid out. And I'm sure  
15 Peter, John, Mason, myself would be happy to answer  
16 any questions about any of the specifics.

17 CHAIRMAN MILLER: Thank you, David. We'd  
18 like to see -- any Commission member like to address a  
19 question on any of that to either David or his  
20 counterparts at the other agencies?

21 Thank you. That was a big nutshell.

22 MR. DUNN: There's a lot there.

23 CHAIRMAN MILLER: Thanks very much for  
24 bringing that in there. It's new and exciting.

25 I'd like -- we'd like to have a report  
26 from each of the task forces and the other work we're

1 doing from the Commission. We've scheduled about a  
2 ten-minute presentation from each person. And then we  
3 have a good amount of questions-and-answer time. I'd  
4 like to try to do that as much as we can toward the  
5 end of all of the presentations. It's an efficient  
6 way to do it. If there is something real critical  
7 that you feel you have to ask, we can stop to do that.

8 It's a pretty informal process.

9 We want the presentations to be the  
10 opinion of the group of people working, but that's not  
11 a consensus. It's not a vote. These are opinions of  
12 the people working and a lot would be also the  
13 opinions of the individuals making the presentation,  
14 just so we'll have you say that. So there's no final  
15 decision on any kind of policy or suggestion. Really,  
16 this is a work in progress report.

17 Before we start that -- and I've been rude  
18 not to do this first -- I'd like to introduce the new  
19 member of the Commission. You've met her  
20 individually. Catherine Reynolds from Washington,  
21 D.C. joined us recently at the nomination of the  
22 Secretary.

23 Welcome, Catherine.

24 MS. REYNOLDS: Thank you.

25 (Applause.)

26 CHAIRMAN MILLER: The first order of

1 business -- the first presenter is on accessibility,  
2 and I believe I see David Ward over there. With the  
3 light in my eye, I'm not sure I can see everybody and  
4 I can't read the signs, but I believe I see David over  
5 here to the right.

6 So please proceed, Dr. Ward.

7 MR. WARD: Okay. Thank you, Mr. Chairman.

8 I'm speaking on behalf of Sara, who is not able to be  
9 with us today, the chair of the committee. We've only  
10 met once and so I'm giving you a report in progress.  
11 We will be having a conference call on Tuesday of next  
12 week. One of the problems is that this Accessibility  
13 Committee has many of its members on other committees  
14 and time is not -- time doesn't permit us to meet  
15 today.

16 Most of these remarks are really derived  
17 from Sara and myself rather than the rest of the  
18 committee, although I tried to incorporate some of the  
19 testimony that we heard in Nashville and also comments  
20 from other committee members, but they've not yet been  
21 assembled.

22 I think the context or the issues that the  
23 committee tried to frame our discussion was simply  
24 that the sustained gain in accessibility paradoxically  
25 has created our problem. By simply growing the  
26 numbers who go to college has created in a sense the

1 problem itself, our very success. Because as we  
2 deepen access, we're reaching into more and more  
3 challenged individuals, particularly with respect to  
4 income and, secondly, the growing cost of financial  
5 aid is as much driven by the growth of numbers as it  
6 is by the per capita cost that goes to any given  
7 student.

8 It's challenging perhaps what was thought  
9 of as the historic basis of previous support of  
10 students, which was a sort of generational support  
11 through taxes of the next generation, and the idea  
12 that the individuals would have the lowest possible  
13 cost in obtaining their education, particularly with  
14 respect to tuition. Both of these, whether one looks  
15 at tuition or tax support, are in fact challenged at  
16 the state level and it's not something which in my  
17 view is going to be easily resolved by just letting  
18 current events take their course.

19 Second issue that we became conscious or  
20 wanted to be conscious of was the under-representation  
21 of income groups and certain "under-represented  
22 groups" within higher education although that, too,  
23 has grown, but it has not grown in the kind of way  
24 that would argue that we're using our own native human  
25 capital as effectively as we should.

26 Then there's the beginning of variation by

1 income category and by group with respect to  
2 institutional type; that is, two-year, four-year, and  
3 so on. And we believe that the diversity of  
4 institutional types in the U.S. is the richness of our  
5 higher education. But if it in fact becomes a means  
6 of segregating individuals into particular stratified  
7 structures of higher ed., it doesn't work.

8 We equally feel that we need to pay  
9 attention to success and persistence after access has  
10 been created because, clearly, if students graduated,  
11 once they enter college, certainly the productivity of  
12 our institutions will be far greater, quite apart from  
13 increasing access. So it's not just a matter of  
14 supply but also an issue of what we do when we have  
15 our students.

16 The specific arenas in which we're trying  
17 to develop recommendations on access are academic  
18 preparation. Here is the debate that's currently  
19 going on between whether funding or knowledge is the  
20 -- they're obviously related issues in access  
21 knowledge. Is it that there are certain categories of  
22 the population that are simply uninformed and,  
23 therefore, have no expectations of higher education,  
24 or do we have a population with equal expectations of  
25 higher education and the only problem is that there's  
26 no money to get them to take advantage of higher



1 education?

2 I think it's a little bit of both. But  
3 the whole issue of how we, in a sense, provide  
4 transparent information on accessibility is one of the  
5 areas.

6 Second one would be academic preparation;  
7 that is, the need to have a better articulation  
8 between high school and college. I don't know whether  
9 tomorrow Chancellor Reed will talk about California  
10 state university system and its own work with high  
11 schools on articulation, but there is in fact a  
12 classic effort to provide very, very clear information  
13 with feedback even before the senior year in high  
14 school on what it takes to get into college.

15 So the relationship or the interplay of  
16 knowledge about what it takes to be in college and  
17 high schools.

18 Financial obstacles would be a third area.

19 While we might call for increased funding, it seems  
20 to me that the funding will have to be coming from a  
21 variety of sources. And how do we provide a  
22 simplified means by which a student can gain access to  
23 federal, state, institutional, and private support?

24 And in that respect, are we in fact  
25 pursuing our own rhetorical argument that even though  
26 tuition rises, financial aid in fact discounts tuition

1 so that there is fact no disadvantage to those who are  
2 less affluent from the rise of tuition? I think this  
3 whole tradeoff between need and merit-based tuition  
4 and whether in fact need-based tuition is as complete  
5 and transparently available as we'd wish, we would  
6 like to say something about.

7           The social obstacles, which is really  
8 something I mentioned earlier as another matter, is  
9 that there may well need to be a stronger marketing  
10 relationship and particularly better information about  
11 what would be the best option for students with  
12 respect to the array of higher education that is  
13 available in the U.S. And this is the sense that if  
14 over two thirds, perhaps in some states as many as 75  
15 percent, of the age group is going on to some form of  
16 higher education, they're going on to a highly  
17 differentiated expression of higher education and are  
18 those decisions that they're making being made as  
19 consumers effectively? Are they going to the right  
20 option?

21           And as we know from recent publicity, many  
22 students change after one year, not because of  
23 academic reasons, but because of a poor fit between  
24 the institution that they may have chosen.

25           And the final area of recommendations, of  
26 course, is that, demographically speaking, our student

1 body is now almost half what we call adult, not what  
2 we used to call traditional and, therefore, the whole  
3 flexibility of the system to deal with adult learners  
4 as a significant part of the enterprise seems to me to  
5 be an area where perhaps neither financial aid nor  
6 institution capabilities are currently well-tailored  
7 to meet those needs.

8 So we will have some recommendations under  
9 those four headings.

10 Some of the problems that we're facing --  
11 if I might conclude with these observations -- is one  
12 of data. That has already come up. One of the  
13 problems is the data adequate, whether we're dealing  
14 with graduation rates, whether we're dealing with  
15 knowledge of the performance of high schools. What is  
16 a rigorous curriculum, and so on?

17 We're also dealing with the problem of  
18 comparisons. We are a federal system and in fact our  
19 states show enormous variation on many of these  
20 characteristics so that one of the dilemmas we face is  
21 the national average for the U.S., very revealing, or  
22 are there best practices in some states that would be  
23 more revealing of where we want to go? And this is  
24 particularly true with international comparisons,  
25 comparing Norway or Finland with the United States.  
26 It would make more sense to maybe compare Norway with

1 Wisconsin and Finland with Minnesota than in a sense  
2 having these gigantic continental state being compared  
3 with rather small homogenous states.

4 So even our international competitiveness  
5 I think needs a little bit of work.

6 And above all, the data does need to be  
7 sensitized to mission specificity.

8 I think the other issue, again, is whether  
9 our purpose in access does need to pay as much  
10 attention to retention as to recruitment and we are --  
11 we'll try to deal with the issue of retention because,  
12 clearly, retention after arrival will be as -- there's  
13 no point in increasing access if the dropout rate in  
14 the first year is -- remains a serious problem.

15 And, finally, I think we -- if we can be  
16 brave and bold, would be to try to think about  
17 alternative structures for financial aid. This is --  
18 seems to me the hardest thing to do. We've moved --  
19 almost drifted into a sort of grand personal  
20 responsibility -- loans. We do worry a great deal  
21 about the debt burden. But it is a very complicated  
22 system that we've now invented, one that's not --  
23 neither simple nor transparent. Are there some ways  
24 that we could begin to simplify what is going on with  
25 respect to financial aid but connect that financial  
26 aid with, in effect, an outreach to schools, an

1 outreach to families, and certainly this is a passion  
2 of Sara's, whose own foundation is about partnering  
3 different kinds of financial aid, but identifying  
4 students downstream with the promise of that  
5 complicated package of financial aid which the  
6 foundation has in fact created, but then reaching out  
7 to make sure that it's not accidental whether that  
8 student goes to college but there's a purposeful set  
9 of connections to get there.

10 So I think that Sara, were she here, would  
11 have made a great deal about how to make more  
12 systematic the tying together of public institutional  
13 and federal and state support and in particular the  
14 outreach that is necessary if access is going to be  
15 increased.

16 And that, Mr. Chairman, is about where we  
17 are right now.

18 CHAIRMAN MILLER: Thank you.

19 MR. ROTHKOPF: Charles, I don't know if  
20 you can hear me. It's Arthur Rothkopf.

21 MR. WARD: Oh, hello, Arthur.

22 MR. ROTHKOPF: How are you? I'm not  
23 feeling very well. I'm back in Washington. But I am  
24 going to be on for trying to listen to the Task Force  
25 reports.

26 MR. WARD: Great.

1 CHAIRMAN MILLER: Can you -- would you  
2 like to ask a question now?

3 MR. ROTHKOPF: Well, I just would make an  
4 observation just to supplement what David said. It  
5 seems to me, and I think it was part of the -- as you  
6 may know, we're having further discussions next  
7 week -- but it does seem to me that the prime object  
8 of this access question is how do we give access to  
9 the -- those who are most in need of aid? And at  
10 least speaking for myself, I think the current system  
11 does give quite a fair amount of financial aid and  
12 loan aid to students whose needs are not as great.  
13 And whether we call it merit aid or academic aid or  
14 athletic aid, it's given regardless of need, and in  
15 many ways the way in which our -- some of our state  
16 institutions -- most of our state institutions  
17 function, with the same prices charged to everyone,  
18 does represent, at least in my mind, an issue that we  
19 need to address fully and completely. And I would  
20 hope that we could do so during our meeting next week.

21 CHAIRMAN MILLER: Thank you. And thanks  
22 for tuning in. I think we could say that's the front  
23 and center issue and it's come out actually of each of  
24 the task forces, so I believe that would be easily  
25 identified as one of the major issues of our work.

26 On affordability, Dr. Vedder.

1                   MR. VEDDER:     Thank you.     Thank you,  
2     Chairman Miller.     I might add David's presentation  
3     suggests that there are some commonalities of interest  
4     between the Accessibility Task Force and the  
5     Affordability one, which I think is promising in a  
6     way, that we see some commonality of interests.

7                   Our group met this morning and we made I  
8     think considerable progress.     We do not have a written  
9     work product at this point.     Much like the  
10    Accessibility Task Force, we're moving towards one.  
11    The co-chair, Bob Zemsky, is sitting over here and,  
12    through some system that I'm not entirely sure how it  
13    evolved, I was asked to make the report today.

14                  We have identified three areas of concern  
15    which our task force and hopefully the whole  
16    Commission will consider in its final report.     Our  
17    task force will be reaching some recommendations or  
18    options with respect to each of these three areas  
19    within the next few weeks.     We've set sort of an  
20    internal goal of having some written product during  
21    the month of February.

22                  Our first concern is that the current  
23    system of higher education does not support or  
24    encourage the improvements of performance levels in  
25    general, either in some absolute sense or, I might  
26    add, and this is my own addition, cost adjusted sense.

1 Our average outcomes are not adequate and need to be  
2 improved. And this -- equally important is that this  
3 concerns holes for post-secondary education at all  
4 levels, all types of institutions, ranging from the  
5 most elite private universities to perhaps non-  
6 selective institutions serving students at all ages  
7 and at all levels of post-secondary training.

8 Second and related to the first point, we  
9 are concerned that there are growing gaps between  
10 providers of higher education, gaps that are  
11 threatening in some sense in terms of student  
12 activities or student outcomes, on our nation's long-  
13 standing commitment to equal educational opportunity.

14 We have some significant concerns in that general  
15 area.

16 Third, we are very concerned about the  
17 lack of incentives for efficiency, productivity  
18 advancement, control of costs, what have you, that are  
19 present in our current system of educational delivery.

20 In a draft report that we plan to complete this  
21 month, it is our hope that we can further elaborate on  
22 each of these three concerns and, I think more  
23 importantly, or additionally, at least identify some  
24 possible policy outcomes that might help in addressing  
25 these concerns.

26 We're not at this time, however, in a



1 position to articulate exactly what these options  
2 would be. I think individual members of the group  
3 have opinions. One of our task force members, Gerri  
4 Elliott, was not in attendance today. But, in any  
5 case, we are developing these various options amongst  
6 ourselves and we will be certainly -- be able to share  
7 them to the entire Commission well in advance of our  
8 next meeting, hopefully in the next month.

9 I would only say at this point that we  
10 continue to explore issues relating to such themes as  
11 transparency, or the lack of it, in the operations of  
12 educational providers, in the incentive systems  
13 present, to improve outcomes and control costs, and  
14 the lack of adequate measures or metrics to allow us  
15 to assess performance.

16 I will -- that -- I will keep my remarks  
17 short and within the time constraints that the Chair  
18 has allotted me. But if other members of the group  
19 wish to chime in, they are certainly welcome.

20 CHAIRMAN MILLER: Thank you, Dr. Vedder.  
21 That's very kind of you. With that opening, I'd like  
22 to ask Dr. Zemsky if he'd care to add to that or  
23 complement any of those --

24 MR. ZEMSKY: I was just doing fine.

25 CHAIRMAN MILLER: Speechless in San Diego.  
26 Are there any questions?

1           Thank you. That was a fine presentation.  
2           I like the use of the term "options" and  
3           "recommendations" because we -- those are not  
4           decision-making bodies. These are task forces. What  
5           we hope to get from those are some kind of policy  
6           ideas or proposals, and that's a very good way to  
7           phrase that.

8           Dr. Duderstadt, would you please talk  
9           about the work you've done on Quality?

10           MR. DUDERSTADT: The Quality Subcommittee  
11           has been working hard for the last two months --  
12           series of teleconferences, exchange of e-mails,  
13           documents, and so forth. But as fast as we ran, we  
14           couldn't keep up with the President who, on Tuesday  
15           night, essentially eliminated one and a half of our  
16           five recommendations to you.

17           We're working through of series of  
18           documents. An abbreviated form of one of these  
19           documents is under Tab 1, and you might turn to that  
20           for a listing of our recommendations, which I'll run  
21           through very quickly and then give you some  
22           background.

23           Let me state them in their briefest form.

24           Number one, utilize public-private partnerships to  
25           unleash and shape market forces to drive world-class  
26           quality, performance, efficiency, and public purpose

1 in post-secondary education.

2 Recommendation two, to support American  
3 innovation, by stimulating a more innovative culture  
4 in American colleges and universities in developing  
5 new academic programs and activities. Now, this is an  
6 issue that will be addressed by Nick Donofrio and  
7 Wayne Clough later this afternoon, but it was also  
8 addressed by the President's American Competitiveness  
9 Initiative.

10 Third, to refocus public subsidies at the  
11 state and federal level to better enable access and  
12 success, again an issue that overlaps one of the other  
13 -- a couple of the other groups.

14 Fourth, to enhance and rebalance the  
15 federal support of R&D and graduate education to  
16 better serve national priorities, such as economic  
17 competitiveness and national security. And, of  
18 course, this was one of the focal points of the  
19 President's State of the Union address and it's an  
20 issue that we very much support in terms of his  
21 recommendations and we'll work toward putting those  
22 into effect over the next year.

23 And then, finally, encouraged by Governor  
24 Hunt, we decided to put a blockbuster on the table,  
25 kind of to be provocative and shake things up, and  
26 that blockbuster is the following: That the nation

1 should commit itself to a vision of providing all  
2 American citizens with universal access to lifelong  
3 learning opportunities, thereby creating the world's  
4 most advanced knowledge society and providing for  
5 economic prosperity, national security, and social  
6 well-being in an age of knowledge in a global economy.

7           Now, this theme of a global knowledge  
8 economy of course has dominated much of the dialogue  
9 over the last year or so. It is clear that it demands  
10 a new level of knowledge, skills, and ability on the  
11 part of our citizens. Our committee believes it is  
12 also clear that today the United States simply must  
13 demand and be prepared to sustain a world-class system  
14 of post-secondary education at all levels capable of  
15 meeting the changing educational research and service  
16 needs of the nation.

17           But we face many challenges. We've heard  
18 earlier today that increasing stratification of access  
19 to and participation in higher education based on  
20 socioeconomic status, questionable achievement of  
21 acceptable student learning outcomes, concerns about  
22 cost containment and productivity, the ability of  
23 institutions to adapt to a changing world.

24           Therefore, we framed our recommendations  
25 to respond to this. Just a couple of comments about  
26 them. The vision -- in the document, we lay out a

1 vision, some of the challenges, and then the  
2 recommendation. The quality vision, of course, is  
3 very challenging. It's our belief that you will drive  
4 the post-secondary system most rapidly toward quality  
5 by taking advantage of market forces but shaping them  
6 to some degree through public policy and perhaps  
7 public incentives to provide a somewhat more educated  
8 consumer group population that can take advantage of  
9 the market, removing unnecessary regulation and  
10 bureaucracy to allow institutions to respond to it,  
11 and to provide incentives for institutions to develop  
12 or adopt best practices in areas such as cost  
13 containment, productivity, assessment of student  
14 learning outcomes, and innovative academic programs.

15 The innovation recommendation really has  
16 two parts. One is to respond to the changing needs of  
17 the nation, and particularly American industry for  
18 innovation. That will require new academic programs  
19 and perhaps new institutions. But, beyond that, to  
20 challenge American higher education to also become  
21 innovative in changing its own practices and  
22 approaches in order to respond to the changing needs  
23 of the nation.

24 The third is access. This in a way  
25 duplicates the work of the other two committees, but  
26 we thought it was so important to put out on the table

1 the concern that access to quality higher education is  
2 increasingly dependent upon socioeconomic circumstance  
3 and, therefore, that should be dealt with particularly  
4 in terms of the priority given to the allocation of  
5 public funds.

6 The fourth issue, research and graduate  
7 education, once again, that's the key to a nation's  
8 prosperity and security in the global knowledge driven  
9 economy but, again, that was of course the purpose of  
10 the President's State of the Union recommendation on  
11 the American Competitive Initiative.

12 Finally, the blockbuster, there are  
13 earlier points in the nation's history when federal  
14 action has so expanded the opportunity for education  
15 that it's had a dramatic effect on the nation. The  
16 Land Grant Acts, the Civil War, the first universal  
17 access and then mandatory access to secondary  
18 education in the early part of the 20th century, and  
19 then of course the GI Bill at the end of the Second  
20 World War.

21 We believe that the time is right to take  
22 another bold step and actually to complete that  
23 sequence of expansion by recognizing that the needs of  
24 a knowledge society will be for lifelong learning  
25 opportunities at all levels. It's mandated by the  
26 changing nature of our society, by lengthening life

1 span and career, by the fact that the shelf life of  
2 the knowledge you receive early in your life, of the  
3 knowledge you receive early in your education simply  
4 cannot last through your lifetime and your career.

5           Such a bold approach by providing  
6 universal access to lifelong education almost as a  
7 civil right of course would transform the American  
8 population in one of the most highly educated  
9 workforces in the world. But, beyond that, it would  
10 demand major transformation in the nature of higher  
11 education.

12           It would demand new ways to finance it.  
13 One might consider, and we've put out a couple of  
14 ideas, some kind of transportable education savings  
15 accounts, perhaps funded much like Social Security is  
16 now over the life -- over a career span of earnings.

17           Another example would be to take the lead  
18 from the Land Grant Acts of the 19th century, which  
19 put together a partnership between the Federal  
20 Government, the states, institution, and the private  
21 sector, to do it again but perhaps to call it Learn  
22 Grant Acts which really prioritize the development of  
23 our human capital as the most valuable asset of the  
24 nation.

25           There's a variety of ways to put it  
26 together, but we think it's appropriate for this

1 Commission to consider such bold proposals as it moves  
2 forward with its work.

3 CHAIRMAN MILLER: Thank you. That does  
4 fit in that category of "Be careful what you ask for."

5 But thank you. That group has done a very, very  
6 large amount of work, extensive, very busy people that  
7 contributed. I watched it happen and I think it's a  
8 very thoughtful document that's been produced, and I  
9 encourage everybody to read it more than once and  
10 focus on it because it's a very, very fine piece of  
11 work.

12 And we'll have Bob Mendenhall talk about  
13 the Workforce Task Force.

14 MR. MENDENHALL: Thank you. I've been  
15 asked to present on behalf of Assistant Secretary  
16 DeRocco, who's the chair of the Workforce Development  
17 Task Force and wasn't able to be here today. We do  
18 want to recognize Mason Bishop, her Deputy Assistant  
19 Secretary, who is with us, and thank the members of  
20 the task force that contributed to this.

21 We have developed a paper with key  
22 recommendations, which I will attempt to summarize in  
23 the time allotted. I think the Workforce Development  
24 Task Force begins with the premise that workforce  
25 development is in fact a key function of higher  
26 education, one of the key functions for higher



1 education, one of those functions being to create new  
2 knowledge, the other being to create a competitive  
3 workforce and provide work opportunities for  
4 individuals.

5 We often talk about the responsibility of  
6 higher education to train citizenry. And certainly  
7 preparing citizens for full involvement in both the  
8 economy and society is part of the workforce  
9 development mission that we looked at.

10 In talk about workforce development, I  
11 think it's important to make the point that it is both  
12 skills development for particular job opportunities  
13 and a broader, liberal education that includes  
14 critical thinking and writing, reasoning, and problem-  
15 solving. The employers of today are clearly looking  
16 for skills in the workforce but also a workforce that  
17 can be trained to evolve as the job evolves and as  
18 technology provides different responsibilities in the  
19 workplace.

20 We're looking at higher education as post-  
21 secondary education broadly to include trade schools,  
22 technical schools, community colleges, colleges and  
23 universities and that whole spectrum of post-secondary  
24 education that contributes to the workforce  
25 development.

26 Secondly, the workforce itself is getting

1 older and more diverse. As life spans increase,  
2 people will work longer and longer into their careers.

3 As a result, we'll have the need for lifelong  
4 learning and for additional educational attainment as  
5 adults in order to remain competitive in the workplace  
6 for what may now be a 50-year or more work life.

7 At the same time, the workforce is  
8 becoming, I mentioned, more diverse. We face  
9 increased international competition for many of the  
10 jobs as the world becomes more flat. And 90 percent  
11 of the fastest-growing occupations require some post-  
12 secondary attainment. So the requirement for post-  
13 secondary involvement of the workforce will  
14 significantly increase -- is increasing and will  
15 continue to significantly increase in the coming  
16 decade.

17 As a result of that, our two principal  
18 recommendations are, one, that we need to increase the  
19 ability for adults to access ongoing education, a  
20 lifelong learning, if you will. And, secondly, we  
21 need to increase the percentage participation in post-  
22 secondary education of both traditional age students  
23 and obviously of adults.

24 We must close the participation and  
25 completion gap of the population just in order to have  
26 them be meaningful contributors in the economy and in

1 society.

2 As a result of that, we then have five  
3 specific recommendations related to that. The first  
4 is that we need to increase the collaboration between  
5 higher education and industry, including government as  
6 an industry and the government labs in particular as a  
7 place that can contribute significantly to this  
8 collaboration. But higher education and industry  
9 needs to work more closely together to identify  
10 workforce needs, again both the specific skills needed  
11 but also the higher order reasoning skills that  
12 industry is looking for.

13 And in particular, to do a better job in  
14 higher education of developing internships and real  
15 world practical experiences earlier in the educational  
16 process.

17 Rick Stephens from Boeing is on our task  
18 force and mentioned they hire a very small percentage  
19 of applicants -- a lot of people but a small  
20 percentage of college applicants to the Boeing company  
21 and won't even look at college students who haven't  
22 done an internship and have real work experience.

23 At the same time, to increase the linkages  
24 between higher education and high school to help  
25 students and teachers understand workforce needs and  
26 the high school preparation that's necessary to enter

1 those fields in college.

2 The second recommendation is to encourage  
3 -- do more to encourage lifelong learning  
4 opportunities for adults, including providing more  
5 flexible financial support that would support licenses  
6 and credentials that might build to a degree but not  
7 necessarily are in a formal degree program.

8 This might include things like lifelong  
9 learning accounts where the employee would contribute  
10 money, perhaps with a tax deduction. The employer  
11 could match that contribution, perhaps also with a tax  
12 deduction, and so the employee and the employer and  
13 the government are collaborating to create a lifelong  
14 learning account that that individual could then use  
15 to pursue additional education throughout their  
16 career.

17 We also mentioned the CAAs. Now I can't  
18 remember, Mason, what it stands for. Help me.

19 MR. BISHOP: Career advancement accounts.

20 MR. MENDENHALL: Career advancement  
21 accounts, which David had mentioned, which would  
22 provide public funds to individuals to advance their  
23 education.

24 And, finally, that we need to increase  
25 both the supply and method of provisioning higher  
26 education for adults. One of our earlier task forces

1 mentioned that we're not necessarily set up  
2 infrastructure-wise to best serve adults who are  
3 working full time and need to access education on  
4 irregular schedules and times.

5 The third recommendation is to reduce the  
6 financial burden on low-income underserved populations  
7 in order to increase their participation, that we  
8 might consider as a Commission recommending to  
9 increase tax credits and incentives for low income,  
10 including making things such as the lifetime learning  
11 tax credit refundable so that it actually is of  
12 benefit to the lowest-income individuals who might  
13 otherwise not have a -- be paying the taxes and able  
14 to take that credit.

15 And that these incentives for adults might  
16 also be used to pay for adult basic education or  
17 English as a second language skills, which are just  
18 the entry skills required in the workforce and to  
19 access higher education.

20 Fourth, that institutions must be more  
21 accountable for the labor market outcomes of their  
22 graduates and, indeed, should track the labor market  
23 outcomes and use those principally to inform their own  
24 programs for improvement as formative development of  
25 their programs to ensure that they are in fact meeting  
26 workforce requirements and providing the right and

1 relevant education for their students.

2 And, fifth, we would recommend the  
3 development of state-by-state comparisons of how  
4 states are meeting the needs of adult learners. The  
5 measuring up reports for higher education look  
6 principally at traditional age students and are real  
7 helpful at comparing performance across states and  
8 something like a measuring up for adult learners and  
9 adult workers in the states would be helpful to focus  
10 attention and resources on the area of adult  
11 education.

12 That concludes our report, unless other  
13 task force members have something to add.

14 CHAIRMAN MILLER: Thank you. Thanks.  
15 We're beginning to see some very common themes, to  
16 look at the higher education enterprise broadly beyond  
17 the traditional four-year college or early age  
18 colleges and some other things like that. And it's  
19 become a powerful part of our work.

20 I'm going to make the presentation about  
21 accountability, which we didn't put in the form of a  
22 task force. There's been a lot of discussion about  
23 that among the various task forces and members, and  
24 one of the reasons we didn't put it in a task force is  
25 it does overlay everything and it's more of a  
26 measurement than actual policy.

1 I put out a memo last week which tried to  
2 bring the Commission up to date on some of the issues.

3 I'm going to read a written presentation to explore  
4 that some and add to that a little bit but mostly  
5 repeat what I said. And I took the initiative to send  
6 the memo because some of the public discussion things  
7 that have been written about accountability and  
8 testing I think at times have gotten the picture not  
9 quite correctly or I haven't been able to communicate  
10 some of the work we've done or some combination of  
11 that. So the idea was to put forward before the work  
12 was completed or even partially finished on  
13 accountability. There's still a lot of work to be  
14 done and segments missing, but I'm going to repeat or  
15 go over some of the things that were mentioned in that  
16 memo.

17 "Accountability" means measuring  
18 performance, institutional performance of colleges and  
19 universities. Without a transparent and accessible  
20 information system, public policy is only guessing.  
21 Institutions are unaccountable and students have no  
22 realistic way to make educational decisions. That's  
23 where we are today, in my opinion, in the information  
24 age, even though new technologies are available to  
25 determine and implement best practices.

26 Talk about markets or competition or

1 consumer-friendly environment is just talk unless we  
2 significantly improve our information systems, and the  
3 work of the various task forces in our discussion  
4 publicly in Nashville affirmed that theme.

5 The goal of a transparent and accessible  
6 information system for performance measurement is not  
7 only essential; it's reasonably easy to attain.

8 Commission work has been proceeding on  
9 three issues of accountability, which are  
10 accreditation, student learning, and institutional  
11 performance.

