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U.S. DEPARTMENT OF EDUCATION

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THE SECRETARY OF EDUCATION'S COMMISSION ON THE FUTURE  
OF HIGHER EDUCATION

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FIFTH MEETING

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FRIDAY,  
MAY 19, 2006

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The Commission convened at 8:30 a.m. in the Monticello Ballroom of the Watergate Hotel, 2650 Virginia Avenue, N.W., Washington, D.C., Charles Miller, Chairman, presiding.

## COMMISSIONERS PRESENT:

CHARLES MILLER, Chairman  
NICHOLAS DONOFRIO  
JAMES J. DUDERSTADT  
GERRI ELLIOTT  
JONATHAN GRAYER  
KATI HAYCOCK  
JAMES B. HUNT JR.  
ARTURO MADRID  
ROBERT MENDENHALL  
CHARLENE R. NUNLEY  
CATHERINE B. REYNOLDS  
ARTHUR J. ROTHKOPF  
RICHARD STEPHENS  
LOUIS W. SULLIVAN  
SARA MARTINEZ TUCKER  
RICHARD VEDDER  
CHARLES M. VEST  
DAVID WARD  
ROBERT M. ZEMSKY

## EX OFFICIO MEMBERS PRESENT:

JOHN BAILEY  
WILLIAM BERRY  
EMILY STOVER DeROCCO

DAVID DUNN  
PETER FALETRA (RAY ORBACH'S DESIGNEE)

ALSO PRESENT:

CHERYL OLDHAM  
VICKIE SCHRAY  
ELEANOR SCHIFF

C-O-N-T-E-N-T-S

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

8:40 a.m.

CHAIRMAN MILLER: Please take your seats.

Thank you. You know, putting together a session like this and like we've had around the country, many sessions takes a lot of effort by a lot of people. You don't see that behind the scenes but I know on some things the Commission is unanimously in agreement and that's the work the staff has done. I want to introduce you all to Kristen Vetri, who's been the Chief of Staff and who does the logistics for all of these kind of meetings.

(Applause)

And then the rest of our senior staff, you've gotten to know them as well as I have. You can understand the definition of when enthusiasm meets hard work, you'll meet this group. Of course, Eleanor Schiff you've met, Deputy Director for Research and External Affairs, Vicki Schray, Deputy Director for Management and Planning and then Cheryl Oldham, the Executive Director. You all have had a lot of experience and I know you share with me thanks for what they've done.

(Applause)

Those are my opening remarks. Thank you, everybody for the hard work that they've put into the process for this meeting. It's been a great

1 experience to see everybody contribute the way they  
2 have and we'll start the meeting with Rick Stephens  
3 talking Workforce Development and Meeting Labor Market  
4 Needs.

5 COMMISSIONER STEPHENS: Right, Mr.  
6 Chairman, thank you. So I too deviated a little bit  
7 from the format and thought I'd put together a few  
8 introductory slides. One of the things that I thought  
9 through yesterday is we, as a Commission were doing  
10 our work, was certainly looking at the -- at a problem  
11 statement, the issues and the solutions, but was  
12 concerned about making sure we all had a common sense  
13 of data. So what I wanted to do was provide a few  
14 slides that kind of set a framework for data, then go  
15 to the problem statement, and the talk about issues  
16 and potential solutions.

17 So I wanted to kind of walk through that.

18 So let's walk through these slides. And this data,  
19 these first two slides is off the Department of  
20 Education website. And this first one is about  
21 degree granting institutions and it's -- and you'll  
22 find predominantly this is from 1970 to 2004,  
23 certainly lots of data in between but in 1970 we look  
24 at the number of students participating in degree  
25 granting institutions, 8.6 million, 2004, 17.3. And  
26 then you see the breakdown by men and women,  
27 predominantly men in the '70s and where we are today

1 it is predominantly women.

2 So just it's data. I'm not sure we'd draw  
3 conclusions from that but it's just some interesting  
4 data to put on the table. The other thing was more  
5 importantly, though, about age. In the `70s, and this  
6 is the same data the 8.6 versus the 17.3, while the  
7 numbers may be off a little bit on decimal point,  
8 because I did some rounding, but if you look at the  
9 age demographics in the `70s, it's predominantly 18 to  
10 21-year olds. It drops off as you get older and 35  
11 and older is .8. You know, that's 800,000. Today  
12 it's almost even across the board.

13 It says our educational system for degree  
14 granting institutions needs to respond to all of those  
15 age groups and we'll make copies of the slides to get  
16 out there to everyone afterwards, but this was a  
17 summary. Let's go onto the next slide. The next one  
18 was type of education which I thought was another  
19 interesting one. That in -- if you look at a  
20 comparison between full time and part time, in the  
21 `70s, you know, part time, 5.8 million or full time  
22 and then part time 2.8 million; today it's 10.4  
23 million versus 6.9. So that's part time in the `70s  
24 was 32 percent. It's now 40 percent. So it begins to  
25 talk about once again, and I think it's consistent  
26 with the age demographics, what does the higher  
27 education system need to respond to.

1           The last one is an interesting one.  
2           That's participation in adult education, all types,  
3           and it's by income level.     And I think it's  
4           particularly important for us to look at that as we  
5           consider the question of access and affordability.  
6           Now, two things that you notice is first is, at all  
7           income levels or I'll start from the '70s.   If you  
8           start from the '70s as you go up in income levels, the  
9           more income people have, the more access they have to  
10          higher education or I should say the more  
11          participation they have in higher education.

12                 I think the second thing to note is over a  
13          30-year period, all levels have gone up relative to  
14          their participation.     And so it goes back to this  
15          point, I think, that more and more people recognize  
16          the importance of the need to participate in education  
17          if they're going to be successful in whatever their  
18          endeavors might be.     So this notion about  
19          participation based upon their availability of income  
20          also this notion more and more are participating from  
21          part time and I think the other one is all age levels  
22          are participating in higher education.   I think those  
23          three elements are important for us to set the stage  
24          about the changes that are occurring that need to  
25          occur as we think about going forward in this notion  
26          of higher education.

27                 Now, let me provide a little bit of

1 demographics within the Boeing Company just to be able  
2 to share how we respond that I didn't put on a slide,  
3 but let me just talk to it. I'm not ready for this  
4 one yet. Within our Learning Together Program, as  
5 I've talked about before, we have 153,000 employees.  
6 Our Learning Together Program we have 22,000 of those  
7 153,000 employees participating in our learning  
8 together program today. It says on an average we're  
9 spending a little over \$4500.00 per employee who is  
10 participating.

11 I think the other thing that's important  
12 is you know, we had 1654 complete their course of  
13 study, so it takes some time to work their way  
14 through. Twenty-eight percent got undergraduate  
15 degrees, 26 percent got graduate degrees, 46 percent  
16 did not get a degree but there are non-degree programs  
17 that are allowing them to continue their pursuit of  
18 education to be able to meet our market needs in the  
19 place. So I think this is another important point.

20 It says degreed education is certainly  
21 important but non-degree education is also important.  
22 As we think about higher education, I think it's an  
23 important element to consider as we look going  
24 forward. And again, some demographics, just from a  
25 Boeing standpoint, I mentioned this before, 88,000 of  
26 our employees have degrees. That's says 67,000 do  
27 not, and that's okay. Now, what it also says is all

1 of them need some post-secondary education but not all  
2 of them need degrees. So, again, as we think about  
3 what we, as a Commission, are trying to respond to,  
4 particularly as it looks from a workforce standpoint,  
5 I think it's an important consideration.

6 This next chart, you know, talking about  
7 the world of work has changed, this is an important  
8 one, I think, from a number of aspects and it talks  
9 about skill level. You know, in the 1970s if you  
10 think about the number of people that have high skills  
11 versus low skill and it correlates back to the data of  
12 people who are participating in education in the '70s,  
13 few high skills, many low skills, and I think in the  
14 workforce and labor force, particularly in automotive,  
15 electronics, aerospace industry, we are very  
16 representative of that.

17 As we move forward in the '90s, two things  
18 occurred. One is there was a -- the wall came down  
19 and when the wall came down, then you had certainly  
20 more people in Eastern Europe available to work for us  
21 but also in Asia that occurred. And so that was  
22 actually the greater numbers, not what happened in  
23 Eastern Europe. Well, the other thing that occurred  
24 was the advent of the internet. And so it used to be,  
25 you know, knowledge was power. Now, everyone's got  
26 the information and so it's not that you have it, it's  
27 how you use it. And so what you begin to see for

1 American industry is the lower right and left side of  
2 the triangle begin to fall off as we in industry  
3 started looking to the outside markets, the global  
4 markets to meet our labor needs to compete in a global  
5 market.

6 And so that's what you see in the '90s,  
7 okay, which says we clearly need a population in  
8 America that has greater skills. You see going back  
9 to the trend we see in the data at Department of  
10 Education, more and more people are participating in  
11 higher education all the way through. The last one is  
12 an interesting one. It's going forward 2010 and  
13 beyond. It says we're going to need more high skilled  
14 people. Certainly we need semi-skilled people and we  
15 need low skilled people for our economy to be  
16 successful. You know, some jobs, you can't export.  
17 You know, when it comes to the service industry and I  
18 think about, you know, how many of us have cars,  
19 right, how many of us have computers. You're not  
20 going to export the repair and the maintenance of that  
21 equipment overseas. Yet for those people to have  
22 those skills, they've got to participate beyond high  
23 school. They need, again, you know, some form of  
24 post-secondary education.

25 So I think again, it begins to talk about  
26 what's going on from a workforce standpoint, the  
27 dynamics and I think what we want to respond to is

1 what should higher education look like going forward.

2 Next slide. So I think this other notion and Joe  
3 Lagowski from the University of Texas, you know, put  
4 this together, we're attempting to educate students  
5 and I added and hire people, today, so that we'll be  
6 able to solve future problems that have not yet been  
7 identified, using technology not yet invented based  
8 upon science and technology not yet discovered. Now,  
9 the message behind this is that the challenge is not  
10 about imparting knowledge because there's lots more  
11 knowledge and it increases expeditiously. The  
12 challenge is are we teaching students to be able to  
13 solve problems and be able to pull data together. And  
14 so, again, from an industry standpoint, if we're  
15 looking for what higher education should be about  
16 and/or the skills we need in the workplace, we need  
17 people to be able to define the problem, gather  
18 information, be able to assimilate that information,  
19 be able to draw deductive and inductive conclusions  
20 associated with that information, being able to come  
21 up with recommendations, being able to share that data  
22 and then being able to get buy and it says, that's the  
23 solution to go forward in the marketplace.

24 It is a different activity than sharing or  
25 transferring knowledge. So I think it's an important  
26 element for us to consider as we think about what  
27 higher education is. It's about problem solving

1 skills and where to find information. It's not just  
2 about the delivery of information. So that's one of  
3 the reasons we have so much involvement in higher  
4 education. The other piece of data I didn't give you  
5 is we deliver 5 million hours of training. I've  
6 talked about that before. It's how do we help our  
7 employees solve problems, okay, which is critical to  
8 what the labor market is looking for. Next slide.

9 So I thought that was important background  
10 to give us some sense of perspective about what's  
11 going on in the marketplace when we think about higher  
12 education from a future workforce standpoint. So then  
13 with that, I'll try to make a statement of the  
14 problem. You know, the global environment requires  
15 changes in the US higher education system. It clearly  
16 must be accessible to all groups. That's both  
17 economic and age, and it must be flexible in providing  
18 both degree based and career advancement skills  
19 because, again, it isn't about just I go get a degree.  
20 It's I need to be able to have the career advancements  
21 because many careers don't require quote "a degree"  
22 but they all require some level of higher education.

23 So let me stop on that and kind of get  
24 some feedback and some dialogue about the problem  
25 statement before I dive into the data we all put  
26 together relative to solutions. Comments? Thoughts?

27 COMMISSIONER VEDDER: Rick, Rick, over

1 here.

2 COMMISSIONER STEPHENS: Oh, I'm sorry  
3 Richard.

4 COMMISSIONER VEDDER: Yeah, the lighting  
5 must be off.

6 COMMISSIONER STEPHENS: Yeah.

7 COMMISSIONER VEDDER: I agree with all --  
8 I mean, you can't disagree. It's facts. The one  
9 thing, I'm a little cautious, I think we have to keep  
10 in mind, is that there is a problem solving dimension  
11 to higher ed that is important and it is growing.

12 COMMISSIONER STEPHENS: Yes.

13 COMMISSIONER VEDDER: I accept that but  
14 there is also, and I've heard I think Chuck Vest has  
15 kind of hinted at the fringes on this issue a couple  
16 of times. There is a core of knowledge all Americans,  
17 I think, need and all people in the world need in  
18 order to be part of a community, to bind -- there are  
19 things that bind us together as a nation that are  
20 based on knowledge. And there is quite a bit of  
21 evidence that we have some deficiencies in that area,  
22 too.

23 And in going forward, I'm all for pushing  
24 the kind of -- I'm an economist after all. This is my  
25 kind of stuff.

26 COMMISSIONER STEPHENS: Yes.

27 COMMISSIONER VEDDER: But I also have a

1 liberal arts education as most of us and I think we  
2 appreciate the values of knowing, you know, that  
3 Jonathan Swift wasn't a rock singer, but, you know,  
4 had some other contributions to make. He probably is  
5 a rock singer that I don't know about. I don't know  
6 the rock singers. And that we need to know about  
7 these people that bind us together. I just want to  
8 say that because we sometimes forget to say those  
9 things.

10 COMMISSIONER STEPHENS: So, Rich, I would  
11 be in violent agreement with that.

12 COMMISSIONER VEDDER: Good.

13 COMMISSIONER STEPHENS: And the approach I  
14 tried to take was thinking about education from a  
15 workforce economic standpoint, not from a social  
16 citizenship standpoint. I think we're in agreement.  
17 Jim.

18 COMMISSIONER DUDERSTADT: I think one of  
19 the things that those very compelling diagrams showed  
20 over the last several decades is how rapidly the needs  
21 of the workforce and the economy have changed, how  
22 rapidly the needs of citizens have changed for further  
23 education to provide their prosperity and security.  
24 And my suggestion is that basic change is  
25 accelerating, the global knowledge and economy.

26 COMMISSIONER STEPHENS: Yes.

27 COMMISSIONER DUDERSTADT: What that means,

1 therefore, is that what you see an industry as skilled  
2 needs of today will be somewhat different 10 years  
3 from now, 20 years from now and so forth which to me  
4 suggests that the real challenge is providing lifelong  
5 educational opportunity as meeting the needs of the  
6 workforce but beyond that, meeting the personal needs  
7 of citizens. In a sense, we're going to require our  
8 citizens -- or the global economy is going to require  
9 citizens to re-education themselves many times during  
10 their lives. Your companies will require that as well  
11 in terms of the skills your employees have. So the  
12 challenge then, is to create some kind of a structure  
13 that provides lifelong access to learning  
14 opportunities as those needs continue to change.

15 COMMISSIONER STEPHENS: No question and  
16 the intent probably not well-worded as that's really  
17 about accessible to all groups, economic and age  
18 throughout their life.

19 COMMISSIONER DUDERSTADT: Yes.

20 COMMISSIONER STEPHENS: We'd agree. Yes.

21 Jonathan.

22 COMMISSIONER GRAYER: Rick, the broken  
23 record again. Transferability of credit. I can't  
24 make this point strenuously enough, that if you're  
25 going to have a flexible lifelong learning educational  
26 system and not do something about the transferability  
27 of credit, you're going to waste an enormous amount of

1 money and the Commission has to realize how big an  
2 issue this is with individual higher ed institutions.

3 And I would like to see us really go after some type  
4 of statement about what kind of progress we want to  
5 see on this because one day, someone could start their  
6 education at University of Michigan and finish it at  
7 Boeing and get a fully accredited degree. That's not  
8 possible today and if we want to provide lifelong  
9 learning for more and more people it's going to have  
10 to be.

11 COMMISSIONER STEPHENS: Nick?

12 COMMISSIONER DONOFRIO: Yes, I'd like to  
13 pick up on Jonathan's point since we're in an  
14 expansive mood this morning. I am not sure in all  
15 candor, that for lifelong learning a degree matters.  
16 This may be more about you know, personal knowledge  
17 and personal capital than it is about the bona fide of  
18 having a degree. I see in many ways the future  
19 changing, Jim, just the way you said. I'm not saying  
20 degrees aren't important any more but we should think  
21 about this as a commission.

22 Maybe we should do what Jonathan says and  
23 we should make things easier. We need a continuum and  
24 a spectrum of options that should plug into each other  
25 in terms of educational alternatives and for people  
26 who do want to get degrees we should do that. I think  
27 it's a bit naive of us and I think you would agree

1 with me, I mean, we have many people at IBM on a  
2 continuous education program.

3 COMMISSIONER GRAYER: Are you saying  
4 certificates aren't degrees? Are you making the  
5 classical distinction or are you --

6 COMMISSIONER DONOFRIO: I don't even think  
7 a certificate matters, to be candid with you. So I  
8 know where you're going to go with the certificate,  
9 you know, discussion as well. It doesn't matter.  
10 It's what you need to know --

11 COMMISSIONER GRAYER: Skill set.

12 COMMISSIONER DONOFRIO: -- to be able to  
13 do your job.

14 COMMISSIONER ELLIOTT: But there's an  
15 anti. I think that --

16 COMMISSIONER DONOFRIO: I said it was  
17 controversial. I said we still need degrees, but I --  
18 you know, when we think to the future, don't be  
19 surprised if there less of a premium placed on the  
20 bona fide of a degree.

21 COMMISSIONER GRAYER: I hope everyone will  
22 be giving more tests then.

23 COMMISSIONER ELLIOTT: But a degree is a  
24 degree is a degree. I think Jonathan's point is  
25 there's got to be some minimum degree that's necessary  
26 and your point is every -- you know, you've got to be  
27 able to encourage lifelong learning and a degree in a

1 lifelong learning environment isn't that critical.

2 COMMISSIONER GRAYER: I'm saying there  
3 needs to be standards. How you set those standards  
4 and what form they're in --

5 COMMISSIONER DUDERSTADT: It's  
6 certification of competency and that needs to be  
7 transportable.

8 COMMISSIONER GRAYER: Right, the ATEK  
9 (phonetic) system is probably the best example of  
10 something outside of a certificate and that's a  
11 standard setting. That's all that was.

12 COMMISSIONER DONOFRIO: So given that most  
13 workers are going to work for five or six companies in  
14 their lifetime as we look forward, there's some  
15 validity to what you're saying because you won't be  
16 able to simply take your knowledge with you unless  
17 there is some way to certify what you have and then go  
18 put it to work in another company.

19 COMMISSIONER STEPHENS: And today that's a  
20 degree or some certification.

21 COMMISSIONER DONOFRIO: Yes, right.

22 COMMISSIONER SULLIVAN: Rick?

23 COMMISSIONER STEPHENS: Yes.

24 COMMISSIONER SULLIVAN: This may have been  
25 covered yesterday since I missed the session, but what  
26 I'd like to make is there really should be greater  
27 emphasis on our minority population which is 25

1 percent of our citizens today. And as you know, the  
2 demographers say that by the year 2050 there will no  
3 longer be a majority population. So as we talk about  
4 accessability, I think we really have to put special  
5 emphasis on bringing those into the system who really  
6 are not well-represented, not only because of their  
7 interest but the interest of our country. So I think  
8 that should be emphasized in this.

9 It may have been covered yesterday. If  
10 you did, I apologize.

11 COMMISSIONER STEPHENS: It was and that  
12 said, this whole notion relative to stating the  
13 problem must be accessible to all groups, for me  
14 looking at the data it was about economics and age but  
15 the degree, but you know, the ethnicity is also an  
16 important element because that drives as well. And  
17 for me, it was important, when I was looking at the  
18 data last night just to go back and kind of resurface  
19 the from a workforce standpoint because we need to  
20 pull from the entire population to be able to meet our  
21 workforce needs. Jeff, then we'll come back to Bob,  
22 and then Charlene. Jeff. Peter, I'm sorry.

23 DR. FALETRA: I wanted to turn it around a  
24 little bit because last night I was looking at my  
25 notes and something that Nick, Jim and Rick had all  
26 said were -- talking about that we're missing I think,  
27 and it's at the beginning when the students come in

1 and are trying to choose where they're going to go and  
2 it's not obvious to them when they want to go into a  
3 certain industry what they need to go into it. It is  
4 just not there.

5           That information is a mistake that  
6 students make and it is a huge drain on our economic  
7 investment in these people and a good example is when  
8 NIH had their \$27 billion runup, they attracted an  
9 immense amount of students into the biotechnology and  
10 life sciences. Now there are about nine -- as far as  
11 I know, there are about nine PhDs running for every  
12 single one job there are in the life sciences now.  
13 That is a huge mistake.

14           So when students are attracted into, let's  
15 say, the life sciences at a university, is it the  
16 right thing for the university just to say, willy-  
17 nilly, "Yes, we'll expand this program because we have  
18 more applicants", and not let it be known to these  
19 students, "Look at, at the end of the four years that  
20 you're spending here, the jobs aren't there. You're  
21 going to actually be working out of your field". Now,  
22 is that a bad thing? I suppose not necessarily if  
23 they're still using their science skills like our  
24 physics -- we have a physics scholars program and also  
25 a computer program, a program for graduate students  
26 and a lot of them go into Wall Street to use those  
27 analytic skills.

1           So I guess it's not a complete failure but  
2 if you invest, let's say a million dollars into a  
3 graduate student in the research and so forth that  
4 they've done, and they get out as a PhD in biology and  
5 they don't work in that field at all, it seems to me  
6 to be a misdirection of funds.

7           COMMISSIONER DONOFRIO: They can always go  
8 back and teach.

9           DR. FALETRA: Yes, they can go back and  
10 teach. This goes back to what we talked about in a  
11 number of entwined conversations that the system has  
12 to be much more transparent and it should be obvious,  
13 where industry needs are and what you're going to need  
14 to know and there seems to be a serious disconnect  
15 there.

16           COMMISSIONER STEPHENS: Yes, and you're  
17 going to see on the five recommendations going  
18 forward, that is part of it, to be able to talk about  
19 this relationship, about what needs to go forward in  
20 terms of what are the skills, you know, necessary so  
21 people can drive that. I would tell you, though, as I  
22 think about and as Jim was talking about the speed at  
23 which technology is moving, you know, how many of us  
24 had a notebook computer 25 years ago. You know,  
25 that's a whole new market, yet, how long --

26                           (Laughter)

27           COMMISSIONER STEPHENS: Make it 30, Nick,

1 yes. But thinking about the skills necessary to be  
2 successful there, and I would tell you today you know,  
3 the 787 we are now designing for Boeing, the  
4 Dreamliner, it's all carbon composite. And just to  
5 give you some sense, and we had a little bit of this  
6 discussion yesterday, we actually have invested,  
7 working with the University of Washington on learning  
8 styles and learning models. We actually made an  
9 investment in them to work with them to understand how  
10 people learn so we could go back and tool our programs  
11 internal to the Boeing Company to train our engineers  
12 in two new skills.

13 One was moving from aluminum to composites  
14 which is fundamentally different and we want to do  
15 that most economically possible because we are a  
16 bottom line business and this is an investment. The  
17 other is a whole new tool set and the whole new tool  
18 set about designing these aircraft much quicker. So  
19 going back, this notion about two elements; can we  
20 predict what the future is; the answer is no, but do  
21 we need the ability to recognize how quickly we can  
22 help people learn so they can make that  
23 transformation, I would say, yes, and I think we all  
24 need to take advantage of that. Bob, you had a  
25 comment.

26 COMMISSIONER ZEMSKY: Yes, I want it duly  
27 noted that the word "naive" was Nick's not mine. But

1 I think in some ways this conversation is confusing as  
2 well as naive and we keep swinging from the top end of  
3 the market to the bottom end of the market. I mean,  
4 the original discussion where Jonathan was, was at  
5 this end, PhDs in biology and Boeing engineers,  
6 frankly, are way up here. And that's one observation.

7 The second observation is this is a world  
8 that is really sending mixed messages to the workers  
9 because, Nick, I agree with you. They don't need the  
10 degrees but that's what's selling in the marketplace.

11 And one of the reasons it's selling is because not  
12 all companies are like Boeing, not all countries are  
13 like Boeing either. And that -- and more and more  
14 employers are actually shifting the cost of training  
15 to the work and their not taking it in themselves.

16 So what we are producing now is this  
17 enormous spot market, very confused, very  
18 dysfunctional market in lifelong learning and worker  
19 education. Jonathan's point is, well, we've got to  
20 make some rationality out of it and one of the  
21 rationalities ought to be the transfer system.  
22 Whether degrees are important or not, what this spot  
23 market needs is more rationality in the classic sense  
24 of rationality, it doesn't matter.