12 On accreditation, the Commission will soon  
13 have a briefing paper on the subject and, before the  
14 April meeting, there will be further analysis and some  
15 proposals to be able to discuss and dissect. We've  
16 been working on that paper on and off for the first  
17 couple of -- last couple of months and so it's really  
18 a matter of when we put it in everybody's purview  
19 because it's hard to get everything at one time  
20 studied.

21 In my opinion, this is a critical field of  
22 examination for the Commission. At minimum, there's a  
23 need for some highly visible informed discussion.

24 Number two, on student learning,  
25 measurement of which is called testing, there are some  
26 very new things to consider in full public view,



1 almost coincidental with the Commission's work. There  
2 are some new things that have happened almost as the  
3 Commission developed, which is part of the reason it's  
4 been hard to communicate.

5 Several new testing regimes have emerged  
6 which demonstrate the capacity to measure a broad  
7 skill set, such as critical thinking, problem solving,  
8 written communications, and analytical reasoning  
9 skills. Several examples are mentioned in my recent  
10 memo on accountability, all from highly reliable  
11 sources, including several members of the Commission  
12 that have been involved.

13 These are breakthrough events in the field  
14 of measuring student learning, new breakthrough  
15 events. It seems clear that the types of skills --  
16 the types of skills that are covered are similar to or  
17 even identical with the -- with what the employers and  
18 workers of the future need and want, and that's a  
19 critical element of all this. These skills that are  
20 identified by some of the tests are what employers and  
21 students of the future need and want. These are the  
22 type of skills claimed to be enhanced by many colleges  
23 and universities, and students are likely to want to  
24 know if these are the skills being imparted after  
25 expenditures of large amounts of life's time, energy,  
26 and money.

1           We will investigate these further and  
2 expose to the Commission and the public more details  
3 and reviews, due diligence for those who need it. My  
4 personal opinion is that these highly credible  
5 instruments will provide institutions with valuable  
6 information in the management of their most  
7 fundamental mission and will in due time be widely  
8 accepted by employers, students, and policymakers.  
9 However, while this type of test has widespread  
10 application for traditional colleges and universities,  
11 as we talk today, this does not imply one size fits  
12 all testing instrument. A fuller perspective with  
13 other ideas will be brought forward as we develop our  
14 work.

15           Number three, on the broader issue of  
16 providing information on institutional performance,  
17 we're working on some interesting ideas. We've  
18 examined informally, not complete but very promising,  
19 development of a search engine or regime combined with  
20 a weighting system; that is, information about higher  
21 education institutions could be identified, weighted,  
22 and inserted into a system which could provide  
23 consumer-friendly custom-built formats. The weights  
24 assigned, a critical part of this concept, could be  
25 individually determined or could be also predetermined  
26 by a set of experts or specific groups or people with

1 certain kinds of interest, depending on consumer needs  
2 and preferences.

3           These searches could be very simple or  
4 very complex, the latter being especially valuable for  
5 policymakers, researchers, and institutional managers.

6           The data available today would make this  
7 possible. However, the impact in addition to the data  
8 of a unit record system would be geometric in  
9 proportion. In my opinion, it would be the adding of  
10 a main step of performance measurement for  
11 accountability if we produce a system like this.

12           None of these are mandatory or thought to  
13 be -- this is not federalization. It might be some  
14 national activity. These are best accomplished by  
15 right leaders in the academy, along with strong  
16 demands from the business community and encouragement,  
17 in whatever form, from the Commission.

18           We will need people with deep analytical  
19 skills and the ability to manage ambiguity. That's a  
20 very simple statement that I think goes to the heart  
21 of what we're saying about accountability. That's  
22 from a member of the commission, Nick Donofrio, and I  
23 think represents the view of the business community  
24 and employers at large.

25           Thank you. This is a good time -- I think  
26 we've got plenty of time for questions and answers on

1 any of the task forces or the work we're doing.

2 MR. VEDDER: Mr. Chairman, --

3 CHAIRMAN MILLER: Yes.

4 MR. VEDDER: -- first of all, may I just  
5 say personally I was encouraged by your remarks,  
6 knowing at this point that more details will be  
7 forthcoming. I think it's a promising line of  
8 inquiry.

9 I have a question which I guess would be  
10 best addressed to Jim Duderstadt whose committee has  
11 come in -- or task force has come in with the most  
12 comprehensive recommendations, roughly speaking,  
13 covering all of the subcommittees of the Commission.

14 And -- and I don't say that negatively. I  
15 say --

16 MR. DONOFRIO: That's what happens when  
17 you do your homework, Rich.

18 MR. VEDDER: Yeah. I say it with some  
19 admiration, actually. It's kind of gutsy.

20 Since -- but under the rubric of quality,  
21 I was struck very much by recent Department of  
22 Education evidence that was provided to us and,  
23 indeed, to the general public that suggests that  
24 there's been something of an alarming and  
25 statistically significant decline in basic literacy  
26 amongst college-educated adults.

1           Should we perhaps not be just as concerned  
2 about the quality of the learning imparted to students  
3 as well as the quantity of students attending? Should  
4 we not be just as concerned about -- well, I share  
5 your concern, by the way, about the need to improve  
6 scientific education and so forth and the numbers and  
7 the quality of that and the research. I'm completely  
8 with you on all of that.

9           But is there not also a second area of  
10 concern that we may address, is that the students are  
11 simply falling behind national -- past national norms  
12 with respect to basic skills, such as reading,  
13 writing, knowledge of our history and our heritage,  
14 matters of this nature which are critical to the  
15 maintenance of Western civilization?

16           MR. DUDERSTADT: Let me respond. I think  
17 that there are two aspects to this. One is actually  
18 covered by our last recommendation. I think in  
19 today's world, you really have to step back and look  
20 at education as a lifelong need for -- for everyone.  
21 Different levels, different nature, but it extends  
22 over one's lifetime.

23           And once you begin to look at it from that  
24 vantage point, you realize that it's very difficult to  
25 decouple what we call higher education today from  
26 obviously K-12 education and clearly adult education

1 throughout one's life. So you have to look at it from  
2 that perspective.

3 The second thing is that, interestingly  
4 enough, American higher education is almost unique in  
5 the world because of the mission that we assign to our  
6 universities of socializing young people, a mission  
7 that is really assigned to secondary education and to  
8 society through various kind of experiences --  
9 military service, community service, and so forth --  
10 in Asia and in Europe.

11 I think sometimes the socialization and  
12 the education function tend to get a bit confused. I  
13 think you could make the argument that perhaps  
14 sometimes educational institutions put too much weight  
15 on the socialization and not enough on the more  
16 fundamental education mission that they have.

17 But I guess the point is this is all  
18 coupled together, and the -- the studies that we've  
19 seen, which I agree are alarming, I think have to be  
20 addressed by looking at the system in totality, not in  
21 any particular component of the system.

22 CHAIRMAN MILLER: Other questions or  
23 comments, please? We must have done a perfect job.  
24 We're ahead of time and -- good.

25 MR. WARD: Mr. Chairman, I was interested  
26 in your reflections at the end of your comments on

1 accountability, which were very clear, laid out, very  
2 transparent, unlike many other aspects of  
3 accountability. In terms of audience or how we  
4 instrumentalize the outcome of recommendations, it's  
5 premature because we've not got them in a form where  
6 we recommend that X happen. But when we do, do you --  
7 how -- do you see a way of changing higher education  
8 by means of exhorting institutional reform, by  
9 encouraging Governors, the business community to  
10 exhort reform, or is there in any way a sort of sense  
11 of a regulatory agenda, whether we like it or not,  
12 because that is in fact possibly one way of getting  
13 there faster?

14 Have you -- I mean, you sort of touched on  
15 it, but I was wondering as you -- do we have also a  
16 sense of whether any state has currently a best  
17 practice that could be a model? One of the  
18 challenges, to some degree I think, is -- as I  
19 listened to some of the aspects -- is there an  
20 institution or a group of institutions or a state  
21 currently practicing something close to this that  
22 might then be the model?

23 So I was reflecting about how we might  
24 sort of address -- to whom will we address it and what  
25 kind of redress do we expect?

26 CHAIRMAN MILLER: Well, among other

1 things, I can add some layers to that presentation. I  
2 can be very quick about it. The way I think we'll  
3 begin to come up with ideas will bring some of the  
4 people that are involved in some of these issues to  
5 the table. We've already heard some things on  
6 accountability in some of the news in Nashville wasn't  
7 very good, but we heard from the head of the State  
8 Higher Education Commissioners Group. They're very  
9 actively involved in developing accountability systems  
10 in virtually every state. There's been a state  
11 movement to do that, certainly my home state and  
12 others. There was a commission on accountability two  
13 years ago headed by former Governor Keating and former  
14 Secretary Riley, and they put some very important  
15 proposals out there, so some of these things are  
16 already beginning to happen.

17 There's a Select Committee of National  
18 Council of State Legislators. I'm not sure I've got  
19 the group right. They're heavily interested in this  
20 idea and they're all going to be looking at it, as is  
21 the whole education community. So I think just having  
22 this dialogue and talking about it will have a great  
23 impetus. Ideas carry a lot of power. And if we can  
24 put forward some of these best ideas, it would be very  
25 surprising to me if the business community, seeing  
26 that they need these skills, don't -- and we can now



1 have a valid way of measuring them, whatever the tests  
2 are -- and you can debate how many there will be and  
3 what they are -- I'd love to see people competing on  
4 that kind of skill set -- that if they find that and  
5 see that, they're going to demand it.

6 I mean, if I were head of a big  
7 corporation, I might ask my human resource person to  
8 have that as part of her certificate; for example --  
9 but the need's going to be there, the demand's going  
10 to be there. The student's going to eventually want  
11 to know that. The pressure's going to come because of  
12 the cost side. We're creating a lot of pressure in  
13 the system because prices -- I think that's going to  
14 create a need from the students to know what they're  
15 getting, besides a certificate or the number of hours  
16 they sit, and we're going to hear more about that  
17 today.

18 So I think there's a confluence of factors  
19 that are going to drive this to the -- to the front.

20 I don't see any way to regulate or mandate  
21 that. I don't propose it, don't have the idea to do  
22 it. I think it's a common custom that we'll develop.

23 Whether we wanted to or not, I think we can give it a  
24 lot of encouragement and notice and I expect it to  
25 happen. I think almost it's going to happen if we  
26 didn't have a recommendation today.

1 Please.

2 MR. DUDERSTADT: You know, I'd like to  
3 draw an analogy to health care. Because when you  
4 assess someone's health, you need fairly sophisticated  
5 diagnostics and a -- and a clear understanding of the  
6 health process itself.

7 As a nation, we have invested very, very  
8 heavily in R&D aimed at ensuring public health,  
9 creating instrumentation like magnetic resonance  
10 imaging and positron tomography and so forth. The  
11 learning process is just as complicated as any other  
12 biological function, and yet -- and, furthermore, the  
13 educational sector is comparable in size to the health  
14 sector. And yet we invest very, very little in  
15 understanding how learning occurs and how to measure  
16 learning and how to set goals and so forth.

17 Whether that's within institutions that  
18 try to perform their instructional and other  
19 activities better or whether that's through the  
20 national level, which of course has an explosion of  
21 new knowledge about neuroscience, cognitive science,  
22 brain function, and so forth, but none of that has  
23 mapped into the education function or in learning it.

24 And so I think in order to do this and do  
25 this correctly, we simply have to invest more as  
26 institutions, as government, as society more broadly

1 in learning how to really do it and do it well and do  
2 it right.

3 CHAIRMAN MILLER: Thank you. I think  
4 that's a very important point.

5 MR. DONOFRIO: So, Mr. Chairman --

6 CHAIRMAN MILLER: Yeah, please.

7 MR. DONOFRIO: -- just -- I'm very  
8 encouraged by all of this discussion and all the  
9 comments that were made. I would -- I am going to  
10 sound like a broken record, so I apologize for that,  
11 but as we do this work, especially on accountability,  
12 I mean, I really think industry has to be heard from  
13 as well. They do end up consuming most of the output  
14 of the higher education institutions that we have.  
15 And I don't think we should let them off the hook.  
16 It's too easy to listen to people wax eloquently on  
17 processes or approaches or ideas that they have for  
18 all of these issues of accreditation, student  
19 learning, and institutional performance.

20 But, in the end, if what's coming out of  
21 these institutions isn't going to do us any good,  
22 isn't going to help us, you know, move the country  
23 forward, we're fooling ourselves.

24 So as you consider whatever we're going to  
25 see on accountability, I hope you also consider the  
26 fact that this, too, is a joint stewardship issue and

1 that industry is culpable here.

2 CHAIRMAN MILLER: Thank you for saying  
3 that. I've said privately that if we don't get the  
4 support generally of the business or industry  
5 communities, we won't be successful. That's the third  
6 leg of the stool in the sense of policymakers,  
7 educators, and the people who both support and need  
8 the results of higher education. I believe there's an  
9 enlightened self-interest, but I believe virtually  
10 every business leader would want and need the things  
11 we're talking about. So I believe that's right.

12 I've thought about it -- we've talked  
13 internally about how to do that, so I'll say now we  
14 could put recommendations or things in there for the  
15 business community to do. I've started some meetings  
16 with leaders of business organizations to see where we  
17 would take that and who to bring in, so we've already  
18 advanced that. We have members of the business  
19 community on this group, which is not traditional for  
20 anything to do with higher ed. or commissions. It's  
21 probably one of the unique characteristics that we  
22 have major business organizations, including Art  
23 Rothkopf -- are you still there, Art? -- from the  
24 U.S. --

25 MR. ROTHKOPF: Yeah. I'm with you.

26 CHAIRMAN MILLER: -- from the U.S. Chamber

1 of Commerce, so we have done -- we have brought that  
2 into the discussion. And we would look forward to  
3 finding a way to do that more actively or directly.

4 MR. ROTHKOPF: Can I make one -- since you  
5 mentioned my name, Charles, there's one point -- and  
6 you and I did discuss this in our conversation, but I  
7 want to just share it more generally -- and I  
8 appreciate that there's going to be a study done and  
9 presumably that the Department will present at the  
10 April meeting on the subject of accreditation, and as  
11 some of us who either in past lives or current lives  
12 are involved in higher education are familiar with the  
13 accreditation process, I just want to be sure that the  
14 members of the Commission understand how regional and  
15 national accreditation works. It's a complex process.  
16 Sometimes it works, in my view, very well and  
17 sometimes it works pretty poorly.

18 But I do think it's important that the  
19 Commission understand, and especially those who have  
20 not been involved in higher education, as to just how  
21 the accreditation process works and so I think they'll  
22 be better able to understand what's -- what's coming  
23 at us in April.

24 CHAIRMAN MILLER: Thank you. We're going  
25 to do that -- we've already got it underway. We'll  
26 have something out to read about the substance of how

1 the system today works, sort of a neutral document,  
2 and in the next couple of weeks probably, and then  
3 we'll follow that up actually with policy ideas of  
4 proposals and we're going to -- I mentioned --  
5 bringing other people in. We'll bring experts in,  
6 including you, Art, to do that.

7 So the Commission between now and April  
8 will be very well-informed and the menu for April  
9 would be a lot of the A's -- affordability,  
10 accountability, access, accreditation, and I've said  
11 internally anxiety. That will be the other "A"  
12 because that's where we'll begin to bring some of  
13 these things at the policy mode.

14 I think we have some -- Jonathan and  
15 Robert.

16 MR. GRAYER: I think one thing that has to  
17 be said in the context of this discussion, to the  
18 point about the socialization aspect of American  
19 higher ed., the paradigm that we have in our heads as  
20 we address these issues of the American college or  
21 university is under incredible strain from outside  
22 today. By the most conservative estimates, a million  
23 students enrolled in online university settings, fully  
24 regionally accredited, who have no social  
25 infrastructure surrounding it, probably two million in  
26 schools that are also regionally accredited but part

1 of what would be called broadly a trade school  
2 environment.

3 As the learner becomes more and more of an  
4 adult learner who doesn't need that social context to  
5 learn, that entire hook is loosening on the system,  
6 yet we spend enormous -- we have not changed the  
7 economic equations about how we spend money against  
8 those activities.

9 And in quality and in affordability, they  
10 will march. As students get older, as they get a  
11 second chance at getting a fully-regionally accredited  
12 degree, which I think is an important distinction to  
13 talk about here, we're going to have to adapt our  
14 models to that changed world. And I just -- it's  
15 important that be in --

16 CHAIRMAN MILLER: You keep us on that  
17 track because I think we've talked about a lot of that  
18 internally. If we were to extrapolate today's  
19 structure, we would have failed what we're doing,  
20 which is a strategic idea. We're trying to look out  
21 ten years and not think about only what it is today  
22 but where it's going to go and how it's going to get  
23 it there the best way, and that's a very important  
24 consideration to all our work.

25 MR. ZEMSKY: This is in the nature of a  
26 set of cautionaries to the whole discussion. And I'm

1 not sure I'm going to agree with Nick, but I was  
2 struck by his use of the word the industry is  
3 "culpable" and that -- I think that one of the things  
4 that we have to be aware of -- and Jonathan just  
5 helped make the point even more so -- that the longer  
6 higher education aid unit that can be sealed off, that  
7 can't be bordered, this is increasingly an unbounded  
8 activity, and in two ways at least things outside of  
9 us are having increasing impact upon us. One of them  
10 is today in David's and Sara's committee, and the  
11 Chairman of the Commission -- our Chairman warned us  
12 at the beginning that we could not say the problem on  
13 access lies in the secondary schools.

14 But at least it is a joint problem. It is  
15 a joint problem with the secondary schools just as  
16 much as it's a joint problem with industry and that I  
17 -- you know, while you all are products of personal  
18 experience, I have been through test results now that  
19 I've never seen before. They've been there; I just  
20 didn't bother to look. And I really would encourage  
21 everybody that as No Child Left Behind and other data  
22 becomes available to start looking at those test  
23 results. They are really scary and that they just are  
24 -- they will make you change your mind about how much  
25 money will buy of a product that is already not  
26 capable of further learning in its present form.



1           And that's strong words.    And I accept  
2 that.    But that's what those things say to me.    But I  
3 also say in equally strong words you've got to be a  
4 little careful about this business link.    Remember,  
5 the corporations you have around the table, what I'm  
6 about to say doesn't apply to them.    That's one of the  
7 reasons they send their representatives to these  
8 tables.    But we're dealing in a world where  
9 corporations are getting out of the pension business,  
10 where corporations are retreating as fast as they can  
11 from sort of social responsibility of the kind of  
12 lifelong learning that you're talking about.

13           So this makes what Jim Duderstadt is  
14 talking about all the more important because we're  
15 going to have less company-provided training, not by  
16 IBM or not by Boeing, but in the aggregate it is going  
17 to be less.    And all of the trends point that way.  
18 All of the trends, if you study people like Peter  
19 Capelli (ph), who talks about a contingent workforce  
20 where in the same way that the cost of education has  
21 been shifted to the individual for higher education,  
22 so is the cost of training being shifted to individual  
23 workers at a very high and rapid rate.

24           So as we look at these other partners, co-  
25 responsibility becomes just a major theme that I think  
26 we're going to have to pay attention to.

1                   CHAIRMAN MILLER: Well, thank you. You  
2 may be right. On the other hand, we're going to hear  
3 some innovative ideas that may begin to show that  
4 there are other ways to fill the gap with corporate  
5 and other innovative ideas. There is a big demand  
6 there and it's not -- the increased supply is not  
7 being met by -- by higher ed., which is culpable for  
8 the K-12 system. That's what I've tried to take it  
9 off the table.

10                   We could spend our time talking about  
11 that, and we should sometime if we want to. But if we  
12 get into that, the problem is going to be we won't  
13 address our own issues in higher education. That's  
14 the point there. I think it's important to connect  
15 the business community to the equation, for the reason  
16 I already said and because they both employ the people  
17 and that's what most people actually go to higher  
18 education for, to get good jobs, the good lifestyle,  
19 and they supply the money. So I think they're  
20 partners and, if "culpability" is not the right word,  
21 I sure liked it, though. Powerful word. But I think  
22 higher education is culpable.

23                   I'm not sure if I omitted somebody.  
24 Charlene -- my peripheral vision is not --

25                   MS. NUNLEY: I know. I'm kind of hiding  
26 back here behind Jim.

1 CHAIRMAN MILLER: Yeah.

2 MS. NUNLEY: Just two quick comments. I  
3 love the bold vision of the Quality Task Force. I  
4 think that is really something I hope we will do, is  
5 make some very bold commitments.

6 Second, I do think that there is research  
7 going on on teaching and learning that people may not  
8 be broadly aware of in the Vanguard Learning Colleges  
9 or the innovation in community colleges. You know,  
10 two-year colleges are teaching institutions and, as a  
11 result of that, there's colleges like Valencia and  
12 Florida and other colleges across the nation that  
13 truly are doing a lot of research relating to how  
14 students learn and what alternative approaches support  
15 that. So I would hope as we're doing some of our  
16 homework, we would look a little bit at the work going  
17 on in the Vanguard Learning Colleges.

18 CHAIRMAN MILLER: Thank you. This is  
19 interesting to get the Commission to talk to each  
20 other and the public like this. We haven't done much  
21 of it, so it's very helpful to do it. Maybe we'll add  
22 that -- oh, good. Thank you.

23 MR. FALETRA: I'd like to mention a couple  
24 of things that have arisen by -- indirectly from  
25 Jonathan and from Nick, and the -- in our group, we  
26 were talking about the confluence of the needs for --

1 that are found in industry for people who can not only  
2 critically think but also that enter into that  
3 workforce with the skills that they need.

4 And the difficulty that we find when we --  
5 at least on our national labs and a lot of my partners  
6 in the scientific and technology communities, that if  
7 we look at like E-learning as a solution to the  
8 problem, it's like looking at the solution to energy  
9 just in ethanol. And we're not going to get it there.

10 We're going to have to have everybody playing. This  
11 is a solution that is only going to come from  
12 everybody in the sector -- every sector of our economy  
13 and our nation playing together, whether it's  
14 businesses like IBM or whether it's non-profit, non-  
15 governmental organizations or whether it's the  
16 national labs or higher education. It's going to take  
17 everybody.

18 We really look at -- for instance, I think  
19 Charlene had mentioned that E-learning in some  
20 respects had created more problems, more challenges,  
21 and hadn't made the system seemingly more efficient or  
22 cheaper. But -- and how do they grapple with that.  
23 And, at the same time, we value in our national  
24 laboratories a development that we can give in skills  
25 because we have some of the greatest instruments, if  
26 not the best, on the planet. So when they come to our

1 national labs, they learn the instrumentation they  
2 need and, therefore, the skills to go to industry  
3 with.

4 And we have found, just as people have  
5 mentioned here, that -- and Rick made a very, very  
6 fine point of this -- that at Boeing, they will not  
7 hire a student who hasn't got real world experience.  
8 And we're finding that more and more in industry, and  
9 industry has to do this to survive.

10 So if you don't present the skill sets --  
11 and I really do mean do you know how to operate  
12 certain things, do you know how to do the things you  
13 need to do, they're not going to be able to, and how  
14 do you do that through E-learning? I would like to  
15 know how a student learns to operate an MRI over an E-  
16 learning system.

17 So it's going to take everybody playing  
18 together, all -- all sorts of different things under  
19 this and it's like the gathering storm. The gathering  
20 storm I analogize to what Charles Darwin said when he  
21 talked about how systems adapt. And he used the  
22 example of weather and weather drives a system. And I  
23 looked at industry as the weather. They tell us what  
24 they need. That's what we're supposed to be  
25 delivering. They're going to force us to do it  
26 because they have to have it to survive.

1 So that's --

2 CHAIRMAN MILLER: Thank you, Peter.  
3 That's a good closing segment then. I think we have a  
4 lot of good ideas on the table and good work from the  
5 task forces.

6 I want to thank everybody for  
7 contributing. I can't -- I want the public to  
8 understand a lot of time and energy and effort's gone  
9 into the work so far, and it's been very productive.

10 The theme of the meeting today is  
11 innovation. With the help of several committee  
12 members and Commission members and our very able  
13 staff, we have an excellent set of presentations. You  
14 can see it on the agenda. Our purpose is to explore  
15 the general concept of innovation. Clearly, the  
16 ability of our economy in the social system to  
17 innovate has been a comparative, competitive advantage  
18 for the United States. The contribution of higher  
19 education to that capacity is critical, and we will  
20 hear about that over the next 24 hours, including  
21 examples of innovation within the higher education.

22 With that, Nick, if you could set up with  
23 your guests and the floor is yours. Appreciate you  
24 introducing yourselves.

25 MR. CLOUGH: Thank you, Chairman Miller.  
26 I'm Wayne Clough. I'm President of Georgia Tech, and

1 it's an honor to be here. Stimulated by your earlier  
2 discussion, you can always tell when you get prompted  
3 internally to want to jump up and make some comment  
4 that it's a good discussion. I restrained myself,  
5 however.

6 It's a real pleasure to be here. I thank  
7 you for inviting me to your San Diego meeting. I had  
8 a wonderful chance to walk around the waterfront this  
9 morning and called my Atlanta colleagues and rubbed it  
10 in that the sun was shining here when it's raining in  
11 Atlanta. And I have many alumni out here, and so it  
12 made good use of this trip in visiting them.

13 The topic of innovation is one that's very  
14 much on people's minds, for many reasons, and Nick and  
15 I are going to team up on this presentation because  
16 we've been a team in fact in working with the U.S.  
17 Council on Competitiveness and the National Academy of  
18 Engineers and other organizations in trying to bring  
19 coherence to this issue of innovation.

20 Nick and his colleague, Sam Palmisano, and  
21 I co-chaired the National Innovation on Initiatives  
22 for the U.S. Council on Competitiveness and some 400  
23 people around the country worked with us on that  
24 initiative, so the thoughts of many of those folks are  
25 in anything that I will say today.

26 What I will try to do, since your subject,

1 obviously, is about the future of higher education, is  
2 to concentrate my comments on higher education where I  
3 think we can do a great deal of work towards adapting  
4 towards the innovation economy.

5 I'm going to couch my comments in terms of  
6 four themes -- trends in higher education, the  
7 changing global environment -- and those two pieces  
8 just to provide briefly a little context -- then the  
9 role of the university in the innovation economy, and  
10 the changing shape of the university.

11 Trends in higher education, I will focus a  
12 little bit on enrollment, particularly in science and  
13 engineering enrollments, the fact -- a few of the  
14 facts about our university faculty, the R&D  
15 investments in science and engineering, which the  
16 President spoke so eloquently to recently, and funding  
17 models for public higher education and how they're  
18 changing briefly.

19 U.S. engineering programs, if we use that  
20 as a metaphor for sciences and other types of related  
21 professions that are clearly important to innovation  
22 and an innovation economy have been essentially stable  
23 for a long period of time. Engineering graduates at  
24 the Bachelor's level peaked in the 1980s. We're  
25 gradually creeping back. We had a period of steady  
26 decline. We're gradually creeping back as some



1 inroads have been made in actually getting more women  
2 and minorities to participate in the engineering  
3 enterprise. It took a long time for us to come around  
4 to that, but the job is actually showing some good  
5 results.

6           However, if we look at that type of  
7 number, we know that in China and India, they are  
8 producing far more engineers. I hesitate to cite a  
9 number for either of those countries, because I think  
10 most of the numbers that are out there are not very  
11 meaningful. I've heard numbers from China ranging  
12 from 300,000 to 600,000 and even more divergent  
13 numbers than that. But I do think those countries are  
14 outproducing us, simply because they're bigger  
15 populations.

16           At the Master's level in engineering,  
17 we're seeing, again, a small increase now after years  
18 of decline and that's reflected I think in the fact  
19 that more women and minorities are taking part in this  
20 enterprise.

21           At the Doctoral level, however, we are in  
22 fact dropping. In fact, we're being outstripped  
23 clearly in doctoral degrees in engineering and natural  
24 sciences by China and the Asian nations and by the  
25 European union and that's a dramatic change because  
26 the United States was far ahead of those nations as

1 late as 1990, and so that's changing dramatically.  
2 That's a dynamic we have to keep our eye on and it's  
3 something we should be very concerned about.

4 Another factor about the demographics of  
5 the faculty who teach engineering and science is  
6 they're aging. The numbers of individuals in the  
7 upper 65, for example, category or over 65 category is  
8 increasing and, as you go down, you can see in the  
9 diagrams that you have in front of you an aging  
10 profile for our faculty. Part of that can be  
11 attributed to the fact that sometime back, the Federal  
12 Government became active in matters of policy relative  
13 to higher economy and did away with the mandatory  
14 retirement and so we have no mandatory retirement in  
15 higher economy today and the faculty are aging.

16 Now, why is that important? Well, if  
17 we're going to discuss the subject and get into the  
18 subject of teaching innovation, who's going to do it?

19 And I think Secretary Spellings has already addressed  
20 that issue a little bit. Who would be able to talk  
21 about innovation? Well, if the faculty are aging and  
22 the faculty are staying on longer, they may not have  
23 the skill sets that are necessary to get into a  
24 different way of teaching and a different approach to  
25 education.

26 And so that brings us into discussion of

1 issues of bringing more people in from industry, which  
2 I think is a good thing, but also having opportunities  
3 for faculties to stop out a little bit and relearn new  
4 material so they can become more up to date.

5 Federal R&D, just a comment on that. The  
6 balance of R&D funding in this country has changed  
7 dramatically over the last 30 years. In the '60s, the  
8 Federal Government was the dominant funder of research  
9 and development. Today, industry is the dominant  
10 funder of research and development.

11 The Bush Administration has been very  
12 active in adding to the federal base for R&D and  
13 particularly we were encouraged by the numbers -- by  
14 the comments that the President made in his State of  
15 the Union about beginning to address what is clearly  
16 an imbalance in that funding that has left out  
17 physical sciences and engineering and that will be  
18 brought forward.

19 But that issue's important when we talk  
20 about innovation, is who's funding the long-term  
21 research that this nation needs? It has to be the  
22 Federal Government. Industry simply can't do it,  
23 given the push that they have towards the bottom line,  
24 and we have to make sure we are in fact funding the  
25 seed corn ideas, like those that came out and  
26 developed the Internet for us in this nation. It's

1 something that should be of concern to us.

2           If we look again at our competition --  
3 measures of our competition with other nations, we see  
4 very clearly as an example of that that the numbers of  
5 scientific papers and engineering papers that are  
6 being published in prestigious journals by other  
7 nations today are exceeding those from the United  
8 States. Again, a dramatic change. Because as late as  
9 the 1990s, the United States led in numbers of  
10 publications. Today, other nations clearly are in the  
11 lead in those publications.

12           So it simply says to us that the context  
13 that we are competing -- and we are competing. This  
14 is a competitive world in higher education as well as  
15 obviously in the economy -- those -- the parameters  
16 surrounding that competition are changing, something  
17 we need to be very cautious about.

18           Higher education itself, of course, the  
19 funding patterns have changed dramatically because in  
20 public higher education, we're always going to lose  
21 out on the battle with K-12 education, health care,  
22 and prisons. As we know, the inflation rate or the  
23 growth rate in those areas is significant. Higher  
24 education is always seen as a bit of a discretionary  
25 part of the budget, and we inevitably lose out in that  
26 competition.

1           In the past, it was common to find states  
2 where higher education was 20 percent of the budget.  
3 Today, it's highly uncommon to come anywhere near  
4 that. More like ten percent is the figure that you  
5 see there.

6           As a result, public universities are  
7 saying, If we're not going to be funded by the states  
8 as much as we have been in the past, at least give us  
9 more autonomy in order to carry out our functions and  
10 our operations.

11           Now, why is that important in an  
12 innovation-based economy? Universities have to be as  
13 agile and as flexible and as responsive as your  
14 businesses are. And you've all made changes in your  
15 businesses in order to compete in the global economy.

16           Universities have to be able to do that today as  
17 well.

18           Competition for outstanding faculty, of  
19 course, in critical fields is not diminishing and the  
20 salaries that the market demands for those kinds of  
21 talents, if anything, is going up because they are not  
22 only -- we are not only competing for those faculty  
23 today in the United States but around the world as  
24 other countries are increasing their investments in  
25 higher education.

26           And I mentioned the pattern of funding of

1 public education in this country because it's  
2 important because, in China and India, they are  
3 investing more and more in higher education and that's  
4 something that we need to take very seriously.

5           There's a statement by Daniel Yankelovich,  
6 the founder and CEO of Viewpoint Learning, I think  
7 that's important. He said, "To an extraordinary  
8 degree, our nation's fate depends on maintaining our  
9 world leadership in science and technology. Our  
10 superpower status is tied to it ... Yet young people  
11 in Western industrialized nations, especially the  
12 United States, are not flocking to study science and  
13 technology like their counterparts in other  
14 countries."

15           That's an important statement. In a  
16 number of the publications that you've referred to in  
17 your discussions today, The Gathering Storm, Innovate  
18 America, there are recommendations, for example, to  
19 double the number of engineers in this country. Well,  
20 you can call for a doubling but, if nobody responds to  
21 the call, nothing happens. And presently we would  
22 have I think serious concern about being able to do  
23 that from the present K-12 mix that's coming through  
24 the pipeline today.

25           I would also say there's been some very  
26 good discussion about what "doubling" might mean. We

1 really don't want to double the engineer of the past.  
2 And it comes back to what Nick and others have said  
3 here. We need to be cognizant of what the industry  
4 needs from our graduates and how those students are  
5 going to be able to make lives for themselves. We say  
6 at Georgia Tech we're educating engineers and  
7 scientists for life, not a job. We would not be doing  
8 a right job if all we did was produce an engineer or a  
9 scientist who was immediately a good worker but ten  
10 years later, when that company shifted, went in a  
11 different direction, could not respond to that. And  
12 so we have to educate our young people to understand  
13 the larger world that they will live in. Because,  
14 indeed, the societal forces that they will have to  
15 deal with are dramatically changing in terms of  
16 growing population, as we know, fresh water shortages,  
17 new diseases, and global warming -- all these things  
18 are evident to us every day, perhaps none more so than  
19 when Katrina and Rita hit the coast off the Gulf and  
20 the loss of life and the loss of property was  
21 astounding.

22 I had the good fortune to chair the  
23 Katrina Commission for the Department of Defense and  
24 have had the chance to visit New Orleans, which I have  
25 some personal involvement in because of my wife's  
26 family losses there. And I can tell you this is a

1 dramatic problem and it's not one simply linked to  
2 these areas because these larger hurricanes can hit  
3 anywhere along the Atlantic coast, not just in the  
4 Gulf. More and more people are moving to the coast  
5 in this country and around the world. These are  
6 problems that our students are going to have to  
7 address.

8 At the same time, the economy is changing.

9 They'll have to operate in the new economy, in an  
10 Internet-drive economy, new markets with emergences of  
11 new technology-based economies in other nations.  
12 We're going to have to compete with nations like India  
13 and China where indeed they have more talent in terms  
14 of numbers than we will have.

15 The competition grows fiercer, as I said  
16 in this particular slide. By 2010, some estimate that  
17 90 percent of the world's scientists and engineers  
18 will live in Asia -- 90 percent.

19 The U.S., of course, has invested and is  
20 investing in key areas of new technology, such as  
21 nanotechnology. We have the National Nanotechnology  
22 Initiative, which Congress and the President supported  
23 at \$1 billion a year. But Western Europe and Japan  
24 and other nations are investing just as heavily in  
25 those technologies. They expect to beat us there.  
26 And so it's going to be a race to the finish.



1 Remember, too, that six of the world's 25  
2 most competitive IT companies now are headquartered  
3 out of this country in other nations. So the  
4 competition is gearing up.

5 So our students and the United States have  
6 to compete in a world where the largest technological  
7 workforces will reside out of this country in other  
8 nations. We'll probably generate only one to -- one  
9 out of four to five of the new inventions. And our  
10 wages and health care costs will continue to be higher  
11 than our global competitors. And the domestic market  
12 that we offer is very small in size compared to Asia.

13 By 2025, when this world adds two million more  
14 people, it's estimated that 54 percent of those people  
15 will live in Asia, six percent will live in this  
16 country.

17 So the scientific and building blocks of  
18 our economic leadership are eroding, as the gathering  
19 storm report told us, as a time when other nations are  
20 gathering strength. It's something we should be very  
21 concerned about and discussions of these kinds I think  
22 are very important.

23 A number of reports have proposed  
24 solutions and ideas for us to move forward. One of  
25 these was the National Innovation Initiative, which  
26 Nick and I and Sam Palmisano participated in, and I'll

1 just give you one quick quote out of the Innovate  
2 America report. "Innovation fosters new ideas,  
3 technologies, and processes that lead to better jobs,  
4 higher wages, and a higher standard of living. For  
5 advanced industrial nations no longer able to compete  
6 on cost, the capacity to innovate is the most critical  
7 element in sustaining competitiveness."

8 So innovation we think is critical to  
9 meeting all of the major goals of our nation. But the  
10 bar for innovation is rising and, as was mentioned  
11 earlier, multi-disciplinary activities are going to be  
12 more important. They're going to have to diffuse at a  
13 faster rate. Collaboration is going to be more  
14 important. And it will be global in scope.

15 And finding the balance between  
16 competition and collaboration, between security and  
17 openness, between nationalism and globality, between  
18 analysis and ambiguity will become more important and  
19 more nuanced than ever before.

20 So that brings me to the universities.  
21 Let's call it Universities and Innovation 101. What  
22 are we supposed to be doing for this nation? Educate  
23 the workforce of the future, and that's a shared  
24 responsibility between industry and the universities  
25 to make sure in fact we're producing the kind of young  
26 people who can be successful in this economy and for

1 the institutions that hire them.

2 We also at the research universities  
3 conduct the frontier research that provides the basis  
4 for new discoveries and knowledge.

5 And if we're doing our job right, we  
6 promote technology transfer so these ideas get out  
7 into the marketplace and in fact we license them, for  
8 example, to industries so they can make them  
9 commercial products.

10 Now, Universities and Innovation 201, we  
11 go into the next level. First, we have to focus on  
12 interdisciplinary collaboration because issues such as  
13 nanotechnology, sustainability, these issues are  
14 interdisciplinary in nature. They cross between  
15 sciences, public policy, business -- all of the  
16 disciplines are involved -- health care and so forth.

17 IT networks, collaboration is very  
18 important there. And if you have in front of you the  
19 small diagram representing this particular slide,  
20 there's a network shown on the United States. That's  
21 called the National LambdaRail System. Twenty  
22 universities got together about three years ago,  
23 including Georgia Tech, and bought dark fiber and  
24 today this is an operational network that replaces the  
25 Internet for us in many ways that allow us at high  
26 speeds and high capacity to interact with each other

1 and the universities around the world to do research.

2 But we have to collaborate and work together.

3 Policy. This Government needs policies  
4 that encourage this type of collaboration.

5 Openness and diversity. This is a  
6 continual struggle. We have something called deemed  
7 exports in this country, which is a set of rules and  
8 regulations about how we can discuss technologies and  
9 scientific discoveries with members of other nations.

10 This is continuing to get more complicated. And  
11 simply trying to keep everything to yourself is not  
12 the way to work. Openness should govern our approach  
13 as opposed to trying to close our borders on new  
14 ideas.

15 And also creating the nexus for new ideas.

16 Now we go to what I would call  
17 Universities and Innovation 301. This really gets  
18 down to where I think we have to move forward in the  
19 future. I believe we need innovation-based  
20 experiential learning. Many of you talked about  
21 Boeing, for example, looking for young people who have  
22 had some sort of internship or co-op experience. We  
23 emphasize that at Georgia Tech. About 40 percent of  
24 our students participate in co-op or internships. We  
25 think that's very important. But it needs to be  
26 innovation-based, not simply looking backwards, and I

1 think this -- our universities need to work harder to  
2 learn to teach innovation. We haven't done that.

3           Going global. Well, our students have to  
4 learn to compete in a global economy and that means  
5 more emphasis on study abroad, more emphasis on  
6 bringing students from other locations to this nation  
7 so they can interact with our students and helping  
8 them understand the global economy.

9           IT-enhanced learning. I know you'll hear  
10 on your program from some institutions that specialize  
11 in IT types of learning, virtual universities and so  
12 forth. But your traditional research universities  
13 must incorporate these ideas and many are at the  
14 forefront of doing this. I know at Georgia Tech,  
15 every course we offer is supported by a web-based  
16 content. It's changed dramatically in the last  
17 probably seven or eight years.

18           MIT now offers open access to all of its  
19 courses over its Internet and its website. These are  
20 the types of things that our great research  
21 universities need to do as we go forward.

22           And then accelerated commercialization of  
23 new technology. We continue to work on improving this  
24 at all of our research institutions. We think it's  
25 important for our nation that we do that.

26           So these are some areas I think we need to

1 work on if we're really going to emphasize innovation  
2 in higher education at our universities.

3 I want to comment quickly again on  
4 engineering and this issue of educating a new breed of  
5 engineer. We have spent considerable time working  
6 with industry to try to understand from industry what  
7 it is they need from our engineers. And we have a  
8 list here on this particular set of -- this  
9 information that was provided you under the Engineer  
10 2020, which was an effort of the National Academy of  
11 Engineering that many people, including Nick,  
12 participated in.

13 And we have a list of what we think are  
14 the important characteristics of a young person to  
15 learn while they're at a university if they're going  
16 to be successful in the new economy. We conclude it  
17 with one statement that we didn't really hear from  
18 industry, and that is to be an adaptive leader.  
19 Oftentimes, industry tells us they want our graduates  
20 to be team players. Well, we want them to be team  
21 players. But if they're only team players, they'll  
22 never be leaders. And so we think it's important for  
23 them to be leaders.

24 How do we get there? We need to provide  
25 new opportunities for our undergraduates, and many  
26 universities are working on this. At Georgia Tech,

1 for example, our goal is to have over 50 percent of  
2 our students participate in undergraduate research.  
3 Many universities are ahead of us on that. Some still  
4 need to work on it. But this gives the student an  
5 open environment and opportunity to work with faculty.

6 International experience. More study  
7 abroad, meaningful study abroad for our students are  
8 important.

9 We hear repeatedly from industry our  
10 students need better communication skills, and I think  
11 this is a little bit of a shared responsibility for  
12 industry in that we are not going to be able in four  
13 years to create the perfect graduate, but we need to  
14 do a better job of teaching communication skills.

15 And then the usual litany of teamwork,  
16 leadership, and recognition of new learning styles.  
17 That's been brought up several times here, that our  
18 students indeed do learn differently than they did in  
19 the past, even these very bright young people who come  
20 to our institutions of technology. They aren't  
21 necessarily as deep in the way of thinking about  
22 physics and math and logic as they were in the past,  
23 but they've learned to parallel process an awful lot  
24 as opposed to think deeply about issues.

25 New IT applications will be part of this  
26 innovative learning style. Web-enhanced classes,

1 information commons, interactive online classes, and  
2 so forth that I described before.

3 At Georgia Tech, we have a suite now of  
4 ten Master's degrees we offer on the Internet to  
5 provide access to people for that next stage of  
6 learning that Jim Duderstadt -- one of those methods  
7 to provide that next step of access that's necessary.

8 We follow some of our companies to their  
9 sites overseas. With GE Energy, they have a large  
10 base in Bangalor, India. We have 40 students in  
11 Bangalor, India today getting Master's degrees in  
12 mechanical engineering over the Internet from Georgia  
13 Tech.

14 Commercializing discoveries, again, that's  
15 part of the innovative university. We must shorten  
16 the cycle for getting ideas out from the universities  
17 into the commercial sector. Some people use the  
18 phrase "the valley of death" to describe what it takes  
19 to get an idea from a university into the commercial  
20 sector. It's a long process and complicated process.

21 We have the Bayh-Dole Act, which authorizes  
22 universities to own intellectual properties if they  
23 were developed using federal research. It's a  
24 tremendous opportunity. On the other side of that  
25 coin, Bayh-Dole requires us to introduce these ideas  
26 to industry so they can be commercialized. If we



1 don't, those ideas can be taken away from us. And  
2 there are many other things universities can do, such  
3 as creating incubators and operating enterprise parks,  
4 and more and more we are doing that.

5 Here in this area, UC San Diego, for  
6 example, has a Center for Entrepreneurism and  
7 Technology Advancement that's been very successful for  
8 a number of years. One only has to ride up near the  
9 University of San Diego and Scripps and see the huge  
10 investment in biotechnology industries in and around  
11 that university and you can see the success of that  
12 approach.

13 We have tried to do the same thing at  
14 Georgia Tech. In the past two years, we have created  
15 25 new companies. It's a record for us and it's  
16 something we're working hard on doing. But innovative  
17 universities will be doing more of that.

18 I mentioned going global. We have to go  
19 global as institutions through research partnerships  
20 with universities across the world, and this comes  
21 back to this issue of the challenge with the Deemed  
22 Exports Act.

23 Dual degree arrangements -- we have dual  
24 degree arrangements with universities in France, with  
25 the Technical University in Munich, University of  
26 Singapore, the National University -- National

1 Technical University of Singapore, and Shanghai's Xiao  
2 Tung University, just to mention a few of those.  
3 Because dual degrees mean you treat each other as  
4 partners. Very important to have that.

5 And then using distance learning, Internet  
6 learning to supplement all of those things.

7 Let me just also say that we want to speak  
8 briefly to the issue of promoting global education.  
9 Recently, Secretary Spellings and Secretary Rice  
10 hosted a summit for University U.S. Presidents in  
11 Washington in January, and I was privileged to attend  
12 that, to address the issue of making our university  
13 system more aware of global issues. And that means  
14 it's a two-way street -- not only having more of our  
15 students study abroad, but having more international  
16 students come to this country and, as you know,  
17 because of some of the recent problems with visas  
18 after 9/11, there's been a decline, significant  
19 decline in some cases, of numbers of international  
20 students interested in coming to the United States.

21 And as we have seen that decline, other  
22 countries have tried to take advantage of that. I'm  
23 told, for example, that in one country -- I'll leave  
24 the country unnamed -- that our consulate was  
25 confronted with a sign in front of it that said, "If  
26 students want to come to country X, you can get in in

1 one day. It will take you three weeks to get into the  
2 United States." So the competition is there for these  
3 very, very bright young people.

4 I'll just read you a quote from  
5 Undersecretary of State Karen Hughes who made this at  
6 that particular meeting. "We must work aggressively  
7 to find new and effective ways to market the depth and  
8 diversity of American education overseas and to engage  
9 more of our schools in the international arena." And  
10 this whole meeting focused on that. I hope you will  
11 capture this in some way in your discussions.

12 And of course we want to see to it that  
13 more of those young people in fact stay in this  
14 country because this is a country of immigrants and we  
15 are successful because we've been able to be  
16 attractive to the best minds around the world and to  
17 help drive our technology and our innovation sector.

18 Let me close by just a quick quote from  
19 The Economist in September 2005. It said, "The  
20 emerging global university is set to be one of the  
21 transformative institutions of the current era." And  
22 I think that's true and I think that global university  
23 will be one that embraces innovation.

24 Thank you very much.

25 MR. DONOFRIO: So, Mr. Chairman, we'll  
26 continue and then we'll open it up for questions at

1 the end, --

2 CHAIRMAN MILLER: Thank you.

3 MR. DONOFRIO: -- if that's okay with you.

4 And I'll try to keep my comments brief, focused, and  
5 non-repetitive with my dear colleagues here since it's  
6 so easy for us to overlap.

7 I've submitted to you all written  
8 testimony, so I'm not going to read my written  
9 testimony. I'd rather just talk with you about some  
10 of the big ideas that I think are really going on from  
11 an industry perspective and from a market perspective  
12 around this whole topic of innovation.

13 So it's clear that -- it's clear that we  
14 are becoming infected with this word and it's clear  
15 that we are becoming infected with the fact that there  
16 is something different going on in the world. It's  
17 terribly important that we understand that innovation  
18 in the 21st century is not what it was in the 20th  
19 century. We may not exactly know what it is in the  
20 21st century yet, but if all we do is practice the  
21 things that we practiced in the 20th century, hoping  
22 to be leaders of the world -- and of course that's  
23 what the President told us he wants the American  
24 Competitiveness Initiative to be all about, is leading  
25 the world in innovation -- then you have to understand  
26 that things are simply going to be different. It's

1 not just about invention. It's not just about  
2 creation. And it's not just about discovery in the  
3 21st -- those are important and we have to keep doing  
4 those things because the rest of the world is going to  
5 be doing those things and we do compete on a global  
6 basis, but by themselves they are no assurance at all  
7 of leadership here in the 21st century.

8 Value is the issue in the marketplace and  
9 where real value is attained and how real value is  
10 brought to the forefront in either industry or in  
11 society. So there's more to be done than engineering  
12 and science and technology and math. Those are all  
13 terribly important.

14 Several of the things that Wayne mentioned  
15 are, I would argue, just as important. This whole  
16 issue of trying to deal with the ambiguities of life  
17 but putting that thought not just to products but  
18 putting that thought to the idea management process, a  
19 new business model process, and also the whole process  
20 of innovation itself.

21 We're in an economy that's quite  
22 different. Everyone understands that. The Internet  
23 is everybody's best friend and yet, for most of the  
24 world, it's only about ten years old.

25 I step back every once in a while to look  
26 at how far we've come. A million enterprises are now

1 connected. Over a billion people are now connected on  
2 the Internet. And while there's not quite a trillion  
3 devices connected to the Internet, there's a lot of  
4 devices connected to the Internet and maybe before  
5 it's all said and done, it will be a trillion. It  
6 makes world ideas happen a lot faster. This whole  
7 need for globalness that Wayne talked about, this  
8 whole idea about openness that Wayne talked about, and  
9 the fact that standards can arise anywhere in the  
10 world and become the limiter for real growth create a  
11 much different environment than what we were faced  
12 with in the 20th century for companies, for  
13 governments, and for educational institutions as well.

14 In the end, innovation, I believe, is  
15 probably going to be the arbiter of real national  
16 competitiveness, and we're not the only people who  
17 understand that. We did a fine piece of work with the  
18 National Innovation Initiative. As you can tell,  
19 we're very proud of it. It's not the only piece of  
20 work that's been done in the world on this topic. It  
21 wasn't the only piece of work that was done here.  
22 Before we started, we had them all bring us the tomes  
23 of information that have been compiled on the topic of  
24 innovation in this country and never acted on. And,  
25 of course, as we traveled the globe, we realized  
26 they're studying just as hard in Europe, probably

1 harder in China, equally as hard in India, or in  
2 Shanghai, in other parts of the world.

3 How do we stay ahead then? Well, I  
4 suspect it has to do with all of these other things  
5 that we need to bring to bear on the topic of  
6 innovation, right along with good math and good  
7 science. While everybody else focuses on good math --  
8 did you want us to answer this phone?

9 CHAIRMAN MILLER: No. In fact, I'd like  
10 to ask everybody to turn off their phone and their  
11 Blackberry and the like. We're getting a lot of  
12 feedback. Sorry. We're sorry about that. That's  
13 probably Art, though.

14 MR. DONOFRIO: Art, are you -- is that  
15 you? Who's on this phone? Speak now or I'm going to  
16 disconnect you.

17 CHAIRMAN MILLER: It's the National  
18 Security Administration.

19 MR. DONOFRIO: Go on. Whoever it was,  
20 they're now off the hook.

21 CHAIRMAN MILLER: They're off the hook.

22 MR. DONOFRIO: Okay. Now I have to just  
23 remember where I was before -- must have been China  
24 calling in.

25 So the fact of the matter is, it's not  
26 ours and it's the world's, and the fact of the matter

1 is it's only ours if we do things a little  
2 differently. And what I was trying to say was it's  
3 perhaps several of these other elements that Wayne was  
4 talking about that we need to be thinking about in the  
5 context of the future of higher education.

6 You heard him say things like open,  
7 collaborative, multi-disciplined. You heard him say  
8 global in thinking as well. I think these are  
9 terribly important skills that fundamentally engineers  
10 and scientists and mathematicians and technologists  
11 actually don't know very well when they come to  
12 industry. And it may be there where the real  
13 innovation in the world occurs.

14 I posit to you that it is not likely to  
15 happen again that in an isolated laboratory, you know,  
16 that the real value that we're looking for for  
17 leadership is going to be created. We'll need it but,  
18 by itself, it's not likely to deliver.

19 We've done other work -- we, the IBM  
20 company, have done other work, right along with the  
21 National Innovation Initiative, and it all points back  
22 -- we've done something called the Global Innovation  
23 Outlook and we're in our second year of doing that --  
24 multiple countries, hundreds of people. It all comes  
25 back to the same set of thinking, that innovation  
26 exists at places where it's just not obvious to



1 people, where knowledge of a business, knowledge of a  
2 problem, knowledge of an issue, and the intersection  
3 of technology create an entirely different opportunity  
4 than what anyone could have seen before.

5           You know, the paths to success are pretty  
6 well programmed for most things nowadays. People know  
7 how to incrementally improve things. That's not what  
8 real innovation in my mind is about -- incrementally  
9 improving things. It's all about getting that insight  
10 and that discovery and moving on it before anybody  
11 else does in the marketplace.

12           Higher education clearly needs to respond.

13           We can't simply take everything that higher education  
14 gives us and then spend years trying to retool it for  
15 what we think we need in the real world. We've got to  
16 keep a strong base, so don't -- don't misunderstand  
17 me. I'm not saying that creation and discovery are  
18 not important and that invention isn't important. I'm  
19 not saying that math and science isn't important. But  
20 by itself, it is not the necessary and sufficient  
21 issue.

22           Think about this if you don't buy into the  
23 whole idea that there's something changing and value  
24 is moving. Just think about this. Seventy-five  
25 percent of our economy in this country is services-  
26 based. By the way, half of the workforce everywhere

1 else in the world, in what we would call high wage-  
2 earning countries, excluding China and India, half of  
3 that workforce is employed in the services industry,  
4 half of it.

5           And yet we don't really take the science  
6 of services or the engineering of services or the  
7 management of services seriously. We don't think of  
8 it as a discipline like engineering, mechanical  
9 engineering, electrical engineering, civil  
10 engineering. Now, maybe it's a bit preposterous for  
11 anyone to pose or posit that services needs to be  
12 treated that way. But it worries me that that's  
13 perhaps where a lot of the value is and that's maybe  
14 where a lot of the innovation in the 21st century is  
15 going to have to go on.

16           We think a lot about this. There are lots  
17 of universities -- Georgia Tech, inclusive -- who  
18 think right along with us about this whole issue of  
19 the services of science and the management and  
20 engineering of services right along with it. There's  
21 got to be something here for us to worry about as we  
22 go forward mapping out the future of higher education.

23           There's a lot that needs to be done. And  
24 while I've used this word, and maybe I use it too  
25 loosely, "joint stewardship," I honestly believe that  
26 the joint stewardship between industry and higher

1 education and government is really what's required for  
2 true progress to be made.

3 I'm talking about higher education, by the  
4 way, at all levels, not just the fine top 100 hallmark  
5 institutions of this country, but in fact Charlene  
6 said earlier, you know, the local universities, the  
7 local community colleges have a lot to do, and perhaps  
8 more to do, with the skill base that industry prefers  
9 than some of the higher and hallowed educational  
10 institutions that we preserve as the top 100 in  
11 this -- the local universities know what entrepreneurs  
12 want. They know what small medium business is all  
13 about. They understand the skill deficits a lot  
14 faster.

15 So as we think forward here on this topic  
16 of innovation, maybe we should take a lesson from  
17 something we're learning every day, you know, that we  
18 all will be led by "the underserved." There's much to  
19 be learned by looking at other systems as we go  
20 forward.

21 So let me conclude. Without becoming too,  
22 too preachy on this topic, we are at an incredible  
23 inflection point. Perhaps I put it to you this way:  
24 What we did since the post-World War II boom, of which  
25 I'm a victim of and member of, isn't what's going to  
26 carry us forward from here on. That formula for

1 success that we created after World War II is clearly  
2 going to have to be a much different and a much higher  
3 valued formula for success. We are going to need  
4 research. We are going to need science. We are going  
5 to need math. We are going to need all of those  
6 things. But, by themselves -- by themselves -- they  
7 are not going to get the job done for us.

8 And while I might not have a pithy quote  
9 from The Economist to close with, let me close with  
10 this pithy quote from someone who means a great deal  
11 to me, my father, God rest his soul. Never graduated  
12 high school. They threw him out in the tenth grade.  
13 He used to simply say, "If nothing changes, nothing  
14 changes."

15 Thank you.

16 CHAIRMAN MILLER: That's good, Nick. You  
17 could lead this discussion. You can actually see  
18 people more than -- Jim raised his hand first.

19 MR. DONOFRIO: Sure. Okay. Jim.

20 MR. DUDERSTADT: You probably recall the  
21 statement by Clark Kerr -- I can't remember it exactly  
22 -- but of the 85 institutions in our world that have  
23 existed for over a thousand years, the majority are  
24 universities. So universities have some kind of  
25 enduring characteristic.

26 But when you begin to talk about

1 innovation, I'm struck by a book that was published  
2 several years ago by Clayton Christenson, The  
3 Innovator's Dilemma, who suggested that there are  
4 certain disruptive paradigms in innovation that, at  
5 the outset, really don't look that competitive for  
6 dealing with traditional kinds of needs, but very  
7 rapidly evolve because they address new needs and  
8 evolve and eventually replace older institutions.

9           It strikes me, Jonathan, that in the world  
10 of lifelong learning and adult education, it could be  
11 that for-profit sector, elements of higher education  
12 that have taken on marketplaces that have largely not  
13 been a priority of the university, may be learning  
14 this innovation game much more rapidly than our  
15 traditional institutions and, therefore, could be the  
16 disruptive paradigm.

17           So I'd be interested in your applying what  
18 you see about the innovation character of the 21st  
19 century to higher education itself and the way these  
20 institutions may evolve, either one of you.

21           MR. DONOFRIO: We'll both take that, I'm  
22 sure.

23           MR. CLOUGH: Well, I think there's always  
24 a risk that if you are not attuned to how change is  
25 occurring, then you're going to fail. Peter Drucker  
26 of course said many wise things, but one he said not

1 long ago was that the brick and mortar institutions  
2 were dinosaurs on their way out. We're still here.  
3 In fact, we're more popular than ever. We have more  
4 applications to our institutions than ever before.  
5 This past year, I know at my own institution we had  
6 more people interviewing to hire students than ever  
7 before.

8 So I think what is happening is that we  
9 got that message pretty clearly and we began to  
10 realize that there was a serious issue.

11 We haven't solved or addressed all of the  
12 issues. But many of the universities I know of have  
13 changed the way they educate their students pretty  
14 dramatically. There -- a couple of places are still  
15 resistant, as we know, in a few departments out of  
16 every university.

17 The lifelong learning challenge I think is  
18 one that remains in front of us. We haven't done a  
19 terribly good job of that. We built something not  
20 long ago, about three years ago, called the Global  
21 Learning Center because we wanted to build a  
22 continuing education center that was not your father's  
23 continuing education center. And we -- you know,  
24 timing says a lot. We did it just at the time when  
25 the economy was down and industry was disinvesting in  
26 that type of learning. But it's come back and we're

1 beginning to see strong elements of it.

2 I think we have to have lifelong learning  
3 not only for the folks who are in a local area, but so  
4 we can deliver it to them in an on-time basis when  
5 they can do it, a synchronous type of basis, and also  
6 around the world -- follow people around the world.

7 As I said, we're up to ten Internet  
8 degrees now. It works much more for the Master's type  
9 degree where you have a more mature student. It's  
10 more difficult to do it for a young student. Now, we  
11 have tried at Georgia Tech with one of our campuses --  
12 we built a campus in Savannah that we are very proud  
13 of and that campus was built around the 19th Ace (ph)  
14 technology, and we trade courses both ways from both  
15 of those campuses. When our students are engaged in a  
16 project, they work with students at Georgia Tech,  
17 Atlanta, Georgia Tech, Savannah, and some of the  
18 surrounding community colleges and other colleges that  
19 are feeders to our institution. And we think that's  
20 important.