25 And the second thing it needs is a  
26 financial mechanism where people can understand in  
27 advance how they're going to pay for it because right

1 now it's a spot market that really now you have to pay  
2 for this market out of earned income. There's no  
3 loans, there's nothing like that. So that you need  
4 the rationality of a financial mechanism. There are  
5 lots of classic proposals on this. Probably the most  
6 talked about is you tie it somehow to the unemployment  
7 compensation system because in theory if people can  
8 retrain themselves, they won't have to -- a lot of  
9 controversy about that.

10 But if you had rationality on the  
11 currents, I think that's what Gerri was saying, and  
12 you had rationality on the finance system, then I  
13 think some of this other development will happen  
14 without a lot of guidance because as Rick says, who's  
15 smart enough to guide it anyway. But if you don't  
16 have the two anchors, money and essentially a standard  
17 currency, it isn't going to work, I don't think.

18 COMMISSIONER GRAYER: Well, I -- you know,  
19 the Secretary talked about not being mealy mouthed and  
20 being concrete. How significant it would be to really  
21 change the transferability reality. What you're  
22 really talking about -- I'm not sure the Commission,  
23 all members here, are as familiar how anti-competitive  
24 in some ways they really are, but we're talking about  
25 a big, big undertaking to tell them how they must  
26 evaluate transferability of credits.

27 And some institutions are very open and

1 some are incredibly closed. And we're letting all of  
2 those individual points of distribution in our --

3 CHAIRMAN MILLER: We've got to talk about  
4 the skill set because the only thing that's  
5 transferable is what you have as a skill, not what the  
6 piece of paper is or the seat time. The skill set is  
7 standard and could be transferable. That's what we're  
8 talking about on the accountability side. We're  
9 talking about measuring skills, not the other things.

10 COMMISSIONER STEPHENS: Charlene.

11 COMMISSIONER NUNLEY: There's been a lot  
12 of interesting conversation and I have a few sort of  
13 random reactions that I want to make. Some of the  
14 more interesting discussion that I heard at the  
15 Commission, I think I heard Jim talking about it the  
16 most is some kind of a focus of a learning nation or a  
17 learned grant college act that might address some of  
18 the issues Bob was talking about, about how adults are  
19 going to be able to afford to access this kind of  
20 education.

21 You know, in terms of some bold ideas,  
22 some concepts to hang some recommendations around, I  
23 like that language and I thought it was useful. The  
24 point that Louis is making on the ethnic diversity,  
25 when I saw your chart on the way the workforce is  
26 changing, while we talked about that issue some  
27 yesterday, I think that it reinforced for me what an

1 enormous national challenge we face and how we might  
2 not yet have focused enough on it in the sense that  
3 the high skill jobs are growing rapidly. The low  
4 skill jobs, Rick, you're saying are requiring higher  
5 skill levels than they did in the past.

6 COMMISSIONER STEPHENS: Yes.

7 COMMISSIONER NUNLEY: I know that's true  
8 because we analyze the auto tech manuals and they're  
9 at Grade 14 which may be why we can't get our cars  
10 fixed the first time we take them into the dealer for  
11 repair. And in all of that, you've got the population  
12 in our country growing in the areas where the  
13 participation rates in higher education are lowest.

14 COMMISSIONER STEPHENS: Right.

15 COMMISSIONER NUNLEY: If we don't change  
16 that, if we don't change the college going rates for  
17 African American and Latino students, what's going to  
18 happen to the economy of the future? So to me, this  
19 sort of tied, you know, a lot of those issues together  
20 and not only do we have to be concerned at the high  
21 skill end, but we also have to be concerned that there  
22 is adequate skill development at the low skill end, so  
23 that the workforce can be populated with people who  
24 can do the jobs. And I don't think we've focused  
25 enough energy and attention on that issue.

26 COMMISSIONER STEPHENS: Chuck?

27 COMMISSIONER VEST: If you'll forgive me

1 for loosening the concrete just a little bit for a  
2 minute, I'd like to try to tie some thoughts that have  
3 been stated together but I'd like to begin, with all  
4 due respect, to argue with Peter just a little bit.  
5 If we try to predict what fields are going to produce  
6 the jobs for somebody's 30, 40-year working career,  
7 we're dead in the water. Kids that went into computer  
8 science 25 years ago heard all these arguments,  
9 computer science, what in the world are they going to  
10 do. Well, they ended up moving us into an entire new  
11 service economy. They're working in the financial  
12 industry, all kinds of things and similarly, life  
13 sciences today, if you simply look at the number of  
14 jobs and the number of PhDs, you start sweating and  
15 worrying, but let me tell you, these biologists are  
16 going to be key to solving our energy problems in  
17 biofuels. Life sciences is going to lead to entire  
18 new ways of manufacturing a lot of the materials that  
19 we use, environmental problems.

20 To me, that's what innovation is all  
21 about, giving people a broad enough skill set to take  
22 their focus skills and figure out how to use them in  
23 new ways and work together. But what I wanted to say  
24 going back to what Rich took my name in vain over, is  
25 that the comparative advantage our country has in this  
26 horrible complex fast-paced world today, in my view,  
27 is a strong base of science and technology, a free

1 market economy and built on a substrate of democracy.

2           And I believe that we are going to have to  
3 focus much of our attention at that upper end because  
4 this is where the change is occurring. We've got to  
5 figure out what we do to keep innovating, keep  
6 creating the new jobs and then how we get broad  
7 diverse population geared up, not only initially but  
8 as we've been saying through their whole career, to do  
9 those jobs, but there is still a deep purpose to the  
10 liberal arts, to the arts, to the social sciences, and  
11 they really do fit into that three-part advantage  
12 because they have to do with how we maintain a  
13 democracy, who we become good citizens of the world,  
14 in fact, what the services and products we create and  
15 how they use them.

16           So while I think this Commission needs to  
17 focus on where the really fast change is, which is in  
18 the nature of work and the nature of products and  
19 services, I would hope that at least in the preamble,  
20 we would lay out a broader context that would include  
21 these deep age old purposes of the university, be sure  
22 people know we understand that, and then delve into  
23 what the hard core concrete issues are we've been  
24 wrestling with. Thank you.

25           COMMISSIONER STEPHENS: Gerri.

26           COMMISSIONER ELLIOTT: A couple of things.  
27 One is, I don't think our problem statement really

1 hits home in terms of the alignment with industry that  
2 we need. You talk about accessibility, but we haven't  
3 talked about the alignment, the alignment with what we  
4 teach versus what industry needs, I think needs to be  
5 called out there more strongly. And although I agree  
6 with Charles that we are strong in science and  
7 research technology today, the world is rapidly  
8 changing and I don't believe at current course and  
9 speed, we will be in the future and I don't know if it  
10 belongs here or in the innovation session, but it's  
11 got to be called out in one of those two places.

12 COMMISSIONER STEPHENS: Yes, okay. Jim.

13 COMMISSIONER DUDERSTADT: During the late  
14 1990s Red Foling and I co-chaired a survey of Fortune  
15 500 CEOs to see what they sought in college graduates  
16 for the so-called high performance workplace. And  
17 beyond a certain degree of competency in areas of  
18 specialization, whether it be business or engineering  
19 and so forth, the four factors that identified as most  
20 important were the ability to communicate very  
21 effectively, the commitment to continuing to learn  
22 throughout one's life, the capacity to operate in a  
23 highly diverse environment, social diversity,  
24 international diversity, and so forth, and finally,  
25 the capacity not simply to function in a world of  
26 change but to actually drive change.

27 Okay, and if I put these four

1 characteristics together, in the 19<sup>th</sup> century that is  
2 what I would have defined as the purpose of a liberal  
3 education. I think part of the challenge is we need  
4 to redefine that for a much faster paced world of the  
5 21<sup>st</sup> century, but those fundamental skills, of course,  
6 undergird everything that you're talking about.

7 COMMISSIONER STEPHENS: Rich.

8 COMMISSIONER VEDDER: Secretary Sullivan's  
9 comment about minorities and all was well-placed and I  
10 think it was appropriate. But looking at the data  
11 that was put up at the beginning that you put up  
12 reminded me of something that Governor Hunt said at an  
13 earlier meeting and I think others did as well; that  
14 right now the real area where we have low educational  
15 participation is with men and men are 50 percent of  
16 the population and are likely to remain somewhere  
17 close to 50 percent for the foreseeable future. In  
18 fact, if it isn't near 50 percent we're going to have  
19 some other problems.

20 And look at the numbers. Females go 3.5  
21 to 5.9 up what 170, 180 percent. Males go up 48  
22 percent. Now for every male there is 1.35 females.  
23 And if we had the same proportion of male  
24 participation, we'd have two and a half million more  
25 people in the system now and that's not an  
26 inconsequential number and I think in talking about  
27 these gaps in work force, we need to consider that.

1 COMMISSIONER STEPHENS: Okay, Governor.

2 GOVERNOR HUNT: Rick, in order to have the  
3 skills that Jim just described what you have to have  
4 at Boeing, how much basic education do you consider  
5 that people will need to have to come in and work for  
6 you? Is it grade 12, is it grade 14? What do you --  
7 what would you like to have?

8 COMMISSIONER STEPHENS: Gee, I think from  
9 an industry -- well, I'll talk from Boeing and I think  
10 probably reflective of industry, grade 12 is not  
11 enough, okay, because I don't know of any jobs that we  
12 have where grade 12 is sufficient out of the 153,000.

13 And so they're going to need something beyond in many  
14 cases and I'm going to say half, because that's what  
15 our population shows, probably grade 14 is about right  
16 and for all other, it depends upon what particular job  
17 their fulfilling anywhere from a grade 16 or a  
18 bachelor's degree all the way up to a doctorate.

19 GOVERNOR HUNT: And this tends to be the  
20 case throughout our economy, doesn't it, for the high  
21 value work we want to do in the world?

22 COMMISSIONER STEPHENS: Yes.

23 GOVERNOR HUNT: That you get a high price  
24 for?

25 COMMISSIONER STEPHENS: Yes.

26 GOVERNOR HUNT: That supports a high  
27 standard of living? Well, it seems to me we've really

1 got to say that basically, as we've said in a lot of  
2 other reports, but I think it's particularly important  
3 to say it here in ours.

4 COMMISSIONER STEPHENS: Okay.

5 COMMISSIONER SULLIVAN: Rick, let me just  
6 agree with Richard's comments, but point out as many  
7 of you already know, within the African American  
8 community there's -- the worst problem we have is the  
9 absence of Black males.

10 COMMISSIONER VEDDER: Yes, that's where a  
11 lot of this difference is, yes.

12 COMMISSIONER SULLIVAN: It's not only  
13 impacting the higher education system. For example,  
14 at the medical school I'm involved in, two-thirds of  
15 our students are female and that's not unique to us.  
16 People cannot find Black males. So those problems --  
17 and I agree with you also that that leads to other  
18 problems that -- in terms of family stability, et  
19 cetera. So simply, I think what we're seeing in our  
20 minority communities is really what we'll see in the  
21 larger community a few decades down the road if we  
22 don't address them.

23 COMMISSIONER STEPHENS: Yes, but we had an  
24 interesting dinner discussion last night, a few of us,  
25 on why that difference may be between men and women  
26 and part of it goes back to this notion, the  
27 hypothesis is, it goes back to learning styles. And

1 that learning styles are different based upon age and  
2 maturity and more and more we tend to be -- we're  
3 missing that point.

4 Now, there is some -- at the high school  
5 level, because I do a fair amount of work at the high  
6 school level as well, there's out that was done under  
7 the Bill and Melinda Gates Foundation. They looked at  
8 46,000 high schools across America and they looked at  
9 the top 30 and it was -- and they had 10 in each of  
10 the socioeconomic tiers, so, high, middle and low.  
11 And there are nine factors that came to be where these  
12 top 30 made a difference between the other roughly  
13 46,000. And of those nine elements, one ties back to  
14 this notion about learning styles and it said those  
15 who tied learning to direct hands on application were  
16 much more successful in getting their curriculum  
17 across.

18 And so it's this teaching on context and,  
19 you know, part of this notion is about our models  
20 today in many of our higher educational institutions  
21 are about the data. Those who tend to be successful  
22 and I'll tell you the ones that we're hiring are  
23 students that have been interns or they're doing  
24 project based engineering work because they're able to  
25 come out of the educational systems and move into  
26 work. And I think this ties back to this notion about  
27 learning styles, learning models and an important

1 element where success needs to be and may be a  
2 contributor where males are.

3 DR. FALETRA: Rick, that point is really,  
4 really important. The National Academies have put out  
5 their, I think it was the engineer of 2020 and in how  
6 strongly they recommended the incorporation of  
7 internships and those types of direct experience in  
8 the workplace, so when they do get out, they don't  
9 have to be retrained. And that point seems to be  
10 very, very seldomly employed in the engineering  
11 schools across the country.

12 COMMISSIONER STEPHENS: I think it's more  
13 and more. Probably one more and then I want to move  
14 onto the solution discussion so we have enough time.  
15 Yes, Bob.

16 COMMISSIONER ZEMSKY: I'd like to go back  
17 to Dr. Sullivan's remarks and some of the discussions  
18 of yesterday. And I've been trying to think along the  
19 lines that Chuck Vest gave us. I think in the opening  
20 of this report there could be a very clear section in  
21 the beginning called "The Missing American Student",  
22 and where we really talk about a whole set of  
23 categories of people who are missing. That's really  
24 what the chart says. If you're in a certain economic  
25 quintile, you have a higher probability of missing.  
26 If you're an African American, you have a higher  
27 probability of missing. If you're a worker who didn't

1 complete your higher education, right away, you have a  
2 higher probability of missing. If you're a rural  
3 person, you have a higher probability of missing. If  
4 you're a male, and I think if we do it that way, we  
5 might actually change the discussion, because I think  
6 this is a public that has heard this discussion so  
7 often that no matter how vital it is, it goes in one  
8 ear and out the other.

9 And I was just thinking last night, not  
10 being in my dictionary mode, but my wordsmithing mode,  
11 that we're talking about missing people and I think  
12 that might have some grab here. They are just missing  
13 and they shouldn't be and we all miss them in a kind  
14 of pun, but something like that but not to use the  
15 standard categories that we couch this argument in so  
16 often because it just doesn't have any traction.

17 COMMISSIONER STEPHENS: Good point, good  
18 point, Bob. Let's go to the next slide. Now, these -  
19 - this is the same information that a number of us,  
20 you know, provided input to and so these were the five  
21 solutions. What I thought we'd do is maybe walk  
22 through them as are these some of the solutions. I  
23 think part of the discussion we've had thus far is  
24 these aren't all the solutions but these are certainly  
25 some that might have a positive impact in the right  
26 direction and I've taken a ton of notes and we'll come  
27 back with some additional thoughts.

1                   One was from the data quality and  
2 collection track education labor market outcomes.  
3 That's just getting the data out there so we're all  
4 looking at the same information. And that was an  
5 important one. The next is, you know, should we  
6 embrace and achieve the objective providing, you know,  
7 citizens with universal access, and, you know, for all  
8 the reasons that we've talked about. I think you  
9 know, this one also gets high marks. It's not clear  
10 yet we have solutions about how to go do that. I  
11 think this is an outcome as opposed to a specific  
12 solution.

13                   The next one is this notion about  
14 developing career advancement accounts or lifelong  
15 learning accounts, provide, you know, flexible  
16 financial support for adult learners. This goes back  
17 to how do you help every socioeconomic particularly  
18 low incomes be able to participate. Number four, a  
19 national program to inspire students at early ages to  
20 undertake careers in math, science, engineering and  
21 technology. My sense is, and while I would agree with  
22 Chuck, that this notion of innovation is so important  
23 for the nation and certainly math, science and  
24 engineering technology are important, but frankly, my  
25 view and this whole notion about the requirements that  
26 students need to have as a skill set is much broader  
27 than science, math, engineering and technology. And

1 you know, I'm a math, computer science guy, so I  
2 struggle sometimes getting these words out.

3 But there's more than technology. It is  
4 about problem solving skills and a -- someone I was  
5 talking to the other day said, you know, being a  
6 lawyer and we all love to hate lawyers in the process  
7 but being a lawyer provided them great analytical  
8 skills to bring in data, to be able to analyze it,  
9 come up with solutions how you go forward. And as  
10 we've talked about and Charles' point about the skill  
11 set, I think this whole notion does need to be about  
12 skill set, the liberal arts elements that Jim talked  
13 about, and then there are some technical competencies  
14 you've got to have.

15 Big debates I have with engineers and  
16 again, going back to the Boeing Company, they say,  
17 "Rick, it's great but they've got to have a degree,  
18 otherwise I won't even talk to them because you're  
19 asking us to go build hardware and software and  
20 they've got to have some technical competencies to go  
21 along with that. So it's not one or the other, it's  
22 both and this whole notion, I think, is we're going to  
23 help students understand what the skill sets look like  
24 and provide models about what those jobs look like  
25 going forward.

26 And the last one is to expand and I think  
27 this goes back to Jonathan's point, you know, about

1 expanding the career pathways between high school to  
2 two and four-year institutions, address the issue of  
3 transfer credits. You know, those were in terms of  
4 being able to move things around so it's just not one  
5 area or the other but you can move it and continue on  
6 with your education.

7 Comments on these five and/or some others.

8 Jim.

9 COMMISSIONER DUDERSTADT: You know, we  
10 look at on a more global basis and regions that have  
11 seen just extraordinary economic success over the last  
12 couple of decades and countries like Ireland and  
13 Finland come to mind are countries which were not that  
14 prosperous years ago, but today are some of the most  
15 prosperous in the world and the commitment those  
16 countries have made both to universal learning and to  
17 continuing to raise the bar and now moving to lifelong  
18 learning opportunities is quite profound.

19 It's also frightening, however, if you go  
20 into a search engine like Google or Yahoo and put in  
21 the word "lifelong learning", to find out how many  
22 other countries are now beginning to put together not  
23 only commitments but very significant national  
24 strategies to move to that model. Okay, and that's  
25 the world in which we live in. This treadmill is  
26 picking up the pace. And this is not as visionary a  
27 future committee for lack --

1 COMMISSIONER STEPHENS: I agree.

2 COMMISSIONER DUDERSTADT: This is the way  
3 that the global knowledge and economy of the flat  
4 world is going to behave and we've got to do this to  
5 keep the pace.

6 COMMISSIONER ZEMSKY: Would you accept as  
7 a recommendation that we need a national strategy just  
8 to echo what Jim just -- the words "national strategy  
9 for lifelong learning"? We certainly don't have it  
10 now. This is one of the most piecemeal things you can  
11 imagine.

12 COMMISSIONER STEPHENS: I would agree,  
13 yes. I would. Yes, Charlene?

14 COMMISSIONER NUNLEY: Based on the  
15 comments that Governor Hunt made, I'm going to get  
16 really out there now. In light of the fact that it  
17 appears that a fundamental education in our country  
18 has progressively moved upward and we've adjusted what  
19 we think the constitutional guarantee of public  
20 education means over time, shouldn't we say something  
21 in this report about a fundamental education isn't  
22 grade 12 any more but it is, in fact, grade 14 or some  
23 post-secondary preparation and that we should be  
24 setting national goals that all of our people  
25 graduating from high school would have the opportunity  
26 to have a fundamental education which is higher than  
27 grade 12?

1                   COMMISSIONER DUDERSTADT:    I think, you  
2 know, my suggestion is not only is that appropriate  
3 but what are competitors around the world are doing is  
4 raising that bar still further by saying that's a  
5 lifelong that goes to whatever the needs of the  
6 individual and the society are and that bar is going  
7 to continue to rise.

8                   COMMISSIONER STEPHENS:    Arturo?

9                   COMMISSIONER MADRID:    I don't know that  
10 it's an appropriate moment but resonating to  
11 Charlene's comment, in one of the sections one of my  
12 comments was that we needed to reconceptualize the  
13 educational process so that high school, completion of  
14 high school would not seem as the end all or the point  
15 that we need to get to and that we need to reconstruct  
16 it so the transition is taking place earlier to  
17 assure, in fact, that we get to where we need to get.

18                   COMMISSIONER STEPHENS:    Nick.

19                   COMMISSIONER DONOFRIO:    So I don't know  
20 that this is the appropriate time to bring it up  
21 either but, you know, I like everything you're saying.

22                   I mean, is now the time we should think about  
23 proposing the equivalent of a GI Bill for lifelong  
24 learning?

25                   COMMISSIONER DUDERSTADT:    It's very much  
26 in the spirit.    It's very much in the spirit of the  
27 Land Grant Acts back in the 19<sup>th</sup> century.    It's very

1 much in the spirit that the nation took toward the  
2 beginning of the 20<sup>th</sup> century when secondary education  
3 was first viewed as a universal right and then as  
4 mandatory for a certain part of the --

5 COMMISSIONER ZEMSKY: We have to be a  
6 little careful here for two reasons. The GI Bill --  
7 the first two letters in that term is GI.

8 COMMISSIONER DONOFRIO: I understand.

9 COMMISSIONER ZEMSKY: And that's not  
10 general intestine or others.

11 (Laughter)

12 COMMISSIONER DONOFRIO: General  
13 intelligence.

14 COMMISSIONER ZEMSKY: And a lot of people  
15 see the GI Bill as return for service. So just a  
16 little bit of caution on that, but what worries me  
17 even more is the GI Bill was sort of a one-shot deal.

18 You had an entitlement and you used it up. There are  
19 things around the fringe that got changed but that's  
20 essentially what it was. I think what Jim is talking  
21 about is not something you use up but this is  
22 something that has to be continual. So while I really  
23 do believe we need to make a very strong statement and  
24 I think we need to build a financial system behind it,  
25 I think we do need somebody to get clever with what we  
26 call it so it doesn't get trapped by an older -- an  
27 older set of icons.

1                   COMMISSIONER DONOFRIO:    Of course, Bob,  
2                   and we'll have smart people do all of that but I do  
3                   think we need the equivalent result of that.  It did  
4                   wonderful things for this country and we're at a point  
5                   now where we need the equivalent act or the equivalent  
6                   event or the equivalent thing to do equally wonderful  
7                   things.

8                   COMMISSIONER ZEMSKY:    Could I ask you as  
9                   an employer, would you accept an employer tax since --  
10                  you not IBM personally but increasingly you're  
11                  expecting the workforce to train itself to your  
12                  advantage?  I mean, if we're going to talk about this,  
13                  there's a lot of money we're talking about and put  
14                  some real money on the table from somewhere.

15                  COMMISSIONER DONOFRIO:    So if it meant we  
16                  could take real money off the table by putting that  
17                  real money on the table, sign me up.

18                  COMMISSIONER ZEMSKY:    We already had the  
19                  discussion.

20                  COMMISSIONER ELLIOTT:    Industry already  
21                  does.  We already do it in terms of how much money we  
22                  spend in training and in tuition reimbursement and  
23                  tuition assistance.

24                  COMMISSIONER ZEMSKY:    If you could take  
25                  that off the table, yes, if that's what you're talking  
26                  about, absolutely, absolutely.

27                  COMMISSIONER STEPHENS:    Yes, and I think

1 as part of this discussion about lifelong learning and  
2 as I kind of brought up a couple times yesterday, it's  
3 about lifelong learning. It's not necessarily about  
4 college and I think that's an important part of the  
5 discussion as we think about culturally what goes on  
6 in our communities, it's are you going to go to  
7 college. If high school is all about going to  
8 college, I would contend that's why a lot of students  
9 say, "I'm not going there". If it's about after my  
10 career development and going forward, they probably  
11 say, "Oh, I see an end on how to get there". Do they  
12 need the skill set necessary to go to college, that's  
13 one thing, but it's not necessarily about going to  
14 college. So I think we have a lot to discuss about  
15 what does this vision look like and what are the  
16 elements and then what do you do with it as you go  
17 along? Rich.

18 COMMISSIONER VEDDER: Rick, I love this.  
19 This is a higher education lovefest this morning and  
20 I'm a participant in it because I believe higher  
21 education serves a higher good and I think lifelong  
22 learning is particularly important, but I want to  
23 remind you, Ireland has high economic growth, probably  
24 less because of its expenditure on lifelong learning  
25 than because it has a 12 percent corporate income tax.  
26 And I want to point out that we don't have infinite  
27 resources here and the -- and actually I think Bob

1 asked a good question. "Are you willing to pay for it  
2 Nick?" Now, Nick says, yes, but I don't know if his  
3 stockholders, of which I am one, are.