21 Others are doing it internationally and  
22 globally. You can have students, if the time zone  
23 doesn't get too much in the way, compete on projects  
24 around the world. So I think a lot of changes have  
25 been made and some schools are ahead of others, but  
26 there's still a lot of work to be done. And I think

1 the issue of lifelong learning hasn't been thought  
2 through as a policy matter. It's not something  
3 universities can decide to do, it's not something  
4 industries can decide to do, and I think Nick hit the  
5 nail on the head there. It's something that we all  
6 need to think about -- government, industry, and  
7 universities in order to get at this issue because  
8 it's very important as job requirements change so  
9 fast.

10 MR. DONOFRIO: Jim, I would just add to  
11 this -- and I don't mean to be disrespectful in any  
12 way -- but having worked now in industry for 42 years,  
13 the last place I go to to find an important industry  
14 trend is colleges and universities. They don't -- the  
15 seed changes don't happen there first. They happen  
16 elsewhere. And this is what worries me in a more  
17 global world. It may be happening in a space we can't  
18 even see before we get to it here.

19 And I know I come across a little preachy  
20 here on the science of services. I worry a lot about  
21 that, you know. If -- we worry about -- those are  
22 value-added jobs, by the way. Those are higher value-  
23 added jobs. Those are the kinds of jobs you'd like to  
24 be, you know, making sure that you keep. You know,  
25 half of that service sector, by the way, is high tech  
26 -- is high-valued service sector. You know, what if



1 India gets it right or what if China gets it righter  
2 than we do sooner?

3           You know, I am -- I heard the numbers that  
4 Wayne talked about. You know, maybe it's only six  
5 percent but, you know, that six percent that's here in  
6 this country that he talked about, that may be the  
7 best six percent in the world, and that may be what  
8 we're trying to do. And if it's going to be the best  
9 six percent, we'd better be ahead of the power curve  
10 on this and I've got to tell you I don't think  
11 colleges and universities help us get ahead of the  
12 power curve.

13           MR. DUDERSTADT: Let me just respond very  
14 quickly by going back to 1985 or 1986 when Big Blue  
15 joined together in a partnership with Mazon (ph) Blue  
16 to build something called NSF Net.

17           MR. DONOFRIO: I remember it.

18           MR. DUDERSTADT: And interestingly enough,  
19 it was so successful people suggested, Well, why don't  
20 you add in the defense and energy. Why don't we call  
21 this thing the Internet. And it seems like the U of M  
22 and IBM and MCI built something that others may have  
23 invented but in fact it has changed the world. So  
24 that does happen every once in a while.

25           MR. DONOFRIO: Now, I hope that wasn't an  
26 accident. We need a steady diet of that is all I'm

1 saying.

2 CHAIRMAN MILLER: Charlene.

3 MS. NUNLEY: Many of the diverse students  
4 who study math, science, and engineering begin in  
5 community colleges.

6 MR. DONOFRIO: Yes.

7 MS. NUNLEY: And one of the major barriers  
8 they face comes at the time of transfer when they have  
9 to pay the higher tuition and universities have used  
10 most of their financial aid for their freshmen  
11 classes. And I just wonder if you have any thoughts  
12 on how two-year and four-year colleges can partner  
13 better to try to increase the supply of people with  
14 math, science, and engineering degrees and anything  
15 our Commission might recommend to that effect.

16 MR. DONOFRIO: Do you want to start it?

17 MR. CLOUGH: That's a very good question.

18 MR. DONOFRIO: Good question.

19 MR. CLOUGH: And the issue that -- that  
20 comes back to this issue of affordability, which is a  
21 matter for entering students in the beginning. It's  
22 also a matter for transfer students who come along.  
23 That's one of the reasons we have a very strong co-op  
24 program. If a student doesn't have the financial  
25 capability, we don't have the financial aid, they can  
26 work in a co-op program which is a very structured

1 work environment, work with great companies like  
2 Boeing and IBM and others, and earn significant  
3 dollars. I was a co-op student and paid my way  
4 through school doing it.

5 Our transfer system, if I speak to my own  
6 institution, has been very successful in that the  
7 students who come to us from transfer institutions do  
8 better actually in terms of retention than the ones  
9 who come in as freshmen. Now, part of the reason is  
10 we have a brokered agreement with those institutions  
11 that basically states to the student, Here's what we  
12 expect you to take. And if you make a grade point of  
13 2.7, you're in Georgia Tech and we accept that you've  
14 learned what you need to do to be successful at  
15 Georgia Tech.

16 And you're exactly right. That pool tends  
17 to be more diverse than our entering freshmen pool.  
18 And so it's a very important component of the student  
19 body that comes to my institution, and I think if you  
20 work out articulation agreements that are carefully  
21 structured, the students can do well. You still have  
22 to wrestle with this issue of the financial aid  
23 problem. And I don't have a full answer for that.

24 That's a very good question.

25 MR. DONOFRIO: So we'll move on, Jonathan,  
26 to you next. Charlene, I do think as a Commission we

1 should seriously think about making recommendations  
2 here. I like these articulation agreements and  
3 especially if we can get business industry involved in  
4 these articulation agreements. Many of those folks  
5 who are in community colleges, you know, we hire as  
6 technicians in IBM. Maybe we shouldn't be doing that.  
7 Maybe we should actually be part of an articulation  
8 agreement that lets them go on to -- you know, there's  
9 a myriad of four-year schools.

10 I know like -- you know, I'm from RPI and  
11 I'm proud of it. You know, Hudson Valley Community  
12 College had such a relationship with RPI. I'm also  
13 very familiar with Clark's and there's a community  
14 college -- the Mohawk Community College had just such  
15 an articulation agreement with them.

16 I think this is a good idea, I really do,  
17 and I think industry can maybe help provide some of  
18 the largesse that will allow this to happen. Very  
19 good idea.

20 Jonathan.

21 MR. GRAYER: The only thing I'd add --

22 MR. DONOFRIO: Jonathan, I don't think  
23 your mike is on.

24 MR. GRAYER: The fact that there's a  
25 growing program at Kaplan Higher Ed. is students who  
26 start in our campuses and do a two-plus-two program

1 and transfer their credits into our online regionally  
2 accredited degree, so it is alive and well and --

3 MR. DONOFRIO: Great.

4 MR. GRAYER: But the point I wanted to  
5 make is, Jim, you said that the for-profit  
6 institutions are perhaps the paradigm shifters. And I  
7 would say that it's not us at all; it's the student  
8 herself, that as long as the Federal Government or our  
9 society in general is willing to foot the bill that  
10 we're now footing to keep our system in its current  
11 status, we can go on a long time.

12 But if that ever changes, that economic  
13 relationship ever changes, and the student him- or  
14 herself is forced to choose the best program for the  
15 outcome that will do most for them in their chosen  
16 life, all hell will break loose. And our great  
17 institutions are being -- won't have that problem, but  
18 the next hundred, the next 500 will absolutely drift  
19 into chaos if we were to step away from the way we  
20 fund our education.

21 And all you have to do is go look at the  
22 U.K. right now, who is struggling with this exact  
23 issue, to understand what the dynamics would be. For-  
24 profit education companies are booming because  
25 students are choosing them, and the reason they're  
26 choosing them is that they're coming to us to get

1 educated for a specific outcome that they will -- that  
2 they can measure us by which is a job of their choice.

3 That is a completely foreign concept to  
4 the way higher ed. is funded today. And as long as we  
5 fund it as we're doing, we're okay. But that's --  
6 that is the -- you know, the big question. Can we?  
7 Can we as a society continue to watch our higher ed.  
8 bill drift to three times the price of inflation  
9 growth and end up with hundred-thousand-dollar annual  
10 expenses for -- you know, ten years out?

11 And I would argue that the Commission  
12 really needs to address that.

13 MR. DONOFRIO: Good point, Jonathan. Bob.

14 MR. CLOUGH: May I respond to that comment  
15 quickly?

16 MR. DONOFRIO: Yeah.

17 MR. CLOUGH: Because I think public  
18 education institutions are working hard to try to keep  
19 their costs affordable. Part of that, of course, was  
20 as a result of the reduction and a significant  
21 reduction in funding for public higher education by  
22 the states over the last five years.

23 Now, there is a response to that and a  
24 number of institutions have said no student who is in  
25 need will be denied entry into those institutions.  
26 We're working hard to reach that goal at Georgia Tech.

1 But many of the public institutions do not have the  
2 endowment base to be able to do that. We could do it  
3 if we were able to increase our endowment. That's one  
4 of our goals in our capital campaign as we speak now.

5 And I think it is incumbent on us to try to do that.

6 That would particularly allow talented young people  
7 who are economically disadvantaged to have access to  
8 our education. We don't want to end up just serving  
9 the wealthy component of higher education. And I  
10 think that's important.

11 I do believe we pay a lot of attention to  
12 outcome. And I know at our institution we spend a lot  
13 of time in industry asking them what they could get.  
14 Every year, we reach out to a five-year profile of our  
15 students who have graduated and ask them are they --  
16 is their education serving them well. We take that  
17 information back and we use that to revise our process  
18 of education.

19 About every three years, we interview or  
20 survey all of the employers, the major employers of  
21 our students, ask them if they're getting the value  
22 that they expect from the young people that are  
23 working for them. And we take that information back  
24 and we revise what we do. So there's a lot of  
25 interaction that does go on. It's related to outcome.  
26 Understanding that there is a difference -- if

1 someone goes after a for-profit degree, they are often  
2 very targeted in what they want and what they need.  
3 We have students like that that are called Master's  
4 degree students and executive Master students. That's  
5 what they want. They get what they need.

6 But it comes back to what Jim said  
7 earlier, the socialization part. When we have a  
8 freshman coming in, we figure it's part of our job to  
9 let these people understand what it's like to be a  
10 citizen of the world and to take the knowledge that  
11 they learn and apply it to some good end. And so we  
12 don't want to be so outcomes-focused that we lose that  
13 part of the growth of the individual, which is a very  
14 big part of what the basic university system in the  
15 United States does.

16 MR. GRAYER: The only thing I'd quickly  
17 add is that the original charters of technical  
18 institutes were exactly that. And so your heritage  
19 started exactly where we're starting, at a different  
20 part of society, and you broaden from that, which is a  
21 very different legacy than a liberal arts institution.

22 MR. CLOUGH: And I do think that the  
23 beauty of this country is we have alternatives for  
24 people, and I think the for-profit sector is very  
25 important and will serve a big need, especially given  
26 the growth in our population, which we can't keep up



1 with. And so our students need as many alternatives  
2 as they can get -- good alternatives as they can get,  
3 particularly for advanced education.

4 MR. DONOFRIO: Bob, please.

5 MR. ZEMSKY: I get confused.

6 MR. DONOFRIO: Do you want to --

7 MR. ZEMSKY: I'm sorry. I get confused in  
8 this discussion -- I get -- in the following way.  
9 And, Nick, it's really you more than Wayne I address  
10 this to. I don't understand what you picture the  
11 conversation between higher ed. and the employer  
12 community looks like. I could point out that your  
13 kind of comment that the last place you go for  
14 innovation is really the issue I am driving at.

15 And I raised this issue before. I have no  
16 doubt that we as higher education have to serve the  
17 employer community. I keep having this nagging  
18 feeling that the conversation really isn't being  
19 engaged. And it isn't being engaged on either side is  
20 the point that I'm driving at.

21 How would -- what would you change to make  
22 so the next time you went somewhere, you actually came  
23 to a university? What would we have to do  
24 differently? What would you have to do differently?

25 MR. DONOFRIO: It's a good point, Bob, so  
26 let me -- again, I'm -- everybody knows I'm in the

1 information technology industry, but let me just use  
2 this very simple example.

3 Computer science and computer engineering.

4 I didn't -- I couldn't graduate with a computer  
5 science degree 45 years ago. Now, somebody tells me  
6 they were existing for 50 years. I'm not going to  
7 argue with you about when they were created. They  
8 weren't available for the bulk of the world until  
9 about 30 years ago, 35 years ago.

10 Why? I mean, you know, colleges and  
11 universities understood that. They knew what was  
12 happening. They were teaching people like me, you  
13 know, to go into industry, to go into a computer  
14 industry. But yet they weren't granting those degrees  
15 and there wasn't a pedagogical reformation to support  
16 that. That's just one example.

17 So this whole issue of services now -- you  
18 know, value in our industry -- and I'd venture to say  
19 in a lot of industries in our country -- the value,  
20 what clients buy, how they spend their money, is  
21 moving. It's moving to other things. They don't want  
22 to buy all the bits and bytes and the pieces anymore.

23 They want to buy the answer. They want to buy a  
24 solution. They want to -- they want you to do  
25 everything for them. They want you to be thinking  
26 differently about their business. They want you to

1 know their business. They want you to be thinking  
2 about it. This is what services are about, Bob.

3 And there's a discipline to this. There's  
4 a -- I'm trying to articulate a science to this. So  
5 we've been to Georgia Tech, we've been to MIT, we've  
6 been to Berkeley. I mean, there are enlightened  
7 schools that are listening to us -- Cambridge and  
8 Oxford and -- there's some movement that is occurring  
9 now, some movement now. We've built a services  
10 business -- in IBM, if I remember correctly, in 15  
11 years we've built a \$40 billion services business. So  
12 15 years later, somebody's listening to us, you know,  
13 and we're just one small piece of it. I mean, we  
14 aren't even five percent of the services market in  
15 this country for IT. Bob, that's my point.

16 So we're willing to engage any -- as an  
17 industry anytime, anyplace, anywhere always.  
18 Sometimes these things just don't make sense to  
19 colleges. And maybe they'll make more sense in  
20 Jonathan's model. You know, maybe that's where we  
21 should be looking, you know, when these things are  
22 moving at, you know -- at what looks like glacial  
23 speeds to me from an industry perspective. They may  
24 be moving at mercurial speeds, you know, to you, you  
25 know, in higher education. Maybe that's the best way  
26 I can articulate the difference.

1                   MR. ZEMSKY: I think what I keep asking  
2 you to do is ask not what we can do but what you can  
3 do. What we can do is pretty clear, and I'll sign on  
4 to all of it. That's not my quarrel. The question  
5 is: What do you guys need to do that you're not doing  
6 now to make this work?

7                   MR. DONOFRIO: Well, okay. I mean, you  
8 know, we've created a research practice in IBM.  
9 That's how serious we think services are. We've  
10 created a research practice. So we're investing of  
11 the 3,000 researchers that we have, bonafide,  
12 certified researchers on a global basis, probably a  
13 third of them are doing research in services. None of  
14 them have degrees in services, you know. I mean, I  
15 don't mean to make this all about services, but this  
16 is an example of what I think you're trying to poke at  
17 here, where I keep saying, you know, the issue is  
18 industry and academe need to get together on a more  
19 frequent basis. I think that's true. I think that's  
20 true. You know, it takes a while to get through.  
21 It's not -- you say what more could we do. I mean, I  
22 don't really know what more I could be doing. I've  
23 been preaching this stuff and I know I'm preaching,  
24 and I apologize for that, for almost ten years. And,  
25 you know, maybe we're finally getting some people to  
26 believe that, you know, we got it right. This will

1 happen to Boeing. I mean, more and more of Boeing's  
2 business will be in the services side.

3 MR. CLOUGH: Can I just add one quick  
4 comment to that? This has probably flown just a  
5 little bit below Nick's 40,000-foot radar screen. Of  
6 course IBM is funding research at Georgia Tech. Nick  
7 is probably aware of that. They are looking to  
8 institutions like Georgia Tech and Michigan and all  
9 the other schools for ideas. But we fly down  
10 different paths sometimes.

11 Now, if you're looking at nanotechnology,  
12 boy, we are -- all of us are really hard at that and  
13 we're all trying to develop the ideas that will serve  
14 industry and serve the innovation economy.

15 Services are an interesting area. And in  
16 this case, I think industry is out in front of  
17 universities. We haven't really taught that. I mean,  
18 that's part of what I talked about trying to teach  
19 innovation to our students. But it is an area that's  
20 not funded for research much. Now, Nick's folks are  
21 funding some research at -- something called our  
22 Transformation Institute at Georgia Tech, which really  
23 does look at some of the services industry. But by  
24 and large, it's not something that's supported by the  
25 Federal Government in terms of research, which tends  
26 to drive a lot of our interest in research. Like it

1 or not, that's the way it works.

2 I think it is an area that we need to  
3 bring into our radar screen. I think it's something  
4 we need to talk about as we try to learn to teach  
5 innovation to our students. And it's something  
6 students like, actually. They enjoy it and we need to  
7 get -- we need to work harder at that.

8 MR. SULLIVAN: Mr. Chair, I'd like to ask  
9 our two panelists a couple of general questions with  
10 this new focus on innovation and services, and that is  
11 we're engaging parts of the world that have not been  
12 as active as we have been and these parts of the world  
13 have not also respected intellectual property as we  
14 have here. So as we are moving into this area, I  
15 wonder if you'd comment what is happening there that  
16 really addresses that? Because anyone investing in a  
17 new technology obviously wants to get a return on that  
18 investment and not have that appropriated by someone  
19 who's not made that investment.

20 The second question: With the increased  
21 collaboration -- and this is certainly for President  
22 Clough -- with universities in other countries with  
23 dual degrees, I'd be interested how that -- sounds as  
24 if that's working very well and so I wondered if you  
25 would comment on how that is being addressed also in  
26 terms of respect for intellectual property so that one

1 either gets -- if one's a scientist, you get credit  
2 for it, the investment you've made. Or if you're in  
3 industry, that you have the protection of your  
4 intellectual property.

5 MR. CLOUGH: Well, there are a couple of  
6 ways in which there are -- there's a structure around  
7 some of these concepts. Not to say it works  
8 perfectly, but there's a structure.

9 One of those has to do with the Bayh-Dole  
10 Act. For example, if we have intellectual properties  
11 coming out of our shirts, the Bayh-Dole Act says we  
12 have to go to an American-based company to work with  
13 them first and very little opportunity to do anything  
14 beyond that. Now, that gets a little interesting  
15 because companies that may be in Atlanta, Georgia,  
16 guess what? -- aren't necessarily home-based in the  
17 United States in this day and age.

18 IBM has a large operation -- there's a  
19 small corporation called Coca-Cola across the street  
20 from Georgia Tech. Eighty percent of their products  
21 are sold elsewhere. So this is a complex world that  
22 we're working in.

23 But the Bayh-Dole Act very clearly states  
24 -- gives a structure about that. Clearly, anything  
25 that has to do with classified research, there's a  
26 structure around that that we could never have

1 discussions about that and that's very understood.

2           Then there's the -- this is a business  
3 about openness -- that Nick talked about openness and  
4 trying to be restrictive on some of these things.  
5 What do you do with a subject like nanotechnology?  
6 Nanotechnology is being pursued all over the world.  
7 It is a subject that has very clear implications for  
8 defense in the future, for security issues, and for  
9 commerce. But we can't stop that flow of ideas in any  
10 way. If we tried to stop it, in fact we would be the  
11 ones who would lose because we wouldn't be  
12 beneficiaries of the information flow that comes the  
13 other way.

14           As I mentioned, other countries are  
15 investing as much, in total far more than we are  
16 investing, in nanotechnology research. So when you  
17 get into those kind of spaces, that gets to be tricky.

18           In the joint degree areas, those aren't  
19 necessarily research agreements. Those have to do  
20 with educational programs. And, again, we have to  
21 respect the structure that I just referred to upon the  
22 other two subjects and, in addition, there's another  
23 one that's out there called a deemed export policy.  
24 And deemed exports have been sitting around sort of  
25 like a ticking time bomb for a long time. It has to  
26 do particularly with certain nations that are



1 designated that we should not share certain kinds of  
2 ideas with, and that would be -- China would be one of  
3 those nations.

4 For example, when we signed the agreement  
5 with Shanghai Xiao Tung University, we had to sit down  
6 with our lawyers before I went over to sign the  
7 agreement and make sure that this agreement would work  
8 within the deemed export law, and it would, because it  
9 did not involve joint research per se on certain  
10 subjects.

11 Deemed export is a moving target because  
12 both defense, commerce, and state are in the process  
13 of looking at perhaps even making it stronger. And  
14 that was part of the discussion that we had, a very  
15 positive discussion, at this recent meeting that  
16 Condoleeza Rice and Secretary Margaret Spellings  
17 hosted with commerce and with the defense.

18 Chuck Vest gave a very eloquent summary of  
19 the state of affairs when he took us back to the Cold  
20 War and said, We tried to restrict our idea flows at  
21 that time and found it didn't work. It's better to  
22 have an open approach.

23 His comment I think was very appropriate:  
24 "Use high fences for small areas." We need to know  
25 from our Government what it is you want to protect.  
26 We can do that. As I said, with classified research

1 and other areas, we can do it. But don't try to  
2 restrict the flow of ideas in other areas. If you do,  
3 you'll simply -- even though there may be a few leaks  
4 here or there, you're going to have -- you're going to  
5 lose ultimately if you don't have free flow of ideas  
6 in the broad sense of education.

7 So it is a tricky world. As I say, before  
8 I go overseas now, I consult with my lawyers to make  
9 sure that the agreements that we go into are  
10 agreements that are acceptable to our Government.

11 MR. DONOFRIO: So let me just finish this  
12 up, and I think we should stop after this, Mr.  
13 Chairman. On the IP lay of the land in general, we  
14 think there needs to be a reformation in intellectual  
15 property in general. The NNI studied that. There's a  
16 whole section in the NNI about it, rebalancing what's  
17 called proprietary intellectual property with open  
18 standards.

19 This open movement at least, you know, as  
20 we see it is a very powerful movement. There's an  
21 open movement, for instance, in our business, in the  
22 information and technology business, where people are  
23 just, you know, they work for nothing -- nobody owns  
24 it, everybody owns it. You know, it's just free for  
25 everybody to kind of build on and to use on.

26 And, therefore, there needs to be

1 something done here to re-rationalize the world. You  
2 asked specifically, though, about some of these new  
3 and emerging countries. So there is no IP system in  
4 China. There is no IP system in India. There's no IP  
5 system in Russia. But they're building them. And the  
6 one that's building it the fastest, believe it or not,  
7 is China. China is preparing to accept two million  
8 patent applications a year.

9 Now, you know, you may not worry about  
10 that because they don't have a trial court, you know,  
11 to adjudicate them and they have no way to enforce  
12 them. But whoever was given the responsibility, you  
13 know, to build the intellectual property system and,  
14 by the way, I mean, we struggle in this country  
15 processing 200,000 a year, just to calibrate you -- so  
16 they have this on their map, Louis, is all I'm saying.

17 They're thinking about this and they're thinking  
18 about some kind of tetanic shift here, you know. They  
19 know that all that will be relegated to them are safe  
20 haven thoughts, you know, where you really can't  
21 destroy the intellectual property where it's more or  
22 less commoditized, you know, as opposed to a very high  
23 level innovation thought. They all desire the same  
24 thing. They all want to move up the value chain.  
25 They want higher value jobs, not just low-value jobs,  
26 and they know they can't have that without, you know,

1 a system that will protect people's intellectual  
2 property.

3 So I think there's a whole -- there's a  
4 whole history to be written here, to be honest with  
5 you, and it will change in the next ten or 15 years.  
6 We will have to change our system. We'll have to re-  
7 rationalize it with the rest of the world, you know,  
8 through various treaties that are in place and various  
9 arrangements that we have. We don't have the same  
10 system here that we have in Europe. They don't have  
11 the same system there that we have here. You know, we  
12 respect different things and patent different things.

13 So it's a -- it's a very exciting time to watch how  
14 this will all play out.

15 In the meantime, you just have to be very  
16 careful. With that, I think we should end this  
17 session and I thank you very much for your attention.

18 CHAIRMAN MILLER: Thank you. I'd like to  
19 take a moment to thank you all for the Council on  
20 Competitiveness report. I know IBM contributed with a  
21 large panel of business and academic leaders. I know  
22 the Secretary looked at that before this Commission  
23 was formed. It's one of the most insightful reports,  
24 very complicated to follow and understand that's been  
25 produced by as strong a group as I think we've ever  
26 put together in this country. And so we're looking

1 for advice like that.

2 If the Council would like to submit  
3 something in the way of condensed specific policy  
4 recommendations with some kind of ranking so we can  
5 give some priority to it, we'd be glad to take a look  
6 at that. And I want --

7 MR. DONOFRIO: We'll take that  
8 recommendation.

9 CHAIRMAN MILLER: -- to compliment you all  
10 on that work.

11 MR. DONOFRIO: Thank you.

12 CHAIRMAN MILLER: Thank you for the  
13 presentation, for what you're doing.

14 MR. CLOUGH: Thank you.

15 MR. DONOFRIO: Thank you.

16 (Pause.)

17 CHAIRMAN MILLER: Innovative financing.

18 MR. URDAN: Good afternoon, Mr. Chairman.

19 I think I have the honor of kicking off this panel.

20 CHAIRMAN MILLER: Great.

21 MR. URDAN: My name is Trace Urdan. I  
22 work as a senior research analyst for the investment  
23 banking firm of Robert W. Baird & Company.

24 I'll start off with a few disclaimers.  
25 Mr. Elliot Spitzer would have me refer you to pages  
26 nine and ten's single-spaced disclosure language.

1 Just to summarize, what that says is that I may or may  
2 not know what I'm talking about, I may or may not be  
3 honest, and you should assume at all times that my  
4 firm is brazenly trying to secure investment banking  
5 business from every company that I might care to  
6 mention.

7           The other thing I'll tell you is that Dr.  
8 Block and myself basically do the same thing, and we  
9 spoke ahead of time and tried to sort of divvy up the  
10 topics that we were going to address in our testimony.

11       So I'm going to speak a little bit to the investment  
12 climate right now for the for-profit post-secondary  
13 sector, which is the area that I cover. I'm going to  
14 talk about the pros and cons of investing in that  
15 space and address to some extent easing barriers to  
16 capital entry into that sector. And Howard's going to  
17 talk about some other areas.

18           And then the final disclosure is to say  
19 that in my job, I'm accustomed to being the great  
20 expert in knowing more than most of the people that I  
21 talk to about the subject area that I'm speaking  
22 about. This is a rare exception where I'm speaking to  
23 people who actually know more about the topic that I'm  
24 addressing than I do, so I apologize in advance.

25           Since 1994, when Apollo Group joined  
26 DeVry, Inc. as the second publicly-traded for-profit

1 degree-granting university, public equity investment  
2 in this sector has grown at a compounded rate of 37  
3 percent to more than \$26 billion today, and the list  
4 of public companies in the space now totals 12. In  
5 fact, a dollar invested in Apollo's 1994 IPO today is  
6 worth more than \$71. And there are few, if any, large  
7 mutual funds that do not have some exposure to this  
8 sector.

9 At the same time, private equity  
10 investors, including some of the largest and best-  
11 respected firms in the financial services industry,  
12 have invested additional billions in grooming  
13 prospective acquisitions for the public companies as  
14 well as potential IPO candidates.

15 The phenomenal success of the proprietary  
16 college market as an investable sector over a period  
17 of years is a result of the group's nearly perfect  
18 complement of attributes that are highly prized by  
19 growth investors. These include market size and  
20 potential for future growth, a unique or otherwise  
21 differentiated product, a recurring or predictable  
22 stream of revenue, and a leveragable profit model in  
23 which margins expand as the enterprise grows.

24 Over the past two years, increased  
25 regulatory scrutiny, as well as some deceleration in  
26 the pace of enrollment growth experienced by the

1 leading players has dampened investor enthusiasm,  
2 resulting in a contraction in the average share price.

3 However, the strength of the business model -- in  
4 particular, its ability to convert a high percentage  
5 of earnings into free cash flow -- remains undisputed  
6 and investor interest remains healthy, even if more  
7 muted, than the highs that the sector reached in 2004.

8 So I'm going to talk about each of these  
9 attributes in turn and then make some modest  
10 recommendations.

11 First of all, in terms of market  
12 potential, we've heard from some others today about  
13 knowledge and its increasingly important role in the  
14 U.S. economy. Over the last four decades, economic  
15 and technological forces have transformed the economy  
16 from one in which corporate value is understood  
17 primarily as a function of physical and financial  
18 assets to one that places a growing premium on  
19 intellectual capital.

20 Today, skilled jobs comprise 65 percent of  
21 all employment, although I heard in the earlier  
22 testimony that that number may be closer to 75  
23 percent, which is a dramatic increase from 1950, when  
24 the number was understood to be 20 percent.

25 Demand for educated workers has  
26 outstripped supply. Workers are faced with more



1 complex challenges. They require higher levels of  
2 education, computer literacy, critical thinking,  
3 information analysis, and synthesizing skills. In the  
4 midst of globalization and technological revolution,  
5 lifelong learning has gone from being a luxury to a  
6 necessity for both employers and employees alike.

7           And as this shift in the economy has taken  
8 place, employers' requirements have increased,  
9 resulting in a salary premium for education. The pay  
10 gap between males who have a college education and  
11 those who hold only a high school diploma has widened  
12 in the last decade, from 45 percent in 1990 to an  
13 estimate 65 percent by 2000.

14           Not surprisingly, participation rates in  
15 post-secondary education have increased. Growth in  
16 college attendance has outpaced the general growth of  
17 the population of 18- to 22-year-olds, suggesting, as  
18 we've heard from others, that a greater percentage of  
19 the population is going to college.

20           In 1995, 65 percent of high school  
21 graduates enrolled in a post-secondary institution,  
22 which was up from 49 percent in 1980. In addition, a  
23 large number of adults are returning to college in  
24 some capacity after their teenage years, and today  
25 adults age 25 and over represent 43 percent of all  
26 post-secondary enrollments.

1           It's our view, in looking at this space as  
2 an investable sector, that basically any kind of  
3 paradigm shift in a very large market can create  
4 enormous opportunity. The broadly-defined education  
5 market, as Wall Street understands it, which  
6 encompasses everything from pre-K education through  
7 adult vocational and corporate training, represents  
8 more than \$900 billion in annual spending, second only  
9 to health care in terms of its role and importance in  
10 the U.S. economy.

11           Post-secondary education makes up roughly  
12 one third of this total. The Federal Government  
13 conservatively projects that enrollment in higher  
14 education will reach 16 million by 2008. That's up  
15 approximately 15 million over a ten-year -- from 15  
16 million, rather, over a ten-year period.

17           And our view is that the changes that  
18 we've described are part of what creates the  
19 opportunity for value creation in this large and  
20 dynamic market. The growing demand for higher  
21 education among the non-traditional student population  
22 is one of these paradigm shifts that has contributed  
23 to the rapid rise of proprietary institutions. For-  
24 profit growth should continue to be fueled by growth  
25 in the overall population of 18- to 22-year-olds as  
26 well as continued expansion of the market through

1 greater participation by adults, and I would say by  
2 continued share gains from what our less responsive  
3 and/or resource constrained public and not for profit  
4 institutions.

5 In addressing the product, what it is that  
6 these institutions do differently, I'd say that  
7 broader participation in the higher education market,  
8 combined with rapidly rising costs, has resulted in a  
9 more discriminating consumer with a new socio-graphic  
10 (ph) profile. Both high school graduates who might  
11 have alternatively pursued a craft or blue collar  
12 vocation, as well as adults going back to school, are  
13 approaching the college experience with a very  
14 practical cost benefit orientation. They want to  
15 acquire skills that are going to be immediately  
16 relevant in the workplace and are increasingly  
17 pragmatic and demanding of the experience that they  
18 have. While brand image remains extremely important  
19 in the purchase decision, it matters only so much as  
20 it carries weight with potential employers.

21 Consumer influence has grown as well  
22 during this period, as the Web has empowered buyers  
23 through improved access to information as well as more  
24 flexible delivery options. Traditional regional  
25 monopolies held by state and community colleges have  
26 been disrupted not only by Internet-delivered programs

1 but by the greater ease with which students can learn  
2 about and apply to competing colleges.

3           Finally, the rise in various  
4 certifications and standardized tests has resulted in  
5 greater accountability for the quality of various  
6 degrees, holding degree-granting institutions more  
7 accountable, although maybe not as accountable as they  
8 could be -- to corporate employers for the very first  
9 time.

10           The rise in significance of this new  
11 consumer attitude has been missed to a large extent by  
12 the traditional education establishment.  
13 Historically, colleges and universities were immune  
14 from outside forces. They enjoyed regional  
15 monopolies. As accreditation, state and federal  
16 approvals created high barriers to entries. Consumers  
17 were fragmented, with little buying power, as their  
18 tuition revenue was often incidental to the operating  
19 budgets of large institutions. As a result, academic  
20 institutions had no real accountability to  
21 stakeholders.

22           In addition, the paternalistic culture of  
23 most traditional educational institutions places  
24 students at the bottom of an elaborate hierarchy in  
25 which expert professors rather than consumers or  
26 prospective employers determine curriculum.

1           Beyond this, state subsidies, inefficient  
2 governance, and a general attitude of self-importance  
3 have left state and community colleges open to the  
4 rise of for-profit competition. The growth of for-  
5 profit competitors far faster than the overall market  
6 points to the remarkable share shift that has taken  
7 place. Even today, as advocates for publicly-funded  
8 institutions lobby for greater subsidies, their  
9 rhetoric ignores completely the growing role of  
10 proprietary schools in addressing unmet needs.

11           I should insert here the notion that what  
12 -- what passes on Wall Street may seem brash by the  
13 standards of the Commission, so I apologize if I'm  
14 insulting your --

15           CHAIRMAN MILLER: I think Elliot Spitzer  
16 may be your second problem after the education  
17 establishment. Please go ahead.

18           MR. URDAN: Yeah. Sure.

19           CHAIRMAN MILLER: We want you to tell us.

20           MR. URDAN: For-profit education has  
21 really become a permanent part of the education  
22 landscape. High-quality operators in the space have  
23 been responsive to this new consumer demand, adapting  
24 curricula to suit both student desires and the  
25 requirements of prospective employers, I would say  
26 meeting on a quarterly basis with prospective

1 employers, rather than every two years, as we heard in  
2 the case of Georgia Tech, developing programs in areas  
3 such as information technology, allied health and  
4 education, where major demand for skilled graduates  
5 outstrip supply, responding to the needs of working  
6 adults with innovative scheduling options, liberal  
7 recognition of prior college attendance, and online  
8 education, and working diligently to ensure that  
9 students stay in school and secure attractive  
10 employment opportunities after graduation.

11 While it's not impossible for traditional  
12 public and not for-profit educational establishment  
13 become more competitive over time, anecdotal evidence  
14 suggests that institutional barriers to change remain  
15 very high.

16 The for-profit players face extra  
17 regulation that's designed to ensure that product  
18 quality remains high and appropriate to the public  
19 investment represented by state and federal aid and  
20 loan programs. Unfortunately, however, it's also  
21 contributed to a culture at some for-profit companies  
22 to operate as aggressively as possible within the  
23 strictly legal scope of the requirements, rather than  
24 being ruled by customer requirements. As a result,  
25 both regulators and the press have rightly accused  
26 some institutions of losing sight of the fundamental

1 value proposition offered by their programs.

2 While mediocre program quality may be  
3 tolerated by students at state-subsidized community  
4 colleges, where prices and expectations are low, many  
5 proprietary schools have learned hard lessons over the  
6 past two years about elasticity of demand.

7 That said, we expect the regulatory  
8 pressures to ease over the coming years as fines are  
9 levied, abuses are checked, and student growth at  
10 these institutions continues.

11 Moving on more quickly, I would say that  
12 the final two points -- the qualities that make this  
13 sector a favorite of investors -- include  
14 predictability, you have secular trends that govern  
15 demand for -- in the proprietary sector remain  
16 relatively stable and predictable, as does the basic  
17 momentum behind the growth of individual brands.  
18 Because revenue is a function of enrollment,  
19 enrollment is typically a two- to four-year decision.  
20 Providers can generally budget their costs quite  
21 accurately.

22 Furthermore, new student enrollment can be  
23 predicted with a fair degree of accuracy based on  
24 capacity, seasonal patterns, advertising, spending  
25 levels, and of course lead flow.

26 An orderly pace of new campus openings and

1 new markets contributes to the predictability of  
2 growth as well.

3           However, over the past two years,  
4 regulatory actions and an improving economic cycle  
5 have tested some investor assumptions about secular  
6 demand. Revenue performance remains predictable,  
7 given known truths regarding student population and  
8 tuition levels. Enrollment trends have proven more  
9 volatile than investors and I would add many analysts  
10 had really understood.

11           That said, unit volume and pricing growth  
12 in this sector remains superior to most other cyclical  
13 consumer-based businesses and many corporate service  
14 businesses as well, and they're aided in large part by  
15 the federal programs that subsidize student expenses  
16 and remove some dependence on the economic cycle that  
17 characterizes other consumer businesses.

18           So, again, in thinking about Wall Street's  
19 take on this industry, that difference from other  
20 types of consumer businesses is all-important in how  
21 the sector is viewed.

22           Finally, profitability. The proprietary  
23 schools, because they focus on high demand career  
24 training in areas of peak interest, they can quickly  
25 fold programs that are not proving attractive. They  
26 operate far more profitably than traditional



1 institutions where such decisions can often take years  
2 and involve multiple stakeholders in an effort to  
3 reach consensus. Proprietary schools are not burdened  
4 by having to subsidize intellectually valid but wildly  
5 unpopular programs or compensate unproductive but  
6 tenured faculty.

7           Most proprietary schools operate from  
8 standardized curriculum that allows for consistent and  
9 more responsive instructional product, as changes can  
10 be made definitively system-wide. It also allows for  
11 greater reliance on part-time and practitioner faculty  
12 which, though often cited as a negative by  
13 accreditors, are generally favored by students, even  
14 in instances where they may be -- the students, that  
15 is -- critical of other aspects of a particular  
16 program.

17           Both practices contribute to efficient  
18 scheduling in year-round frequent starts, and whether  
19 the class is being offered online or on ground  
20 contribute to more efficient capacity utilization  
21 which in turn drives margins in the sector.

22           Because tuition revenue is generally  
23 collected in advance of the semester, as it is in the  
24 case of traditional institutions, particularly a  
25 portion that comes as a result of a government subsidy  
26 or a sponsored loan, working capital requirements for

1 proprietary schools are minimal. In addition, low  
2 capital expenditures that result from minimal extra  
3 classroom campus amenities contribute to a strong  
4 return on invested capital.

5 And, finally, the schools are operated as  
6 reasonably efficient businesses, where every marketing  
7 dollar is evaluated in terms of lead flow and  
8 enrollment and very little is spent on image-oriented  
9 advertising or on attractive but inefficient  
10 brochures. In fact, every expense can be looked on on  
11 an ROI basis and multi-million-dollar cost overruns  
12 for expensive software, installations that we've read  
13 about at some state institutions, just simply aren't  
14 an issue at proprietary schools.

15 I've already dug a hole here, I suspect,  
16 for myself, but I'm going to go ahead and make a few  
17 recommendations, in all modesty. These just stem from  
18 the perspective that I've had over the last eight  
19 years in looking at proprietary schools and having had  
20 the experience of attending traditional institutions.

21 And I'll say again that these -- I  
22 understand the impracticality of some of these, but  
23 I'm throwing them out there in the spirit of -- that  
24 we were invited to make bold recommendations.

25 The first would be to encourage state  
26 lawmakers to really articulate what taxpayer support

1 of higher education is meant to accomplish, and then  
2 take a look at the existing often baroque network of  
3 two- and four-year offerings, tune out stakeholder  
4 complaints, and assign funds where they will best  
5 further those goals that have been identified, and  
6 require other institutions that don't necessarily  
7 serve those goals to survive in the market on their  
8 own merits.

9 For states with shrinking populations, to  
10 subsidize state institutions so that they can  
11 aggressively market to students from other states  
12 might be a strategy to support a football program but  
13 I would say it disserves the taxpayers that are  
14 footing the bill for that activity.

15 Second, I'd encourage state lawmakers to  
16 allow institutions to privatize while directing  
17 greater resources to individual aid. State colleges  
18 and universities, particularly community college  
19 systems, amount to state-run enterprises and suffer  
20 from all of the inefficiency and poor decisionmaking  
21 of Soviet-style factories.

22 A community college true to its mission  
23 and focused on the pragmatic ought to be able to put  
24 proprietary schools out of business by virtue of the  
25 subsidies it receives. The fact that this has not  
26 happened suggests a problem with governance.

1           Though the process of relying more on  
2 student tuition and rationalizing costs is painful for  
3 state schools, it is healthy. Placing state funds in  
4 the hands of students as need requires and making them  
5 pay what the education actually costs to produce  
6 empowers students to support effective institutions  
7 and allow redundant institutions to wither.

8           Rationalize federal and, where possible --  
9 and this is now -- directly addresses the question of  
10 investment in the space -- rationalizing federal and,  
11 where possible, state change of control laws. What  
12 regulators view as investor speculation can actually  
13 represent a healthy and necessary injection of  
14 capital, sensible management, and industry  
15 consolidation. Yet the rules throw up multiple  
16 hurdles and roadblocks to private equity  
17 participation. They likewise discourage what could  
18 actually be a healthy consolidation of brands.

19           Right now, the rules would maintain a  
20 network of family-owned schools in the for-profit  
21 space that are really operated as cash cows and serve  
22 no quality or public policy goal but is the effect of  
23 the formal discouraging of professional investors from  
24 the sector.

25           And again in that vein, update financial  
26 viability rules to allow for the realities of the

1 marketplace. Well-run institutions can generally  
2 support higher levels of leverage than the current  
3 rules allow. Better informed rule-making and  
4 administration in this area could have a significant  
5 impact on the ability of private capital to invest in  
6 the sector.

7 So it's a mouthful. I appreciate your  
8 attention.

9 CHAIRMAN MILLER: Well, it is. And strong  
10 language. And we appreciate that. Straight from Wall  
11 Street. Thank you.

12 MR. KAPLAN: Thank you, Mr. Chairman. I'm  
13 Andy Kaplan from Quad Partners, and where I think  
14 Trace talked at a bit higher level, I'm going to  
15 present somewhat of a case study. Maybe the --  
16 instead of the 10,000-foot view, kind of the -- maybe  
17 the two-foot view of the private side, investing in  
18 private education companies using private equity.

19 Quad was founded in 2000, just to focus on  
20 the education industry. We are the most active  
21 investor in private education companies today. And we  
22 focus on finding high-quality businesses that we can  
23 add value to through operating expertise and to grow  
24 them. Our first fund was a hundred million dollars of  
25 capital from mostly institutional investors. We're  
26 currently raising our second fund, which is targeted

1 at \$200 million.

2 The partners in Quad have a very diverse  
3 background which, you know, we think is important for  
4 success in this industry. It's a complicated one in  
5 which to operate. You know, we have private equity  
6 experience, government experience, technology  
7 experience, and over a hundred years' combined  
8 education experience.

9 Myself, I've been in the education  
10 industry for my whole career. Prior to founding Quad,  
11 I had been founding, running, and building businesses,  
12 education businesses, both on my own and for some of  
13 the big brand names, including Scholastic and Kaplan,  
14 to which I must tell you I am sadly not related.

15 So the overall -- we invest broadly across  
16 education. We -- and define that to include -- we  
17 think of it as an over a trillion dollar industry. I  
18 think Trace said 900 billion. What's a few hundred  
19 million between friends? We -- it is certainly the  
20 second largest sector of the economy behind health  
21 care, as I'm sure you're well aware. And we define it  
22 broadly to extend from early education through K-12,  
23 post-secondary, corporate training, and then consumer  
24 education and services.

25 The overall market's characterized by very  
26 stable spending patterns and stable growth in those

1 spending patterns, and is essentially resistant to  
2 economic cycles to some portions but appear to be  
3 acyclic or countercyclic but certainly not -- not  
4 tremendously different through various economic  
5 cycles.

6           And the dominant characteristic, from an  
7 investor perspective, is its huge amount of  
8 fragmentation. There are thousands of companies in  
9 every one of these subsectors and not a single company  
10 has even a one percent share of its marketplace, and  
11 so there's tremendous fragmentation and inefficiency  
12 from that.

13           As many of us have cited, the global  
14 knowledge economy and the requirements for increasing  
15 knowledge have really driven demand in education, and  
16 that's true across all these areas.

17           And the spending in these areas -- and  
18 this is I think a newer trend -- has been increasingly  
19 directed to companies that are delivering measurable  
20 results. It's really focused on results,  
21 accountability and really measurable outcomes.

22           To focus in on the post-secondary industry  
23 itself from a private equity perspective for  
24 investing, there are definitely some strengths about  
25 it as an investment opportunity and also what I would  
26 call some barriers or perhaps some opportunities, if

1 you look at it a different way.

2 On the strengths side, it certainly shares  
3 those characteristics with the overall market. It's  
4 very fragmented. There are over 2600 for-profit  
5 institutions in the United States alone.

6 The limited job opportunities for high  
7 school graduates are really driving demand and, as  
8 Trace said, there's, you know, continuing to be a  
9 large gap in income for those with higher levels of  
10 education.

11 And the overall business model is  
12 attractive. The same things that drive the public  
13 companies also drive the private companies. Their  
14 models are predictable, they're highly visible, the  
15 programs are long and so you have good visibility on  
16 what's going to happen. There's Title IV and private  
17 loans which provide some of the crucial funding.  
18 There's very limited working capital requirements for  
19 these businesses, which is very attractive to  
20 investors. And although there is an up-front  
21 investment and a high fixed cost base for most of  
22 these businesses, there's very low marginal costs and  
23 so it really helps you to be efficient and you become  
24 more profitable as you scale.

25 There are things that make it more  
26 challenging to invest from a private equity



1 perspective. These can be seen as barriers or, you  
2 know, one -- barriers to new investors are also  
3 opportunities to investors that understand those  
4 barriers. And specialized expertise helps you do  
5 that.

6 You know, certainly highly regulated. We  
7 talked about that a lot. It's federally regulated,  
8 state, accrediting agencies.

9 Another interesting issue is it's  
10 essentially -- there's no new supply of schools. It's  
11 very difficult to start a new school, takes a long  
12 time until you become accredited and can accept Title  
13 IV funding, and so there's not a huge influx of new  
14 schools, new availability there.

15 Many of the schools in the marketplace, of  
16 those 2600 for-profits, many, many, many are very  
17 small. They don't employ best practices. They're run  
18 by essentially mom-and-pop operators. They have  
19 limited access to capital.

20 And there's characteristics about the  
21 market. You know, you really need to adhere to your  
22 educational values. There's the regulatory approval  
23 for growth. There's limited use of debt. And these  
24 tend to self-select for patient investors and provide  
25 opportunities, you know, for those who are focused.

26 We currently have 33 schools in four

1 groups, one -- a group in New York, a group in  
2 Detroit, a group in the South, and a group in Southern  
3 California here -- focusing on a variety of programs  
4 of study, including allied health, massage therapy,  
5 criminal justice, cosmetology, commercial cooking,  
6 hotel management, and business.

7 This year, we'll serve over 5,000 new  
8 students, over 75 percent of which will be placed in -  
9 - in their field of study in jobs.

10 So when we think about investment in the  
11 post-secondary schools, we should start with what our  
12 investors, investors in private equity funds, expect  
13 of us. Investors in private equity need to receive a  
14 premium to the returns they could get in the public  
15 markets because there's a number of factors that make  
16 it more difficult as an investment climate.

17 The investments in private equity are  
18 illiquid, can't sell them easily. You have a long  
19 lockup. You know, people who commit to our private  
20 equity funds typically commit to ten-year investment  
21 and management period.

22 And you're investing in smaller companies  
23 and that also carries risk. And this translates  
24 essentially into private equity investors, those who  
25 invest in private equity funds, looking for  
26 essentially a three-times return over about a five-

1 year period of time. So that's -- that's a little bit  
2 of the framework that we use to evaluate our  
3 investments.

4 We focus on smaller schools because we  
5 think there's more opportunity there for us as  
6 investors with five to \$15 million of revenues. They  
7 have to have a clean regulatory history and ideally  
8 some strong regulatory processes to keep that  
9 regulatory history clean.

10 We perform very intensive due diligence,  
11 way beyond what the auditors might do. We look at,  
12 you know, every aspect of the school -- their history,  
13 their performance, their management team. We bring in  
14 other top experts to help us, you know, be very  
15 careful as we diligence the schools and do our  
16 evaluations.

17 And we look for places where we can drive  
18 value. We don't want to just buy the schools and run  
19 them. We want to find places where we can really  
20 meaningfully change their impact, grow them, help them  
21 to serve unmet market needs. And these schools focus  
22 on what has been described as the non-traditional  
23 learner -- adults in underserved markets. Students  
24 coming right out of high school are a very small  
25 minority of the students that we serve.

26 And we spell higher education H-I-R-E.

1 It's kind of a funny way for us to remember that the  
2 students are there for jobs. We are focusing on  
3 changing our students' lives by helping them get a  
4 career that has a future, and that's the focus of the  
5 schools. And I think to some earlier points, most of  
6 these jobs are services industry jobs.

7 The schools themselves, because of that  
8 mission, are very focused on the job market and, in  
9 fact, in a very rapid cycle they start by looking at  
10 the job market. They try and figure out where the  
11 jobs are and where they're going to be. And then they  
12 identify some key employers in those markets. These  
13 are mostly locally done -- key employers in those  
14 markets. And they talk to the employers and they find  
15 out what skills and what knowledge is going to be  
16 necessary to be attractive to those jobs and to be  
17 successful in those jobs in the long run, what it will  
18 take to get hired and to succeed.

19 We then design the programs to meet those  
20 outcomes. We form an advisory board from those  
21 employers to make sure we get it right. Many of those  
22 programs include extensive externships to make sure  
23 that they're getting on-the-job experience that's  
24 mentored and supported and guided but practical.

25 And then, lastly, we look for students who  
26 we think can be successful in those programs and who

1 have some passion for those fields to be successful in  
2 those programs.

3 And, for us, accountability has many  
4 forms, but the key portion of accountability is that  
5 we have to place our students in jobs in their field  
6 and we place well over 75 percent of our graduates in  
7 jobs in their field of study.

8 We're constantly adapting the programs to  
9 the changes in the job world. I would say quarterly  
10 at least we evaluate them. And the process of  
11 designing new programs can also be very quick.  
12 Certainly within a few months or a year, probably  
13 closer to a few months, you can design a new program,  
14 have it accredited, and begin to accept students into  
15 it so you can be very reactive to changes in the  
16 marketplace.

17 It's very important that we take our  
18 schools and move them from small businesses to  
19 professionally run organizations. There are three key  
20 areas there. Really first is top quality management.

21 You know, different from a locally run school, we can  
22 recruit nationally. We have relationships with strong  
23 managers with proven track records across the country  
24 who have run schools successfully before and who look  
25 to work in a private equity environment where they can  
26 innovate and succeed themselves financially.

1           We try to implement best practices across  
2 the board. Most of these schools have been around for  
3 a while. They are probably doing things the way  
4 they've always done them. It's important to drive  
5 change across education, across admissions, across  
6 finance, across all the operations of the school and  
7 really, most importantly, to have to stay customer-  
8 focused. We really focus on an adult population and  
9 we need to serve their needs, which are somewhat  
10 unique, and be responsive to it.

11           You know, at the end of the day, to be  
12 successful, our schools have to first drive  
13 educational outcomes. We can't be successful unless  
14 the students are successful in getting jobs and  
15 getting careers.

16           Some measures of that are that our schools  
17 experience a very high referral rate, and I think this  
18 is true across the for-profit industry, where over 35  
19 percent of our students are direct referrals from  
20 existing students, and probably another chunk equally  
21 large are basing it on the reputation of those schools  
22 in their industry recommended by employers.

23           It's also important that we reinvest the  
24 profits of these schools directly into new innovations  
25 -- other school improvements and enhancements, in  
26 programs, in methods, in technologies, in equipment

1 that help continue the growth to serve broader student  
2 population.

3 So because we've been asked to make some  
4 suggestions, I've made some also. I would say mine  
5 are not the kinds of sweeping suggestions and broad  
6 suggestions, but I think a pickup on some of Trace's  
7 suggestions, to focus specifically on some of the  
8 issues that affect private equity investment in the  
9 post-secondary industry.

10 The first is around the change of control  
11 approval process. When a new buyer buys a school, the  
12 Department of Ed. subjects them to scrutiny on -- as  
13 to their fitness as a buyer. And that process is a  
14 good one and an important one to make sure that the  
15 people who buy schools make sense and know what  
16 they're getting into. But the way the process is  
17 structured, there's no way to fully get preapproved  
18 before you do your acquisition. So you don't actually  
19 know, once you've done your deal, if you're going to  
20 actually be allowed to operate the school. And,  
21 actually more importantly, conditions are imposed on  
22 the growth of newly-acquired schools. It could be in  
23 the form of new branches, new programs, limitations,  
24 or perhaps a letter of credit that might be imposed.  
25 These are very important issues to investors. They  
26 might be imposed for a period of time -- a year, two

1 years. But for an investor with a time horizon like  
2 we have, that's a critical period of time and there's  
3 no way to find out what those conditions might be  
4 prior to making your investment.

5 And those kinds of uncertainty and that  
6 lack of predictability I think makes it difficult for  
7 investors.

8 You know, I should step back and say that  
9 we have a very good relationship with the Department  
10 of Education and with the accrediting agencies. And  
11 so some of the things I'm going to raise are less  
12 issues for us and broader issues for the private  
13 equity industry as a whole.

14 Another factor is, again, because the  
15 rules are not tuned to the needs of investors, success  
16 of investment funds, even if they have the same  
17 principles, are considered new entrants. So the way  
18 private equity funds work is we periodically raise  
19 pools of capital and then we invest that capital and  
20 we go out and raise another pool of capital.

21 So even if an established firm with a good  
22 school track record -- we've run schools before or  
23 others have run schools before -- and the same  
24 principles raises a new fund, from the Department of  
25 Ed. perspective, that's considered a brand new entity,  
26 a brand new group and, therefore, subject to a lot of



1 these growth restrictions, a lot more scrutiny, and  
2 really makes it -- it really discourages new investors  
3 and certainly restricts even proven and established  
4 investors that have been successful owners.

5 And I don't think that enhances the safety  
6 of the process from the Department's perspective.

7 The capital structures you're allowed to  
8 employ are fairly limited as an investor. Something  
9 maybe a little different about the schools that we  
10 focus on is very few of them own their own real  
11 estate. They lease it like other businesses might do.

12 And every school is required to pass a fiscal  
13 responsibility test and there's a composite score that  
14 every school has got to post. The composite score is  
15 structured such that debt for purchase counts very  
16 negatively against that score unless it's against hard  
17 assets, and many of these schools don't have hard  
18 assets. And so that really limits the amount of  
19 leverage you can use. You can't even really employ  
20 what would be considered very moderate amounts of  
21 leverage in other industries against the purchase and,  
22 again, that inhibits the use of private capital very  
23 significantly in the post-secondary world.

24 The last point is it's difficult from a  
25 private equity perspective to invest in schools that  
26 serve inner city populations. Inner city population

1 schools are at somewhat of a risk of triggering some  
2 regulatory requirements, most notably the retention  
3 rules and default rate rules. Now, it is possible  
4 after the fact to get a waiver against these -- the  
5 tripping of these conditions. But you can't get that  
6 in advance and, again, lack of predictability  
7 essentially inhibits investment here.

8 So, you know, I think these are some  
9 modest and focused recommendations but, you know,  
10 applicable to the private equity world. I will say  
11 that post-secondary education does really offer a  
12 unique opportunity from a private equity perspective  
13 to specialized investors like ourselves to be able to  
14 do well by doing good.

15 Thank you.

16 CHAIRMAN MILLER: Thank you, Andy.

17 MR. BLOCK: Thank you, Mr. Chairman. Good  
18 afternoon, everyone. My name is Howard Block and I  
19 work as an equity analyst at Banc of America  
20 Securities in San Francisco. My employer had been  
21 Montgomery Securities, which was one of the more  
22 distinguished boutique investment firms years ago,  
23 founded in San Francisco in the '70s. And we were  
24 acquired by Montgomery in 1999.

25 As an equity analyst, I am responsible, as  
26 is Trace, obviously, for covering companies in the

1 education services sector and writing frequent brief  
2 analyses on individual companies, the sector and  
3 industry sub-groups. I try to describe the businesses  
4 and the companies' investment potential usually from a  
5 fundamental analysis standpoint. I get my information  
6 by studying public records of the companies and by  
7 participating in public conference calls where I can  
8 ask direct questions to the management.

9           Previously, you may recall analysts were  
10 said to obtain lots of information via exclusive  
11 meetings with upper management. Clearly, I never did  
12 that. Regulation FD, fair disclosure, is said to  
13 prevent most of this from happening at present. I  
14 attempt to maintain independent sources of information  
15 and contacts, and naturally I'm obliged to respond  
16 timely to breaking news developments on companies  
17 throughout the sector.

18           I became an equity analyst, however, after  
19 following a somewhat circuitous path that was somewhat  
20 uncommon but certainly not unfortunate. I offer this  
21 background, by the way, only to help you understand my  
22 frame of reference.

23           I began studies at Stanford University  
24 after graduating from Dr. Duderstadt's university  
25 years before he was president, by the way.

26           I began studies at Stanford University in

1 education policy in 1992. I was extremely fortunate  
2 as Professor Michael Kirst (ph), who some of you  
3 certainly know, took me under his wing and enabled me  
4 to complete my doctorate by 1996. My Ph.D. work was  
5 clearly not about equity analysis, but it was about  
6 state and federal policymaking, and I studied the  
7 effects of state law on the creation of charter  
8 schools in an attempt to see if variation in policy  
9 across the states was affecting the supply of charter  
10 schools in those states.

11 Now, my research question at Stanford was  
12 far different from the one presented to this  
13 distinguished Commission, yet it was a research  
14 question where the conceptual framework, I believe, is  
15 not that different. Government policy can have a  
16 material effect on supply, and it is that conclusion  
17 with which I'd like to begin my comments.

18 Bob Mendenhall was kind enough to provide  
19 the focus of my comments and the Commissioner --  
20 Chairman, I'm sorry -- blessed his guidance, although  
21 I would certainly not hold either one of them  
22 responsible if I digress or fail to meet your  
23 expectations. And I would hope that the Commission  
24 would put me back on task should my comments be of  
25 little value.

26 The three components of my comments today

1 are, one, the role of private capital in higher  
2 education. Some of these early comments, by the way,  
3 may be a little bit redundant with Trace's. I'll try  
4 to speak quickly when I come to those redundancies.

5 Two, the pros and cons of for-profit  
6 higher education from an educational and societal  
7 point of view.

8 And, three, incentives which might  
9 encourage the commitment of private capital for  
10 educational and training purposes.

11 So point one, the role of private capital  
12 in higher education. Let me begin with a brief  
13 definition that was sort of tortured to help expedite  
14 my comments. I consider the term "private capital" as  
15 one that is used primarily to distinguish it from  
16 public capital, meaning public funds or government  
17 support.

18 In referring to private capital throughout  
19 my comments, I focus primarily on the "private  
20 capital" that has been transformed into "public  
21 equity." In other words, private investors once  
22 funded Apollo Group, which owns the University of  
23 Phoenix brand, and that private capital is now  
24 "public" as a result of an equity event known as an  
25 IPO or initial public offering. There have been  
26 dozens of other equity events in higher education,

1 many of which have transformed what we loosely call  
2 "private capital" into what we now consider "public  
3 equity."