4 And if you run a regression equation on  
5 state commitment to higher education about the 50  
6 states and economic growth, the states with the  
7 highest commitment to higher education financially  
8 have the lowest rate of economic growth. Now, that's  
9 the opposite what we're saying in here. You don't  
10 believe it but that's what the facts say. So if  
11 you're going to start making pronouncements about the  
12 role of higher education and economic growth, you'd  
13 better have your facts straight and I mean that. I  
14 mean, if this is a group of people that are interested  
15 in improving knowledge, let's get the knowledge that  
16 we're putting out right. And I mean that very  
17 strongly.

18 The -- I just think you need to look at  
19 the evidence. Now what does it say? I'm not against  
20 moving forthwith lifelong learning but we've got to do  
21 it in an efficient way. We've got to do it in a cost  
22 effective way. We've got to rationalize this. We've  
23 got to do what Jonathan was talking about for one --  
24 just one little part of this. We've got to increase  
25 productivity rather than reduce it and we have talked  
26 some in this Commission about it and I think in a  
27 positive direction, but I think we have to tie these

1 things together.

2 COMMISSIONER STEPHENS: Chuck.

3 COMMISSIONER VEST: Rick, a couple of  
4 points. One is that I think that this is more in the  
5 spirit of the Land Grant Act than it is in the GI  
6 Bill. What I would like to do is distort something  
7 that Bob Zemsky said a little earlier about the  
8 missing American student. The theme is the missing  
9 American worker. That's what it is we're worrying  
10 about, are people going to have jobs in the future?  
11 And I also would sort of turn up side down what Rich  
12 just said in the following sense. I think that the  
13 concept of lifelong learning, retraining of the  
14 American workforce is the great opportunity for doing  
15 the equivalent of building on the green field, of  
16 having a blank sheet of paper unencumbered by past  
17 history and so forth to say how do we really use  
18 information technology and all the things that are  
19 moving quickly to do it as effectively, as  
20 efficiently, and as cost effectively as we possibly  
21 can.

22 And while no matter how we slice it, we  
23 are talking big dollars, some of which are going to  
24 have to come from taxpayers, some of which are going  
25 to come from reprogramming the corporate money, I  
26 think this is extremely important. I think it can be  
27 done and I think that it can be done very cost

1 effectively.

2 COMMISSIONER STEPHENS: So along those  
3 lines, I think that one of the outcomes of our  
4 Activity Commission could, in fact, be what I'm going  
5 to call architecting what the vision looks like going  
6 forward if it were, in fact, a clean sheet of paper  
7 and then, based upon that, when you start moving  
8 toward that future status as opposed to modifying  
9 where we're at today. Charles.

10 CHAIRMAN MILLER: When one speaks from the  
11 Academy it's easy to say, "Give me more money and give  
12 me the resources". We don't have the capacity for  
13 programs like that today. We don't have the capacity  
14 to pay for them. There has to be a predicate set that  
15 you create a system and the set of institutions that  
16 can do what it needs to do in a new world innovate.  
17 If it's just a matter of giving people more money,  
18 we've got to identify exactly where it comes from, be  
19 specific, just like Bob Zemsky says. We would make a  
20 proposal to put a large amount of money into a system  
21 that isn't very functional today, the evidence that I  
22 see is we leave a lot of people out. We do leave  
23 people out and not just workers because we're  
24 virtually full employment but we have certain people  
25 that are not participating at high enough income  
26 levels.

27 It's the training that the people lack in

1 those communities. So I think you can't just say  
2 let's put a big new program of money on it and just  
3 turn it around without talking about the institution  
4 itself. I think we have a real serious question about  
5 how the institution functions. It's archaic and needs  
6 innovation itself and then when we do that, I think  
7 the public can see the case for putting more resources  
8 in, especially if you identify it the same time where  
9 you're going to get the funds, not just put it out  
10 there that we need the money to do it.

11 COMMISSIONER DUDERSTADT: One of the  
12 processes for driving change that one of my colleagues  
13 C.K. Prowenhoft likes to do in the business world is  
14 called strategic intent where you intentionally put  
15 out a vision in which the mismatch between what we  
16 have now and what we're going to need to achieve is so  
17 great that it drives enormous and rapid change. I  
18 can think of no other vision that's going to drive  
19 major change and higher change in the way that we  
20 provide it, in the way that institutions are  
21 constructed, in the way that they interact, in the way  
22 we finance it, in setting this as a national  
23 objective. It clearly cannot be achieved with higher  
24 education in this country the way it is today. It  
25 will have to change.

26 CHAIRMAN MILLER: Would you make the  
27 objective to change higher education dramatically and

1 then say whatever resources it takes to do it; in  
2 other words, turn it around with the objective of  
3 really innovating and changing higher education to  
4 address what we need? That's how you'd solve the  
5 problem typically, not say put a lot of money in and  
6 let's find the problem to solve.

7 COMMISSIONER DUDERSTADT: No, no, what I'm  
8 saying is you put out a mission --

9 CHAIRMAN MILLER: The problem is the  
10 institution.

11 COMMISSIONER DUDERSTADT: -- that is so  
12 bold that it would force change.

13 CHAIRMAN MILLER: I know what he's saying.  
14 I'm saying we need to focus it on what the  
15 institution is and what we need from the institution  
16 and then you decide what the resources are, not the  
17 other way around.

18 COMMISSIONER ZEMSKY: We also need some  
19 different language here. The other thing that  
20 troubles me about this discussion is the term  
21 "lifelong learning" has no traction either in the  
22 larger public. It begins to sound to an awful lot of  
23 people like an elder hostel, sorry about that.

24 (Laughter)

25 COMMISSIONER ZEMSKY: And you know there  
26 is actually a term that's available. One of the terms  
27 that had real traction in this country was the

1 continuous improvement that businesses have picked it  
2 up. Lots of people dwelt on it. What we're talking  
3 about is a national strategy for continuous investment  
4 in human capital. But it's the continuous investment,  
5 the idea, that again, it's not just more money on the  
6 table and it also says the investments in people not  
7 in institutions. I think that's the point that  
8 Charles wants to have underlined.

9 COMMISSIONER ELLIOTT: But since we're  
10 debating terms, I love the term lifelong learning. I  
11 love the term continuous improvement, but that's a  
12 means to an end. The end, at least for me, is to make  
13 sure that we make sure that we have the most robust  
14 competitive knowledge economy in the United States.  
15 You can't get there without lifelong learning and  
16 continuous investment in both the individual and the  
17 institutions itself but at the end of the day it's  
18 about having a knowledge economy.

19 COMMISSIONER DUDERSTADT: No doubt.  
20 That's exactly it.

21 COMMISSIONER STEPHENS: Governor.

22 GOVERNOR HUNT: One of the techniques I'd  
23 like to urge that we consider for our report in terms  
24 of how we present it is at different points to have  
25 little one-page within a block maybe scenarios or a  
26 look at somebody that's -- something that's being done  
27 well, kind of the ideal. An example would be in terms

1 of efficiency, for me, what they're doing at the  
2 University of Maryland to make their system more  
3 efficient, use their resources more wisely. I'd like  
4 to see that in a block. Going through this report,  
5 how do you do it because a lot of people in higher  
6 education tell you, you can't do it.

7 Well, the University of Maryland did do  
8 it. Here's what they did. You can write that up in  
9 two or three paragraphs. Now, here, while we're not  
10 going to let business make all the decisions about  
11 higher education in America, I'd like to have a little  
12 block that tells you how business would do higher  
13 education if it were up to them. I really would like  
14 to see that. I think that would be very instructive  
15 to --

16 CHAIRMAN MILLER: Start with eliminating  
17 tenure.

18 GOVERNOR HUNT: Well, they'd sure use a  
19 lot more technology.

20 CHAIRMAN MILLER: Well, just take care of  
21 these next 20 years.

22 GOVERNOR HUNT: Well, there are a bunch of  
23 things that Rick said and Nick and others here that I  
24 think ought to be out there for the American public to  
25 see, "Here's how we think it ought to be done", or,  
26 "We'd suggest that it could be done". I think that  
27 would be very useful in our report.

1 DR. FALETRA: Rick, you know, I completely  
2 agree with the Governor. I still don't see on this  
3 solution set here where the tight connection with  
4 industry is. And in the workforce, the whole issue of  
5 workforce is when you graduate from college, that you  
6 should be able to go into the workforce and be  
7 prepared. We heard in testimonies early on that the  
8 same criticism that's leveled at high schools that  
9 they don't prepare people for success in college, we  
10 don't prepare our college students for really being  
11 prepared for the workplace and I don't see that in the  
12 solution set here.

13 COMMISSIONER STEPHENS: Okay, fair enough.  
14 Good, thank you. Last comment, Kati.

15 COMMISSIONER HAYCOCK: Yes, I wanted to  
16 raise a caution in pursuing -- in how we pursue the  
17 vision that I think Jim has nicely laid out. And that  
18 is in drawing it and tying it to something both  
19 Charlene and Lou said. One of the -- and I think it's  
20 a very powerful vision to talk about universal post-  
21 secondary education with universal sort of lifetime  
22 learning opportunities but historically, when we've  
23 done that, we have put ourselves in a position of  
24 celebrating all paths as essentially equal and the  
25 truth is that all paths aren't inherently equal. And  
26 right now, our tendency is when we talk about all  
27 paths we expect that low income kids and kids of color

1 will take these other paths. They'll go late.  
2 They'll start on a two-year not a four-year. They'll  
3 go part time not full time.

4 And those paths aren't equal. They're not  
5 equal today, they're not likely to be equal in the  
6 short term. So one of the things we have to think  
7 about hard as we create a system with multiple options  
8 and multiple paths is that who takes each path doesn't  
9 differ by family income or by race. It's a hugely  
10 important thing to think about on the front end as  
11 opposed to on the end.

12 COMMISSIONER STEPHENS: Thanks. Let's  
13 see, this has been, for me, a lot of good input. I  
14 think the intent from my standpoint was try and  
15 stimulate the dialogue and provide some additional  
16 data from a workforce perspective. And I think we  
17 have some work to do to go work on the solutions. And  
18 I know it will be important part of our work. Thank  
19 you.

20 CHAIRMAN MILLER: Thank you very much.

21 (Applause)

22 CHAIRMAN MILLER: Without further ado and  
23 delay, Dr. Vest.

24 COMMISSIONER VEST: Mr. Chairman, I'd like  
25 to take advantage of my position at the podium to make  
26 a closing comment on the last one which is to just  
27 clarify my thinking. When I agreed with the

1 suggestion that we make major new investments of some  
2 form in lifelong training, learning for the American  
3 workforce, my assumption is not that that money flows  
4 to the traditional existing institutions. I think  
5 it's the new players, some of whom are around this  
6 table would be the ones that implement that. So I  
7 just wanted to make that clear.

8           Secondly, I had the privilege of spending  
9 some time in Finland this spring with many of the  
10 people who are responsible for the amazing things that  
11 have happened there, let me tell you what the number  
12 one driving force was. That country has no resources  
13 basically other than lumber and reindeer, so they knew  
14 early on what we're learning slowly but surely, at the  
15 end of the day, brainpower is the only thing that's  
16 going to drive them forward and I think that's what  
17 underlies all of our discussion here.

18           This is increasing capacity and I also  
19 thought that maybe that wasn't even the right word  
20 because when I read through what people had the right  
21 title the people were really talking about to me was  
22 much more improving educational effectiveness and  
23 efficiency, but I leave that hanging out there.

24           This is my attempt to reduce to a small  
25 paragraph the four basic points that were raised as  
26 issues across the broad spectrum of American post-  
27 secondary education data regarding student

1 achievement, graduation rates, and time to degree  
2 suggest an undesirable churning and inefficiency in  
3 the system. This situation is coming worse and more  
4 complicated as the diversity of students increases in  
5 every dimension, especially racial and economic.  
6 Although student success cannot and should not be  
7 guaranteed, the Commission believes that it can be  
8 improved by investing in and utilizing research on  
9 effective teaching and learning, by emphasizing  
10 emerging new pedagogy and educational technologies and  
11 by rethinking policies on matters such as inter-  
12 institutional transfer of credit.

13 I think those ideas all came from the four  
14 that were on the sheet but I must admit that I used my  
15 editorial skills to put in this phrase, if I can find  
16 it here, that says, "Although student's success cannot  
17 and should not be guaranteed, so if somebody objects  
18 that I inserted that, this would be a good time to  
19 bring it up. So let me open the floor for discussion  
20 of this statement of problem and issue. Governor.

21 GOVERNOR HUNT: I'm sure this is going to  
22 get a rise out of a few people but --

23 COMMISSIONER VEST: I'm already standing.

24 GOVERNOR HUNT: -- how about some mention  
25 of the dropout problem in higher education?

26 COMMISSIONER VEST: Actually, maybe this  
27 is using too much in jargon. When I talk about in

1 churning that's part of what I'm talking about, people  
2 coming in and out and that's certainly --

3 GOVERNOR HUNT: Why don't we call it what  
4 ordinary people would understand?

5 (Laughter)

6 COMMISSIONER VEST: Well, you're not  
7 ordinary.

8 GOVERNOR HUNT: Listen, I'm being a little  
9 facetious but only a tiny bit.

10 COMMISSIONER VEST: I understand.

11 GOVERNOR HUNT: Now, you know, I know that  
12 we want to have good standards we want to require  
13 students to meet and I understand about that. And  
14 we've got to if we're going to really get skill levels  
15 and knowledge levels up and do the world's greatest  
16 work, but doggone it, I do not believe that students  
17 in higher education get the kind of counseling and  
18 mentoring and urging and pushing and so forth that  
19 they need to have to stay in and graduate.

20 COMMISSIONER VEST: Absolutely.

21 GOVERNOR HUNT: Now, you know, there may  
22 be a school somewhere in America that does it. I  
23 don't believe there are any -- I'm not going to say  
24 any in North Carolina. I'd be in trouble as soon as I  
25 go home. These big public universities sure don't do  
26 it. You know, think about even go back to the time we  
27 were in what kind of counseling we had, but it's just

1 -- take it or leave it, you make it or don't make it,  
2 you know. That ought to change. Doggone it, we can  
3 do better in America and I would really like to see us  
4 speak to that and urge it.

5 COMMISSIONER VEST: Chuck.

6 CHAIRMAN MILLER: I would include  
7 counseling in what he just put up there because that  
8 would be a solution, I suppose.

9 COMMISSIONER VEST: Peter.

10 DR. FALETRA: I'd really like to see us on  
11 those lines make a statement that -- and it's an  
12 overused term, I know it's cheap change and it's  
13 misused but the real term "mentoring", a national  
14 mentoring program that would really go at that  
15 problem. This is a major issue. When I was down at  
16 Clark Atlanta, a good friend of mine Alfred Masani, is  
17 saying that his problem with the Black male student is  
18 beyond the pale. It is so critical for him and these  
19 types of programs that take -- a woman in my office  
20 Ebony Sales, she started at the University of Maryland  
21 as an engineering major and she said the system just  
22 drove her right out because she had no one to go to  
23 talk to.

24 It's a cascading problem. We talked about  
25 it in the Commission. You enter college without the  
26 preparation if you're from the under-represented  
27 minorities, typically and the system works directly

1 against you and if we had a national mentoring program  
2 that seriously addressed this issue and put the money  
3 into it that is needed to address the needs of those  
4 students, we would go a long way to solving this  
5 capacity problem.

6 GOVERNOR HUNT: Mr. Chairman, excuse me.

7 COMMISSIONER DUDERSTADT: No, go ahead.  
8 Go ahead.

9 GOVERNOR HUNT: I just want to -- I didn't  
10 get specific enough. Why don't we point out with a  
11 chart what the dropout rate is in higher education,  
12 and why don't we set a goal of increasing -- what's it  
13 called, staying in the --

14 COMMISSIONER NUNLEY: Retention.

15 GOVERNOR HUNT: Retention rate by what,  
16 you know, 25 percent or something significant over X  
17 number of years and encourage and challenge America  
18 and all the institutions of higher learning and  
19 everybody associated with this, mentoring groups, and  
20 everybody else, to do it?

21 COMMISSIONER VEST: I would also point  
22 out, Governor, that if we don't get some reasonable  
23 form with all the privacy safeguards of an ability to  
24 have unit records to track people, we'll never know  
25 whether we've accomplished it. I'm sorry, Nick had  
26 his hand up.

27 COMMISSIONER DONOFRIO: Sure, so Chuck is

1 this the place where we should talk about the  
2 transferability of credits to try to smooth out --

3 COMMISSIONER DUDERSTADT: Let me just move  
4 in on this and then we'll go do that, okay?

5 COMMISSIONER DONOFRIO: Okay.

6 COMMISSIONER DUDERSTADT: There's a very  
7 deep cultural issue we've got to grapple with.  
8 Because of incentives like U.S. News and World Report  
9 universities are primarily institutions that filter  
10 out and select human talent rather than nurture and  
11 develop human potential. That's why there's not  
12 adequate investment in entering it. You know, they  
13 view their world as identifying, you know, the chosen  
14 few and that's wrong. These are supposed to be  
15 institutions that develop them.

16 COMMISSIONER DONOFRIO: Very well said.

17 COMMISSIONER DUDERSTADT: And so that  
18 fundamental cultural shift has to occur. And that's,  
19 I think in the long run --

20 COMMISSIONER VEST: That's an engineering  
21 included, exactly. It's really -- the hurdle is to  
22 show us you can stay in, not the other way around.

23 COMMISSIONER DUDERSTADT: That's right.

24 COMMISSIONER DONOFRIO: Right, right. I  
25 remember when I went to RPI, look to the left, look to  
26 the right, one of you isn't going to graduate.  
27 Welcome to the institution. So the other -- so we're

1 talking about trying to deal with this issue it's a  
2 deficiency and you know, Jonathan is not here, so he  
3 put me up to this. One more time, you know, is this  
4 where we should talk about --

5 COMMISSIONER VEST: It is my last four  
6 words I put in the problem statement.

7 COMMISSIONER DONOFRIO: Oh, I'm sorry,  
8 well, you were standing in my way.

9 COMMISSIONER VEST: And I think this would  
10 be a good place --

11 COMMISSIONER DONOFRIO: Good.

12 COMMISSIONER VEST: The editorial folks  
13 can figure it out but I think this would be a good  
14 place to address that.

15 COMMISSIONER DONOFRIO: Thank you.

16 COMMISSIONER VEST: Yes, Kati?

17 COMMISSIONER HAYCOCK: I want to offer a  
18 friendly amendment to the Governor's suggestion here.

19 We need to have really clear goals, not just for  
20 overall grad rates, but by race, by economic groups.

21 The gaps by race now are unacceptable. There are  
22 some institutions that have already cut them in half.

23 There are some that have eliminated them but there's  
24 no expectation for all of them to do the same thing.

25 We actually don't know the graduation rates on low  
26 income students. We don't even collect the data as a

27 country. So we've got to have very, very clear goals

1 around those things.

2 One other point, we've just taken a look  
3 at colleges and universities that are usually good at  
4 getting their students through to a degree compared to  
5 other institutions that serve similar students.  
6 Advising is part of it but the other part of it  
7 really, it's about leadership, it's about -- it's a  
8 culture, as Jim said, but it's also often about even  
9 the courses they offer. What colleges are finding,  
10 it's not just about how well they teach but how many  
11 sections of key courses they offer, whether the  
12 schedule is driven by faculty desires or whether it's  
13 driven by student needs and that shift is  
14 fundamentally important.

15 COMMISSIONER VEST: Charlene, then Rich.

16 COMMISSIONER NUNLEY: I just wanted to  
17 point out that the institutional culture that centers  
18 on filtering and selecting human talent isn't the  
19 culture of the community colleges in America. And  
20 yet, I won't brag about our progression rates or  
21 indicate that our dropout rates are at a level that is  
22 appropriate. But I think we do know a lot of what  
23 works where we find if we put students in learning  
24 communities with substantial counseling and advising,  
25 that we can, in fact, change the quality of  
26 progression through higher education.

27 The problem is that our form of higher

1 education that I think does tend to have more of a  
2 focus on nurturing and developing human talent is one  
3 of the least well-supported forms of higher education  
4 in America and that's the community college.

5 COMMISSIONER VEST: Dr. Sullivan and then  
6 David.

7 COMMISSIONER SULLIVAN: I'd simply like to  
8 add a strong endorsement to the concept of counseling  
9 and mentoring because most of our discussion has been  
10 around improving institutions. That certainly is very  
11 important but we need to invest a lot more in the  
12 individuals including the culture, because in many low  
13 income communities that unemployment rate for Black  
14 males is more than 50 percent. So you have a  
15 situation where you have a population that doesn't  
16 believe in the system. It believes that there's  
17 nothing that they can do or the system is not going to  
18 help them.

19 That's obviously, something that needs to  
20 be addressed. That's a cultural issue and the  
21 mentoring and counseling can help that because we have  
22 to have a system that people do believe that it's  
23 worth their time and effort and invest in it and there  
24 will be a positive outcome as a result of that. So we  
25 certainly need to focus some resources on addressing  
26 that issue.

27 COMMISSIONER VEST: Yes, sir. David and

1 then Rich.

2 COMMISSIONER VEDDER: David is yielding to  
3 me because I think my hand was up first, but I'm not  
4 going to -- it's no big deal. I want -- actually Lou  
5 Sullivan said about two-thirds of what I wanted to  
6 say. I wanted first to endorse Governor Hunt's  
7 approach to it which is to have a goal, a specific  
8 goal. I don't know what the numbers are. I don't  
9 know that Governor Hunt knows what the numbers are,  
10 but if we have a 50 percent dropout rate or attrition  
11 rate, we ought to aim to reduce it to X, 30 percent,  
12 20 percent, I don't know.

13 The dirty little secret of higher  
14 education counseling is no one wants to do it. No one  
15 gets rewarded to do it. That's -- I'm overstating it  
16 a bit but as a semi-retired person, I spend most of my  
17 time counseling students because my pay is not --  
18 professional advancement, whatever little it was, has  
19 already passed, it not tied to counseling. But all my  
20 colleagues, the young ones, get articles written,  
21 they've got to make their name. They don't make their  
22 name sitting around talking to students. They don't  
23 get -- you know, the more you make in higher ed, the  
24 less you're teaching. I mean, the more you teach, the  
25 less you make, and this is another little fundamental  
26 problem that no one has addressed.

27 And the same is true with counseling. And

1 you've got to talk to kids. You've got to sit down  
2 with them and whether you do it through professional  
3 counselors or non-academics, I'm sure that's the way  
4 many of the community colleges do it, but we do it in  
5 a haphazard way and we provide no rewards and I just  
6 want to absolutely reinforce what Dr. Sullivan and  
7 Governor Hunt said.

8 COMMISSIONER WARD: This dialogue is a  
9 little unnerving to me. It's deja vu. In the very  
10 late '80s there was a very systematic reform movement  
11 in undergraduate education, particularly the first two  
12 years, actually driven by regional accreditation.  
13 Many of the indictments of higher education in  
14 America, you can read them, back in the late 1980s  
15 were the abuse, neglect and indifference to  
16 undergraduate instruction in many of our best  
17 institutions, well-documented, dropout rates, and the  
18 fact that some of the data on dropout rates indicated  
19 the best students were dropping out. Not just  
20 students were dropping out, they just didn't think  
21 they were wanted, a very wide range of different  
22 issues.

23 When you asked advisors where most of  
24 their input was in that time, there's good information  
25 on this, they said most of it was in the major, not in  
26 the freshman and sophomore year. And when you asked  
27 them what their job description, they said it was

1 damage control. That is, all the bad advising they  
2 received was put right later on.

3           There's a lot of discussion about foreign  
4 TA's, a lot of discussion about large classes, a lot  
5 of discussion about how to integrate research  
6 experiences for undergraduates. And there was just a  
7 host of stuff going on. And what is tragic is, it was  
8 a reform movement that sort of became a delta and  
9 died. And we're sort of now reviving it and I suppose  
10 this was the time when I was a passionate reformer of  
11 undergraduate education. So it is all worrying in  
12 that I think some of these ideas have been tried and  
13 the thing that goes back to my problem, and two things  
14 happened I think to destroy it.

15           One was institutions tried to make a  
16 competitive advantage of reforms that were really  
17 generic. So my institution is doing it this way and  
18 that's my product advantage, rather than the idea that  
19 there's a more systematic sense. The second thing is  
20 there was no system of scaling it up. This is why I  
21 think some of the technological efforts. Some very  
22 dramatic economies of scale were achieved in the late  
23 '80s through the very early use of technology but  
24 never got scaled up.