4           Again, in my comments, all references to  
5 private capital are about companies which are now  
6 "public" companies. It is my contention that those  
7 companies are valid and appropriate proxies for  
8 private capital and, in addition, studying those  
9 companies will enable me to speak to the three points  
10 on the agenda that I was asked to speak to.

11           My testimony was provided to you in a  
12 separate document, of course, and there also is  
13 another separate document which has several charts and  
14 graphs which I will refer to. As can be seen on page  
15 one, what is numbered as page one of your handout,  
16 private capital's role in higher education manifests  
17 within the buckets under Title IV degree granting and  
18 Title IV non-degree granting. And, clearly, the  
19 buckets there have runneth over since 1991 when DeVry  
20 went public. You can see the number of for-profit  
21 students and the number of for-profit schools in those  
22 buckets.

23           The market has seen the addition of  
24 roughly one equity per year since DeVry's IPO, to  
25 where we now have 12 publicly-traded equities. That  
26 can be seen on page three of your handout, the growth

1 in the number of equities and the growth in the equity  
2 value of those companies has been dramatic. Today,  
3 their equity value is \$27 billion. On that point,  
4 Trace and I clearly agree.

5 This data again is clearly laid out in  
6 your handouts.

7 Now, the equity value, by the way --  
8 sometimes we tend to mention these terms, it might be  
9 esoteric -- it's calculated by multiplying the total  
10 shares of stock equity outstanding by the market price  
11 for each share. The combined equity value has  
12 ballooned, as you can see in your handout, because the  
13 student enrollment at those schools owned by those  
14 companies has ballooned. From DeVry's initial  
15 enrollment of 20,000 students when they went public in  
16 1991 as the pioneer, these companies now enroll  
17 roughly one million students. These equates to  
18 roughly 30,000 of equity value per student, as you can  
19 see on page four of your handout. There's been some  
20 volatility in that equity value over the years but it  
21 is now a 30,000 of equity value per student which,  
22 with some exceptions, is about twice the average  
23 tuition on an annual basis paid by those students.  
24 And it's also three times the average annual tuition  
25 paid by students in this country.

26 While the role of private capital has been

1 growing, it remains a minority share as, again, you  
2 can see back on page two where we outline the market  
3 share. I believe, however, that it is a market share  
4 that will grow significantly for the foreseeable  
5 future. In fact, if we extrapolate from the trends  
6 described here, by 2015 or '16, the equity value of  
7 these companies would be nearly \$80 billion, their  
8 enrollment would be about 1.6 million students, and  
9 their market share would be about eight percent.  
10 Those trends are also shown on page two.

11 Now, moving quickly to point two, the pros  
12 and cons of for-profit higher education from an  
13 educational societal point of view. Again, I think  
14 it's helpful to understand my bias. I have been  
15 writing equity research on this sector since January  
16 1997 and, in the past nine years, I have been somewhat  
17 resolute in my recommendation to invest in the stocks.

18 That bias has been wise for nearly all those years  
19 but not right now and not in 1999 and not in 2005.  
20 Yet my bullishness has never suggested that I  
21 necessarily cheer for these companies, so please don't  
22 think that is the case.

23 In fact, as a citizen, I harbor great  
24 concerns about these companies -- not Jonathan's, of  
25 course -- and their burgeoning share of this.

26 MR. GRAYER: He's not part of this.



1 MR. BLOCK: That's true. Nevertheless, I  
2 recognize the attractiveness of the business models to  
3 investors and I've been able to insulate my equity  
4 analysis from my personal concern. I group the pros  
5 into three categories -- scale, access, and  
6 innovation.

7 By "scale," I mean size, the number of  
8 schools and the student body. Each company's pursuit  
9 of scale was initially funded by the capital provided  
10 by the respective primary equity event, in many cases  
11 the IPO. These companies are not necessarily the  
12 darlings of Wall Street bankers just because they had  
13 an IPO. The reason is the companies do not usually  
14 need bankers to raise additional cash for them after  
15 the IPO has been completed, the reason being that the  
16 business operations generate more than enough cash  
17 flow to enable the companies to execute a panoply of  
18 growth initiatives, each of which help them achieve  
19 more scale; in other words, once scale has been  
20 achieved, perhaps by the initial funding, growth  
21 should be self-funding and no longer in need of Wall  
22 Street bankers.

23 I will touch on some of the various growth  
24 initiatives briefly in the final half of my  
25 presentation but, in summary, they are, one,  
26 acquisitions; two, new locations or what we often call

1 green field activity; three, new programs; and, four,  
2 online campuses.

3           The cash flow that is generated by  
4 operations has funded the growth in the number of  
5 locations against scale that can be seen again on page  
6 five of your handout. Obviously, in terms of looking  
7 at the number of annual new campus openings, these  
8 locations have been a driving force in enrollment  
9 growth, which we also saw in a previous slide and, as  
10 a result, these new locations in total have enabled  
11 tremendous growth in the market share.

12           On the second point in terms of pros,  
13 access I'd like to speak to. Secretary Spellings  
14 asked the Commission to address issues of access,  
15 affordability, accountability, and quality. And as  
16 can be seen on page six -- five and six -- the number  
17 of locations has grown dramatically and the surge in  
18 locations has been disproportionate to areas with high  
19 percentages of minorities. For instance, the five  
20 cities in blue on the handouts represent five of the  
21 top seven metropolitan areas in terms of African-  
22 American enrollment. Each of these cities has become  
23 a home to more than ten new for-profit campuses in the  
24 last ten years, and that is arguably -- that is  
25 arguable that private capital has increased  
26 accessibility for minorities. Note the word

1 "arguable."

2 On a broader level, irrespective of  
3 address, our data analysis, which can be seen on pages  
4 seven and eight of the handout, confirms that for-  
5 profit schools serve a higher percentage of minorities  
6 than do their peers in the traditional market. For  
7 example, the combined percentage of blacks and  
8 Hispanics at for-profit schools is 34 percent versus  
9 22 percent at all degree-granting institutions.

10 Now, I believe access and affordability  
11 are deeply interwoven, for an accessible location may  
12 not necessarily be an affordable school. And while I  
13 believe private capital has done an admirable job of  
14 building locations and increasing accessible  
15 locations, I am less impressed by what private capital  
16 has meant for affordability.

17 As can be seen on page ten of the  
18 attachment, the average price point is \$15,000 at the  
19 schools operated by these companies, and that  
20 certainly is no bargain. We believe that consumers  
21 are not nearly -- however, we believe consumers are  
22 not nearly as price-sensitive as perhaps they should  
23 be and, as a consequence, the gains in market share by  
24 the for-profits have not been stunted by the  
25 inexorable upward trend in price.

26 Number third -- the third pro I'd like to

1 speak to is innovation, and it's innovation that's  
2 been provided by private capital and for the for-  
3 profits. And it may not be fair, of course, in all  
4 cases to suggest or to fully attribute these  
5 innovations to the "for-profit companies" as I did not  
6 take the pains that would be necessary to confirm that  
7 the attribution is completely valid. Nonetheless, I  
8 am confident that most of the innovations discussed by  
9 me in these comments, as well as those listed on page  
10 11, are sufficiently unique and of sufficient scale to  
11 argue that the attribution is fair.

12 I will split the innovations between, one,  
13 the use of Internet technologies and, two, other.

14 Use of Internet technologies. We believe  
15 or I believe, I guess, that the use of Internet  
16 technologies is far more pervasive within the business  
17 processes of private capital than within the  
18 traditional market. We believe student application,  
19 financial aid processing, overall communication, and  
20 student placement are highly dependent on Internet  
21 technologies. Without question, however, the for-  
22 profits have made far more use of the Internet than  
23 their traditional brethren when it comes to student  
24 acquisition and instruction. In fact, few industries,  
25 if any, has been as aggressive as these education  
26 companies when it comes to using the Internet to

1 identify "leads" or prospective students.

2 We estimate the companies may spend more  
3 than \$500 million annually to acquire leads that were  
4 generated by the Internet. And, if time permits, we  
5 can revisit this specific and troubling trend, that  
6 this citizen finds troubling and specific.

7 Yet instruction via the Internet is the  
8 innovation most readily identified with the "for-  
9 profits." Online campuses have blossomed throughout  
10 the sector. Please refer to page 12 of the handouts  
11 for more details.

12 Each of the public companies we cover  
13 offer some variant of an online campus, and certainly  
14 the University of Phoenix is the most well-known, with  
15 150,000 online students. Furthermore, the methods of  
16 online delivery are mixed. Some of the schools have  
17 enrollment that is exclusively online, while others  
18 use online to complement the basic classroom  
19 instruction.

20 Moving to the other set of innovations,  
21 also labeled as "Other," I will mention only a few. I  
22 mention these as I believe each one has contributed to  
23 the growth of the companies and, if traditional  
24 schools would copy these techniques, I am certain that  
25 they would be able to protect their dwindling market  
26 share.

1           First I would like to mention frequent  
2 starts or enrollment periods. Now, education  
3 consumers, particularly the non-traditional ones we've  
4 heard quite a bit about today, are often impulsive.  
5 One such consumer may be, if you'll indulge this  
6 description for a moment, may be a tired and  
7 frustrated wage-earner collapsed on a couch watching a  
8 sporting event. Sounds like most of us, I assume.  
9 That wage-earner's attention may be grabbed by an  
10 intriguing TV commercial that promises a fresh start  
11 and a new career. The frustrated wage-earner grabs  
12 the phone, calls the (800) number, and within a few  
13 days finds himself enrolled at ITT, DeVry, the  
14 University of Phoenix, maybe all three.

15           What would have happened had that student  
16 called a traditional school, in most cases he would  
17 have been asked to fill out applications for the next  
18 academic period, which begins in perhaps several  
19 months. Imagine if you wanted to buy a television in  
20 February and a store owner said, That's great. We'd  
21 love to have your business. Place your order today  
22 and we'll deliver the television right after Labor Day  
23 when television season begins.

24           Frequent starts give the "for-profits" a  
25 significant competitive advantage over traditional  
26 schools. And as you can see on page 13 of your

1 handouts, almost every company within this group of  
2 schools starts programs and students nearly every  
3 month and, in some cases, far more often.

4           Frequent starts are enabled by another  
5 innovation which I would like to discuss briefly,  
6 which is what I called the "wheeled curricula." In  
7 the wheeled system, the curriculum is broken into  
8 modules that are delivered in sequence. However,  
9 under many circumstances, students can jump onto the  
10 wheel, if you will, at any module and thereby complete  
11 the program after one full rotation of the wheel.  
12 Thus, starting periods are not limited to that one  
13 particular module.

14           The second I'd like to mention in terms of  
15 the "others," I guess, is multiple storefronts.  
16 Frequent starts speak to the core of the operating  
17 mantra for private capital and public education. The  
18 operating mantra being, Make it convenience.  
19 Convenience is a word that's driven the University of  
20 Phoenix from zero to 300,000 students in 30 years,  
21 much of which was witnessed firsthand by Sally Stroup,  
22 by the way. Convenience sells. It offers multiple  
23 starts. Offering multiple starts is all about  
24 convenience. Online learning is about convenience,  
25 although some day we hope it may be more about  
26 learning efficacy. And multiple locations are about

1 convenience. I live in Marin County, which is just  
2 north of San Francisco. The University of Phoenix --  
3 Phoenix is in Arizona, by the way -- the University of  
4 Phoenix, however, enrolls about 400 students in  
5 Novato, which is deep inside Marin County. What is  
6 the appeal of the brand "University of Phoenix" in  
7 Novato, California, a bedroom community outside of San  
8 Francisco? San Francisco is home to distinguished  
9 brands, such as San Francisco State, University of San  
10 Francisco, City College, Golden Gate University, and  
11 University of California. The appeal of the  
12 University of Phoenix in Novato must be its  
13 convenience.

14 Not that it was necessary, as it seems  
15 highly intuitive to me, but David Card actually  
16 conducted an extensive social experiment from which he  
17 concluded that having a college or university near  
18 one's home substantially affects one's probability of  
19 enrollment. His study was cited in Daniel Hamermesh's  
20 (ph) presentation to this Commission. Few working  
21 adults would have the stomach to drive across the  
22 Golden Gate Bridge, which connects Marin to San  
23 Francisco, after work for classes. So why doesn't San  
24 Francisco State or USF or Golden Gate or UC offer  
25 classes in Marin? That is not a rhetorical question,  
26 if any of you can answer that. I don't know why. I



1 suppose it's inertia.

2 Much of the innovation that I have  
3 described and listed on page 11 is just common sense,  
4 but it is this common business sense is something that  
5 may not be as pervasive at traditional schools as one  
6 would hope.

7 The third "other" that I wanted to mention  
8 quickly is retention practices. A final example of  
9 innovation was driven by necessity, which we know is  
10 the mother of both invention and perhaps innovation.  
11 Because of the time lapse between the application date  
12 and the first day of classes, all colleges are at risk  
13 of losing previously committed students, particularly  
14 those that may have been somewhat impulsive. Thus,  
15 the for-profit companies work fervently to improve  
16 their "show rate," which is the percentage of enrolled  
17 students who actually show up for class.

18 Career Education, which is now one of the  
19 more notorious companies in the group, they use  
20 something that's called their "stitch-in program."  
21 The company's enrollment advisors "stitch in" the  
22 accepted student so that his or her commitment doesn't  
23 unravel before classes begin. The company's extra  
24 effort may include frequent e-mails, occasional phone  
25 calls, and possibly invitations to school events.

26 Now, moving on to the cons, Secretary

1 Spellings' mandate for the Commission is to focus on  
2 accessibility, affordability, accountability, and  
3 quality, and I only repeated that for myself. There  
4 is a growing body of evidence that the for-profits are  
5 not in general enhancing the quality of education nor  
6 are they sufficiently accountable for their  
7 transgressions. The instances and allegations of  
8 fraud and malfeasance are sufficiently known to this  
9 Commission that I need not reiterate them.

10           However, I provided a nearly comprehensive  
11 list of them on page 16 of your handout. Now, in  
12 flying down here, I happened to notice that the  
13 Chronicle of Higher Education did a much better job in  
14 terms of graphically representing those transgressions  
15 in their January 13th issue on page A25 that's called  
16 "For-Profit Higher Education Under Scrutiny," which is  
17 not part of your handout.

18           MR. URDAN: It's becoming a weekly piece  
19 for them.

20           MR. BLOCK: To many of the companies --  
21 too many of the companies -- I'm sorry -- continue to,  
22 as we say, sacrifice the integrity of our higher  
23 education system at the altar of earnings growth. And  
24 I suspect that those sacrificial practices will  
25 continue until deterrents are more common, more  
26 readily enforced, and more severe. The temptation is

1 too great. The rewards are plentiful.

2 But what troubles me more than the  
3 transgressions is something far more insidious and  
4 ubiquitous. It's what I call the "silent sufferers,"  
5 the students who did their work, finished their  
6 programs, and left burdened by disappointment and  
7 student debt. They entered into a contract in which  
8 they thought a brighter future was a certainty were  
9 they to complete the terms of their contract, which  
10 were their studies.

11 In reality, their lot in life is no better  
12 and perhaps worse. And for this disenfranchised and  
13 silent contingent of education consumers, we are all  
14 to blame for we constantly tout these so-called wage  
15 premium for higher education. We plaster the media  
16 and scream from the rooftops about the wage premium,  
17 the one that says in 2003 the average full-time year-  
18 round worker in the United States with a four-year  
19 college degree earned \$50,000, 60 percent -- 62  
20 percent more than the 31,000 earned by the average  
21 full-time year-round worker with only a high school  
22 diploma.

23 I recently Googled "wage premium" and was  
24 offered 2.8 million results in .43 seconds. I will  
25 not share each of those references now, but I did  
26 attach a sampling of them on page 14 of this handout.

1 We have irresponsibly failed to include the following  
2 caveat emptor with a promise of the wage premium,  
3 being you are not guaranteed to earn this premium,  
4 even if you finish your studies. In fact, we lack the  
5 evidence to even suggest that your chances are pretty  
6 good. Quite simply, we have failed to offer any  
7 empirical evidence to establish education as being  
8 causal, not merely coincidental, in relation to the  
9 security of the wage premium.

10 Too often, degrees provide career  
11 opportunities because of the presumption of  
12 proficiency, not because of the evidence of  
13 proficiency.

14 Colleges lack the instruments needed to  
15 demonstrate that a student's investment has enhanced  
16 his or her productivity, his or her proficiency. And  
17 this was written before I heard the articulation of  
18 this argument earlier this afternoon.

19 We believe that competency-based approach  
20 at Commission Member Mendenhall's Western Governors  
21 University may be worth further review, but it is  
22 truly an exception. There are too few examples of  
23 assessment instruments being used by schools in order  
24 to determine whether their student is obtaining the  
25 proficiency that is needed to earn the "wage premium."

26 There is far too little transparency regarding "value

1 added" or "value received." Instruments like that are  
2 sorely needed.

3 No enrollment advisor at any school of  
4 which I am aware would describe the harsh realities of  
5 the workplace. There are no disclosures regarding the  
6 turnover, the work conditions, the harsher facts  
7 regarding whether the wage premium is either relevant  
8 or attainable, let alone truthful for the job outcome  
9 to be secure by that student.

10 Reg. FD, full disclosure, may exist on  
11 Wall Street, but it is irresponsibly absent in  
12 admission and placement offices.

13 The for-profits are overselling the  
14 promise of education because society is irresponsibly  
15 selling it for them. Thus, the for-profits are  
16 delighted beneficiaries of the intoxication of the  
17 wage premium and, as a consequence, they're attractive  
18 business models, generate very compelling returns for  
19 shareholders and managers alike.

20 This provides me with a segue to my final  
21 point, the one that was provided actually by the  
22 Commissioner, which is incentives which might  
23 encourage the commitment of private capital for  
24 educational and training purposes. I do not believe  
25 that any additional incentives are needed to encourage  
26 the commitment of private capital. The business is

1 appealing enough.

2 I recall something that Robert Silberman,  
3 the CEO of Strayer Education, said to me shortly after  
4 taking the helm of Strayer Education and not long  
5 after leaving his position as president and chief  
6 operating officer of Cal Energy. Silberman said, "Any  
7 smart manager would give their thumbs to run a company  
8 in this industry." Mr. Silberman still has his thumbs  
9 and he is considered to be the best CEO in this  
10 sector, which adds credibility to his comment.

11 Few businesses offer returns as measured  
12 by returns on invested capital that can compete with  
13 this group. Please see the table on page nine of your  
14 handout and you'll see that the returns on invested  
15 capital in this group are extraordinary, better than  
16 nearly any other sector on Wall Street. In fact, I  
17 doubt that there is another sector that exists which  
18 offer the returns on invested capital of this level.

19 When compiling the list that you see, my  
20 team, my huge team of three back in San Francisco,  
21 struggled to find a company whose returns exceeded the  
22 best that my group had to offer, and I think they put  
23 some little market cap company on there that has about  
24 \$300 million just so that it would be number one.  
25 With returns of that level, no incentives should be  
26 necessary. And, furthermore, the opportunity to

1 become a millionaire is well-documented, as can be  
2 seen by the perhaps stunning list of insider  
3 transactions also in your handouts on page 15.

4           However, if capital from the private  
5 sector is needed to boost accessible capacity in  
6 higher education, what can be done to attract more  
7 private capital? I have two ideas and a closing  
8 point.

9           Number one, the stimulus to cultivate  
10 management. First, I would recommend that  
11 policymakers craft the stimulus for the cultivation of  
12 management to operate the schools. Nearly every CEO  
13 within the for-profit companies has at some point  
14 lamented the shortage of capable managers. That was  
15 lamented to me after I'd written this at lunch today  
16 by Jonathan Grayer as well. They have stated in  
17 perhaps only slightly different terms that the most  
18 significant gating factor to faster growth is the  
19 absence of management capacity. With returns on  
20 invested capital that easily exceed the cost of that  
21 capital, any wise manager would surely choose to  
22 deploy more capital as quickly as possible but not  
23 without stewardship.

24           Who would run the schools if they were to  
25 accelerate the rate of openings? Thus, what stimulus  
26 could government provide that would generate more

1 management capacity? I cannot propose a sweeping  
2 policy that would address the problem of inadequate  
3 management capacity, but I did offer a small idea or  
4 initiative to Robert Silberman of Strayer a few years  
5 ago.

6 I recommended that his schools offer an  
7 MBA with an emphasis on management of for-profit post-  
8 secondary institutions. Thus, he could turn a problem  
9 into a profit center that would generate his own -- a  
10 profit center that would generate his own managers. I  
11 have no idea as to what happened to my idea, but I  
12 still have my thumbs.

13 Traditional education programs do not  
14 cultivate enough business savvy leadership that is  
15 needed to run higher education institutions in this  
16 increasingly competitive landscape.

17 The second proposal I would mention is  
18 fast-track licensure and accreditation. Higher  
19 education needs to become more responsive to the needs  
20 and demands of employers and students, especially  
21 involving non-traditional students. If skilled labor  
22 is needed, initiatives should not be met with  
23 obstruction. The DOE should fast-track licensure and  
24 accreditation in order for responsive educators to  
25 begin generating skilled labor for where it is needed.

26 Again, I encourage the Commission to read



1 "Forging Tomorrow's Artisans" in The Chronicle of  
2 Higher Education and, no, I am not selling  
3 subscriptions to the magazine. You'll have to take  
4 care of that on your own. But the story describes the  
5 American College of the Building Arts. The school is  
6 generating output, skilled tradespeople, to address a  
7 workplace need that right now is being addressed by  
8 importing artisans from Europe. What other jobs are  
9 being filled by imports because of the shortcomings of  
10 our own education capacity? Yet until the American  
11 College of the Building Arts earns accreditation, its  
12 own students are not eligible for federal student aid  
13 programs and, furthermore, most accrediting agencies  
14 are ill-equipped to evaluate the unique program.

15 My final point. I would like to close by  
16 reorienting Chairman Miller's question. Instead of  
17 asking what incentives are needed to attract more  
18 capital, I'd like to ask what incentives are necessary  
19 in order to better align societal objectives with  
20 investor objectives?

21 My former advisor at Stanford, Michael  
22 Kirst, has written extensively about the misalignment  
23 between the K-12 years and the college years in his  
24 report entitled "Betraying the College Dream: How  
25 Disconnected K-12 and Post-Secondary Education  
26 Institutions Undermine Student Aspirations."

1 According to Kirst, states have created unnecessary  
2 barriers between high school and college, barriers  
3 that are undermining student aspiration. The current  
4 fractured system sends students, their parents, and  
5 educators conflicting messages about what students  
6 need to know and be able to do to enter and succeed in  
7 college.

8 For example, his research found that high  
9 school assessments often stress different knowledge  
10 and skills than do college entrance and placement  
11 requirements. Similarly, the coursework between high  
12 school and college is not connected. Students  
13 graduate from high school under one set of standards  
14 and three months later are required to meet a whole  
15 new set of standards in college.

16 I believe Kirst and his associates should  
17 write the sequel, "Betraying the College Dream: How  
18 Disconnected Post-Secondary Education Systems in the  
19 Workplace Undermine Student Aspirations, the U.S.  
20 Economy, and Investors." I believe Kirst would find  
21 the schools have obfuscated the connection between  
22 college and the workplace, thereby undermining student  
23 aspirations. The current system sends students  
24 conflicting messages or hyperbole about what students  
25 need to know in order to succeed in the workplace and  
26 secure that wage premium. I think his research would

1 find that college exams stress different knowledge and  
2 skills than are required by our economy. I think his  
3 research would find that the coursework in college is  
4 not connected and that students graduate from college  
5 under one set of standards and three months later are  
6 required to meet a whole new set of standards in the  
7 workplace.

8           Kirst laments the resources spent in  
9 colleges remediating high school graduates so that  
10 they can begin taking courses for credit. How about  
11 lamenting the resources spent in corporate America  
12 remediating college graduates so that they can begin  
13 working productively? The prescription for change or  
14 remedy already exists in private capital as a core  
15 component to the business model of Universal Technical  
16 Institute.

17           UTI is aligned with the workplace because  
18 the company solicits the input of the workplace.

19           I will not read the next two paragraphs  
20 because I may be testing the patience of everyone in  
21 the room. But let me just conclude by saying that the  
22 alignment of the workplace and the schoolhouse is  
23 dearly needed in higher education. If all this,  
24 however, does sound eerily reminiscent of  
25 apprenticeships and Chaucer and Canterbury Tales, then  
26 perhaps it is, absent the Draconian work conditions

1 and child labor, of course.

2 I wish to conclude my comments at this  
3 time and I thank you for your interest in my insight  
4 on this compelling subject and sincerely the  
5 opportunity was a great honor to me.

6 CHAIRMAN MILLER: Thank you. Thank all of  
7 you. I want everybody to notice how modest and  
8 unassuming Wall Street people are compared to the  
9 higher education establishment. You all are busy and  
10 very valuable time.

11 We have a few minutes to ask penetrating  
12 and sophisticated questions, of course, so please.

13 MR. VEDDER: I just loved this  
14 presentation. I wanted to just echo what Charles  
15 says. If there's one difference between the  
16 traditional higher education community and this group  
17 is their great candor and so forth, which I appreciate  
18 very much.

19 And lest I be misunderstood, and I have  
20 written a good bit in this area myself and am  
21 generally sympathetic to the industry and I agree with  
22 the first presenter in general with his absolutely  
23 outrageous comments, which I subscribe to, so, in the  
24 interest of improving your self-esteem, you don't have  
25 20 enemies in this group, only 19.

26 However, I would like to ask a technical

1 question, as one who has studied this industry a good  
2 bit. Everyone -- I have always believed that the for-  
3 profit sector may be one of the solutions rather than  
4 the problems relating to higher education. And in  
5 spite of the problems which Mr. Block mentioned, which  
6 I think are probably -- do need to be addressed, and I  
7 don't disagree with what you said there either, but  
8 let me ask you about two of your graphs, Trace, if I  
9 may.

10 The first one is, is that the market  
11 capitalization -- on the very first page, Market  
12 Capitalization 2004, 31.3; to date, '06, 26.1 -- in a  
13 period where markets in general have not shown  
14 decline, you're showing us 17 percent in market  
15 capitalization in the higher ed. -- in the for-profit  
16 higher ed. business. Is this because of some of the  
17 well-publicized irregularities and so forth that Mr.  
18 Block spoke about, or is it for some other reason?  
19 Has Wall Street sort of downgraded the expectations of  
20 future growth of this industry?

21 MR. URDAN: I would say there are two  
22 components to it. One, certainly initially the  
23 catalyst was the regulatory concerns, and those  
24 persist, particularly with a couple of names. But I  
25 would say that the bigger issue that Wall Street has  
26 has been that we've been seeing decelerating

1 enrollment growth, particularly at ground-based  
2 campuses among a number of these institutions, and  
3 most notably the largest company in this space, Apollo  
4 Group.

5 So a lot of this is -- these are  
6 institutions that have continued to grow and I would  
7 argue even faster than traditional schools still, but  
8 they're not growing as fast as they used to, and  
9 that's something that Wall Street continues to see.

10 MR. VEDDER: So we're getting to your page  
11 five graph, which shows that while enrollments are  
12 still far exceeding the growth in the not-for-profit  
13 sector, that that gap has sort of narrowed somewhat,  
14 although it's still large, but it has narrowed.

15 MR. URDAN: Yes.

16 MR. VEDDER: Does this suggest that Wall  
17 Street is saying that, Well, maybe this industry is  
18 going to grow, but it's going to reach some sort of  
19 natural plateau, that we're dealing with non-  
20 traditional students? Does it mean that, for example,  
21 the notion that this sector may move more into the  
22 traditional higher ed. business of competing for 18-  
23 to 22-year-old students, for example, that that sort  
24 of -- keep our thinking, that's not likely to happen?

25 Would you want to opine on that?

26 CHAIRMAN MILLER: Or any of you to do

1 that.

2 MR. VEDDER: That's right. This  
3 applies -- thank you, Charles -- to any member.

4 MR. URDAN: I'll speak very quickly and  
5 then give my colleagues a shot at it. There are all  
6 kinds of things that are going on right now that are  
7 probably contributing to the slowing growth. What --  
8 Wall Street abhors uncertainty, and I would argue that  
9 the biggest amount of pressure is simply that nobody  
10 really feels comfortable knowing what that stasis  
11 number is. Is it four percent growth, is it two  
12 percent growth, is it six percent? There's a great  
13 deal of uncertainty about where these -- where the  
14 enrollments level off, and that's what Wall Street  
15 hates the most. I think once you see some  
16 stabilization, you'll see some recovery in the prices  
17 that investors are willing to pay for these stocks.

18 The other major part of that is the fact  
19 that after several years of really extraordinary  
20 growth in online education -- I mean, we're talking  
21 year after year of 60 percent plus enrollment growth  
22 for companies like University of Phoenix online, that  
23 number is starting to slow and it's starting to slow  
24 simply as the law of large numbers. It simply can't  
25 sustain the pace of growth.

26 But, again, nobody knows where that number

1 is going to level off. Is it going to stay at 20  
2 percent for a few years, is it going to go down to  
3 ten? And as it's declining, without knowing where  
4 it's going to end makes investors very jittery and  
5 that's what I think a lot of what we're seeing here,  
6 in addition to the regulatory concerns which still  
7 persist.

8 Howard, do you want to --

9 CHAIRMAN MILLER: Any additions to that?

10 MR. BLOCK: I would agree with the answer.  
11 I'd also suggest that, Richard, there's a future for  
12 you in equity analysis because your insight is exact.

13 It's the second --

14 MR. VEDDER: I like a tenured job,  
15 frankly.

16 MR. BLOCK: But it's that second  
17 derivative that's dangerous, to speak to some of the  
18 engineers. It's that rate, the uncertainty about the  
19 rate of change in the growth rate that is leaving  
20 investors -- and I think that your point about  
21 traditional markets is true. Investors are concerned  
22 that -- not that this group would grow at a comparable  
23 rate but that the landscape has gotten far more  
24 competitive and that's what's weighing on the overall  
25 growth.

26 CHAIRMAN MILLER: Jonathan. Thank you.



1 MR. GRAYER: I'm compelled say something  
2 here. And I will start with --

3 CHAIRMAN MILLER: Yikes.

4 MR. GRAYER: -- and point to a few very  
5 relevant kind of touchstones for the Commission.

6 What wasn't addressed here is the problem  
7 that exists with education as it matches up against  
8 the way our capital market system works.

9 To give you just evidence of that, at that  
10 same lunch today, Howard Block asked me if I was a  
11 professor. He had no idea who I was. I run the  
12 second or third largest education company -- because  
13 we're not public. That the notion of what they are  
14 describing is an opportunity to buy into a dream,  
15 assign a multiple that you hope will grow in the  
16 future, and momentum investors in our marketplace have  
17 driven education stocks through a period of tremendous  
18 wealth creation.

19 That the issue that's being described is  
20 really the applicability of for-profits as publicly-  
21 traded companies, not so much the for-profit mechanism  
22 in itself. And all of the abuses and the concerns,  
23 many of which I agree with, are driven by an  
24 insatiable need to have a higher stock price tomorrow,  
25 a higher stock price tomorrow in a short period of  
26 time.

1           And the sector has responded, like all  
2 sectors do, trying to maximize their gain. The  
3 problem for this Commission and the problem for  
4 everyone in our industry is that the education  
5 business model sets itself up well to be abused. And  
6 that -- the only protection that we can have for that  
7 is what was asked for early on, which is a better  
8 accreditation system that has higher standards and  
9 punishes in much greater -- to a much greater degree  
10 those that abuse it.

11           But the capital market system that we have  
12 today looks to create momentum around growth  
13 businesses. Education is a growth business. And,  
14 therefore, you have seen a lot of the problems  
15 described here.

16           We happen to operate Kaplan in an unreal  
17 world where we're neither private nor public and that  
18 really isn't reproducible, so it's not really relevant  
19 for the solutions. But if you wanted to encourage  
20 investment, you have to address with what the panel  
21 accurately described, which is the potential abuses  
22 that come when wealth creation in the public markets  
23 is the goal.

24           CHAIRMAN MILLER: Thank you. Please, Bob.

25           MR. MENDENHALL: I was impressed, Trace in  
26 particular, with some of the advantages, competitive

1 advantages, that you outlined for the for-profits vis-  
2 a-vis publicly-funded education. Having said that, is  
3 there any reason that non-profit education couldn't  
4 adopt and emulate many of those practices and compete  
5 -- as you said at one point, if the community colleges  
6 adopted the practices with the built-in advantages  
7 they have, they ought to put the for-profits out of  
8 business. What keeps the non-profit publicly-funded  
9 institutions from adopting some of the best practices  
10 from the for-profits?

11 MR. URDAN: I would argue first and  
12 foremost that it's governance. You have in  
13 traditional institutions a system of decisionmaking  
14 that equally weighs a number of different stakeholders  
15 with I would say the faculty probably number one. So  
16 this notion of what the for-profit schools do in terms  
17 of standardizing a curriculum -- I mean, if you go to  
18 University of Phoenix and all of their campuses in  
19 Novato and Phoenix and everywhere else, the same  
20 classes are being taught in exactly the same way with  
21 the same material. Now, they're not being taught by  
22 the same professors, but the professors that are  
23 teaching those classes had very little to do, if  
24 anything, in influencing what that curriculum was all  
25 about. That curriculum was prepared based on employer  
26 feedback and, you know, arguably is effective.

1 I don't -- you know, it may or may not be  
2 effective. It is certainly efficient, and I would say  
3 that that -- that's a stunning example of how  
4 traditional schools differ. And I think that the  
5 speed of decisionmaking, the ability to respond to the  
6 market and create new programs quickly, all of those  
7 things are impacted by the traditional hierarchies of  
8 schools, whether they be, you know, not-for-profit  
9 private institutions or public institutions. They all  
10 operate under that same paradigm.

11 And I'm not sure how, you know, the  
12 Commission affects that. I mean, I don't know that  
13 it's possible to. But I would say that that's a big  
14 difference, not that they're -- you know, not that  
15 they're bad or they're not smart or they don't have  
16 that ambition, but just that it's just very difficult  
17 to run an institution like a business when it's not a  
18 business. That was my -- you know, the obnoxious  
19 comment about the Soviet style factories, was just to  
20 suggest that it's -- you're not set up to compete.

21 MR. KAPLAN: Yeah. I think there's a  
22 specific example of that, just to follow up. You  
23 know, one particular area that a lot of for-profit  
24 schools focus on is retention, and there's many  
25 systems and mechanisms operational in place to try and  
26 maintain retention down to the student level because

1 the unique needs and circumstances of a lot of the  
2 adult learners.

3 If you compare them in some of the markets  
4 that we're in to the local community colleges, which  
5 are in some ways the best alternative for some of  
6 these students, you know, the graduation rates there  
7 might be something like ten percent, 15 percent for  
8 some sub-groups. Minorities could be as low as five  
9 percent. You know, our schools, you know, have 60, 70  
10 percent, you know, graduation rates.

11 CHAIRMAN MILLER: You're plugging in that  
12 that's some direct competition or comparison, so that  
13 may not be the mission of the schools. But Charlene  
14 wants to make a comment, so I'd like -- thank you.

15 MS. NUNLEY: I've got to talk to this.  
16 Strauss Vutay (ph), as president of a Soviet factory,  
17 I'd like to say hello.

18 I don't know a single community college  
19 that has the goal of putting the for-profits out of  
20 business. And perhaps if we set it, we maybe could  
21 get on a mission to do that. I don't know.

22 I also would say that community colleges  
23 in our nation have gone from nowhere to educating half  
24 of the undergraduates in the country. You're also  
25 completely ignoring the continuing education aspect of  
26 community colleges, which is where many of the adults

1 are educated in the much more flexible formats that  
2 you talk about in the for-profit sector.

3 So I guess I would have to say that I  
4 think that your criticism is unduly harsh and perhaps  
5 unsubstantiated by some evidence, and I'm trying hard  
6 to rise above, not reacting to it the way I am.

7 CHAIRMAN MILLER: I thought that was  
8 pretty modest, too. And they're willing to take it.  
9 Anybody that tries to sell to capitalists are very  
10 good at taking the feedback. They can handle it.  
11 Don't worry about that.

12 Rick, go ahead.

13 MR. STEPHENS: Just an observation, and I  
14 know there's people who are on both kind of both sides  
15 of this aisle relative to the public versus private  
16 education. Just an observation from Boeing's  
17 standpoint.

18 I think I've shared with you before we  
19 spend about a hundred million dollars a year sending  
20 our employees back to school. Fifteen percent of  
21 those go to private for-profit schools. That's five  
22 times higher than any other educational institution  
23 and we deal with 252. So that's a metric about  
24 meeting our needs for our employees going back for  
25 additional education and/or degrees to be able to meet  
26 their long-term individual needs.

1 I will tell you as schools number two and  
2 three, going back to your comment, though, Bob, have  
3 in fact -- are schools that we work directly with that  
4 have responded to meeting our curriculum needs,  
5 particularly in the higher education levels -- what I  
6 call system engineering, system architecture, which  
7 are skills that are critical to our long-term  
8 development.

9 So I think my comment and observation  
10 would be I think there is a place for the for-profit  
11 schools. Clearly, they are meeting a need and it's  
12 not at the expense of the community colleges. It's  
13 not at the expense of the four-year institutions. And  
14 there are a number of four-year institutions who are  
15 doing a marvelous job working back and forth with  
16 industry to be able to meet our needs, and there are  
17 some good examples.

18 And so, you know, I just want to kind of  
19 offer that. It's not one or the other. I think, you  
20 know, those -- the for-profit schools have a place,  
21 and the challenge is how do we figure out how to  
22 maximize that, given I think the number one constraint  
23 that we have is resources. And I think that's one of  
24 the elements that we have to look at as a Commission.

25 If in fact we look long-term, what are our needs for  
26 higher education if we define that as a technical

1 curriculum, a certificate curriculum, a baccalaureate  
2 degree, you know, an A.A., whatever. And if in fact  
3 we believe that everyone needs to have the opportunity  
4 for continuing education, what's the best way to go  
5 balance that? And I just believe the for-profits have  
6 a place in there but it's not a hundred percent for-  
7 profit.

8 CHAIRMAN MILLER: Thank you.

9 MR. MENDENHALL: Just a follow-up  
10 question. I think the for-profits have demonstrated  
11 that tuition can in fact cover the costs of an  
12 education and, in fact, it's pretty good business and  
13 it's a positive cash flow business.

14 And yet the public institutions I think  
15 feel very strongly that without substantial subsidy  
16 from the state and others, that education's  
17 unaffordable, that they can't -- they can't compete on  
18 a tuition basis. Would we get more market-driven  
19 behavior if we required institutions to charge real  
20 tuition and gave the aid to the students to enable  
21 them to attend -- I'm not -- I'm not supposing that we  
22 don't need the aid to fund education. But what would  
23 happen if we competed on real tuition and students got  
24 aid directly?

25 MR. BLOCK: I think the premise might be a  
26 little bit naive only because when I look at that



1 picture there, there aren't any for-profit  
2 institutions that offer campuses like that, facilities  
3 like that, socialization as a traditional school  
4 would, so it's a question about mission. And I think  
5 the mission right now as defined makes the cost  
6 structure far more prohibitive for traditional schools  
7 so that's why they can't operate the same as the for-  
8 profits.

9 If you want to change the mission, then  
10 you could find a very, very competitive landscape and  
11 I would suggest the intellectual capacity that would  
12 run those traditional schools is probably as great and  
13 could run as fast, but they have a different mission,  
14 not that I'm necessarily suggesting they all have to  
15 have that mission. Maybe few of them have to have  
16 that mission. But it's a little bit naive to compare.

17 It's what we would just say the old apples versus  
18 oranges.

19 MR. URDAN: Can I just -- I would say it's  
20 also a matter of defining the mission, which I would  
21 argue a lot of state institutions, you know, have very  
22 fuzzy definitions when it comes to allocating funds to  
23 state-run institutions. You know, for instance, what  
24 kind of conversation would we have as the -- in the  
25 State of California if the University of California  
26 system were challenged with a question of saying, Okay

1 -- and I'm stealing from Andy here, so thank you for  
2 that -- but how many anthropologists does the State of  
3 California need to generate within the next 25 years  
4 and what resources should the taxpayers of California  
5 devote towards encouraging the creation of more  
6 anthropologists in the State of California?

7 Anthropology is a wonderful science. We  
8 need anthropologists. But when you come to talking  
9 about subsidies from taxpayers, there I think needs to  
10 be a better connection point between what it is --  
11 what is it that those funds are aiming to do? And I  
12 would still posit that there's a lot of fuzzy thinking  
13 around, you know, supporting institutions and it comes  
14 down much more to football teams and maintaining the  
15 status quo than it does saying, Okay, --

16 CHAIRMAN MILLER: Well, it's called  
17 mission creep and we have that --

18 MR. URDAN: Mission creep, yes.

19 CHAIRMAN MILLER: -- in the private sector  
20 also. I want -- we need, from a time standpoint, to  
21 bring it to a close. Is there anybody else that's got  
22 a pertinent question? Go ahead -- or speech.

23 MR. ZEMSKY: Just a quick observation  
24 about what non-profits -- what the for-profits can do.

25 It's what they've been doing. If you spend your life  
26 in institutions, from institution to institution,

1 probably the most frequent story now told is the  
2 University of Phoenix, and it's interesting that they  
3 don't talk about the things that you talk about,  
4 although they will eventually, that they essentially  
5 say, you know, They came and they ate our cash cows  
6 and it was -- actually, the University of Phoenix  
7 provided an enormous service by essentially forcing  
8 the issue of internal cash cow because it wasn't the  
9 anthropology. It was the ed. school summer programs  
10 or it was the business school no capital or it was  
11 computer programming and the like.

12 So that just watching what a very  
13 successful, Phoenix being the most obvious of this,  
14 what they have done has had enormous impact and it's  
15 worth thinking about, that we may not need a lot of it  
16 but we certainly need some of it.

17 CHAIRMAN MILLER: Let me finish a comment  
18 so people might understand where we like to take the  
19 private capital discussion. When we talk about  
20 private capital, this is one element of it and it's a  
21 very powerful one. I'd add to the reason the stocks  
22 haven't done as well as an analyst, because they did  
23 so very well during the worst of the bubble years.  
24 Those were exponential returns that probably  
25 outperformed every group in the market during the  
26 early part of the decade and still on a relative basis

1 would be among the best performers. So there's sort  
2 of a catch-up period.

3 Private capital could be in many forms.  
4 We don't know what this industry is going to be like  
5 in ten years, although you'd like it to just be an  
6 extrapolation of your forecasts because it isn't like  
7 it was ten years ago. And if there's a need that's  
8 being created because of other growth in demographics  
9 or educational needs that aren't being provided by the  
10 people, I haven't any doubt that there will be some  
11 entrepreneurial people to provide the capital to do  
12 something even more than what's been done, as long as  
13 the barriers to entry -- regulation and the like that  
14 you talked about -- are relatively low.

15 The hardest way to get the right kind of  
16 expansion of this or innovation or whatever would be  
17 that we don't let that happen because we're afraid or  
18 we don't want to take risks or we're afraid of  
19 failure. And we need -- which we don't have in  
20 traditional institutions. We don't have the ability  
21 even under accreditation or anything else for almost  
22 anybody to ever fail. We have a reduction in quality  
23 typically for ones who don't perform, but we never let  
24 those go out of business. So the fact that we've had  
25 failures or problems is one of the best signs that  
26 this will eventually work in the market.

1           But the concept of private capital I still  
2 have in mind is that we have huge amounts of profits  
3 in today's business world. It's not across every  
4 sector. It's not even. But it's record level of  
5 profits, record level of profit margins, record level  
6 as a share of GDP, lowest that I can measure in 50  
7 years of the effective tax rate in corporate America  
8 and they're investing less than their cash flow and  
9 the needs for dividends; in other words, there's not  
10 even a place that people can find to invest. And yet  
11 we hear consistently that the need for an educated  
12 workforce, what they want is lacking.

13           So I'm convinced that sooner or later  
14 we're going to find a way to match the two. We  
15 haven't necessarily, you know, reached the perfect way  
16 to find that connection. We do a lot of it already --  
17 private industry does train a lot of people.

18           So the idea of private capital for  
19 everybody's benefit I think what we're looking for --  
20 what we're seeing here and you've done a great job of  
21 outlining it and putting us our best alert to think  
22 about it -- but we're going to look for other things  
23 as well as these kind of stocks.

24           MR. URDAN: I think Boeing's tuition  
25 reimbursement program is a good example of where  
26 you're starting to see some of that connection.

1 That's one way in which, you know -- a very simple way  
2 in which that connection is --

3 CHAIRMAN MILLER: That's an excellent --

4 MR. URDAN: -- increasingly being used.

5 CHAIRMAN MILLER: -- example and there are  
6 others like that that we may try to bring to the table  
7 that from that corporate profit margin benefits it as  
8 one of the easiest ways to think about it because it's  
9 the benefit of everybody usually when we provide it.  
10 And if it's not provided somewhere else, it's highly  
11 likely we're going to find a way to do that and maybe  
12 we can bring that forward.

13 Thank you all very much. We're going to  
14 the next panel. And I know your time was very  
15 valuable and I appreciate you taking it.

16 MR. DUDERSTADT: Bob, would you want to  
17 take the lead and start this panel discussion? We can  
18 catch Charles when he comes back to keep us on track.

19 MR. MENDENHALL: I can do that. He's  
20 heard some of this already. I appreciate the  
21 opportunity to share with fellow Commissioners what  
22 we're doing at Western Governors University. It is a  
23 different model of higher education. It's certainly  
24 not a model that applies to all students or all  
25 situations.

26 But to give you a brief background, it was

1 created by 19 governors, 19 western governors, as a  
2 private non-profit university. So even though it was  
3 created by governors, it doesn't receive state money.

4 And today, essentially, the tuition covers the costs  
5 at the university.

6 A couple of preliminary remarks. It was  
7 set up by the governors essentially to rethink higher  
8 education paradigm and to create a new paradigm in  
9 higher education in a number of ways.

10 One, at the time that it was set up, it  
11 was set up to be an Internet-based university and all  
12 of our degrees are delivered online, which is not  
13 particularly innovative anymore.

14 Secondly, from the very beginning, we  
15 determined that we would not develop or teach our own  
16 courses. There's now over 800,000 courses on the  
17 Internet. It would be tough to argue that no matter  
18 how much time or money you spent, that you would have  
19 the best courses available.

20 And so our faculty are tasked with finding  
21 the best available courses and we acquire the rights  
22 to use those with our students. Therefore, because  
23 our faculty don't develop or teach courses, they are  
24 essentially mentors of students and their full-time  
25 role is to mentor students through their degree  
26 programs.

1           And, finally, and probably most  
2 importantly, the university was set up to grant  
3 degrees based on the measuring and demonstration of  
4 competencies rather than the accumulation of credit  
5 hours or time. So we define up front the competencies  
6 expected of graduates. We have a variety of measures  
7 to measure those competencies. And we grant degrees  
8 when students can demonstrate that they have indeed  
9 mastered the competencies.

10           I thought what I would do briefly -- I've  
11 been impressed as we've gone through our work as a  
12 Commission that how many of the issues that have been  
13 raised we at least have a response to. Again, in some  
14 cases, a response that might be replicable across a  
15 large swath of higher education and in some cases  
16 perhaps a response that's more unique to us. But I  
17 thought I would take our issues of accountability and  
18 accessibility and affordability and quality and  
19 address at least how one university, ours, addresses  
20 those issues.

21           So first in terms of program  
22 accountability, I mentioned this briefly. But  
23 accountability for learning results essentially is  
24 provided by directly measuring learning rather than  
25 measuring time or credit hours. We define the  
26 competencies a student must know and be able to do.



1 We use a variety of assessments -- a combination of  
2 objective tests, performance tasks, projects,  
3 portfolios -- which the student must demonstrate that  
4 they have mastered in order to pass those assessments  
5 and then be granted a degree.

6 We link that to the needs of industry in  
7 that the competencies are actually developed by an  
8 external program council to the university made up of  
9 experts from both the industry and from academia to  
10 ensure that the degrees meet comparable academic  
11 standards to similar degrees at traditional  
12 institutions and meet the existing needs of employers.

13 So together, this program council defines  
14 what they would expect the graduate to know and be  
15 able to do.

16 And they then have ongoing responsibility  
17 to review that on an ongoing basis and update and  
18 modify those competencies as the technology changes,  
19 the workforce changes, and so on.

20 Obviously, in degree areas like IT, those  
21 competencies are changing more rapidly than they are,  
22 for example, in elementary education.

23 Similarly, the WGU assessments are defined  
24 and approved by an external national assessment  
25 council of experts in measurement and evaluation and  
26 the assessments are developed by experts in test

1 development. Most of the professors who create exams  
2 and give grades in traditional higher education are of  
3 course trained in their field but not in measurement  
4 and evaluation. And their tests probably would not  
5 stand up to very rigorous standards of testing on  
6 reliability and validity.

7           Where possible, we use existing national  
8 exams that test competency, that lead to industry  
9 certifications, the SHRM (ph) exam in human resources,  
10 the Praxis exams from ETS in teacher education,  
11 industry certification exams, and IT, which add  
12 credibility to the exams and accountability to the  
13 industry for educating the graduates on the skills and  
14 knowledge that industry is looking for.

15           Again, the assessment council has ongoing  
16 responsibility to monitor the assessments and keep  
17 them current.

18           I mentioned that we do not develop or  
19 teach our own courses. This allows us to go find the  
20 very best learning resources that are available and  
21 map them back to our competencies. Because it is the  
22 competencies and assessments that fundamentally are  
23 accredited that represent the quality of our  
24 education, we're able to use courses and learning  
25 resources from a variety of sources. So we not only  
26 use courses from other universities, but we also

1 commonly will use training modules, learning objects,  
2 textbooks, and in many cases commercial courses from  
3 commercial organizations that are doing corporate  
4 training already.

5 For example, in our IT degrees, we have  
6 found that the materials from Net G, which is a large  
7 corporate provider of IT training, are both more  
8 modular, higher quality, more current, and less  
9 expensive than traditional university courses. And  
10 their unit of instruction tends to be a day or two as  
11 opposed to four months and can be much more related to  
12 individual competencies.

13 Again, this reflects the needs of industry  
14 in ensuring that students have been trained in some of  
15 the requirements for the current industry.

16 In terms of our faculty and staff  
17 accountability for student success, our faculty, as I  
18 mentioned, essentially serve as mentors to students,  
19 and every student is assigned a faculty mentor when  
20 beginning at WGU. That mentor stays with them until  
21 graduation. So even though it's online, they develop  
22 a very deep, meaningful, personal relationship with a  
23 senior faculty member.

24 We do not have faculty tenure. All of our  
25 mentors are evaluated and compensated primarily on the  
26 success of their students. In fact, we actually

1 produce a monthly report for each faculty member, for  
2 each mentor, that has their own individual student  
3 retention rates, student progress rates, student  
4 satisfaction rate, and student graduation rate versus  
5 the average for the university and the average for  
6 their programs. And it is on the basis of those  
7 criteria principally that their performance is  
8 evaluated.

9 I should add that our performance plan for  
10 the -- for everyone else in the university is based on  
11 the same four measures of student success, including  
12 mine.

13 We also then seek to measure our graduate  
14 performance and success, including most institutions  
15 do that. Where possible, we have our students take,  
16 as I mentioned earlier, national exams used to measure  
17 competencies so we can compare the performance of our  
18 students on industry standards to other graduates from  
19 other institutions. We also conduct an annual survey  
20 of graduates asking the relevance and importance of  
21 the competencies they learned at WGU and modify our  
22 competencies based on the feedback of what they're  
23 finding most helpful to them in the workplace.

24 Let me move quickly to accessibility. I  
25 think perhaps the most important contribution of  
26 online education may be its ability to expand access

1 to higher education, particularly to rural populations  
2 and working adults.

3           You clearly do not get the same level of  
4 socialization for traditional-age students that you  
5 get in a campus environment. But it's not true that  
6 you don't get a great deal of collaboration and  
7 interaction in an online environment.

8           I mentioned the close relationship between  
9 mentors and students, faculty and students. All of  
10 our students as well are members of one or more  
11 learning communities and interact regularly within  
12 that learning community in learning together and  
13 studying together, albeit electronically.

14           The advantage of online education, as I  
15 mentioned, is obvious for rural populations that don't  
16 live in close proximity to a campus, but we've found  
17 it's an equal issue for working adults who live ten  
18 minutes from a university but can't get time off work  
19 or have travel obligations or family obligations and  
20 there are not a lot of campus-based classes offered at  
21 ten o'clock at night when our students traditionally  
22 do most of their studying.

23           Access is also clearly a financial issue.

24           I think online education has a clear potential,  
25 although not yet fully realized, at providing high  
26 quality education at a lower cost, which I'll address

1 in a minute under affordability.

2 But while WGU is approved to offer federal  
3 financial aid and VA benefits and DOD and corporate  
4 tuition assistance, the same cannot be said for some  
5 online programs and I believe more needs to be done to  
6 provide the same levels of financial aid and  
7 acceptance of online education as is currently  
8 provided for traditional education.

9 The truth is there's both good and poor  
10 quality campus education and good and poor quality  
11 online education and the difference in quality really  
12 isn't the delivery mechanism; it's really the  
13 pedagogy behind the delivery of the education.

14 Just a word about affordability. In an  
15 era of rapidly rising tuition costs, as a private non-  
16 profit university, our tuition for a 12-month year is  
17 about \$5600. We do, by the way, offer a start date  
18 every month, as was mentioned with some of the for-  
19 profit universities. We start a new term each month.

20 Our terms are six months long. But for a 12-month  
21 year, it's about \$5600, which is comparable to tuition  
22 for three semesters at many publicly-subsidized  
23 universities where tuition covers less than half the  
24 cost of education. That tuition, by the way, covers  
25 essentially the entire cost of the WGU education.

26 So the question is how we achieve those

1 kinds of costs while still delivering a high quality  
2 education. First of all, we obviously do not have the  
3 cost of buildings, residence halls, athletics, and  
4 other activities that are important to traditional age  
5 students but are expensive extras for adult students.

6 Second, the faculty is focused on working  
7 with students essentially full time. The reward  
8 structure rewards student success rather than research  
9 or publications and the faculty who join us understand  
10 that coming in and essentially focus their effort on  
11 helping their students succeed.

12 Because they aren't teaching courses or  
13 grading assessments, mentors at full load handle 80  
14 students at a time, and we have a protocol that says  
15 mentors interact with each of those students at least  
16 once every two weeks.

17 Third, rather than develop, deliver,  
18 teach, and maintain its own courses, we utilize  
19 courses developed and delivered by others who have  
20 already made the investments in those courses.

21 We represent incremental income and profit  
22 to those course providers, but it is a substantially  
23 lower cost to us than developing and maintaining  
24 everything ourselves.

25 At the same time, many of the courses and  
26 learning resources we use are self-paced and computer-

1 mediated. And by letting technology carry the  
2 majority of the instruction rather than live  
3 instructors, the instruction is of consistent high  
4 quality and is scaleable to large numbers of students  
5 at low incremental cost.

6 At the same time, the human side of  
7 instruction is in the personal mentoring that each  
8 student receives and their involvement in active  
9 learning communities.

10 Finally, we outsource other functions,  
11 essentially whatever we can, including financial aid  
12 processing, an online library bookstore, and our  
13 assessments are delivered in existing testing centers  
14 around the United States, many of them university  
15 testing centers, some of them commercial testing  
16 centers. The objective tests are scored by computer.

17 Other assessments are scored by professional graders  
18 that are separate from the mentors.

19 The quality of the program then rests with  
20 the quality of the competencies, the effectiveness of  
21 the assessments in measuring the competencies, and the  
22 success of students in completing the requirements in.  
23 graduating.

24 It was a different process for  
25 accreditation in that we focused the discussion on  
26 whether the competencies were the right ones and



1 whether in fact we accurately measured the attainment  
2 of those competencies. That made the input less  
3 important because we could directly measure the  
4 outputs in the form of learning competencies.

5 The quality of the courses is always  
6 measured because we do not accept the course grade.  
7 Students are required to take the learning resources  
8 but then pass WGU assessments to demonstrate their  
9 mastery of the competencies. Those resources that  
10 don't adequately prepare students to pass -- to master  
11 and pass the competencies and the assessments are  
12 replaced with other resources from other providers  
13 that are more effective, so the quality is in some  
14 ways measured by the system itself.

15 In summary, it's clear that our model  
16 works best for working adults who have competencies.  
17 Our average student is age 38. Seventy percent of  
18 them work full time. Most traditional-age students  
19 probably require the structured environment of  
20 traditional campus-based programs. But increasing  
21 numbers of adults require the flexibility and can be  
22 served at lower costs by non-traditional programs.

23 At the same time, we think all of higher  
24 education could benefit by being more explicit about  
25 expected learning outcomes and measuring them  
26 directly. Access can be improved with more flexible

1 online and lower cost programs for at least a segment  
2 of higher education needs.

3 And significant cost savings can be  
4 attained by focusing on the teaching function,  
5 outsourcing other functions, and sharing courses  
6 between institutions.

7 Most of all, I think WGU was created and  
8 exists to demonstrate that if we started with a blank  
9 slate and thought differently about how we would set  
10 up higher education, we might come to a very different  
11 solution than the one that we have inherited from past  
12 generations.

13 Thank you.

14 CHAIRMAN MILLER: Thank you.

15 MR. GRAYER Thank you, Mr. Chairman, for  
16 inviting me to speak to you about the Kaplan story. I  
17 am going to try to move through this quickly so that  
18 my fellow Commissioners can hear from Steve, who has  
19 built the highest-end online university and has a lot  
20 to add.

21 I'm going to talk about metrics and the  
22 delivery of online education today, and I thought I'd  
23 start by putting Kaplan in some context. We are  
24 approaching half the revenues of The Washington Post  
25 Company. We are -- online and campus division is  
26 about 40 percent of our revenue. It would make us

1 probably the fifth or sixth largest higher ed. company  
2 if we were only that. We have 79 campuses, 50,000  
3 students on those campuses, and 22,000 students  
4 getting fully-accredited, regionally-accredited  
5 degrees online at Kaplan University.

6 I changed my talk a little bit in  
7 reference to some of the issues that were brought up  
8 in the previous panel. And I thought I'd start by  
9 saying -- by comparing the traditional campus  
10 university to us. And I'd start by asking: How does  
11 a traditional college know how good its economics  
12 department is? Well, clearly, its reputation, the  
13 reputation of the faculty, the publications of that  
14 faculty, the grad school acceptance rate, the student  
15 surveys, the way its alumni feels about it, and more  
16 and more what U.S. News might say. In essence, that  
17 economics department is a brand. It's a sub-brand  
18 within a larger brand of the college or university in  
19 which it is housed. That brand could be portrayed by  
20 the poster behind for some lucky universities and, in  
21 the end, the students come because they believe that  
22 the attributes of that brand will help them do better  
23 in life and indeed it often is the case.

24 But that self-evaluation does not really  
25 get at the drivers of what makes a good economics  
26 department. What has been learned by the collective

1 group of students who have gone through it? Is there  
2 any evaluation, any third party view about how well  
3 economics is being taught now versus how it was taught  
4 in the past?

5 In most universities and colleges that  
6 have done well over time, this self-evaluation does  
7 not exist. And in the end, it's okay that it does not  
8 exist because, while it's not perfect, those students  
9 were self-selected because of the skills that they  
10 demonstrated before. They then go on to do many  
11 things that have third party evaluations that will  
12 determine if they're good enough to practice -- a CPA  
13 for an accountant, a bar review -- a bar test for a  
14 law -- for a lawyer, medical fields have all types of  
15 licensure.