25           This may be a failure of leadership or of  
26 management but they were there.

27           And finally, of course, when we dealt with

1 some of the challenges of the downswing of the -- of  
2 that period around 1990, most states in the Midwest  
3 specified non-direct activities in the university were  
4 the ones that should be cut. Administration, that's  
5 okay, but they also wanted to cut anything that was  
6 not directly involved in delivery in the classroom and  
7 that sent the wrong message, too. I mean, I'm not  
8 sure that there may well have been aspects of advising  
9 that were wasteful, not everything. But I do want to  
10 stress that this particular dialogue we're having, the  
11 biggest success we had, by the way, in changing what  
12 happened at this time, was reforming how chemistry and  
13 mathematics, particularly calculus, was taught. That  
14 was the biggest single thing that we did, that the  
15 many people who came with very, very distinguished  
16 high school records got a C in calculus.

17 It wasn't getting an F. They got a C and  
18 that deprived them of going on in engineering or  
19 economics or other areas. So a lot of the things we  
20 might remember is there's a multi-factored solution to  
21 this. It's really about five or six best practices  
22 and what I hope is that we don't reinvent what, in  
23 fact, was a reform movement and let the same thing  
24 happen. This time we're going to make the surge  
25 actually have a systemic effect. It did not have a  
26 systemic effect 15 years ago.

27 COMMISSIONER VEST: Charles?

1                   CHAIRMAN MILLER:    I think part of the  
2                   problem in helping institutions make change as opposed  
3                   to directing it is focusing on the information and the  
4                   data and what's available.    When you don't have  
5                   individual data broken down by ethnicity or economic  
6                   or race and things like that and you're not putting it  
7                   in the accreditation system or in somehow some  
8                   accountability system or for the public to see it,  
9                   nothing gets done.    It's like the sound in the forest.

10                  There's no sound but you don't get changed behavior  
11                  when you don't analyze it and don't produce the data  
12                  and I think that's again, where something like a unit  
13                  record system and a system of accountability will  
14                  remeasure those things and publicize it.    That creates  
15                  change.

16                  And you can direct the change but the  
17                  policymakers and the people who run the institutions  
18                  can actually adjust the deficiencies and the public  
19                  can see it.    We hide from those things because we  
20                  don't have the right kind of data.    We force ourselves  
21                  to ignore it essentially.    I also have some doubts  
22                  about setting goals being effective in change.    I  
23                  mean, it feels good to do it and I know people do it,  
24                  but I've seen these kind of studies that something for  
25                  Goal 2000 on Education does a decade ago.    I don't  
26                  think anybody knows anything about whether we achieved  
27                  it or created the environment or the factors that

1 create the change the needed to set -- that needed to  
2 achieve the goals. I think we have to look for  
3 actionable items to get something in that direction  
4 and if we do that and combine it with goals, it would  
5 be okay, but setting the goals itself while it would  
6 be, you know, high integrity feelings, I think  
7 wouldn't achieve the change. I think it's more  
8 important to get the change creators in place than  
9 setting the goals.

10 Set the direction but specific goals and  
11 numbers and things like that, I don't think get the  
12 action needed. I think the thing we're looking for is  
13 action and I think, going back, like beating a dead  
14 horse on the transferability things, Nick, you were  
15 talking about Jonathan asked you to do, if we measure  
16 skills that are taught in institutions so that you can  
17 compare across any kind of institution, the skills  
18 being achieved, then you could argue transferability.

19 But if you just say, this piece of paper should be  
20 able to transfer to this institution, you're saying  
21 everybody should accept everybody else's quality and  
22 we have a tendency to dumb down and you have no  
23 ability to brand or get effective differentiation of  
24 what different institutions do.

25 On the other hand, if you do the right  
26 kind of testing of the right kind of skills, that  
27 begins to be a transferable effort or transferable

1 piece of paper and I think that's what we should aim  
2 for, that's the way to get transferability is to talk  
3 about skills that are achieved, not just certificates.

4 COMMISSIONER ZEMSKY: Chuck?

5 COMMISSIONER VEST: Bob?

6 COMMISSIONER ZEMSKY: Two observations,  
7 let me counter David's pessimism just a little bit.  
8 There is actually a class of institutions that for its  
9 own purposes is doing much better on retention. You  
10 can identify them as an institution that is accepting  
11 85 percent or more of its applicants. And who for  
12 whatever reasons, its income is dependent on the  
13 number of students actually enrolled. And they are  
14 figuring out in a variety of ways how to keep the  
15 students they have because they're really at the max  
16 of their admissibility kind of piece. So we might  
17 look at what -- and they tend to be comprehensive  
18 publics and less selective privates who are doing this  
19 and again, it's interesting. This is one example  
20 where the market really is forcing some good work for  
21 maybe selfish means.

22 The other observation I would make and if  
23 Jonathan can keep going back to transferability, I can  
24 keep going back to preparation. You know, and the  
25 data is just starting, the studies are just coming out  
26 but I think that it's beginning to be pretty clear  
27 that sustainability and higher education is also

1 predictable in terms of where you are in high school.

2 And I understand there's a high correlation between  
3 high schools, the demographics of the students and all  
4 of that but even when you control for that, inherently  
5 it's going to tell us that sustainability in higher  
6 education is something that is brought with the  
7 student rather than grafted onto the student. And we  
8 have to be careful that we don't believe that there is  
9 something colleges and universities can graft onto an  
10 18-year old who for her or his own purposes has  
11 already made other kinds of decisions.

12 I think this sustainability really is a K-  
13 12 issue in a most basic sense.

14 COMMISSIONER VEST: Kati?

15 COMMISSIONER HAYCOCK: Like some other of  
16 Bob's statements, that's a half-truth. The truth of  
17 the matter is that -- the truth of the matter is that  
18 preparation matters a lot. But if you look carefully  
19 at the data on colleges and universities around the  
20 country, well, that explains part of their success.  
21 It by no means explains all and at every level of  
22 selectivity, at every type of institutions, there are  
23 institutions that consistently year after year after  
24 year get larger numbers of their students through with  
25 a baccalaureate degree. So yes, it's part of the  
26 problem, Bob, it's an important part of the problem  
27 but it can't explain everything and what institutions

1 do matters big time and we need to be clear about  
2 that.

3 COMMISSIONER VEST: I think it's about  
4 time to go onto solutions and any last comment on  
5 this? Yes, Bob, excuse me.

6 COMMISSIONER MENDENHALL: I come at this  
7 from a different angle, although I like the angle  
8 you've taken on that. When I read increasing  
9 capacity, I thought we were really talking about  
10 increasing supply which we kind of covered to some  
11 extent yesterday and we -- you know, I think is an  
12 important part of what ought to be in our report. I  
13 don't think we have to do it again now. As you  
14 defined it, Chuck, which I think was helpful in terms  
15 of increasing effectiveness and efficiency or maybe to  
16 put it in other words, increasing quality --

17 COMMISSIONER VEST: And through put.

18 COMMISSIONER MENDENHALL: And through put  
19 of what we provided, if quality is -- has to do with  
20 through put as well, I think is a helpful distinction.

21 I kind of wanted to clarify that that's what we're  
22 talking about before we move on to recommendations.  
23 And if so, I think part of the problem statement ought  
24 to be that we say something about this national  
25 assessment of adult literacy and the decreasing  
26 scores, significantly decreasing scores of college  
27 graduates of those who hold baccalaureate degrees and

1 yet, you know, 15, 17, 20 percent barely have basic  
2 literacy in prose or document literacy.

3 I hope they're not graduates of our  
4 institution but I'm wondering who's graduating them.  
5 So let me just make that comment as we focus on  
6 increasing quality and look at recommendations that  
7 that ought to be one of the factors that we look at,  
8 not just through put but do they know anything when we  
9 get them through.

10 COMMISSIONER VEST: I don't know whether  
11 this is or isn't the right section to refer to that  
12 but it has to be in the report's stunning figure. And  
13 I do think of this when I use the word "educational  
14 effectiveness and efficiency" that does, in fact,  
15 transfer into quality plus through put if you want to  
16 use industrial sounding terminology. So I think we  
17 should take that under advisement. One last and then  
18 we have to move on.

19 DR. FALETRA: I don't know where this  
20 really fits, Chuck. Maybe you know better than I  
21 being involved so much in the high tech arena, but the  
22 Federal Government plays a huge role here in the many  
23 billions of dollars that it grants to colleges and  
24 universities. And NSF, although it is somewhat  
25 unpopular in the scientific community, when they  
26 instituted the broader impact. It had a great impact  
27 on how colleges went about including those students

1 that might not have been included in the system. And  
2 it effected the amount of mentoring and so forth. The  
3 LSAMP program that has over 200,000 students that  
4 moved into the Bridges program and this is a program  
5 that MIT really did well on, when they instituted the  
6 broader impact that was buried in their grants, that  
7 institutional money that came in that filtered out to  
8 the students was a serious, I think, push in helping  
9 this problem especially in the under-represented  
10 minorities. So I'd like to see here some sort of  
11 recommendation for the Federal Government's grant  
12 monies to include that broader impact somewhere.  
13 Shamefully like the DOE doesn't have that broader  
14 impact. So maybe if you had a recommendation in  
15 there, those granting institutions like the DOE that  
16 don't have that in there, might have that in there.

17 COMMISSIONER VEST: Not unpopular with me.

18 But if I could just paraphrase that, I think what  
19 you're talking about is the desirability of building  
20 into at least some of the major research funding to  
21 universities requirements on outreach, on  
22 undergraduate involvement, this kind of thing. Yes, I  
23 think that money has been very effectively used.

24 Jim, you know a lot about it. Maybe more  
25 than I. Okay, could we move on then to the solutions  
26 that were proposed by our colleagues? I believe there  
27 are six of them. So let's just start quickly walking

1 through this. This has been an interesting exercise  
2 because, of course, our issue statements and our  
3 solutions start to get all merged together but broaden  
4 flexibility to offer distance education programs for  
5 non-traditional students and workforce upgrading; I  
6 did not understand what flexibility really meant here.

7 I certainly hear a lot of consensus with the goal but  
8 can anybody clarify that or comment on it? Jim?

9 COMMISSIONER DUDERSTADT: I think Jonathan  
10 put an excellent example out yesterday, their Concord  
11 University for law schools, they can't get credit by  
12 the ABA because it's primarily distance learning and  
13 that is not based upon quality of the --

14 COMMISSIONER VEST: I understand.

15 COMMISSIONER DUDERSTADT: It's based upon  
16 trying -- of conventional law schools trying to  
17 protect this market.

18 COMMISSIONER VEST: So this is about  
19 removing barriers to effective use of distance  
20 education. So when we get into the editing, we can  
21 pick that up. Other comments on this? Governor?

22 GOVERNOR HUNT: Why do you say non-  
23 traditional students? Why don't we say students?

24 COMMISSIONER DUDERSTADT: I like that.

25 COMMISSIONER VEST: I like that.

26 COMMISSIONER DUDERSTADT: Yes, that's  
27 good.



1 an answer, okay? Education is about the same size of  
2 an economic sector as health care in this country,  
3 okay? To provide the knowledge base to drive  
4 innovation and quality in health care, we invest about  
5 \$30 billion a year in federal funds in R&D. Okay?  
6 How much do we invest in stimulating new learning  
7 paradigms and so forth in education, a few hundred  
8 million and in fact, right today there are efforts  
9 even to cut that by cutting the education human  
10 resources, director of NSF and by cutting the social  
11 sciences in NSF which provides much of the knowledge  
12 base that will drive this kind of thing. We simply  
13 have to invest far more in R&D, in how learning  
14 happens, in how institutions -- learning institutions  
15 are structured. If we believe that education is  
16 important to health care funding R&D at less than one  
17 percent of the level in education that we do in health  
18 care is just crazy. That has to be --

19 COMMISSIONER VEST: I think the figure was  
20 that it's essentially less than a tenth of a percent -  
21 -

22 COMMISSIONER DUDERSTADT: That's right.

23 COMMISSIONER VEST: -- of what we spend in  
24 our quote "industry".

25 COMMISSIONER DUDERSTADT: I agree with  
26 that.

27 COMMISSIONER VEST: And I think this would

1 be a good place to put this. I worked that a little  
2 bit into the rhetoric of the problem statement but I  
3 think this is the right place in the report for a  
4 strong statement on what I'd like to call serious  
5 research on teaching and learning and its use. Bob?

6 COMMISSIONER ZEMSKY: I'll remind Jim, you  
7 told us yesterday that we know more about new research  
8 knowledge on the brain and how it works and how none  
9 of it's being used. So this is a two-part issue.  
10 This is if we do the research, do we have any reason  
11 to believe it will actually change what is going on?

12 CHAIRMAN MILLER: If we measure the  
13 results of the students you probably would.

14 COMMISSIONER DUDERSTADT: Well, if you  
15 measure the results, and if beyond that you realize  
16 the figuring out how the synopsis in the brain works  
17 is one thing, but understanding how systems work, you  
18 know, the social sciences component --

19 COMMISSIONER ZEMSKY: The knowledge --  
20 we're talking about an enterprise that in some very  
21 fundamental ways doesn't pay attention to what you're  
22 talking about. And all I'm suggesting is that this is  
23 the male/female plug issue. You can't just build this  
24 piece, you've got to get the receptacle to want to  
25 take it in and I'm talking about electricity, let's be  
26 clear about that.

27 (Laughter)

1                   COMMISSIONER ZEMSKY:   And I think we do.  
2                   I mean, we've sort of wandered into this discussion a  
3                   little bit yesterday because I was too loose with the  
4                   tongue about the guild and I don't want to make that  
5                   the language.   But somewhere somebody has to say out  
6                   loud this is an enterprise that doesn't listen very  
7                   well to a lot of things that are being said regularly.

8                   And part of the problem is, is that every faculty  
9                   member really is an individual contractor or in most  
10                  cases an individual contractor.

11                  CHAIRMAN MILLER:   And other parties, I'll  
12                  say it again, we don't have incentives or  
13                  encouragement for teaching and learning.   We've heard  
14                  that over and over.   We're spending less time on it  
15                  and we are rewarded less.   So we have to find a way to  
16                  emphasize it.   And one of the ways you do is measure  
17                  the results that the students have.   So it's like  
18                  beating a dead horse, but that does have an incentive  
19                  effect.   But the quality of research can apply K  
20                  through 12 by the way, so it's not even directed only  
21                  at the higher ed system.   It really is on the whole  
22                  system.

23                  It also may lead other people to innovate  
24                  ways on how we deliver the system, might teach  
25                  different people other ways to deliver it.

26                  COMMISSIONER DUDERSTADT:   And you have  
27                  some other smart people right now to pay attention to

1 learning in institutions in a way they are not.

2 COMMISSIONER VEST: Before calling on  
3 Rich, I'd like to express or change a little optimism  
4 on this particular point. Academics get excited about  
5 what's at the cutting edge and I will tell you the  
6 cutting edge today in science is brain research. And  
7 we've had massive investments in starting this. It's  
8 been one of the things I've been most proud of at MIT,  
9 and the faculty who are coming into this area, not all  
10 of them but many of them, are actually driven not just  
11 by scientific discovery but by a real desire to  
12 improve learning and communication. And I think that  
13 we get some of those people to step forward, the ones  
14 we all look up to, and talk about the application of  
15 this into education, I think we could build some  
16 momentum very quickly. Rich?

17 COMMISSIONER VEDDER: Yes, I want to agree  
18 -- first, I want to agree with Charles as I always do  
19 or almost always do. I found it's wise to agree with  
20 Charles around here. But in the sense that data,  
21 information can drive human behavior a lot and I think  
22 it's part of the answer, but I also agree with Bob  
23 Zemsky and I'm not as turned off by the guild analogy  
24 as some of the others in this room in that the  
25 incentive system at the individual micro level to  
26 perform and to innovate is very, very low and Bob  
27 Mendenhall got at this. He says, "I don't know how to

1 make this actionable". I repeat something I said  
2 yesterday. Everyone laughed but I was deadly serious  
3 about stock options.

4 I don't really mean stock options for  
5 higher ed, although it does work at the IBM, Boeing  
6 level, I bet, and Rick is nodding his head. Why don't  
7 we have managers, innovators, department chairs, maybe  
8 even at the level of the individual professor, why  
9 don't we give them rewards, extra rewards, extra  
10 compensation, extra incentives to do things different  
11 and better? And this is quality adjusted improvements  
12 in learning at a reasonable cost. And Charles says,  
13 you've got to need the information to do it. I agree  
14 that's part of it, but part of it is even if you have  
15 the information and even if we have all this marvelous  
16 brain research information, I am a professor who loves  
17 to teach, get up in front of 30 students and teach.

18 No one tells me I have to do it different.  
19 I get paid the same whether I do it that way or some  
20 other way. And maybe they're not learning, maybe they  
21 are. I've got tenure, what the heck. I don't care.  
22 I don't want to change. Someone ought to force me to  
23 change and you do it with incentives and financial  
24 incentives are part of the picture. And maybe we need  
25 an innovation fund, a fund for education innovation  
26 that includes research like Jim Duderstadt is talking  
27 about. He's absolutely right. I don't disagree but

1 also has at the level of action, at the level of the  
2 participants in higher ed, some incentives at least we  
3 ought to experiment with this kind of approach to see  
4 if we can change the culture of higher ed a little bit  
5 to make it more efficiency oriented.

6 CHAIRMAN MILLER: What would be the  
7 downside consequence of not performing? In other  
8 words, do people get the options also have serious  
9 consequences when they under-perform?

10 COMMISSIONER VEDDER: There's going to be  
11 all sorts of -- the yelling and screaming at higher  
12 ed. Anything you do is going to be tremendous and  
13 incidentally, areas where you have collective  
14 bargaining, it becomes a real -- that's going to be a  
15 real thrill trying to negotiate that contract. But  
16 it's an idea you ought at least be thinking about.

17 COMMISSIONER VEST: Nick?

18 COMMISSIONER DONOFRIO: I agree with that,  
19 too, Rich. You may have talked about this. I was out  
20 of the room for a few moments, but I caught the brain  
21 research part of the discussion, but I hope we haven't  
22 forgotten that wonderful presentation we heard from  
23 the professor at CMU about the way they're literally  
24 changing the way they teach and they're building  
25 courses and course material that's almost correct by  
26 construction or self-correcting by construction and I  
27 think that's an incredibly important piece of

1 technology and innovative thought and it has to be  
2 part of our thinking here because, I mean, it's got to  
3 be different in the 21<sup>st</sup> century and all we do is what  
4 we've been doing, honestly, we're going to get the  
5 same results.

6 And something along those lines, now,  
7 maybe that's what you mean, I don't know, but could we  
8 make sure that we keep it I won't say pedestrian,  
9 could we keep it at the student level? Could we make  
10 sure that whatever we're talking about actually  
11 improves the way we're teaching and measuring that  
12 they are learning?

13 COMMISSIONER VEST: It's a spectrum and I  
14 agree. You know, Rich, what I tried to say yesterday  
15 was that I don't think the incentive necessarily needs  
16 to be in the paycheck for the person who does this and  
17 certainly not in the paycheck of the administrator who  
18 oversees it. What we've found at MIT and I know a lot  
19 of other universities are doing this, is we created a  
20 fund for innovation in education and the faculty and  
21 the students write proposals to it and we fund them.  
22 And I'll tell you, there is a thirst out there among  
23 faculty for resources with which to innovate. I think  
24 that's even more important than rewarding them in non-  
25 professional ways. Peter?

26 DR. FALETRA: Yes, I'd like to go back to  
27 that incentive that the Federal Government could play

1 because if, for instance, Carnegie-Mellon University,  
2 who did that on an NSF grant, they created that  
3 cognitive tutor on an NSF grant, if universities could  
4 somehow use their federal funding in some way, and  
5 maybe a really innovative thing is to spend their  
6 overhead monies into a fund like that, if you could  
7 encourage that sort of stuff, to develop those things  
8 like cognitive.

9 The sad thing about cognitive tutor is  
10 that it isn't used that widely and it is extremely  
11 successful. It's another example of those things that  
12 we know that have come out of cognitive research that  
13 are just not being used.

14 COMMISSIONER VEST: Absolutely. So I  
15 think finding some way -- I forget who was using the  
16 phrase earlier, to scale, propagate what we already  
17 know, is really important at the same time we're  
18 driving the high end. David and then Chairman Miller.

19 COMMISSIONER WARD: Again, I keep coming  
20 back to my observation that we have much innovation.  
21 I mean, you and I know individuals who are on the  
22 running edge of reforming teaching and learning. And  
23 they exist and people doing research on it. The real  
24 challenge is, I don't know whether it would scale, I  
25 may not be communicating how you scale it, how you  
26 create an institutional change and motivation. I  
27 think what Bob was getting at is are people listening

1 in a more collective sense, in a larger sense of  
2 changing the large scale and that, to me, is the step.

3 I think we've got -- you know, our culture  
4 is very innovative at the individual level. I mean, I  
5 think the thing that I most reflected as a faculty  
6 member was the degree of freedom I was given to do  
7 what I wanted, which my institution had not always  
8 been desirable, but I was able to do almost what I  
9 wanted, never felt any infringement on experimentation  
10 as well as others of my colleagues who may have felt  
11 no pressure to change at all. I mean, there were both  
12 a positive and negative to that.

13 But the hardest thing to do, I think, and  
14 I think Bob Zemsky has observed this, is how do you --  
15 how do we have an alternative model that maybe we need  
16 a box, the Governor was talking about. Who has taken  
17 this to a new scale with data and actually got some  
18 conclusions on it? I think that's the step we need,  
19 not just the money, the capital to see the innovation,  
20 because I think that's easy and it's been going on for  
21 a long time.

22 Is how we take the findings of the  
23 innovation and either scale them even on an  
24 institutional basis. That's --

25 CHAIRMAN MILLER: Organizational  
26 limitations are part of it.

27 COMMISSIONER WARD: Right.

1                   CHAIRMAN MILLER:  If the credential to get  
2                   into the classroom has very little to do with whether  
3                   you can teach or whether learning goes on, you have a  
4                   PhD in Abyssinian archeology and that let's you get  
5                   into the classroom, it has nothing to do with the  
6                   ability to teach.  So the problem starts with the fact  
7                   that you're putting people in that have no training,  
8                   knowledge or interest in teaching, I mean, emotional  
9                   interest but they have no real training.  The training  
10                  is for something else.

11                  COMMISSIONER WARD:  But I still believe  
12                  there have been a lot of experiments in taking PhDs  
13                  and giving them better padiological training and it's  
14                  still unclear there --

15                  CHAIRMAN MILLER:  Could you skip the PhD?

16                  COMMISSIONER WARD:           Well,  in  some  
17                  institutions, yes, sure.

18                  CHAIRMAN MILLER:  I know that but that's  
19                  really the innovation and I mean, the break of the  
20                  chain of the way we do it.

21                  COMMISSIONER ZEMSKY:  David did point a  
22                  little bit away around this is that remember Carol  
23                  Twigg's proposal.  If you wanted a box, you could take  
24                  a box out of Carol Twigg's -- it wasn't a proposal, it  
25                  was reported what she was doing.  That's a good  
26                  example where you know, if you take her at her word,  
27                  she's seen real institutional change in some of those

1 basic courses using technology. So that might -- that  
2 is an example of what the Governor is talking about it  
3 seems to me.

4 COMMISSIONER VEST: Governor?

5 GOVERNOR HUNT: I want to suggest two or  
6 three things in terms of the overall efficiency of  
7 higher education and education beyond high school.  
8 First of all, one of the most promising things, I  
9 believe is students taking college courses while  
10 they're in high school, the AP courses that we've had  
11 some discussion about and early college. I want to  
12 tell you, I went out to one of our hospitals in  
13 Raleigh last week and the administrator who was  
14 getting the award as the outstanding hospital  
15 administrator for the state, told me about a new early  
16 college that's going to be on the hospital campus and  
17 by the way, all of the health courses for the  
18 community college are there, too.

19 And 400 students are going to be coming  
20 in, in the ninth grade and in five years they're going  
21 to have a two-year degree in college. Now, that's the  
22 kind of efficiency we ought to be promoting, isn't it,  
23 in addition to the fact that those students are going  
24 to be interested -- I mean, that's going to be a more  
25 interesting setting I bet you and they're going to  
26 work harder and be more engaged in it. So I think we  
27 really ought to touch on this and I would hope urge

1 this, more college courses in high school.

2 Second, I think we ought to speak to the  
3 issue of using college resources or campuses more  
4 efficiently. Why aren't we having courses being  
5 taught in the evening and on weekend and why aren't we  
6 using these resources in the summer? Now, you know, I  
7 don't know how we make that happen, but they're  
8 sitting there. Maybe the community college could be  
9 using them or the high schools could be using them.  
10 We need to be more efficient in using these resources  
11 that the taxpayer paid for.

12 What about the matter of getting a four-  
13 year degree in four years? What does it take now,  
14 five and a half years on the average?