16 So while there isn't a very good  
17 evaluation of how their undergraduate program might  
18 have taught them, later in life and before they got  
19 there they were very closely evaluated.

20 That's not good enough for us. In large  
21 part, for-profit education companies have grown  
22 because they're serving a population that is  
23 increasingly coming back as a second chance, who might  
24 not have had a great preparation before they got  
25 there, who needs to go to school along with providing  
26 for their family for the job they hold, and to deliver

1 an excellent value, we have to know not only do our  
2 students do well when they leave but that in fact we  
3 teach them what we say we're going to teach them when  
4 they're there.

5           So it becomes very important for us to  
6 evaluate ourselves, and the way we do that is very  
7 simple -- through data. We crunch data of all kinds  
8 about our students. We look at how much time they  
9 spend online, how often they actually post messages to  
10 the boards that their community is a part of. We give  
11 them many more tests and quizzes than a normal college  
12 environment would give. We subject them to a  
13 standardized curriculum across subject matter that all  
14 of our faculty have to endorse and in fact use that is  
15 norm to outcomes that we believe are important for a  
16 student to have in the program that they've enrolled  
17 in.

18           Which brings us to the notion of outcomes  
19 generally. All of our programs have between six and  
20 nine outcomes that are required for graduation. They  
21 are skill-based generally and they are informed by the  
22 regulations, the opportunities, and most importantly  
23 the requirements of the fields that they're going  
24 into. And, again, our students are coming to us to  
25 learn a set of skills that will enable them to do  
26 better at a job that they have chosen.

1           So every assignment in every course is  
2 designed to map up to the development of a program --  
3 a type of skill that will be measured at the end of  
4 the program.

5           The outcomes have all been put together  
6 with a matched curriculum and a matched examination to  
7 see how the development of that skill occurs over  
8 time.

9           We then take those metrics and we use  
10 regressions to figure out if there's any trends that  
11 we should be watching; for instance, do all students  
12 of an individual teacher have problem with a certain  
13 outcome? Are -- is a certain outcome generally not  
14 met across all of our instructors? Does it matter  
15 what time of year a student starts for how they'll do  
16 against one of the outcomes in their program? The  
17 correlations that we attempt to make are endless.  
18 Many of them are worthless and do not matter, but some  
19 of them lead to great breakthroughs.

20           For instance, we know that students who  
21 are enrolling in criminal justice programs are better  
22 off if they start at the beginning of the year. Why  
23 is that? Well, we can go into a long discussion about  
24 why that is. Our students who start at the beginning  
25 of the year end up staying longer and doing better.  
26 So we encourage criminal justice students to start at

1 the beginning of the year.

2 This type of review is all driven towards  
3 the notion that for the Kaplan University online  
4 program to do well, it must teach what it sets out to  
5 teach because our students will only get the jobs that  
6 they want and do well at those jobs if they acquire  
7 those skills.

8 We believe that in doing that, for-profit  
9 education companies will thrive. The reality is, much  
10 to the view on Wall Street, is that online education  
11 is not a high margin business when done well. Online  
12 education is very expensive to deliver well, and the  
13 reason for that is to create a real community online,  
14 to really make sure your students stay with the  
15 program, they need a lot of student help, a lot of  
16 student services, a lot of advisory help, and in our  
17 case our students are often having struggles outside  
18 of their academic life.

19 To get them through the program requires a  
20 ratio of professionals on the school side that in our  
21 estimate dwarfs what is now going on. And we attempt  
22 to run our business at lower margins than the rest of  
23 our industry, and we're proud of it. I think that  
24 there are others. Steve certainly is -- is one such  
25 case that feels similarly.

26 But, again, to the comment that I made

1 earlier, the capital markets wouldn't like to hear the  
2 message I just gave you. And I operate within a world  
3 where we don't need to worry about that. And,  
4 unfortunately, that world doesn't exist for many --  
5 for many companies. It is a growth business and  
6 operating income will grow dramatically because more  
7 and more students will make access -- will make an  
8 attempt to gain access to an education that meets  
9 their needs when they need it and delivers the skills  
10 and holds itself accountable for delivering those  
11 skills. But it will -- if it's done right, it will  
12 grow well and be profitable without taking advantage  
13 of the high margin opportunities that exist by doing  
14 it expeditiously today.

15 One final point. The role of online  
16 education generally is not ubiquitous. The comment  
17 was made earlier, How can a student who wants to  
18 operate an MRI get an education online? And the  
19 answer is, While obviously parts of that education can  
20 happen online, most of it can't and shouldn't. And  
21 that's okay. Some of what Boeing does can be done  
22 online with its employees. Some of it can't. The  
23 market -- the buyers of educational product need to  
24 decide what the best match for the delivery of  
25 educational skills and content against desired income.

26 And I do believe that, in the end, the



1 solution comes from -- I think it was in the first  
2 panel -- the point everyone has to do what it is best  
3 able to do. The highest and best use of each asset  
4 within our landscape will get us the end result. We  
5 can teach skills that are mapped to normed outcomes  
6 efficiently, effectively, and flexibly, and that's  
7 what we should be doing.

8 There are other types of educational  
9 processes that we can't do well and we shouldn't be  
10 doing them. And the marketplace, when fully able to  
11 exercise its will, will choose correctly.

12 Thank you.

13 CHAIRMAN MILLER: Thank you, Jonathan.  
14 Steve.

15 MR. SHANK: Mr. Chairman and Members of  
16 the Commission, I recognize that I'm the last  
17 speaker --

18 CHAIRMAN MILLER: We saved the best for  
19 the last.

20 MR. SHANK: I was going to say the last  
21 speaker to try your endurance or the case may be  
22 patience today, so I'll try to be quick.

23 I'm Steve Shank, Chancellor and founder of  
24 Capella University, and I'd like to talk about two  
25 topic areas related primarily to your issue of access,  
26 a bit to accountability also.

1           The first topic -- I was asked to talk  
2 about Capella University as a model of an innovative  
3 for-profit institution extending access through online  
4 education. And the second topic, probably a more  
5 mundane one than some of the provocative subjects I've  
6 heard discussed today, is the issue of access to  
7 funding for adult students. That is an issue which is  
8 a -- an issue which is immediately actionable and very  
9 important to access to students like the ones we  
10 serve.

11           We were established in 1993. We're based  
12 on Minneapolis, Minnesota. We are one of those  
13 focused institutions that we talked about. We are  
14 exclusively online. We exclusively serve students.  
15 Our students, well over 90 percent are working full-  
16 time adults.

17           Our mission is to serve those adults who  
18 seek to advance their education but who might  
19 otherwise not be able to do so except for a facility  
20 like we provide because of lots of issues of access.

21           Today, we serve 14,000 degree-seeking  
22 students from all 50 states. Non-traditional working  
23 adults, depending on the numbers you look at, account  
24 for somewhere between 39 to 43 percent of all students  
25 enrolled in higher education. It's a very important  
26 population. Our population may be typical of adult-

1 serving institutions. Ninety-seven percent of our  
2 learners are over the age of 25 years. Thirty-five  
3 percent are ethnic minority, and that means Latin  
4 or -- Latino or African-American. Sixty-three percent  
5 are women. Fifteen percent are either active military  
6 or military family. I think that is a story of  
7 access.

8 We are an institution that very seriously  
9 focuses on cooperation with employers -- major  
10 business employers around the United States, but other  
11 employers. We are big fans of the community college  
12 system. We're a major educator of community college  
13 faculty and community college administrators.

14 Our faculty is selected based on their  
15 academic achievement and also their teacher and  
16 practitioner experience. Fifteen percent of the  
17 faculty are full-time. The balance hold adjunct  
18 appointments. Seventy-seven percent of our faculty  
19 hold doctoral degrees in their respective fields.

20 With respect to our instructional costs,  
21 I'd agree with Jonathan that we do not see our  
22 instructional costs as being cheaper than a site-based  
23 institution. Our costs would look pretty similar to  
24 what you might see, obviously in somewhat different  
25 forms.

26 The operating model, however, is quite

1 different than a public or a private non-profit. The  
2 initial development of our university was funded by  
3 private equity, as we've heard today. Today, our  
4 operations are profitable. Tuition revenues fund all  
5 of our operating expenses and all of our investment  
6 expenses. And we do invest heavily in upgrading our  
7 educational technology and in a program of continuous  
8 academic improvement.

9 Our operating strategy -- and, again, I'd  
10 echo some philosophies that both Jonathan and Bob  
11 talked about -- focuses on two objectives: Extending  
12 access and achieving educational -- quality  
13 educational outcomes. We explicitly recognize that  
14 these are a bit oxymoronic as objectives, and our job  
15 is to figure out how you balance the two.

16 To ensure quality in accountability, we  
17 rely heavily on management tools, such as data and  
18 measurement, ongoing quality improvement processes and  
19 performance management, including performance  
20 management of our faculty. I think that's probably  
21 enough about that.

22 I would state that we are very interested  
23 in issues of institutional accountability. We believe  
24 that Capella's educational outcomes are comparable to  
25 the outcomes of public institutions that we can look  
26 at data for and who serve comparable populations.

1 I would say, however, that it's a  
2 tremendous frustration to us that, due to weaknesses  
3 in the public data reporting systems, it's really not  
4 possible for us to realistically benchmark comparable  
5 educational outcomes. And that is one area where we  
6 think the Commission could provide great help in  
7 improving quality management systems across the higher  
8 education spectrum.

9 We believe that Capella University  
10 provides a successful example of the use of private  
11 capital to create new educational access. I would add  
12 my two cents to the recognition that there have been  
13 allegations of issues of regulatory noncompliance with  
14 some for-profit institutions. I would say my  
15 perspective is that this really isn't an issue where  
16 more regulation is needed. We are subject to so many  
17 regulations, it's almost beyond belief. But,  
18 obviously, issues of enforcement are important.

19 I'd also say that I believe that everyone  
20 is going to learn a lesson, that this is extremely  
21 damaging to any value that is created when you get  
22 highly-publicized incidents.

23 I would say that, as we work through these  
24 issues, it is essential that public policy maintains a  
25 balance between necessary safeguards and appropriate  
26 flexibility to accommodate innovation.

1           So turning now to a few words about  
2 affordability, or really accessibility to funding for  
3 the working adult. There are a number of issues with  
4 the current Title IV system which negatively affect  
5 working adult students. And working adult students do  
6 rely heavily on federal financial aid because, while  
7 they employ- -- they get employment income, they've  
8 got lots of other financial obligations.

9           In our experience, the maximum funds  
10 provided at the graduate level under the FFEL program  
11 is adequate to provide financing for our full-time  
12 graduate students. That is not the case with our  
13 adult undergraduate students, and particularly those  
14 attending online institutions. Students who enroll  
15 less than half-time and are undergraduate are not  
16 eligible for federal loans. This is a big barrier for  
17 many working adults who may not be able to commit to a  
18 full-time class schedule.

19           Secondly, students at online institutions  
20 have limited access to federal supplemental loan and  
21 alternative financing arrangements that are available  
22 to students who attend campus-based institutions or  
23 other arrangements. One example I would give is  
24 the -- well, I'm getting a little close here, but  
25 these students will not be eligible for the Plus Loan  
26 Program that has been provided as part of budget

1 reconciliation to graduate students or parents of  
2 dependent undergraduate students. Again, we see a  
3 very large gap in financing of independent under-  
4 graduate students that we'd urge the Commission to  
5 look for.

6 Another issue is that Title IV continues  
7 to operate on the assumption that the academic  
8 calendar consists of only nine months. The working  
9 adult student does not go to school over nine months.

10 In fact, it's dangerous if they do, because a break  
11 in the continuity of education is a principal factor  
12 in causing students to stop out. But the funding  
13 system doesn't work very well. We believe that it is  
14 a problem that the loan disbursement rules require  
15 disbursements in substantially equal installments.  
16 This can create difficulties in the way students have  
17 to finance their educational expenses.

18 So with that, I would like to put forward  
19 a couple of recommendations to the Commission. First  
20 of all, for obvious reasons, we have been ardent  
21 supporters of the repeal of the 50 percent rule as  
22 embodied in the Budget Reconciliation Act the House  
23 passed yesterday. But I would comment that there are  
24 a number of provisions relating to quality and  
25 accountability in distance education that were not  
26 included in the Budget Reconciliation Act, but are in

1 the HEA reauthorization provision in the legislation  
2 sponsored both by Chairman Enzi (ph) and Boehner (ph),  
3 and I would urge the Commission to urge Congress to  
4 pass that legislation.

5 Second, we believe that both the creditors  
6 and the federal government should play significant  
7 roles in embracing institutional accountability. I've  
8 mentioned our interest in a consistent baseline of  
9 comparable data on educational outcomes. This would  
10 help institutions improve quality, and it would help  
11 students to make informed decisions.

12 We understand that the omnibus reauthor-  
13 ization legislation includes provisions which would  
14 add more specificity to the metrics that creditors  
15 must review when assessing an institution's success  
16 with regard to student achievement. Again, we would  
17 urge the Commission to urge Congress, in turn, to pass  
18 the reauthorization legislation.

19 As a third recommendation, I urge the  
20 Commission to recommend that Congress create a Plus-  
21 type program for independent working adult under-  
22 graduates. This is the backbone of the U.S.  
23 workforce, and I think it's just not right that this  
24 part of the student population be disadvantaged.

25 I recommend that the Commission consider a  
26 proposal to allow the disbursement of financial aid in



1 equal amounts as actually required by the student,  
2 abolishing the current requirement of disbursement in  
3 substantially equal amounts.

4 Finally, I'd urge the Commission to  
5 support and promote legislation to create a year-round  
6 Pell Grant, a proposal that has been proposed both by  
7 the Administration and many in Congress.

8 Thank you for this opportunity to make  
9 some remarks.

10 CHAIRMAN MILLER: Thank you, Steve.

11 All three of you, great examples of  
12 innovation in higher education models of delivery,  
13 each somewhat different.

14 I'd like to ask the Commission -- see if  
15 there are any questions.

16 MR. DUDENSTADT: I'm interested in  
17 globalization. There was an effort several years ago  
18 at the British Open University to move into U.S.  
19 territory, and apparently they didn't have the right  
20 financial model. Are you beginning to sense interest  
21 on the part of overseas online operations in coming to  
22 our territory?

23 MR. GRAYER: We have schools in the U.K,  
24 in Ireland and in Asia. In none of those places is  
25 online education taken any type of foothold. The  
26 reason is is that there's really no funding mechanism

1 in those countries currently to support it. As part  
2 of the kind of complete redressing of the U.K. funding  
3 system, you are going to see online education play a  
4 major role in how education is delivered there.  
5 That's in a three to five-year period.

6 Australia is the first country that is  
7 showing, outside the U.S., major interest in using  
8 online education as a replacement for full degree  
9 credit programs. Corporate learning is a different  
10 marketplace, but I take it you're addressing -- and,  
11 you know, that's going to happen, but I think it's  
12 still three to five years away.

13 MR. SHANK: I would echo that. I would  
14 say it's something, we're thinking, about five years  
15 away. But we simply do not know how to address this  
16 marketplace right now, and cannot afford to invest a  
17 lot of energy in it.

18 MR. DUDENSTADT: One more question. Do  
19 you think this is going to lead to trade barriers? We  
20 understand that in some -- particularly in Europe,  
21 there are certain barriers to globalization efforts on  
22 the part of some of our companies. Is this going to  
23 be a problem?

24 MR. GRAYER: I think that the way -- the  
25 reason that will not happen is that all of these  
26 degree programs are mapped back to very specific

1 national standards, so that, you know, the notion that  
2 there would be kind of competition is only relevant if  
3 the student's going to immigrate and use that degree.

4 The EEU is really caught -- the real issue is going  
5 to occur in the Eastern Europe marketplace, where  
6 EEU -- as those countries come in the EEU and are able  
7 to provide online degrees that are then transferrable  
8 within the EEU, you're going to see some of the issues  
9 you're referencing.

10 CHAIRMAN MILLER: Rich.

11 MR. VEDDER: I'll be very brief since my  
12 remarks are keeping us further and further away from  
13 our first drink this evening.

14 I just want to say, (a), first, I want to  
15 commend Chairman Miller, first, for the whole program  
16 today, which I think has been spectacular, but also  
17 specifically for this panel, which I think has done a  
18 super job. But I wanted to pick up on the last  
19 presenter's comment that he made, and just relating to  
20 bench marks of comparing the activities and the  
21 performance of students in for-profit institutions  
22 with those of other universities, and just say that I,  
23 for one, am in complete accord with that sentiment,  
24 and I think there is considerable sentiment among  
25 members of the Commission -- I can't speak for all --  
26 but among some of the members -- that we should be

1 moving in this direction of getting metrics that would  
2 allow us to measure performance by different types of  
3 educational institutions to help not only consumers,  
4 but also policy-makers, in evaluating resource  
5 allocation in the whole field.

6 MR. SHANK: Thank you. This could be  
7 tremendously important. The one plea I would make  
8 there is, comparing what we do to the results of a  
9 four-year institution serving an 18 to 21-year-old  
10 population, that is not a useful comparison for  
11 everyone. So the issue of what is truly comparable  
12 would really help informed decision-making by  
13 everyone.

14 MR. VEDDER: I think we have a lot of work  
15 to do in this area of defining what the metrics are  
16 and so forth. But at least the fact that we should be  
17 looking at this issue is, I think, well-established  
18 among some of us on the Commission.

19 CHAIRMAN MILLER: David, then Robert.

20 MR. WARD: I'm intrigued by the confidence  
21 in a kind of system's optimizing solution to the  
22 acquisition of knowledge. I think you've taken it to  
23 levels which I admire. As somebody who, in a sense,  
24 spent most of my life in a more traditional learning  
25 model, and who it was alleged had standards that were  
26 inconvenient to students, I'm wondering if in your

1 optimizing system if I might be kind of the cynical  
2 person who thinks about human nature, as well as  
3 system manipulation of human nature. Are you ever  
4 frustrated by the perverse culpability of students in  
5 relation to what is essentially an optimizing  
6 pedagogy? Does this ever happen, or are you always  
7 able to overcome that dilemma?

8 MR. GRAYER: Yes and no. I tell you, the  
9 worst part of it -- and this is to the questions that  
10 were, again, in the last panel. To show you how right  
11 on you are, even though what we're trying to do could  
12 help in a big way, if a student is in a field of study  
13 where the job market heats up, in the middle of their  
14 educational experience, they will leave us to get that  
15 job. So for us to be optimizing, and realizing that  
16 three quarters of the way through their degree,  
17 they'll leave us at times for the jobs that they  
18 aspire to without the -- it speaks exactly to your  
19 point.

20 So, obviously, the answer is, yes, we're  
21 very frustrated when that happens. Steve probably has  
22 less of that. But certainly the for-profit institute  
23 has been riddled with that issue. But in the end,  
24 adult learners are a lot more driven because they've  
25 experienced usually some pain around not doing it  
26 earlier.

1           MR. SHANK: I would answer on a different  
2 plane the question. The issue that we have is that we  
3 are very focused on, as I said, one, creating access  
4 and recognizing that, coming in the door, we are not  
5 very good at predicting who will succeed and who will  
6 not succeed, and then use the word "optimizing" the  
7 behavior of all of us, including our faculty, to  
8 support the student through the success.

9           We follow a philosophy that our first  
10 obligation is to attempt to make an assessment as to  
11 what students realistically have the potential to  
12 succeed in our system. And if it is not realistic  
13 that student is going to succeed, to recognize that  
14 early, and counsel that individual out early, hope-  
15 fully after the first quarter of enrollment.

16           The other problem that we have is, in  
17 talking with our faculty about our expectations,  
18 there's an equivalent obligation we have to talk to  
19 our students about expectations, so that our students  
20 have to understand that there is a requirement that  
21 they themselves succeed on their own in this program.

22           Certainly we talk a lot about those students that we  
23 have to ask to leave, because they gaming the system,  
24 and we see a lot of that.

25           MR. ZEMSKY: I need you to fasten your  
26 seatbelts, but it's just me. You've helped

1 crystallize an issue for me that's nagged me since  
2 Nick reoriented me at the beginning. I want to give  
3 it -- I want to say it to you, and then to have you  
4 tell me why --

5 MR. GRAYER: This journey is all in one  
6 day?

7 MR. ZEMSKY: All in one day.

8 CHAIRMAN MILLER: One afternoon.

9 (Laughter.)

10 MR. ZEMSKY: Every time you talk about the  
11 business/learning model -- and this was also true of  
12 the earlier panel -- one of the real advantages was  
13 the highly regulated curriculum that the deliverers  
14 weren't the designers of, and that it is highly  
15 standard, and it is uniform. And it doesn't  
16 necessarily mean that Kaplan does what WGU does, or --  
17 you know, but you talk about it that one of the ways  
18 you make the business model work is that it's less  
19 loosey-goosey.

20 The second thing, the word that you guys  
21 used -- I could've counted them if I was smarter and  
22 then given it back to you -- you actually used the  
23 word "skills" over and over again. You teach skills.  
24 And, Jonathan, you more than I think your colleagues.  
25 But I think all afternoon it's been "skills."

26 And the third thing that you talk about,

1 because when you give the demographics of your  
2 population, that these are people who are in-train.  
3 And I have to be nice about this, and Kay, you'll  
4 forgive me -- not punish me when I get to San Diego  
5 again -- but they are not likely to be industry  
6 leaders. You're dealing with the workforce. You're  
7 dealing with -- if you want a military analogy, you're  
8 dealing with the combat troops, and you're teaching  
9 them skills that they go -- all right -- and I think  
10 that that's important, and I would've said all of that  
11 before. But Nick says to me, the real model has got  
12 to be innovation. And so I want you to tell me where  
13 I got this wrong is that you have little chance of  
14 delivering what Nick says we need.

15 MR. MENDENHALL: I think there are about  
16 five questions in there. Let me start with skills. I  
17 think certainly as we talk about competency-based  
18 education, some people are very quick to say you're  
19 talking about work skills. We can define those, we  
20 can measure those. The truth is that the majority of  
21 our students are in Bachelor's degree programs. The  
22 majority of them need, first, general education before  
23 we move to professional.

24 We can in fact today both define and  
25 measure competencies that go far beyond what we would  
26 typically call skills. We can measure problem-



1 solving. We can measure general education  
2 competencies. Although we could probably debate  
3 forever exactly which competencies in general  
4 education we ought to be measuring. But the state of  
5 assessment today is such that we can do a much better  
6 job of measuring higher order competencies than simply  
7 specific work skills.

8 I think the nature of adult education,  
9 you're quite right. I don't think it's a restriction  
10 of the model of the education that we're delivering,  
11 but the nature of adult education, if you're educating  
12 with a Bachelor's degree somebody who's 38 years old,  
13 the likelihood is they're not going to be -- how did  
14 you say it? -- an industry leader or a captain of  
15 industry, because they're halfway through their  
16 career, and they aren't there yet. So we are in fact,  
17 I think, those who do adult education, educating those  
18 who need a degree to take the next step, to make the  
19 next contribution in their career.

20 Finally, I think -- I -- I frankly  
21 wondered when we'd get to the issue. I think the  
22 great distinction between what WGU does and the for-  
23 profits do, and frankly, what a British Open  
24 University does, and some of the mega-universities  
25 internationally, is -- University of Phoenix is a good  
26 example -- is they do have a focus on outcomes, which

1 then leads to faculty developing a standardized  
2 curriculum that's delivered everywhere that will  
3 deliver on those outcomes, which is very different  
4 than, choose from a whole host of electives, and  
5 different professors, and we can't quite assert what  
6 you will know or leave with when you leave the  
7 university.

8 I don't think we take a position as to one  
9 model is better than the other. I think the  
10 standardized curriculum makes it easier to be  
11 accountable for outcomes, and is, as the earlier panel  
12 mentioned, more -- perhaps more efficient in terms of  
13 delivering a consistent education.

14 CHAIRMAN MILLER: I want everybody to  
15 answer, but with the title of the panel as "Models of  
16 Innovatives for Delivery Systems" (sic) as opposed to  
17 who we educate, so --

18 MR. GRAYER: To the issue of innovation,  
19 Kaplan University has within it the only online law  
20 school, in which 1200 students are studying to be  
21 lawyers. Our pass rate in California, where the bar  
22 is taken, is on par with any comparable university law  
23 school or the schools that would match up against the  
24 group. When we launched that school, there was a  
25 story written in the Wall Street Journal about how  
26 crazy it was, and one of our competitors said that

1 when they heard about us starting a law school that is  
2 now serving 1200 people, he was thinking of starting a  
3 medical school that would be comprised solely of  
4 watching reruns of "Quincy."

5 (Laughter.)

6 But 1200 students today, through  
7 innovation, are getting an online law degree. And if  
8 you live in the State of Alaska, and you want to stay  
9 living in the State of Alaska, it's the only way to  
10 get a legal education. So to the point of  
11 distribution, the innovations are in allowing someone  
12 to go to law school at three o'clock in the morning if  
13 that's when they choose to. But I do agree that as  
14 far as pushing the boundaries of knowledge in the way  
15 that you're defining it, that is not, once again, our  
16 mission, nor can we attempt to take on that mission.  
17 And that's something that we need to be comfortable  
18 with.

19 MR. DONOFRIO: But I don't think you  
20 should rule out the fact that somebody in the mass of  
21 people that you're educating isn't capable of being a  
22 captain of industry.

23 MR. GRAYER: Well, we have three of our --  
24 you can take this as you will -- three of our enrolled  
25 students at Concord Law School are currently members  
26 of Congress.

1 (Laughter.)

2 MR. DONOFRIO: That was not a very good  
3 example. You're killing me with those examples.

4 CHAIRMAN MILLER: Good place to finish?  
5 No, I would just add Michael Dell and Bill Gates, you  
6 know, that didn't finish college. They're dropouts.  
7 So in capitalist society, that's what Nick was saying,  
8 virtually anybody can do well. Captains of industry,  
9 I'm not sure about, certainly not presidents of  
10 universities, because they take paper as the criteria.

11 Please.

12 MR. STEPHENS: I guess the question,  
13 though, is innovation has different meanings. For us,  
14 the Boeing Company, innovation was about taking our  
15 assembly line for the 737 from 14 days to seven days.

16 The crew that's on the floor building the airplanes,  
17 who are not captains of industry, who in most cases  
18 don't have a Bachelor's degree, are the ones that  
19 figured that out, because they're doing that job. So  
20 I would contend that part of this discussion about  
21 innovation occurs at all levels. It's the creativity,  
22 but it's also driving value, and that value, to me, is  
23 what we're looking for in industry, which is an  
24 important part of the innovation.

25 MS. SHANK: If I could, I would say,  
26 again, we probably have a somewhat different

1 positioning for a for-profit in the higher ed.  
2 spectrum. I think a lot of the discussion has to be  
3 about diversity of opportunity provided to students.

4 For us, we are a largely graduate-serving  
5 institution, and our typical student would not be the  
6 troop on the ground in the military, would be the  
7 captain of the aircraft carrier, mid-career person,  
8 never will be the chief of staff of the Navy, but a  
9 critical sector of the workforce. I would say that,  
10 for us, the job we have to do is to teach a  
11 combination of skills and higher order thinking  
12 capabilities.

13 So if we're teaching a K-12 principal,  
14 that principal has to have certain skills. That  
15 principal needs to control a budget, needs to meet  
16 very specific criteria that the licensing authorities  
17 require. But at the same time, this principal has to  
18 be an outstanding manager of teachers. Even our  
19 undergraduate technology students, what the employer  
20 says to us, these folks know more technology than  
21 they'll ever be able to apply in our place. What they  
22 don't know is thinking ability, ability to interact  
23 with people.

24 So I think, you know, again, our  
25 appropriate order is to do a combination. And there  
26 are certain missions that we just cannot and should

1 not take on, and are much better left to other  
2 institutions.

3 MR. ZEMSKY: I think the only point that I  
4 was trying to make -- five questions notwith-  
5 standing -- is that we have to be more careful about  
6 the differing missions, and that one of the sort of  
7 natures of the dialogue that takes place is each group  
8 comes up, and that becomes the definition. Jonathan  
9 and I had this conversation this morning. In fact,  
10 that's part of the shaping of what Richard was talking  
11 about when he reported for our group.

12 One of the things we have to think about  
13 is this is a very complex system where we have  
14 different providers and different missions, and that  
15 part of what we're looking for is real balance among  
16 providers and real balance among missions. We've got  
17 to go at it in that way. I think that's where I  
18 wanted to go with the question.

19 CHAIRMAN MILLER: I'll agree with that. I  
20 think the lesson I've gotten out of it is, the  
21 narrower the mission, and the more defined and focused  
22 on, the better the results. My experience personally  
23 in the big academic institutions was that there was  
24 mission creep to the extreme compared to anyplace I've  
25 ever seen.

26 When I asked one year what programs had

1 been terminated through the whole UT system, 170,000  
2 students, it took 'em a long time to get the data, and  
3 we found out over 17 years, two had been terminated.  
4 And one was archeology, by the way. And it had  
5 nothing to do with attendance. And I know there's a  
6 need for some kind of programs that aren't necessarily  
7 purely self-sustaining. So I think it is really  
8 critical that higher ed. in general has taken on many  
9 missions in the same institution. I think that's one  
10 of the maybe inefficiencies we should look at. So  
11 mission focus is pretty important that way.

12 Does anybody else have an urgent speech to  
13 make or question to ask?

14 (No responses.)

15 I want to thank you all for your patience.

16 We put a lot of good time and effort in great panels  
17 and models of innovation. Thank you.

18 EXECUTIVE DIRECTOR OLDHAM: Let me just  
19 say one thing. If you want, please feel comfortable  
20 leaving your binders and whatever you have here  
21 overnight. We'll have staff here to make sure  
22 everything's locked up and secure. So feel  
23 comfortable doing that.

24 (Proceedings adjourned at 5:58 p.m.)  
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