15 COMMISSIONER DUDERSTADT: I thought you  
16 were going to say three years. That's where I was  
17 hoping you were going.

18 GOVERNOR HUNT: Well, that's fine, Jim.

19 CHAIRMAN MILLER: Counting the high school  
20 year he's talking about, maybe it would be three  
21 years.

22 GOVERNOR HUNT: But seriously, why aren't  
23 we doing that?

24 COMMISSIONER DUDERSTADT: I'm serious  
25 about three years.

26 GOVERNOR HUNT: I don't know how you do  
27 it, but surely we're smart enough to figure it out. I

1 bet every one of us around this table got a four-year  
2 degree in four years and that's going -- you know  
3 what's happening to it. And then of course, the last  
4 thing I would suggest and I doubt this would get much  
5 support, I'd like to have the US Secretary of  
6 Education publicly report the dropout rate in every  
7 college every year. In other words, the colleges  
8 would have to get it to her and she reports it.

9 Now, look at what the governors are doing  
10 now. They're focusing on the dropout rate in high  
11 schools. We're going to develop a common way to  
12 define that and to report it, and it's going to  
13 happen. The American people are going to know what it  
14 is. I think we ought to have a publicly reported  
15 dropout rate for you know, for full time students. We  
16 can't do this very effectively in community colleges,  
17 but with two year, you know, folks coming and going.  
18 But you can in four years -- for four-year programs  
19 for full time students.

20 COMMISSIONER VEST: Could we scroll back  
21 down a little bit so everybody can see these -- right,  
22 that's good, that's fine. We've sort of talked into  
23 some of these but let me just quickly read through  
24 these last bullet points to be sure they get some  
25 discussion in our remaining 15 minutes. Provide  
26 incentive grants to institutions that develop  
27 unusually effective records of reducing growth and

1 quality adjusted cost for student including direct  
2 bonus payments to educational leaders responsible for  
3 improvements, short private sector rewards, we've  
4 talked a bit about that.

5 Then these last two, I think we've talked  
6 less about, develop alternative ways of rating  
7 university performance from the input driven measures  
8 currently used. New performance metrics which  
9 incorporate costs, student performance, vocational  
10 success data in assessment rather than inputs. This  
11 approach may be done by the Department of Education,  
12 by private vendors or in some partnership arrangement.

13 The last bullet, create incentives for post-secondary  
14 institutions to regularly collect and use information  
15 about student experience that research shows is linked  
16 to high levels of learning, personal development,  
17 persistence and student success.

18 We've talked a bit about both of these,  
19 but I'd just like folks to focus in on these for our  
20 last 10 minutes. Charlene?

21 COMMISSIONER NUNLEY: I just want to say  
22 that if we have a box on teaching and learning in our  
23 report, I'll be really disappointed if it doesn't  
24 focus on community colleges, which are the  
25 institutions that truly have teaching as the  
26 centerpiece of focus and I think that on the  
27 incentives, collect and use information about student

1 experience, I think that there is some really  
2 promising stuff going on with the achieving the dream  
3 colleges that are being funded by Lumina to really  
4 focus on improving student progression through higher  
5 education and to use a data based approach to achieve  
6 that end, so that I just would hope that -- you know,  
7 again, we tend to have this pecking order in higher  
8 education where, you know, the community colleges are  
9 always on the bottom of the boat. And I think when it  
10 comes to having people in our institutions that are  
11 committed to teaching and learning, that's the job  
12 that most community college faculty are fulfilling and  
13 I'd just like to make sure that we have some kind of a  
14 focus along those lines in the group work.

15 CHAIRMAN MILLER: I think it's more like  
16 the tide that lifts all our boats, so we can shift  
17 that about community colleges. You're lifting the  
18 rest of us, but how would you measure teaching -- how  
19 would you measure learning in community colleges if  
20 you're going to talk about it? In other words, I know  
21 that's what you focus on by how do we learn what's the  
22 result?

23 COMMISSIONER NUNLEY: Well, I've actually  
24 visited a college recently that used the CLA very  
25 effectively, Charles, in a community college to  
26 measure general education outcomes for students and is  
27 using that for progressions but there also is what's

1 called the learning college focus going on in a lot of  
2 community colleges where faculty are really working in  
3 individual classrooms to express the outcomes they're  
4 trying to achieve and measure whether students are  
5 learning what those outcome measures suggest. And so  
6 I just think there are models out there that are  
7 relevant in America's community colleges that can come  
8 into this discussion and be very helpful in shaping  
9 some of our thinking and I would hope that we would  
10 look carefully at some of that if we want to focus on  
11 some things that are being done well.

12 CHAIRMAN MILLER: If we could follow those  
13 students, which we can't today, follow where they go  
14 in the rest of their educational experience and in the  
15 workforce, and over a long period of time,  
16 longitudinal data, we would have the right kind of  
17 information to effect the whole system. And without  
18 that data, it's 45 or 50 percent of the system now and  
19 it's growing exponentially, we won't be able to make  
20 the right policy decisions. We don't have enough  
21 information today to do that without that data.

22 COMMISSIONER NUNLEY: I agree 100 percent.

23 COMMISSIONER VEST: Jim?

24 COMMISSIONER DUDERSTADT: I was just going  
25 to say, I think those last two items fit very well  
26 with the discussion we had yesterday on assessment and  
27 I think many of those issues really would be covered

1 by our more, you know, uniform assessment that really  
2 focuses on value added.

3 COMMISSIONER VEST: Lou?

4 COMMISSIONER SULLIVAN: On this issue, it  
5 seems to me that among the problems we have is the  
6 process that's driven by US News and World Report  
7 where universities and various professional schools  
8 are more concerned about their quote "rankings" by  
9 that accreditation body than they are by others, and I  
10 think part of this is aggravated by the fact that many  
11 universities judge themselves on the size of their  
12 research portfolio. And as many of us already said  
13 earlier, the rewards and recognition for teaching are  
14 very few, if any.

15 So it seems to me as part of this, we need  
16 to recommend a way to recognize colleges and  
17 universities on the basis of the effectiveness of  
18 their teaching environment and their student  
19 performance because I can tell you as many of you, I'm  
20 sure, can also that there are many quote "high  
21 ranking" institutions where teaching is virtually  
22 neglected because of the emphasis that is given on  
23 research portfolios of those institutions and the  
24 faculty. The faculty is so often rewarded for their  
25 research capabilities rather than their teaching  
26 skills.

27 So I think this needs more than just a

1 passing statement, we need to find a way that  
2 universities actually are recognized for their  
3 effectiveness of teaching because as already been  
4 said, we need money in the system but also in the  
5 educational environment people are there because they  
6 want to do a good job and part of that is being  
7 recognized for the job that they do.

8 COMMISSIONER VEST: Thank you. Nick?

9 COMMISSIONER DONOFRIO: Yes. This is a  
10 little off those topics, but I'm sitting here thinking  
11 about what you said, efficiency, effectiveness, and as  
12 I think about that in an industrial context, it always  
13 comes back to cost. And we've not talked about cost.  
14 And isn't -- are we remiss in not trying to do  
15 something a little more profound with the issue of  
16 cost?

17 Now, I assume it's the cost that's in the  
18 institution that drives the cost of tuition. I mean,  
19 I'm making that assumption that these are actually  
20 cause and effect related and it just seems to me that  
21 we, as a Commission, have got to say something about  
22 this or attempt to do something about this. This is  
23 probably the only place, I think, were we've actually  
24 been close to talking about the issue of cost. No,  
25 does that not make sense?

26 CHAIRMAN MILLER: Well, we've had it in  
27 some of the issue papers and we've had it in and out

1 but I agree with that totally. What I said yesterday  
2 in talking about accountability. We've had a hard  
3 time getting our hands around the financial model,  
4 although we know it's in some forms dysfunctional,  
5 it's a top line or revenue driven model with virtually  
6 no measure of the bottom line, so something about the  
7 accountability system needs to address the results.  
8 We can't see outcome differentials when we do certain  
9 policies. We have a hard time measuring what the  
10 results are.

11 So when we try different models we need  
12 the outcomes measured. That's one of the  
13 difficulties.

14 COMMISSIONER DONOFRIO: So Bob, I don't  
15 have a good answer, but I know in industry, in  
16 business, we couldn't live this way. I mean, we  
17 couldn't live without a really great understanding of  
18 that relationship, that cost, price, efficiency,  
19 effectiveness relationship. I mean, so --

20 COMMISSIONER DUDERSTADT: I think, Nick,  
21 part of the problem is you've just said it, is the  
22 relationship between cost, price and value, okay, is  
23 very disguised. On the average, only one-third of  
24 college costs in a public university are covered by  
25 tuition. When financial aid is taken into account,  
26 the average student pays only 45 percent of that.

27 Okay, so these massive subsidies that flow

1 around kind of disguise what the real costs are and I  
2 think -- you know, that's why I want to add to  
3 Charles' assessment of learning outcomes, somehow,  
4 whether we use bond ratings or whatever, we've got to  
5 get a better handle on public understanding of costs  
6 on an institution-by-institution basis.

7 COMMISSIONER DONOFRIO: Okay, I definitely  
8 agree with that. I mean, I was going to bring up in  
9 our open session this whole issue of philanthropy as  
10 well. I mean, I know that's used in many institutions  
11 to close the equation to your point, Jim. So we do a  
12 poor job of helping people actually understand the  
13 cost structure versus the price versus the value and  
14 then you end up in a situation where it's just -- it's  
15 always untenable and it's always rising.

16 COMMISSIONER VEST: Cost is clearly a  
17 fundamental issue, Nick. This is kind of my personal  
18 take. Those of us who are in academic administration  
19 or were in my case, especially private but today even  
20 more in public, what we have to do is balance a number  
21 of things. We have to balance cost, quality and  
22 mission and that's how we earn our keep is trying to  
23 figure out how the heck to do that mix.

24 And the problem we always get into is if  
25 we look at cost only in one dimension, we run into a  
26 brick wall. So we have to open up the multiplicity  
27 of missions we have if we're really going to

1 understand it. And yes, indeed, in both the public  
2 and private research university world, private  
3 philanthropy and, as a matter of fact, industry money  
4 for education as well as research, becoming a major,  
5 major part of the mix. I've actually done a little  
6 writing on this, we can talk, but costs we've got to  
7 get at. Rich?

8 COMMISSIONER VEDDER: I actually wrote a  
9 book on this which you've got, at no cost, I might  
10 add. One of the few fringe benefits of being on this  
11 Commission. It's a very small fringe benefit.

12 (Laughter)

13 COMMISSIONER VEDDER: But Nick is hitting  
14 at a fundamental point and that is the word "cost"  
15 gets kind of thrown aside and pushed aside and part of  
16 the reason is because of these measurement metric  
17 issues which Charles -- if Charles has a broken  
18 record, that's his broken record and he's absolutely  
19 right. By conventional ways of measuring, the cost  
20 per student or the expenditures per student, and I'm  
21 not just talking tuition. I'm talking the whole ball  
22 of wax per student in American higher ed, inflation  
23 adjusted, by the way, we can have an interesting  
24 discussion on the inflation and adjustment, which we  
25 won't right now, those costs are rising over time.

26 Now is the output rising, is the quality  
27 rising over time? Who knows? Going to Bob's point,

1 the adult literacy survey, if it has any validity at  
2 all would say it's declining over time. Now, I'm not  
3 saying that's right, but if you believe that as sort  
4 of a proxy for learning, you have on the one hand  
5 rising costs, on the other hand declining quality and  
6 you have a huge fall in productivity. And IBM would  
7 be out of existence in 18 months to two year. I don't  
8 know how much cash is in the bank. It would be like  
9 the airlines, you'd be going the way of the airlines  
10 and if you operated on a university model.

11 So how can you take some aspects of the  
12 private sector model and incorporate them into the  
13 quite different kind of culture that is higher ed. I  
14 don't know the answer to it, but I do think and this  
15 is the third time I've said it so I guess this is my  
16 broken record, you do have to look at incentives,  
17 making it more market oriented. The for profits have  
18 -- no one has mentioned the for profit schools in this  
19 whole two-day thing. It's very peripherally. There  
20 are great lessons to look at productivity in the for  
21 profits relative to the not for profits. Why aren't  
22 we looking at that?

23 We should at least look at it. I mean,  
24 I'm not saying the University of Phoenix is the end of  
25 the world, but at least it deserves a little  
26 attention.

27 COMMISSIONER VEST: Governor?

1                   GOVERNOR HUNT: I wanted to yield to Rick  
2 first because he's right on this one, right now. Then  
3 I'd like to have the floor.

4                   COMMISSIONER STEPHENS: Thank you,  
5 Governor. Following up on Rich's comment, again,  
6 going to the Department of Education data, there's an  
7 awful lot out there on cost particularly with regard  
8 to number of students for -- or per faculty. And it  
9 was interesting last night again, looking at the data,  
10 the for profits have a much better ratio, much more  
11 cost effective than the other institutions and I think  
12 it's a model to go look at, how do they achieve it.

13                   That said, clearly there are issues on the  
14 other side, particular with regard to research  
15 institutions that have a different level, but I think  
16 giving that data out in a way we can look at it, will  
17 go a long ways towards us understanding a better cost  
18 model going forward.

19                   COMMISSIONER VEST: I have a mixed  
20 mission.

21                   COMMISSIONER STEPHENS: No doubt about it.

22                   GOVERNOR HUNT: Mr. Chairman, let me just  
23 say I really think that it is important for our  
24 credibility to have a strong section in this report on  
25 what I like to call cost efficiency. Now, you know  
26 that I think we ought to put more money into financial  
27 aid for poor students. I hope we'll say that. But we

1 ought to say also we can make this system more  
2 efficient. System-wide, if more students go to  
3 college with one year already worked off in AP and  
4 what have you, that's going to make the system more  
5 efficient. We ought to be looking for all the ways we  
6 can do that.

7 But I want to tell you, institutions of  
8 higher learning can also be more efficient, especially  
9 four-year. And we've had a lot of head shaking on  
10 that but doggone it, we ought to urge that. We ought  
11 to give examples of how that can be done. I know of  
12 one state where a number of years ago, a top business  
13 person went in to head the university. And everybody  
14 said, "Well, you know, he's been so successful in  
15 business, a billionaire, he's going to really make  
16 this place efficient". All he did was listen to the  
17 faculty and everybody else. To my knowledge, he never  
18 recommended one single thing to make it more  
19 efficient.

20 He just went to the legislature for more  
21 money. I believe that happens all over the country  
22 most of the time and that's wrong. And we'll be wrong  
23 if we don't give some good strong powerful  
24 recommendations about how to make higher education and  
25 institutions of higher education more cost efficient.

26 COMMISSIONER VEST: You know, Governor, I  
27 want to say that I think universities in general are

1 at least a decade behind private industry in this  
2 regard despite my joshing with Rick, but there's a  
3 little bit of the same flavor on what we know about  
4 innovation and teaching and learning. There's a lot  
5 that's out there that's been done in bits and pieces  
6 in different institutions that really needs to be  
7 pulled together and again, to use David's phrase,  
8 scaled and propagated. I mean, believe me, we do have  
9 a bottom line, you may not believe it, and we've done  
10 at my institution a lot of process re-engineering, we  
11 installed SAP, painful as heck. We had your CFO come  
12 in and advise us, Jerry York, no less. And we made a  
13 dent, I won't say we turned the world up side down,  
14 but we learned some things. Other institutions have  
15 learned things. You know, before we start from  
16 scratch, we ought to at least teach each other what  
17 we've already learned to do. Yes, Bob?

18 COMMISSIONER ZEMSKY: Two observations;  
19 one is we're dealing with a market that doesn't reward  
20 efficiency. And one of the other things, we don't  
21 mention cost, we don't mention -- and this is actually  
22 what creates the chart that Jon got us to look at  
23 yesterday. The upper end of this market is being  
24 driven by the upper end of the market and they are  
25 shopping up. You know, there's actually no incentive  
26 for an institution to lower its price. I know that  
27 sounds absurd, but there isn't.

1           And so absent that, in fact, there's all  
2 the incentive and here I'll give Richard Vedder his  
3 climbing wall, there's all the incentive to take, move  
4 it up, build a climbing wall so you can move it up  
5 again. So until we get Charles' data out there, and  
6 we actually create a consumer movement that says, "I  
7 can get the same quality for less money", we're not  
8 going to have the environment that you're talking  
9 about, first observation.

10           Second observation is this is about a  
11 production function that doesn't look at all like  
12 yours and I'm not talking about academics. This is a  
13 production function that looks like a law firm. You  
14 could say the same thing about law firms. Arthur has  
15 arrived. They're not big things for efficiencies  
16 there either except in the process engineering but  
17 since everybody wants to do their own thing as best as  
18 possible, get high reward and the real difference  
19 between the for profit and the not for profit  
20 education is in the for profit, those are really  
21 employees. And in the not for profit, they are really  
22 independent. And so that it's very hard.

23           So if you look at really what's happened  
24 in higher education, you get the kind of efficiencies  
25 that Chuck is talking about on the administrative side  
26 and you get some efficiencies on the production side,  
27 but very, very little actually. And what most people

1 who run universities have figured out painfully is,  
2 it's actually easier to raise a little bit more money  
3 than to try to eliminate a department, because  
4 eliminating a department is going to cost you 10 years  
5 of your life and raising a little bit more money  
6 doesn't.

7           And so when we make these sort of  
8 statements about that we ought to lower the cost, I  
9 always ask, who the heck is the "they" or the "we" in  
10 that statement. And if you get Charles' data out  
11 there, you get a public that pays attention, and you  
12 touch tenure, Charles, I'll even give you that one,  
13 you would do it, but short of that, I don't see any  
14 great lowering of what you call the cost, which is  
15 what we spend.

16           COMMISSIONER VEST: I'm going to call on  
17 Jim and we're out of time. Then the Chairman will  
18 finish this section and we'll move to the next.

19           COMMISSIONER DUDERSTADT: Reinforcing a  
20 fee has been brought up several times. Higher  
21 education is not a manufacturing, it's a knowledge  
22 service and as you've pointed out many times, we are  
23 not yet to the point in understanding knowledge  
24 service business to have the same impact on efficiency  
25 and productivity than we've had with manufacturing  
26 just in time, but we've got to do that. So in a  
27 sense, the universities are arm in arm with IBM and

1 many other companies that are now knowledge services  
2 business and we've just got to learn together how to  
3 get this new business under control to get these costs  
4 down.

5 COMMISSIONER VEST: Well, put, Charles?

6 CHAIRMAN MILLER: I'll just make my own  
7 comments and make a plea to the Commission on this  
8 subject. I thought it was very, very helpful to do  
9 that sub-title and add this kind of discussion to the  
10 capacity. I thought that was a really good -- the  
11 productivity and efficiency side is on all our minds.

12 We've had a hard time with that. At the beginning  
13 yesterday I said we've spent \$17,000.00 per capita on  
14 higher education in this country compared to the OECD  
15 industrial average of 7,000 plus a little change and  
16 60 percent more than the next competitors, maybe  
17 serious competitor.

18 Finland may be an outlier, I'm not sure  
19 about that. That shows we're putting a lot of  
20 resources in it. It doesn't mean we shouldn't put  
21 more and we should do better than the rest of the  
22 world and we're rich enough to do it. But there is  
23 not a clear argument that we need a lot more unless we  
24 fix the current system again. And I said something in  
25 an earlier meeting. Private industry has done  
26 something really remarkable, flattening the  
27 hierarchies. That's really what we've done things to

1 squeeze out the middle parts of it, because the  
2 information systems are so much better and we operate  
3 more productively. And higher ed in the last 30 years  
4 has done just the opposite. It's fattening hierarchy.

5 So I use that cute phrase to make a really  
6 critical point. That's the big change in the model.  
7 They've gone 180 degrees the opposite way. So what  
8 we're doing in one place is opposite what we think is  
9 productive in the other place, and we ought to look at  
10 that.

11 So I'd like to make a plea that if there's  
12 some specific ideas some of you can bring to the table  
13 as we write this report, maybe we haven't covered it  
14 enough, give us some paragraphs or two or give us a  
15 page or give us one theme or something as we start  
16 doing some drafting to put this together and not wait  
17 for another discussion like this but get something in  
18 hand that would be very helpful on this topic  
19 especially.

20 COMMISSIONER VEDDER: To you, sent to you?

21 CHAIRMAN MILLER: Well, Cheryl is the  
22 focal point. We'll distribute it fairly widely.  
23 Thank you very much.

24 (Applause)

25 COMMISSIONER DONOFRIO: Now the fun  
26 begins. I'm with you for the next two topics. We're  
27 going to talk about innovation as the first topic and

1 then we'll deal with the issue of new ideas and gaps  
2 in the second part of this. So you have the same  
3 material I have to start with. I put together this  
4 problem statement. I actually put it together, I  
5 think, in the spirit that Secretary Spellings talked  
6 with us about yesterday. It's a bit more of a wake-up  
7 call than maybe what we've been dealing with over the  
8 past few hours or few days here and I am kind of  
9 trying to take the long view on this not just the  
10 short view on this.

11 So the problem statement kind of speaks  
12 for itself. And it does kind of cull itself out of  
13 the information that we were all given. So let me  
14 just read it and then we'll get on with your opinions  
15 and thoughts and interactions here. "American as an  
16 innovation engine is being challenged as never before.

17 Countries such as China, India, Brazil, Russia,  
18 Finland", I didn't know that you were going to be in  
19 the Scandinavian countries earlier, Chuck, "Israel and  
20 South Korea are closing the innovation gap. At the  
21 same time half of America's science and engineering  
22 workforce is approaching retirement age and the  
23 pipeline of succession is nearly dry.

24 Moreover, US higher education building off  
25 its many strengths, must work diligently to fix its  
26 weaknesses including obsolete curricula, adversity to  
27 taking risks, expense, tuition costs", which we were

1 just talking about, "and ability to attract an  
2 acceptable number of people to the stem disciplines  
3 and its out of touchness, if you will, with the needs  
4 of the 21<sup>st</sup> century. For those of us with a firm stake  
5 in the future of this country, all of this is cause  
6 for great concern. It threatens America's  
7 competitiveness, security and prosperity and it also  
8 should be viewed as an opportunity though for us to  
9 drive dramatic and positive change at this point in  
10 time".

11 So that's the context of the innovation  
12 discussion I'd like to have with you. I'd like to be  
13 thinking about innovation as something that we're  
14 instilling in the people who are graduating. I mean,  
15 so we're helping them become better innovators in the  
16 21<sup>st</sup> Century so it's part of the output of higher  
17 education. And I'd like to also be thinking that  
18 we're trying to be innovative inside higher education,  
19 you know, as we do that as well. With that statement,  
20 let's discuss --

21 COMMISSIONER DUDERSTADT: Could I make a  
22 friendly amendment?

23 COMMISSIONER DONOFRIO: You can make all  
24 the amendments you'd like, friendly or not.

25 COMMISSIONER DUDERSTADT: In the fourth  
26 line, could you replace "US higher education by the  
27 nation"?

1 COMMISSIONER DONOFRIO: Sure.

2 COMMISSIONER DUDERSTADT: Because I'm not  
3 convinced that higher education can do it by itself.

4 COMMISSIONER DONOFRIO: Okay, that's fine.  
5 That's fine. Yes.

6 COMMISSIONER ROTHKOPF: Nation and higher  
7 education, I think we should leave higher education.

8 COMMISSIONER DONOFRIO: Nation and higher  
9 education, okay.

10 COMMISSIONER DUDERSTADT: That's fine.

11 COMMISSIONER ROTHKOPF: To what extent do  
12 you think -- and you're more experienced in dealing  
13 with those who can create innovative products and  
14 services. To what extent does education at the post-  
15 secondary level have to involve more than  
16 specialization or knowledge of math and science? To  
17 what extent does communication skills, analytical  
18 skills, some of the other things that --

19 COMMISSIONER DONOFRIO: You're setting me  
20 up a huge softball here, my friend. I've given  
21 testimony to the committee on this. And you're on the  
22 right -- you're absolutely on the right and most  
23 critical point. Those are no longer than necessary  
24 and sufficient -- you know, math and science are no  
25 longer the necessary and sufficient skills and  
26 attributes to be a winner in the 21<sup>st</sup> Century. You  
27 need them but by themselves, they're probably not

1 going to get the job done. And there's lots of data  
2 in the world that would suggest this. Remember the  
3 Chinese are going to out-produce us in terms of  
4 engineers and scientists. The Koreans do right now.  
5 The Indians are going to, so it's not a tyranny of  
6 numbers. You can't win that game. You have to do  
7 something better. You have to do something different  
8 and yes, there's a whole bunch of collaborative skills  
9 that need to be dealt with here. There's a whole  
10 bunch of multi-discipline skills that need to be dealt  
11 with here. And there's a whole new thought process of  
12 openness, actually almost like a state of openness and  
13 we've seen some of this, by the way, in a lot of the  
14 testimony we've heard that needs to be addressed here  
15 as well.

16 COMMISSIONER ROTHKOPF: Just to follow up  
17 on that a group from our organization, from the  
18 Chamber, was in India recently and came back, talked  
19 to many of their education people and they were saying  
20 -- and scientific people and they were saying that  
21 they need to expand their schools to really bring in  
22 more of this, you know, more -- the broader skills,  
23 rather than just the math, science and technical.  
24 That's a point we need to stress as well.

25 COMMISSIONER DONOFRIO: So let me just  
26 punctuate that and then we'll go to you, Jim. So we  
27 did here in America, this national innovation

1 initiative, we've talked about it a number of times.  
2 We've built an agenda off of this and I think I may  
3 have said this to you before. I mean, it's not like  
4 we can only do it here. India is actually doing the  
5 same thing right now. They will have by the end of  
6 the year, their own national innovation initiative and  
7 unfortunately or fortunately, we're helping them do  
8 it, to be honest with you, given our size and -- Jim.

9 COMMISSIONER DUDERSTADT: Monday, I spent  
10 the day at probably the newest college of engineering  
11 in this country, Olin College in Needham,  
12 Massachusetts. It's a very interesting place, no  
13 faculty tenure, no tuition. Students are entirely  
14 supported. No departments. They were able to build  
15 from scratch what they thought an engineering program  
16 for the 21<sup>st</sup> Century would be, very visionary president  
17 in Rick Miller.

18 But interestingly enough, part of the  
19 strength of that effort is they're right next to  
20 Babson College of Business which is probably one of  
21 the most entrepreneurial business schools in this  
22 country and they're right across the street from  
23 Wellesley, which is one of the finest liberal arts  
24 colleges in this country and those are immense assets  
25 as they're trying to create this new curriculum for  
26 producing a knowledgeable professional of the 21<sup>st</sup>  
27 Century. So I think you're dead on target, it's all

1 got to come together.

2 COMMISSIONER ELLIOTT: Can I just double  
3 that point to representing another major technology  
4 firm, that we absolutely see that there's a soft skill  
5 set to the sciences that we need as well and you've  
6 got to have the liberal arts foundation in critical  
7 thinking and problem solving for us to really be  
8 competitive.

9 COMMISSIONER DONOFRIO: We actually had  
10 the President of Olin College testify when we were in  
11 a subcommittee in Boston and he did a wonderful job of  
12 helping us see the world from a different --

13 COMMISSIONER DUDERSTADT: Of course, I  
14 might point out that he had the help of a half a  
15 billion dollar endowment and 160 million worth of new  
16 buildings given to him to launch this effort.

17 COMMISSIONER DONOFRIO: So what Jim didn't  
18 tell you is they don't pay any money to go to school  
19 there. So it's all -- everything from soup to nuts is  
20 totally free. So you have to wonder --

21 COMMISSIONER DUDERSTADT: They get pretty  
22 good students.

23 COMMISSIONER DONOFRIO: They get great  
24 students. They get great students but a half a  
25 billion dollars is only a half a billion dollars. So  
26 it doesn't scale and that's the other issue is how do  
27 we scale this. Other, yes, please, Sara?

1                   COMMISSIONER TUCKER: Yesterday, Nick, one  
2 of the students in the back gave me information on the  
3 debt that the students have.

4                   COMMISSIONER DONOFRIO: He gave it to me  
5 this morning.

6                   COMMISSIONER TUCKER: Yes, and I'm looking  
7 at the average cost for one year at UC Sant Cruz and  
8 for a commuter it's over 15,000; for on-campus it's  
9 23,000. So if we fix the obsolete curricula, fix the  
10 adversity to taking risks and the others and look at  
11 the expense of tuition costs, I guess my concern is in  
12 the work that I do for the scholarship fund, my  
13 premise is higher skills mean higher wages. And so  
14 what I tell my kids is, you need to make this  
15 investment, you need to go into this kind of debt  
16 because you're going to get the wages.

17                   In here the student mentioned that they  
18 don't want to go into the public sector jobs because  
19 they'd don't pay enough to retire the debt. But if  
20 these other countries are going to give corporations  
21 in America higher skills at lower wages, my concern is  
22 what's the value added for paying this premium and why  
23 would an American company pay the high wages, in  
24 essence a premium salary for a higher skilled person  
25 in the United States, so they can do this? And so I'm  
26 struggling with it.

27                   COMMISSIONER DONOFRIO: That's a good

1 question, Sara, and we get it asked all the time, you  
2 know, around this issue of globalization. What we're  
3 looking for in this country of course, are the higher  
4 value jobs. There's a whole bunch of create that  
5 needs to be done and dependent upon where it gets  
6 executed. And to Art's point, if we don't get to the  
7 create here before India gets to the create or before  
8 China gets to the create or before Russia gets to the  
9 create, then the problem you're worrying about is a  
10 very real problem but there is time, there is time for  
11 us to kind of change what we're doing, pull ourselves  
12 together and move to these higher valued, knowledge  
13 based jobs.

14 You don't have to execute and deliver  
15 everything from here. What you want is to think of  
16 everything or to control the value, if you will, from  
17 here. And you globalize the delivery, you know, based  
18 on where you're going to get the most cost effective  
19 delivery. I've spent a lot of time in China and in  
20 India, as you can imagine and the good news is they  
21 are not ready to do this yet. They're not anywhere  
22 near ready to be able to do this. So when I said we  
23 have time, I mean we have time, but time is all we  
24 have because they're pretty smart people and they're  
25 figuring this out as fast as we are, and we've got to  
26 move. So I wouldn't despair on any of this.

27 COMMISSIONER TUCKER: Oh, I'm not. I was

1 just asking the question more to us on retooling  
2 higher ed.

3 COMMISSIONER DONOFRIO: So I've got to  
4 tell you, I mean, IBM has hired -- we have increased  
5 our hiring in the United States, I think, for the past  
6 five years. We're a 330,000 person company. We have  
7 almost 40,000 people in India and yet, we've increased  
8 our hiring -- I mean, I think I'm almost correct in my  
9 numbers, every year for the past five years in this  
10 country. So it can be done. You know, we are headed  
11 into this knowledge based, you know, services driven  
12 economy that we've got to reconcile. Yes.

13 COMMISSIONER NUNLEY: It seems to me that  
14 much of the opportunity for innovation in higher  
15 education is in the hands of the faculty and I don't  
16 know that we've said anything yet in this report about  
17 giving a charge to the faculty about some of their  
18 responsibility for the future. I think we should  
19 think about that and I think it's really a good time  
20 to be doing it because we are at a point where there  
21 are going to be massive retirements of faculty in  
22 American higher education and that creates this really  
23 wonderful opportunity in making the choices of who we  
24 bring in, how we develop them, how we invest in them  
25 and so we haven't said much at all yet about faculty  
26 and I think somewhere in this report we need to focus  
27 on that.

1                   COMMISSIONER DONOFRIO: Great point, it's  
2 a well-made point. Absolutely, especially given the  
3 turnover factor that goes with it. So some places  
4 will be able to start anew.

5                   COMMISSIONER ELLIOTT: Nick?

6                   COMMISSIONER DONOFRIO: Yes.

7                   COMMISSIONER ELLIOTT: You did a beautiful  
8 job on your problem statement and it does talk to --  
9 what it doesn't talk to, I think, strongly enough is  
10 innovation internally with the system to really drive  
11 extra value, increased value, maybe reduced costs. I  
12 know it's in there with the expense of tuition costs  
13 but --

14                  COMMISSIONER DONOFRIO: Sure, good point.

15                  COMMISSIONER ELLIOTT: -- it just doesn't  
16 say enough about the internal innovation that we hope  
17 the system adopts so that they can produce better  
18 value.

19                  COMMISSIONER DONOFRIO: So can I tell you  
20 about another interesting college, Jim, that I found  
21 out about only because I'm going to speak at its  
22 graduation, its first graduation next week, Newmont  
23 College in Salt Lake City. This is a very different  
24 kind of college, so a four-year degree in 30 months,  
25 30 months, \$70,000.00 all in, all costs start to  
26 finish. You graduate with a bachelor in computer  
27 science.

1                   Now, granted their cohort is only 25 or  
2 whatever it is 70 whatever it is to get started and by  
3 the way, many of the other practices we heard,  
4 continuing enrollment, so they can't quite do  
5 continuous enrollment but I think they enroll every  
6 four months or something like that. So to your point,  
7 there are innovative ways of doing this when you think  
8 about it and we said before, Gerri, we would like our  
9 prospective here to be kind of like a blended model, a  
10 spectrum of options for everyone to consider or to  
11 have, you know, have available to them for whatever  
12 point in their life that they want to be educated. If  
13 nothing else, I really hope we speak that when we  
14 write our report, we actually help people understand  
15 there is more than one way, you know, for them to get  
16 a higher education.

17                   CHAIRMAN MILLER: Could you expand on that  
18 model? That's a great example and I know a little bit  
19 about it. The qualifications to get in and then what  
20 it produces at the outcome, and some way you measure  
21 the results. Thank you.

22                   COMMISSIONER DONOFRIO: Yes, I'll know  
23 more after I speak at their graduation but they --  
24 it's very interesting. Number one, these are more to  
25 Mendenhall's point, Bob Mendenhall's point, these are  
26 more serious students, right. So these are not  
27 necessarily the immediate out of high school, you

1 know, into college. They've done a few other things.  
2 They've tried a few other things. The whole  
3 graduating class is already spoken for. So they all  
4 have jobs. If I get this wrong, I'll correct the  
5 number later. I think their average salary is like  
6 \$60,000.00.

7 So you know, their bona fides are pretty  
8 good. Actually, Gerri, IBM is a big supporter and so  
9 is Microsoft a big supporter of Newmont College. So  
10 they're building their enrollment right now. So their  
11 outcomes are pretty well known. So they have -- as  
12 somebody said earlier, the co-op program kind of  
13 approach or the internship. They're all interns.  
14 They've all interned, you know, somewhere during this  
15 30 months for some piece of their education. So I  
16 tell you, you couldn't have built it better from an  
17 industry perspective and maybe that's why it is what  
18 it is, because they listened to industry and they kind  
19 of built themselves that way.

20 They'll come out, for instance, Microsoft  
21 certified. They'll come out, you know, Cisco  
22 certified along with their degree, along with their  
23 degree. So they'll have a huge number of bona fides  
24 to take into the marketplace and given the way, you  
25 know, the class has kind of been taken by industry,  
26 you'd have to assume they did a good thing.

27 GOVERNOR HUNT: Nick?

1 COMMISSIONER DONOFRIO: Yes, Governor?

2 GOVERNOR HUNT: Sara's question was one  
3 that people are asking and you said you get it all the  
4 time and you've answered it very well. But it is a  
5 question Americans are thinking about and they don't  
6 feel like they know the answer to it. They really are  
7 worried about it. They're worried about it where  
8 they're losing jobs and losing industries and so  
9 forth. What can our special niche be or our special  
10 role in the world economy?

11 Now I really think our report ought to --  
12 I mean, you get it out of certain other places, The  
13 World is Flat and so on and so forth.

14 COMMISSIONER DONOFRIO: Yes.

15 GOVERNOR HUNT: They ought to really get  
16 the answer from us, maybe at the beginning of this  
17 report.

18 COMMISSIONER DONOFRIO: So I think that's  
19 a great suggestion, Governor. Maybe you're kind of  
20 suggesting we've got to give them some hope or some  
21 aspiration, you know, to kind of aim for.

22 GOVERNOR HUNT: And they need to know what  
23 -- that there is a special role for America.

24 COMMISSIONER DONOFRIO: Yes.

25 GOVERNOR HUNT: And here's what it is and  
26 we'll be -- we'll have more of the knowledge and  
27 skills and understandings and all the rest or ours

1 will be better but that means we've got to work much  
2 harder.

3 COMMISSIONER DONOFRIO: Indeed.

4 GOVERNOR HUNT: Invest more, we've got to  
5 be better. We've got to be the best in the world.

6 COMMISSIONER TUCKER: Some reassurance I  
7 think.

8 COMMISSIONER DONOFRIO: I think that's a  
9 good point.

10 COMMISSIONER TUCKER: And as Gerri  
11 suggested, you know, to the extent that we retool  
12 higher ed and stay up front and this is why American  
13 higher education is the best investment you can make  
14 for yourself and it's continuous through your life. I  
15 think that at the front end and then we could probably  
16 go with Bob's suggestion of and who is missing.

17 COMMISSIONER DONOFRIO: So, I mean, I  
18 think Sara, that's a very good point. We shouldn't --  
19 we should remember, we have a great deal of strength  
20 in our higher education system. We were talking about  
21 all of its flaws and all of its problems and all of  
22 its sins, but we should not fool ourselves. I mean,  
23 it's good for a reason. I mean, it's viewed as world  
24 class for a reason. What we need to do, I think, is  
25 it do a better job of articulating that value and we  
26 need to do a better job of articulating all of these,  
27 you know, relationships that are mysteries to the

1 average person and then how we get technology to play  
2 or innovation to play a role in it is becoming much  
3 more obvious to me having sat on this Commission and  
4 I'll tell you, I've got to believe the average person  
5 has no idea that all of these things are available for  
6 them to take advantage of.

7 And we shouldn't MR. BAILEY: ourselves too  
8 strongly here. We have been innovative, not enough  
9 for all those reasons because of the looming worry,  
10 you know, on the horizon, "Is there a job for me. I  
11 want to get myself educated for what reason, to do  
12 what in the world".

13 COMMISSIONER SULLIVAN: Nick?

14 COMMISSIONER DONOFRIO: Please.

15 COMMISSIONER SULLIVAN: I'd like to give  
16 perspective from that of the health professions to  
17 emphasize this point of the continued need for  
18 investment. In 1900 leadership in medicine was not  
19 the United States. The places of leadership were in  
20 Europe, Bologna, Heidelberg, London, et cetera, but  
21 many of you have heard of the Flexner Report that was  
22 issued in 1910 that was highly critical of medical  
23 education in the United States with a number of  
24 recommendations. It was very revolutionary for  
25 medical education.

26 First of all, the number of medical  
27 schools drastically reduced from I think 148 down to

1 80 by 1925. And because of the events that really  
2 were put into place because of this report, we are now  
3 for the last half century, have been able to say the  
4 US is leader in medical education. But we are at risk  
5 of losing that status because of the fact that we do  
6 have high costs. We have problems of access, et  
7 cetera. So the point I'm making is we cannot take for  
8 granted that we will automatically be first in the  
9 world. We have to continue to work at this. So  
10 clearly in higher education we have to convince the  
11 American public as well as our legislative leaders and  
12 the private sector that it is worth all of the effort,  
13 worth the investment because the outcome will be  
14 different. If we make the investment or if we fail to  
15 make the investment, we will really be a note in  
16 history. I think we have to find a way to emphasize  
17 that.

18 COMMISSIONER DONOFRIO: I think that's  
19 very well said, Louis. That's a good analogy  
20 actually. The medical industry is a very good analogy  
21 for us to kind of you know, take some value from and  
22 try to figure out how we articulate our statements  
23 here. Other comments? Yes, Gerri?

24 COMMISSIONER ELLIOTT: Yes, your fourth  
25 bullet down, the data point that always strikes me is  
26 the 60 percent decline in computer science students  
27 over 2002/2004. So I'm thrilled that you put that in

1 there but because I'm a broken record on diversity,  
2 I'd also add a comma to that and say, "particularly  
3 amongst minorities and women," because we're losing  
4 them in droves.

5 COMMISSIONER DONOFRIO: Absolutely.

6 CHAIRMAN MILLER: Gerri, wasn't that --  
7 excuse me, I agree with that. Wasn't that something  
8 to do with the bubble that we had? I mean, wasn't  
9 that really a financial, just an intermediate step?

10 COMMISSIONER ELLIOTT: I don't think it  
11 has to do with the .bust, .com bust, because we've  
12 seen it over a greater period of time in terms of the  
13 decline in computer science and I'm sure --

14 COMMISSIONER DONOFRIO: And I think it is  
15 -- it's almost a -- it's a secular trend, I think, for  
16 women and under-represented minorities. I think  
17 that's well understood and very disturbing. And, you  
18 know, like they're more than half the population of  
19 the country. Which men may be the issue but in the  
20 final analysis, if we don't get the under-represented  
21 minorities and women interested in stem disciplines  
22 other than I should say life sciences, because they do  
23 dominate in life sciences --

24 COMMISSIONER ELLIOTT: That's right.

25 COMMISSIONER DONOFRIO: -- we could be in  
26 trouble.

27 COMMISSIONER VEST: Nick, I want to

1 emphasize something that several of you have said  
2 starting with your own lead which is that we do need  
3 to use this report or at least its introduction to try  
4 to get the  
5 American public to understand how fast these changes  
6 are coming. And I'm drawing an analogue. I'm not  
7 suggesting this but an analogue. There was an article  
8 and I've forgotten the author in the New York Times  
9 Sunday Magazine back when Judge Roberts' confirmation  
10 was being considered. And the thesis of the article  
11 was here are the things we're arguing about in our  
12 political system about what the next Supreme Court  
13 Justice has to deal with. Here are the things that  
14 the people coming onto the court are really going to  
15 deal with.

16 And I have found in a number of different  
17 settings, that's a real eye opener for people. And if  
18 maybe the folks drafting could take a look at that as  
19 kind of an example and see if there's a way of  
20 conveying this because it's the rate of change that  
21 scares me.

22 COMMISSIONER DONOFRIO: That's an  
23 excellent point and I take great stock in that because  
24 we see it every day. We see it everyday. Yes, I'm  
25 sorry, John?

26 MR. BAILEY: Just a comment on that fourth  
27 bullet; when I see that statistic, I think it's

1 absolutely correct but I come back to the fact that  
2 when you look at advanced degrees, we tracked over  
3 half of the enrollments in stem disciplines are  
4 foreign students but then they face an immigration  
5 system that sends them back to the countries you list  
6 up at the top to compete against us. I'm not sure if  
7 it's outside the purview of our kind of area and I'm  
8 wondering if we should --

9 COMMISSIONER DONOFRIO: No, immigration --  
10 yes, I think that's a fair point.

11 MR. BAILEY: Student visas and then --

12 COMMISSIONER DONOFRIO: Yes, it's  
13 definitely in our gap section but we can put it here,  
14 too. John, it's a fair point.

15 COMMISSIONER ELLIOTT: It does effect the  
16 overall innovation in the country, you're absolutely  
17 right, when we end up sending the foreign nationals  
18 back because of the H-1 visa issues.

19 COMMISSIONER DONOFRIO: Yes, I mean, it's  
20 almost like we're arming them with all of the -- with  
21 whatever they need to kind of take us on. It's an  
22 interesting thought. Yes, Governor?

23 GOVERNOR HUNT: You know, we've had a lot  
24 of reports over the years that have sort of taken the  
25 tact of scare the hell out of the American people and  
26 we needed to scare them. Now, we need to scare them  
27 here to a certain extent but I also kind of sense that

1 the American people need to know there is an answer,  
2 there is a way. We can do this. You talked about the  
3 strengths we have and all of that.

4 COMMISSIONER DONOFRIO: Yes.

5 GOVERNOR HUNT: So I think we need to be  
6 very plain about the challenge to us but we also need  
7 to kind of say, "Ah, but, we can do this. Here's what  
8 we've got to do". And it has to do with innovation  
9 and it's got to be done largely by higher education in  
10 America because our people don't get that. The  
11 average citizen doesn't get that their economic future  
12 and their jobs, I don't care what they do, is going to  
13 depend on America's innovativeness and our ability not  
14 just to compete but to be the best in the world.

15 Now, that is in terms of -- you have a lot  
16 of public for reports like this but to the extent it  
17 gets down to the average American working man and  
18 woman, that needs to be the message in my opinion.

19 COMMISSIONER DONOFRIO: That's a good  
20 point, Governor, and I don't think anybody would argue  
21 that we have to be real, we have to keep ourselves  
22 based in reality, but at the same time, we have to  
23 give them hope which is why people go to school, to  
24 learn because they're hopeful.

25 COMMISSIONER VEST: But it should be not  
26 just hope. It should be a call to leadership. I think  
27 that's what the Governor is saying.

1                   COMMISSIONER   DONOFRIO:           That's   even  
2                   better.   Yes, please, Charles.

3                   CHAIRMAN MILLER:   I think this is at least  
4                   one of the most important issues we have to deal with  
5                   at the Commission and when I saw the Council of  
6                   Competitiveness report being prepared, I noticed that  
7                   we had an array of some of the leading business people  
8                   collaborating with the leading academics. I take that  
9                   seriously, believe it or not and I thought the outcome  
10                  of that report was significant that we looked at that  
11                  at the very beginning of our work and everybody saw a  
12                  copy.

13                  And following up with what Governor Hunt  
14                  said, I like the title of it.   The subtitle was  
15                  "Innovate or Abdicate".   And I do think we need to  
16                  have some of those kinds of languages, that kind of  
17                  terminology in this report when we give the hope or  
18                  give the positive side of it because we won't get  
19                  attention from the people we need to.   A lot of that  
20                  has the business community's attention, but I think  
21                  really that's an audience we need to focus on because  
22                  innovation isn't from just higher education.   It comes  
23                  from let's say the conjunction of what we get out of  
24                  higher education, the thinkers with the private  
25                  sector.   It's both of those tied together, not one or  
26                  the other.   I think of it as invention combined with  
27                  ingenuity and that makes it innovation.

1           And we do that better and it's the  
2 hallmark of America. So I think we can -- I think we  
3 can emphasize that but we have to find a way to bring  
4 the business community into that and really call them  
5 to action and bring them in very hard at the higher  
6 education part and some of that came out of that  
7 Council on Competitiveness report.

8           And the other report, "The Gathering  
9 Storm" did the same thing. It used some very, very  
10 strong terminology. That title is pretty strong and  
11 when you look at some of the subtitles, I don't have  
12 it in front of me, it had the same kind of energizing  
13 language. And so I think we need that.

14           COMMISSIONER DONOFRIO:       Absolutely.  
15 Excellent. Those are excellent points. Art and then  
16 we'll go over to David.

17           COMMISSIONER ROTHKOPF:   Just a procedural  
18 point on the material we received, there are a group  
19 of solutions set forth and I think some of them are --  
20 you know, we haven't talked about and I think it's  
21 important.

22           COMMISSIONER DONOFRIO:   Yes, we're going  
23 to get there. We'll take David and then we'll switch  
24 to solutions.

25           COMMISSIONER WARD:       Since there's an  
26 enormous burden on higher education here, I mean, what  
27 we're trying to do is raise the stakes and

1 expectations to build, and we talk about the dialogue  
2 with whom. In other words, I don't think higher  
3 education needs a dialogue to resonate with what it's  
4 about and I think, obviously, business, higher  
5 education for the Council on Competitiveness, there's  
6 some dialogues there.

7 But the other one I was thinking is that  
8 we talk about India and China as future competitors,  
9 but there are -- we've raised the Finnish and the  
10 Irish example of places that even 10 years ago would  
11 not have been thought of in higher education or in  
12 innovative business. Is there anything from a cross-  
13 national point of view, now there are small countries,  
14 they are relative homogenous. Is -- you know, there's  
15 some differences, but I'm just trying to sort of find  
16 out the driver which allows you to take -- we're  
17 talking about the role of the faculty, when you're  
18 trying in a sense, look, this is the problem, you have  
19 to help us get there and innovate.

20 Are there -- I mean, if you find another  
21 higher education system that's actually done change or  
22 finding the models, it would be very powerful. Maybe  
23 that's a box, too.

24 COMMISSIONER DONOFRIO: So I mean, let me  
25 expand that to simply say, I think we should be  
26 looking globally, you know, for whatever we can learn,  
27 whatever the best practices are. We'll do the best

1 practices work, I'm sure, here among ourselves, but we  
2 may actually learn something. Without converting our  
3 system to the way theirs is, you can actually learn  
4 some things from that, very good point.

5 Arturo, last one and then we'll have to  
6 turn to the suggestions.

7 COMMISSIONER MADRID: Since my friend,  
8 Robert Zemsky has left, I have the burden of raising  
9 issues that he might have.

10 COMMISSIONER DONOFRIO: You have my  
11 sympathy, Arturo.

12 COMMISSIONER MADRID: I'm in sympathy and  
13 certainly in agreement with the concerns, but I have a  
14 concern that we focus almost exclusively on the high  
15 end and the fact is, we're going to need very good  
16 teachers, we're going to need very good health care  
17 workers. We need people who are going to be running  
18 the multiple institutions of the society. We don't  
19 have the language to talk about those needs and those  
20 concerns and we need to figure out how to talk about  
21 how innovation is going to help us in that area.

22 COMMISSIONER DONOFRIO: I think it's an  
23 excellent point, by the way. And maybe we should find  
24 some way to put in the services minded economy  
25 thought, Jim, that you brought up here. That would  
26 more or less, I think, start to give us an opportunity  
27 to address what Arturo is talking about. So we should

1 try to put in, I think, something about the services  
2 led economy that we're in, Arturo, because, as you  
3 know, that's where 70 percent or 75 percent of the  
4 jobs are in this country are in the services industry.  
5 Very good point.

6 I think we should switch now to Art's  
7 point. These are the solutions that you recommended  
8 and we'll take a few moments and kind of talk through  
9 them. Not to speed the process up here but can you  
10 kind of go down a little bit. I just want to make  
11 sure that everybody sees what's on there. A little  
12 more, okay. So let me start with the last one, which  
13 was a little bit of a controversy when we suggested  
14 this the last time around but it's back again.

15 So you know, Charles said, you know,  
16 national innovation initiatives, rising above the  
17 gathering storm, I mean, are these things that -- how  
18 do you feel about these. I mean, we, at one time,  
19 talked about endorsing them, adopting them, supporting  
20 them or not. What's your sense here and how would you  
21 like us to go, you know, as a commission, because they  
22 have some good substance, I think we would all agree.  
23 The question is, you know, what position do we want  
24 to take?

25 COMMISSIONER ELLIOTT: Well, I'm the one  
26 that brought it up, I think.

27 COMMISSIONER DONOFRIO: Okay, you take a

1 crack at it.

2 COMMISSIONER ELLIOTT: I just think there  
3 was a tremendous amount of work done and there were  
4 some very thoughtful provocative and aggressive  
5 recommendations that were made. And we can either  
6 modify some of those recommendations and adopt them or  
7 endorse the entire work but I just at least wanted it  
8 out there to say, can we, as a commission, put our  
9 force behind something that seems to really address  
10 innovation in this country?

11 COMMISSIONER DONOFRIO: Jim?

12 COMMISSIONER DUDERSTADT: I also agree  
13 that much of the content, the recommendations align  
14 very well with many of the goals that we have here and  
15 somehow we should reflect that. Whether we actually  
16 endorse a particular report or not, you know, you can  
17 debate that but I think the substance of them, I  
18 think.

19 The other thing I'd point out is the very  
20 important leadership role that Secretary of Education  
21 Spellings has played in responding to these reports in  
22 helping to push forward the American competitiveness  
23 initiative and now chairing the American  
24 Competitiveness Council. So I think there's very good  
25 reason to support those aspects of this report which  
26 really relate to higher education.

27 COMMISSIONER DONOFRIO: So let's just

1 amplify Jim's comment to hear what he said there. He  
2 said, you know, maybe we would be better served if we  
3 supported the content as opposed to, you know, out and  
4 out right the reports. So Gerri, you should think  
5 about that. That's not a bad way to get, you know,  
6 the best of all worlds here.

7 COMMISSIONER ELLIOTT: I would agree with  
8 that. It's the content that I think is the most  
9 valuable. Whichever way gets it done quickly, I would  
10 support.

11 COMMISSIONER DONOFRIO: Okay.

12 CHAIRMAN MILLER: If we could highlight  
13 these a little bit. I'm sorry, go ahead.

14 COMMISSIONER DONOFRIO: No, go.

15 CHAIRMAN MILLER: If we could highlight  
16 the ones a little bit, particularly the ones that  
17 relate to higher ed, because there's so much in those  
18 reports. One of the reasons they could be more  
19 effective because they go to the opinion leaders. The  
20 opinion leaders buy it, but it could be more effective  
21 for the broader public, for the broader business  
22 community would be the highlighter and put a laser  
23 beam on some of the key ingredients. Maybe we could -  
24 - and it doesn't detract from that because I think it  
25 would benefit the -- our report and the Commission  
26 audience if we did that, to elevate some of the  
27 recommendations.

1                   COMMISSIONER ELLIOTT: Well, if I could  
2 just -- maybe this isn't the right time to bring it  
3 up, but for the purposes of our report, what I liked  
4 about "Rising Above the Storm" was that it was a set  
5 of four -- five or six, I can't remember the exact  
6 number, very bold ideas and for our report, and maybe  
7 we'll talk about this at the end, I wouldn't want it  
8 to be a laundry list of things that will get lost  
9 because of the sheer number. I'd almost rather to  
10 focus on some big bold and Secretary Spellings said  
11 it, provocative things that take a lot of courage to  
12 get through but you know, we can hang our hat on it.

13                   So that's what I loved about those. I  
14 hope we adopt that type of mentality.

15                   COMMISSIONER DONOFRIO: Okay, thank you.  
16 David?

17                   COMMISSIONER WARD: I agree with what the  
18 Chairman and others have been saying, to recognize  
19 that they exist and have a strong advocacy role. The  
20 other reason I think that's important is our challenge  
21 has been a little different, to think more broadly  
22 about the sort of social context in terms of  
23 affordability, access, and in fact, the culpability of  
24 higher education as distinct from the strengths of  
25 higher education. These reports were able to play to  
26 the strength and have been very well received --

27                   COMMISSIONER DONOFRIO: Good point.

1                   COMMISSIONER WARD:    --  whereas I think  
2 we're playing to the strength to change.  So I think  
3 if the higher education community recognize that we  
4 appreciate and value what they have done already, it  
5 would greatly enhance the fact that we're trying to  
6 take it even further and stretch higher education even  
7 further in a broader sense than the focused way that  
8 they have done.  We will need focus about a broader  
9 agenda which is going to be our challenge.

10                   COMMISSIONER DONOFRIO:    Very tricky, I  
11 agree with you.

12                   COMMISSIONER WARD:    Right.

13                   COMMISSIONER VEST:    I both want to support  
14 the band wagon but also to connect the last two bullet  
15 points here.  Let me start by saying the reason I  
16 would encourage us by whatever mechanism to support  
17 the recommendations of "The Gathering Storm", is that  
18 we've based our work on a lot of very interesting and  
19 very good thought pieces that have been put together  
20 by one or two people.  "Gathering Storm", which sits  
21 on the substrate of innovate America, that was put  
22 together literally by 150 or 200 leaders of American  
23 business and industry, big companies, little  
24 companies, across the board.  The Gathering Storm was  
25 drafted by 19 great Americans, plus me who put a whole  
26 lot of real effort in but viewed it not as something  
27 that we owned or invented, but drawing on literally 10

1 years of studies from all over the place.

2 So it has a lot of support built into it.

3 It has the thinking of many, many more people and so  
4 I want to encourage this. But then I would like to  
5 say something else, which is that Recommendation A1 of  
6 Rising Above the Gathering Storm, and it was purposely  
7 placed as Recommendation A1, is the one piece that is  
8 not really being thought about immediate  
9 implementation yet in the President's ACI and so  
10 forth, although it starts us down the path. And it  
11 was to take a bold start at improving STEM education  
12 in this country by having our universities train  
13 teachers for science, mathematics, engineering,  
14 technology in a different way which is to give them a  
15 strong bachelor's level disciplinary education, as a  
16 computer scientist, engineer, biologist or what have  
17 you, and getting back to our efficiency, to figure out  
18 within those four years, how you simultaneously get  
19 them the rudiments of educational expertise so that  
20 they can leave, be quickly certified, go out into our  
21 schools. It won't solve everything but it will start  
22 raising the water.

23 And so I think these last two things are  
24 actually very closely related and I hope at minimum we  
25 say something about Recommendation A1 from Gathering  
26 Storm.

27 COMMISSIONER DONOFRIO: Well said, thank

1 you. Yes, Arturo?

2 COMMISSIONER MADRID: I do want to raise a  
3 caution about that last recommendation about shining  
4 the spotlight and that is that as it's stated, I think  
5 it would be a problem. I think we can address the  
6 issue of shining the spotlight on the challenge that  
7 we have in that arena without necessarily stating  
8 when because it's not only the colleges of education,  
9 we'd have to talk about school system and structure  
10 and --

11 COMMISSIONER DONOFRIO: Yes, the process  
12 of education.

13 COMMISSIONER MADRID: -- teachers and  
14 teacher pay and teacher conditions and the society,  
15 it's not just the college of education.

16 COMMISSIONER DONOFRIO: Thank you for the  
17 comments. Other comments here? Do you want to go  
18 back up to the top so we can see the --

19 DR. FALETRA: Nick?

20 COMMISSIONER DONOFRIO: Yes, Peter.

21 DR. FALETRA: Just one point there. Was  
22 at the first and second meetings, and just so I can  
23 retain my job, I'd like to put a plug in for this  
24 articulation innovation with ecologists, especially in  
25 STEM with all the national laboratories. I don't see  
26 that here. That these centers of excellence in the  
27 absence of the Bell model as we discussed in a

1 previous meeting, can play a huge role, especially in  
2 those colleges and universities that aren't the MITs,  
3 that are wishing to get into this and be competitive  
4 on the international level --

5 COMMISSIONER DONOFRIO: That's a good  
6 point.

7 DR. FALETRA: -- especially in conjunction  
8 with the ACI and what's been told.

9 COMMISSIONER DONOFRIO: I think you're  
10 raising a very valid point and if the national labs  
11 have the capacity and the willingness, you know, to  
12 want to do this, then we should find a way to  
13 recommend some form of interaction.

14 DR. FALETRA: Yes, in many respects the  
15 point being that a lot of the -- there are about 300  
16 colleges and universities that use the advanced  
17 facilities, as we call them at the national labs, and  
18 this includes the NIST labs, et cetera, and outside of  
19 those 300 or so universities, of course, that is about  
20 one-tenth of the advanced universities in the country,  
21 what do we do with that other nine-tenths. We really  
22 should track them into this system to raise the  
23 competitiveness of the country.

24 COMMISSIONER DONOFRIO: So are you also  
25 willing to do this with the non-trationals?

26 DR. FALETRA: Oh, absolutely.

27 COMMISSIONER DONOFRIO: With the cyber

1 universities and --

2 DR. FALETRA: We have programs for them,  
3 but the problem is, is that we aren't getting the word  
4 out as well and I think this could be a vehicle to get  
5 the word out.

6 COMMISSIONER DONOFRIO: I think that's  
7 very well said. We'll do that. Did we go back up to  
8 the top to make sure everybody got to see everything  
9 else? Yes, David?

10 COMMISSIONER WARD: Yes, the solutions  
11 seem not quite solutions. They're sort of  
12 exhortations in a way. And I see the first one  
13 because I think it comes back to the data, better  
14 data, so we know how we measure ourselves, but in some  
15 ways there's a sort of -- we would need some concrete  
16 examples. I mean, it's really hard it seems to me  
17 culturally and institutionally to change a university  
18 and almost the stronger it is, the harder it is to do  
19 that. They're very cellular and most of the change is  
20 almost molecular as you deal with it.

21 So I'm wondering, we did have some  
22 examples of models of change or destinations, if  
23 there's anything we can do to be more concrete about  
24 what could be done. I think obviously data will help  
25 but as you try to help people imagine a future with a  
26 slightly different configuration, no classrooms, you  
27 know, whatever it is that you -- stronger into

1 disciplinary structure, I think we have to kind of  
2 move a little bit into the foreground. We're flying  
3 at 30,000 feet and I think the models have changed and  
4 the model -- and some of the anticipated institutional  
5 are organizational outputs that we would like to see I  
6 think have to be in there.

7 COMMISSIONER DONOFRIO: I think that's a  
8 valid point and as we write this --

9 COMMISSIONER WARD: I don't know what they  
10 are.

11 COMMISSIONER DONOFRIO: Well, no, we've  
12 said some of them. We've actually talked over the  
13 last two days about many of those things, David, that  
14 we should articulate here, you know, as this  
15 different, this blended model that we talked about the  
16 whole idea of learning how to teach again or  
17 understand -- building courses that are correct by  
18 construction. So you can hand them a tremendous  
19 amount of technology if you will, right, and say,  
20 "Could you follow this", I mean, "Could you look at  
21 these best practices and see how they'll work".

22 COMMISSIONER WARD: Right.

23 COMMISSIONER DONOFRIO: And that's kind of  
24 what I think we're trying to do anyways, Charles,  
25 right? We're hoping that this compendium, when we  
26 finally put it together, is going to be a source of  
27 best practices for people.

1                   CHAIRMAN MILLER: It won't be enough to do  
2 the exhortation but sort of turn it over to somebody  
3 else. Don't ask me, ask the one that's behind the  
4 tree. It won't work that way so we're going to have  
5 to do something actionable is what the Secretary talks  
6 about. And actionable doesn't have to happen  
7 immediately or even in the immediate term. She  
8 mentioned Nation at Risk, it had some very critical  
9 language in there but that did create action and so  
10 you have to say that things aren't working which was  
11 at the end of that to get the action done.

12                   COMMISSIONER WARD: But I think, Charles,  
13 there are two ways of getting action. One of them is  
14 to study the pathology system and the other one is at  
15 the same time, provide some redemptive examples of  
16 where you can go. It's not hopeless. It's this  
17 balance I think in between.

18                   CHAIRMAN MILLER: Sure, if you have enough  
19 of them, you won't have all the answers today but if  
20 you analyze them, open up the whole structure to, you  
21 know, fair analysis but critical analysis, you have a  
22 chance for other people to weigh in to bring those  
23 solutions to the table. We don't have to have it all  
24 today.

25                   COMMISSIONER DONOFRIO: Yes, we're not  
26 going to be exhaustive, I think, that's a fact, but we  
27 certainly can be directional and we can certainly give

1 examples and then hopefully that will propagate more.

2 James?

3 COMMISSIONER DUDERSTADT: Exhortation and  
4 framework, let me take the risk of throwing in a  
5 comment from my Oort cloud several million miles  
6 beyond the solar system. For the last couple of  
7 years, I've chaired a National Academy of Sciences  
8 study on the impact of technology on higher education  
9 and we met with leaders, institutions of all kinds  
10 across the country. And there is an increasing sense  
11 among much of that leadership that American higher  
12 education today is about in a situation very similar  
13 to that it was a century and a half ago about the time  
14 of the Civil War when over a single generation it  
15 changed so rapidly that the college and the university  
16 in the 1870s would be unrecognizable in the year 1900.

17 They believe we're facing a similar pace  
18 of change and profound nature today. That the  
19 university in 2020 or 2030 will be hardly  
20 recognizable, I mean it may not even be a place. It  
21 may be in cyber space. What we're doing here is kind  
22 of framing how that change will be shaped to some  
23 degree. We can't anticipate what's going to happen,  
24 but I'm one of those that believe we're fairly far  
25 along in a period of very, very significant change,  
26 driven by all the forces that you put in the --

27 COMMISSIONER DONOFRIO: I couldn't agree

1 with you more.

2 COMMISSIONER DUDERSTADT: So exhortation  
3 may not be such a bad thing to do as we begin that  
4 era.

5 COMMISSIONER DONOFRIO: Okay, that's good.  
6 Good point. Yes.

7 COMMISSIONER NUNLEY: I guess this is my  
8 one note issue, Richard, but when we go back to the  
9 problem statement and focus on increasing  
10 participation particularly women and minorities and I  
11 look here and I see sustain and enhance the world's  
12 leading system of research universities, I certainly  
13 concur with that but I don't want to overlook the fact  
14 that you would be surprised how many mathematicians,  
15 scientists and engineers begin at two-year colleges  
16 and I think that the National Science Foundation is  
17 trying to begin to focus more on the role of community  
18 colleges in STEM education but I think that needs to  
19 be an important national priority if we want to bring  
20 more people through the pipeline.

21 COMMISSIONER DONOFRIO: Good point, I like  
22 that idea, too. We'll find a way to put that in as  
23 well.

24 COMMISSIONER DUDERSTADT: I might add that  
25 that statement is perhaps not clear, but gets into yet  
26 another issue that is not yet on the table for your  
27 next discussion, that's integration because what we're

1 trying to do is attract the best to this country.

2 COMMISSIONER DONOFRIO: I hear you, I hear  
3 you and we'll take that up in just a few minutes.

4 COMMISSIONER DUDERSTADT: And keep them.

5 COMMISSIONER DONOFRIO: And keep them  
6 here, yes, for as long as we can, right. Are we  
7 pretty much done with this?

8 CHAIRMAN MILLER: With your one.

9 COMMISSIONER DONOFRIO: Okay, let's move  
10 to the next one.

11 (Applause)

12 COMMISSIONER DONOFRIO: All right, now  
13 we're onto the Gaps. This is total free-form so it's  
14 time to color outside the lines. This discussion is  
15 really very hard to lead. These are the things that,  
16 you know, for lack of a better set of words, we  
17 haven't either discussed anywhere else, they haven't  
18 fit anywhere else or they're brand new thoughts. You  
19 know, by the way, they may not be these thoughts on  
20 these charts, so let's not use these charts because  
21 many of the things on these charts we've already  
22 talked about.

23 I have a list of new ideas that have come  
24 up throughout the day, throughout the past two days,  
25 but I actually would like to kind of open this up for  
26 you, you know, to bring up and then I can cross off my  
27 things here, you know, as we talk about these. So you

1 know, just to remind you, for instance, I brought up  
2 philanthropy before. We haven't talked about  
3 philanthropy in its role here inside this whole  
4 discussion on higher education. And I think most  
5 people would agree fundamentally the college equation  
6 doesn't close by itself. It closes, especially in the  
7 privates, the high value privates, the top 200  
8 privates that are, you know, the leading edge examples  
9 for why everybody wants to copy our model, those  
10 equations don't close without philanthropy.

11 And I guess I'd just throw it out there as  
12 a thought and what is its role, do we want to have a  
13 position on this, do we want to discuss it or do we  
14 just want to say, "Okay, that's fine, move on, you  
15 know, it's a truism, but what are you going to do  
16 about it"?

17 COMMISSIONER VEDDER: You know, that gets  
18 into some interesting issues. Tax policy, right now,  
19 and this is sensitive but we're supposed to be talking  
20 about sensitive issues, a person who gives a million  
21 dollars to Harvard University who's a wealthy person  
22 gets a nice tax deduction for that gift. This is a  
23 school with \$80,000.00 per pupil, per student in  
24 endowment income already. A person who gives a  
25 million dollars to Montgomery College gets the same  
26 deduction. If we're trying to refashion education --  
27 and I have nothing against Harvard. Harvard

1 University is the greatest university in the world,  
2 although there are some here --

3 COMMISSIONER DONOFRIO: Who would think  
4 otherwise.

5 COMMISSIONER VEDDER: -- who would think  
6 otherwise. Jonathan would agree since he went there.

7 But it's a wonderful university. I'm not here to  
8 attack Harvard University or Duke University or UNC or  
9 any university but I wonder if we shouldn't use tax  
10 policy which relates to philanthropy as a way to help  
11 achieve some other objectives we have, in some of the  
12 attempts to get scholarship money to low income  
13 students, for example, which is an all together  
14 different area. Maybe we should turn deductions into  
15 credits for some sorts of donations.

16 We do this -- a lot of the states are  
17 doing this with respect to K through 12 education.  
18 They're setting up tax credits for private scholarship  
19 foundations, voucher, private voucher programs and so  
20 on. I'm not sure I have a -- you know, know what I'm  
21 talking about here, since I haven't had a long time to  
22 think about it, but I think it's something we ought to  
23 think about and because tax policy, I don't want to  
24 say drives philanthropy, I think there's a lot of  
25 altruism that drives philanthropy but I do think it  
26 impacts on it and it's something we ought to think  
27 about anyway.



1 efforts here but I will tell you that as I visit my  
2 donor prospects or existing donors, they have a great  
3 hunger to understand what's going to come from this as  
4 they understand how they can make their investments  
5 play better. So I think that there is a great  
6 opportunity here for us to leverage not only the  
7 federal dollars but the private dollars to the  
8 outcomes.

9 COMMISSIONER DONOFRIO: Good, Chuck?

10 COMMISSIONER VEST: Nick, a little bit of  
11 data; these data are for the AAU universities, so it's  
12 the 61, 62 research universities, a little over half  
13 of which are public and the rest are private. Among  
14 those universities the average among the private  
15 institutions is that 22 percent of their annual  
16 revenue comes from philanthropy and industry, I'll  
17 throw that in, purely private sources.

18 Of the publics, nine percent, so it's  
19 almost -- it's approaching half of what is true for  
20 the private institutions and furthermore if you look  
21 at admittedly high end philanthropy in education, if  
22 you take the top 20 endowments, about three of them, I  
23 think are public universities, but if you then turn  
24 around and look at annual giving, you will find that  
25 half of the top 20 recipients of private philanthropy  
26 are public universities. So it's becoming the sort of  
27 high end, if you will, research university level very,

1 very important among the publics and that's going to  
2 continue. We are increasingly public, private  
3 partnerships.

4 And I think we should do anything we  
5 possibly can to encourage that but I also think, going  
6 back to what Governor Hunt keeps telling us about the  
7 need to spend some tax dollars, we cannot deduce from  
8 that the fact that all the way across the spectrum of  
9 educational institutions the solution is going to be  
10 turn to the private sector.

11 COMMISSIONER DONOFRIO: Charlene.

12 COMMISSIONER VEST: We do it where it fits  
13 but we also have to invest taxpayer money.

14 COMMISSIONER DONOFRIO: Charlene, how does  
15 that work in community colleges? Does such a thing  
16 even exist there?

17 COMMISSIONER NUNLEY: Oh, yes, my college  
18 is in the top five in private giving in America and I  
19 think our endowment is about \$20 million. I mean,  
20 compare that to Harvard, compare -- it's much harder  
21 to raise money in a two-year college environment than  
22 it is in four years. On the other hand, one of our  
23 advantages is that a donor's gift goes a lot farther  
24 in a two-year college. You know, give me a million  
25 dollars and see how many students I can support with -  
26 - compared to how many MIT will be able to support  
27 with it.

1           So it's a case that can be made but it's a  
2 case that you know, we don't have the resources to  
3 hire a huge staff of people to go out and do fund-  
4 raising and development. So we're at a very deep  
5 competitive advantage in the private giving arena and  
6 I think unless there were some huge fundamental  
7 changes, it would be a very big mistake as Chuck said,  
8 to presume that we can solve the finance problems in  
9 two-year colleges and some of the less selective four-  
10 year colleges and universities through private  
11 philanthropy.

12           COMMISSIONER DONOFRIO: Okay, that was  
13 just my idea, so what about your ideas? Yes, Gerri?

14           COMMISSIONER ELLIOTT: I have a question.  
15 I am told that the reauthorization of the Higher  
16 Education Act is still before Congress.

17           CHAIRMAN MILLER: Senate.

18           COMMISSIONER ELLIOTT: Senate, excuse me.

19           CHAIRMAN MILLER: Which means Congress,  
20 too, I beg your pardon. I think it has passed in the  
21 House.

22           MALE PARTICIPANT: Yes, it has.

23           CHAIRMAN MILLER: But it hasn't passed in  
24 the Senate, it's still correct, what you said.

25           COMMISSIONER ELLIOTT: From what little I  
26 know of it, it falls into four major categories that  
27 talks about some of the things that we're talking

1 about, student aid and additional services to help  
2 students complete high school and enter or exceed into  
3 post-secondary, aid to strengthen institutions and  
4 improve K through 12 teacher training at post-  
5 secondary institutions. I just wondered what our  
6 position is or should be with the HEA in terms of  
7 either endorsing it or provide support for it or make  
8 sure it gets passed, but it seems to have some of the  
9 things that might fall into our different categories.

10 COMMISSIONER DONOFRIO: Charles?

11 CHAIRMAN MILLER: Well, the Secretary and  
12 I've talked about that and we agreed that we were  
13 trying to look at long-term strategy. We didn't know  
14 when or if the HEA would be done and to stay out of  
15 it. That was the conclusion. If you all have a  
16 different reason -- that tends to get you into other  
17 arguments uninvited and the like and so whatever they  
18 do, they might be listening to us, that's the best  
19 thing to happen. If we do a good report and it's  
20 still incomplete, it might have an influence, but I  
21 think getting us into the political realm, I think  
22 wouldn't be beneficial and I think that's how she  
23 started. It doesn't mean we can't change our mind, I  
24 suppose.

25 I would personally just say, let's look at  
26 what they're doing and hopefully they'll look at what  
27 we're doing and let's reach our independent

1 conclusion. We don't really have resources to go in  
2 there and lobby and this limits what this group should  
3 do and so on.

4 COMMISSIONER DONOFRIO: Jim?

5 COMMISSIONER DUDERSTADT: Another near-  
6 term activity underway is the Immigration Policy and I  
7 don't think we want to get caught in the real time  
8 debate going on, on that, but I think it is very clear  
9 that as a nation of immigrants historically and in  
10 reality today in which much of our economic success  
11 and security over the last century has been provided  
12 by the leadership of immigrants, we really need to  
13 think much more strategically about immigration and  
14 higher education. The capacity to attract the best  
15 and brightest from around the world and as you  
16 suggested, Charles, to keep them in this country so  
17 that they benefit America is of immense importance and  
18 I would encourage some kind of thought about a strong  
19 statement on that.

20 COMMISSIONER DONOFRIO: I think I'd have  
21 to -- I think most of us would agree with you. So I  
22 think we're going to have to do that.

23 COMMISSIONER VEDDER: I was going to say  
24 what Jim said, but I also originally, and it is on  
25 that list that we have on the list, we've got to say  
26 more about cost containment. So -- but we've talked  
27 about that a good bit today, so I won't say anything,

1 but someone mentioned something earlier today that I -  
2 - struck a responsive chord with me not in terms of  
3 recommendations but in terms of the rhetoric in the  
4 statement of our report. And I sort of take Governor  
5 Hunt's -- I think we ought to be optimistic and  
6 visionary to some extent, but I think we ought to say  
7 something about faculty.

8 Now, Arturo and I are the two faculty  
9 members here and I'm not saying this to toot the horn  
10 of faculty, but they are the people, they are the  
11 universities, they are the universities. And we  
12 should say something first about the role of  
13 innovation. They're the people that's going to make  
14 it happen and as someone said, the demographics of  
15 faculty, many of them, you know, are in the Viagra and  
16 Depend stage of their life and about ready to pass  
17 from the scene, and perhaps we should do something,  
18 say something about faculty, faculty development,  
19 encouraging faculty, you know. Is there a shortage of  
20 -- well, economists never believe in the concept of  
21 shortage by the way.

22 At the right price you can get rid of any  
23 problem, but are there looming shortages with respect  
24 to faculty at the current salary levels, what's going  
25 on there? Is the current stream of PhDs that turned  
26 out consistent with the needs that we have in terms of  
27 faculty? I don't know that entire answer to those

1 questions but at least a paragraph or something, a  
2 longer report on this may be or it might be worth  
3 throwing in.

4 CHAIRMAN MILLER: Or is that a big bold  
5 idea or not? Those are the kind of ideas we have. We  
6 have an infinite number of those, but how many of  
7 those are --

8 COMMISSIONER VEDDER: Well, that's right,  
9 Charles, and I'm worried about what Charles just said.  
10 We've got 217 ideas that are wonderful came in today  
11 or maybe it's 218, I forgot, and we want six. And  
12 that's the fundamental problem. But I'm thinking,  
13 Charles, there may be six bold ideas and I don't know,  
14 we haven't talked about this, are we doing a three-  
15 page report, a five-page report? Are we going to have  
16 an appendix? Are we going to have 100 pages of  
17 ancillary material? In the ancillary material, I  
18 think we ought to say something nice about faculty or  
19 maybe not nice, something about faculty.

20 COMMISSIONER DONOFRIO: Something  
21 relevant, something relevant, Rich.

22 COMMISSIONER VEDDER: Yes, but Charles  
23 just raised the most fundamental question of all. We  
24 had -- we really have had dozens of wonderful  
25 statements here.

26 CHAIRMAN MILLER: I'd like to force it  
27 into as small a set of pages as possible. I had a

1 number just arbitrarily 38 because I knew that would  
2 mean 50 in the final report or something like that.  
3 But a short report would be better and punchy language  
4 and inclusion and --

5 COMMISSIONER VEDDER: Well, I agree with  
6 that conceptually but we're not moving -- you know, by  
7 the nature of these discussions, you don't get that.  
8 Nick says, "Well, we'll add this and we'll add that",  
9 and --

10 COMMISSIONER DONOFRIO: Well, I'm in an  
11 expansion mode right now.

12 COMMISSIONER VEDDER: And we keep  
13 expanding and obviously -- and I'm in the business of  
14 how do you ration resources and bring scarcity about.

15 I mean, what are we going to do. Are we going, you  
16 know, have a -- as an economist we would have an  
17 auction and we'll pick the six points that get the  
18 most money kicked in to support them. But how are we  
19 going to resolve that? That's an interesting question  
20 I guess we'll resolve at our June meeting.

21 COMMISSIONER DONOFRIO: We will. Arturo  
22 and then we'll go down to the Doctor. Please, Arturo?

23 COMMISSIONER MADRID: More years ago than  
24 I care to remember, I had a dean when I first became a  
25 chair of the university, a dean who talked about  
26 quality and innovation and improvement in terms of two  
27 models. He said we can have a tent pole model in

1 which you fund the Department of English and the  
2 Department of Political Science and Department of  
3 History and they're the tent poles for everybody else  
4 or he said, we can have a contagion model where we  
5 fund good ideas coming out of whatever academic unit  
6 comes. And so it takes me to an idea that I proposed  
7 and I can stand to be correct on the contemporary  
8 realities of it, but of re-invigorating and providing  
9 adequate resources to an entity that can promote  
10 innovation and ideas both at the center and at the  
11 margins of the post-secondary enterprise, a fund for  
12 the improvement of post-secondary education.

13 And even maybe create a parallel structure  
14 that ultimately addresses the concern that we have, a  
15 fund for the improvement of pre-collegiate education  
16 that ultimately will have the same intent. But it's  
17 going to have to be a long-term project. It can't be  
18 a project in which they decide one year we're going to  
19 do this, the next year we're going to do this. We've  
20 got to stay on track for many years and also address  
21 something that came up in the conversations that we  
22 had with the Secretary which has -- and I think David  
23 mentioned that we don't have any mechanism for  
24 assuring that best practices get disseminated or get  
25 sustained or get continued. That is we don't have any  
26 contagion possibilities.

27 So I would like to come back to the idea

1 of creating or at least recreating or re-invigorating  
2 an entity within the Federal Department of Education  
3 that can do this.

4 COMMISSIONER DONOFRIO: Yes.

5 CHAIRMAN MILLER: I've already talked a  
6 little bit with Arturo about that. That's the kind of  
7 thing we can at least put forward and start discussion  
8 and the Department may even be able to do things  
9 without waiting for the report or even including it.  
10 So there will be an effort to try to do that. I was  
11 going to try to combine that kind of idea with the  
12 philanthropy which I thought was a good addition.

13 Public universities do have a major share  
14 from philanthropy but if we had a report, still if,  
15 directed towards sets of people like the Federal  
16 Government, states and so on, and toward  
17 philanthropists and toward the business community, or  
18 at least took our recommendations and also divided  
19 them that way, we might encourage private givers to  
20 focus on innovation and on innovative models and say,  
21 instead of programs which a lot of private  
22 philanthropy is focused on or even research, focus on  
23 innovation in higher education and in the under-served  
24 communities higher education, including community  
25 colleges, maybe encourage a shift or some things like  
26 that because I think that can be -- the amount of  
27 benefit can be very, very large relative to the amount

1 of money.

2 COMMISSIONER DONOFRIO: I think that's a  
3 great idea.

4 CHAIRMAN MILLER: So I'd at least add that  
5 to the equation.

6 COMMISSIONER DONOFRIO: I'd like to bring  
7 up another one that I don't think we've talked a lot  
8 about and I know we read this. They sent us this  
9 report, these 17 pages of regulations. That is just -  
10 - was an amazing read. Don't we want to talk a little  
11 bit about the regulatory burden that higher education  
12 is kind of saddled with in this country.

13 CHAIRMAN MILLER: It was a burden to get  
14 that report.

15 (Laughter)

16 COMMISSIONER ROTHKOPF: I think it was a  
17 terrific idea to submit that report from Catholic  
18 University. I think they're doing a great job there  
19 and I would say, having had to live with all those  
20 regulations for a dozen years, many of them are  
21 counterproductive relative to useless. I mean, some  
22 are important. You've got to have EPA rules. You're  
23 not going to get out of that, because that's the  
24 national law and anti-discrimination and Title 9, but  
25 there are so many of these rules, you know, reporting  
26 on, you know, crime statistics. It's a very worthy  
27 cause but it turns out, I don't think it does a lot of

1 good and nobody looks at it.

2 And I mean, I think you could go through  
3 that and do a -- just clean up these rules and I think  
4 it goes to the cost issue. It is a cost involved --

5 COMMISSIONER DONOFRIO: It has to be.

6 COMMISSIONER ROTHKOPF: Every school and I  
7 think some of these bigger universities I'm sure has  
8 to have one or two people full time just dealing with  
9 regulatory issues and I think --

10 (Laughter and all talking together)

11 COMMISSIONER ROTHKOPF: Well, all right, I  
12 had one person doing it. But I think it is a very  
13 important point and I'm glad it was brought up.

14 CHAIRMAN MILLER: You can call that the  
15 weight of evidence, literally. You know, you can toss  
16 it up. So I don't think we have time, necessarily to  
17 cull it and cut it out and it does show how society  
18 is over-regulating because many of those regulations  
19 apply to a whole lot of other entities. So I don't  
20 think you'll eliminate people in employment or health  
21 and other regulations by just saying something but we  
22 should make a strong statement, in my opinion, that  
23 higher education is over-burdened with regulation and  
24 the cost factor is enormous and that might even be a  
25 cause for that expanding hierarchy and maybe there  
26 could be some culling we could do.

27 I'm not very optimistic about it because

1 it really was hard to get this put together, because  
2 regulation, just from the Department of Education, is  
3 from virtually everybody.

4 COMMISSIONER DONOFRIO: So, I mean, I was  
5 shocked by it, just to be candid with you and I think,  
6 Charles, to your point, most people would be shocked  
7 by how much regulation for a non-regulated industry.

8 COMMISSIONER WARD: Well, this is just  
9 federal regulations.

10 COMMISSIONER DONOFRIO: Right, I hear you.  
11 Okay. Yes.

12 COMMISSIONER SULLIVAN: Nick, I would just  
13 like to second Richard's point about recognizing  
14 faculty, because we could have all the recommendations  
15 and exhortations we want, but if we don't have the  
16 faculty, we won't get anywhere. I'll give you a  
17 specific example. We have in this country and have  
18 had for a number of years, a shortage of nurses.  
19 There's no shortage of applicants to nursing schools,  
20 there's a shortage of nursing faculty because  
21 incentives for nurses out elsewhere in the private  
22 sector, et cetera, are such that they're not available  
23 as nursing faculty. And, of course, that has real  
24 consequences.

25 Here we have an aging society, increasing  
26 burden of diseases in the elderly, et cetera, and yet,  
27 here we have a profession that is central, central to

1 having a smoothly working health care system and we  
2 don't seem to be able to do anything about it.  
3 Nothing is happening here and this is not new. We've  
4 known it but yet we're ignoring it as if it doesn't  
5 exist. But a key issue here is a lack of faculty so  
6 that nursing schools can expand their capacity.

7 COMMISSIONER DONOFRIO: Good point. Yes,  
8 Charlene, please.

9 COMMISSIONER NUNLEY: Two things. On the  
10 faculty issue, I think that also if we can't get  
11 faculty to accept some responsibility and own some of  
12 the recommendations that we're going to come forward  
13 with, they will go nowhere. So I really do think that  
14 somehow we need to say something about that. The  
15 other thing is I wanted to mention that I did hear  
16 from the Community College Baccalaureate Association  
17 and they're disappointed that we haven't talked about  
18 the community college baccalaureate degree. To me  
19 that's a little bit of a narrow focus for the efforts  
20 of this group but I thought that since I had heard  
21 that information that I should bring it forward.

22 COMMISSIONER DONOFRIO: Thank you. I'd  
23 also be remiss if I didn't bring up in Jonathan's  
24 defense that he really does want us to commit to a  
25 piece of work that works on the transferability of  
26 credit and he really would like something very  
27 specific done on this topic.

1                   CHAIRMAN MILLER:       We've got a paper  
2 written. We didn't issue the paper yet because we  
3 were very careful about quality and source and all  
4 that but we do -- we have done some work on that and I  
5 agree that that's a critical topic.

6                   COMMISSIONER DONOFRIO: Gerri?

7                   COMMISSIONER ELLIOTT: Yes, Charles just  
8 said something a little bit ago that struck a chord  
9 with me and you know, in my business to make real  
10 progress you have to be really specific about some  
11 actionable things and you have to have clear sense of  
12 ownership, who owns the actions. And it would almost  
13 be really wonderful if we came up with a clear set of  
14 go dos, we call them go dos, go dos for parents to do,  
15 go dos for students to do, go dos for faculty to do,  
16 go does for the institutions to do in terms of some of  
17 these recommendations because I think we've said it's  
18 going to take an all out holistic approach to make  
19 some real change, if we can be real specific about the  
20 segments that own it, I think it would strike a chord.

21                   CHAIRMAN MILLER: Yes, I was talking with  
22 the Secretary. We were talking about maybe having a  
23 broad set of things and then out of that, say who has  
24 to do different parts of it. We were just thinking  
25 about the organization of that. So that would be one  
26 approach, thank you.

27                   COMMISSIONER DONOFRIO: Other comments?

1 Yes, Art?

2 COMMISSIONER ROTHKOPF: This is a point  
3 that I think goes to the cost issue and price. You  
4 know, they're related, although obviously not  
5 identical. I don't think we've talked about it.  
6 Charles indicated quite rightly that the cost we have  
7 for US education is way higher than the rest of the  
8 world. And I think we have to understand why that is  
9 in part. That's because we do many, many more things  
10 on our campuses than other countries do.

11 They're involved in education and probably  
12 education primarily. We have this panoply of  
13 activities that the consumers, if you will, are  
14 demanding, extra curricular activities, clubs, inter-  
15 collegiate athletics, which I might say is a  
16 tremendous drain on most institutions. It is not for  
17 the --

18 COMMISSIONER DONOFRIO: Easy, Jim.

19 COMMISSIONER ROTHKOPF: -- but for the  
20 others, it is a significant percentage of tuition and  
21 yet it's something people want and all I'm saying is I  
22 think you have to understand that a lot of what we do  
23 in higher education and a lot of the cost is driven  
24 not by education, but by as some of our faculty used  
25 to say fun and games.

26 COMMISSIONER DONOFRIO: Or other things,  
27 and you'll make this point, I'm sure, better than me.

1       You've made it to me several times. I mean, there's  
2       other social things that go on. The social learning  
3       that goes on in colleges and universities for good or  
4       bad, or cultural things, and I think you would agree,  
5       for good or bad and colleges and universities end up,  
6       in this country, absorbing those costs as well.

7                   COMMISSIONER ROTHKOPF: And spending a lot  
8       of money on them.

9                   COMMISSIONER DONOFRIO: And spending a lot  
10      of money on them that I would say most of the  
11      educational systems in the world don't. And do you  
12      want to now make this point?

13                   COMMISSIONER DUDERSTADT: I got an e-mail  
14      this morning just before I came down that our  
15      President is recommending to the Board of Regents  
16      today to spend \$227 million on building sky boxes at  
17      Michigan State. Okay, so the arms race goes up.

18                   COMMISSIONER ELLIOTT: The arms race.

19                   COMMISSIONER DONOFRIO: Other topics,  
20      other topics? We could go back to the list. I have  
21      been looking -- and I don't mean to slight our list.

22                   CHAIRMAN MILLER: Let me just comment.  
23      One of the major missions obviously of higher  
24      education, in teaching and learning we spend a lot of  
25      time on it, we focused on it for some specific  
26      research is the other -- you know, discovering new  
27      things is the other major mission. I'd say those are

1 the two personally. We've talked around it and about  
2 it and we add that a lot from the Gathering Storm and  
3 the Council on Competitiveness.

4 I don't think we've ignored it and I think  
5 what we do by pulling out those other reports we'll  
6 focus on that one mission. I just wanted to say that  
7 out loud. We didn't spend a lot of time talking about  
8 that directly. We did get some other -- STEM and  
9 other things but --

10 COMMISSIONER DONOFRIO: That's true,  
11 that's true. I mean, the other word that comes to  
12 mind is delivery. We've said that a few times. There  
13 are a number of things in the lists that we compiled  
14 under new and gap issues that I lumped into that topic  
15 of delivery. I don't know if we need to say more  
16 about that. We've talked about productivity. We've  
17 talked about cost.

18 COMMISSIONER VEST: Nick, I think one  
19 thing that has run through a lot of these  
20 conversations that I hope we can focus in on is  
21 proposing a way to institutionalize the propagation of  
22 best practice. I come back to again, it's not all  
23 just inventing new things. It's doing what some parts  
24 of the system know how to do. And given the breadth  
25 of our system, I'm not sure exactly how we do that,  
26 but I think institutionalizing, propagation of best  
27 practice and I think we need, at some point to come

1 back very specifically to this issue that Charles and  
2 others have brought up about research on learning.

3 And that has to be focused somewhere in  
4 the government. It has to be serious and I hope we  
5 can be very specific about that.

6 COMMISSIONER DONOFRIO: Good point. Okay,  
7 yes.

8 COMMISSIONER VEDDER: There's a panoply of  
9 things that we have not really talked about and maybe  
10 some of them we shouldn't talk about. A couple --  
11 I'll just mention two. One is grade inflation which  
12 came up and the general sense that we don't challenge  
13 our students enough in American higher education as a  
14 general rule. There's exceptions. I think maybe the  
15 elite privates challenge them a great deal, much more  
16 so -- I'm sure MIT challenges the heck out of its  
17 students. But at the run of the mill university and  
18 I'm at one of those, my President would not like that  
19 characterization by the way, but he's not here.

20 COMMISSIONER ELLIOTT: That's where my son  
21 goes.

22 COMMISSIONER VEDDER: Who said that?

23 COMMISSIONER DONOFRIO: Gerri, Gerri's  
24 sone goes there.

25 COMMISSIONER VEDDER: Oh, my God, \$8500.00  
26 worth of tuition may go down the drain.

27 CHAIRMAN MILLER: Now, we're going to find

1 the true definition of tenure.

2 COMMISSIONER VEDDER: I will come over and  
3 -- I will counsel you afterwards about all this.

4 COMMISSIONER DONOFRIO: She's transferring  
5 right now.

6 COMMISSIONER VEDDER: Chuck is actually  
7 speaking at our commencement ceremony. I'm in double  
8 deep trouble on all of this.

9 COMMISSIONER VEST: I'll quote you.

10 COMMISSIONER VEDDER: But at a traditional  
11 public American university, you know, this is a  
12 problem. Are we challenging our students enough and  
13 you know, at a lot of these schools, Thursday night is  
14 the beginning of the party weekend. I mean, I'm not  
15 saying -- it's not that way at every school, but it's  
16 increasing. We read more about this. We read more  
17 about rioting on campuses and so forth. Are we  
18 challenging our students enough, that ties in with  
19 grade inflation.

20 Another issue that nothing has been said  
21 about is university governance. I'm not sure we  
22 should get -- it's a Pandora's box and I don't know  
23 how far we can go with it but are -- but we had  
24 testimony, Ann Neal, I think from ACTA came, and she  
25 raised the issue, are -- what is the appropriate role,  
26 for example, of trustees in universities? Who makes  
27 the decision? Who is accountable? Who really runs

1 the universities? Are university presidents hobbled  
2 too much by a whole variety of things that they're not  
3 allowed to be strong leaders, the corporate sort of  
4 model or what is it?

5 Now this is a whole huge area and I can  
6 already hear Charles say, "We can't get into that  
7 because we've got too damn many other things to get  
8 into", and he's right. But it is important. It is  
9 important and most universities, the trustees come to  
10 campus. Privates are asked to give money. They're  
11 there -- two-thirds of them are there for their money,  
12 Arthur is nodding. He hustled some of these. At the  
13 public universities, some of them are politicians,  
14 some of them are elected, some of them are totally  
15 inappropriate people to be on and in others, they're  
16 being wined and dined by the university presidents and  
17 they never -- I talked to the chair of my own  
18 trustees recently. He said, "You know, we never get  
19 into the substance because we're always doing  
20 ceremonial things and we're doing this and that and we  
21 don't really get into substantive issues. We don't  
22 talk to the faculty, we don't do anything".

23 Is there a problem with university  
24 governance", and so you know, I just want to point  
25 that out.

26 COMMISSIONER DONOFRIO: Good comments.

27 COMMISSIONER DUDERSTADT: There is a major

1 task force that's run right now from the Association  
2 of Governance and I'm on it, to examine in some depth  
3 the state of the American university presidency. We  
4 expect to have a report out some time in mid-fall,  
5 after this report comes out but governance is a key  
6 feature of that. So some of these things are being  
7 done.

8 CHAIRMAN MILLER: I could respond to at  
9 least part of that. We have talked about in the paper  
10 I helped write on student learning, if we make a  
11 report to talk about assessment and what's needed, we  
12 should talk about the slippage and that. And there's  
13 a fair amount of quantitative and qualitative or  
14 antidotal evidence and antidotal evidence counts as  
15 well as the other if there's enough of it. So I think  
16 we did talk about that. Whether you agree or not,  
17 that will be conclusive when we write the report. I  
18 don't know how to get into governance. If somebody  
19 has a specific idea, tell us, but I don't see how we  
20 do that. That begins to be a top down thing where we  
21 say we independently govern and that's sort of  
22 somebody else's problem.

23 However, when you have an accountability  
24 system that measures results, you can get to best  
25 practices and you can have the people who govern be  
26 accountable, so you ultimately have to have a system  
27 that lets you have the data on how you perform, which

1 is why I keep saying that same thing.

2 COMMISSIONER DONOFRIO: My friends, our  
3 time together is over. I'm going to turn it over --

4 (Applause)

5 COMMISSIONER ELLIOTT: Just for the  
6 record, my son doesn't go to your school. I had a  
7 brain twist for a second. He goes to Bob's, thank  
8 God.

9 (Laughter)

10 COMMISSIONER ELLIOTT: Scared the heck out  
11 of me for a second.

12 COMMISSIONER VEDDER: Bob isn't here. I  
13 would say that Penn's pretty run of the mill by Ivy  
14 league standards.

15 (Laughter)

16 COMMISSIONER VEDDER: I'm just joking,  
17 just joking.

18 COMMISSIONER STEPHENS: Let's see, the  
19 last item on the agenda and this has been an  
20 interesting thought process about how to spend the  
21 last 45 minutes. And what I thought I'd do is provide  
22 some summary thoughts then turn her back to our  
23 Chairman. But what I wanted to do, I think, provide a  
24 perspective and I think this is important as we  
25 finish. This is a meeting that begins to lead into  
26 getting some report written. I'd like to say first  
27 off that, you know, what I'm going to walk through is

1 not a set of conclusions and this is particularly  
2 important, I think, for the audience.

3 I think the audience's comment is, "Gee,  
4 I'm looking for some results I can go out to press  
5 with". And now, we the Commission, are putting our  
6 activities together. So this is about us, as a  
7 commission having the opportunity now to share some  
8 thoughts and go forward and this is not about specific  
9 conclusions, but it is a summary wrap-up about what  
10 we've talked about over the last two days.

11 I think the second thing I'd mention is I  
12 think the Secretary gave us, as a Commission, some  
13 pretty clear guidance at the onset. She wants us to  
14 be specific about what the country should do, what  
15 policymakers should do, what governing boards should  
16 do and the whole educational system should do. She  
17 also talked about the importance of us being bold in  
18 our recommendations going forward. She also talked  
19 about that we are about, you know, trying to help  
20 educated systems or educated citizens who can be  
21 innovative and help define what that means.

22 She talked about us, you know,  
23 particularly providing recommendations to the Federal  
24 Government, I would say the state government as well,  
25 who are, in fact, investors in higher education. So I  
26 think our challenge is how do we bring all that  
27 together in an integrated report and we're beginning

1 to start to head down that path process with some  
2 specifics.

3 I would also like to remind us that a  
4 couple of meetings ago we talked about some things  
5 that I believe are important for us to all look at and  
6 that was the shared values we said we thought was  
7 important about the higher education system and I  
8 thought I'd walk through those quickly. They are not  
9 the end all, the be all but they do provide a  
10 framework and I've got them on the computer. We're  
11 not ready to go to the screen yet. First is that  
12 higher education must expand the knowledge base,  
13 contribute to the economic prosperity and empower  
14 citizenship. And I go back to the comments a lot of  
15 us have made is education is a number of things.  
16 We've talked about STEM, we've talked about economic  
17 prosperity. Chuck Vest brought up the point of the  
18 importance of citizenship and we've all talked about  
19 that liberal item, so important shared value.

20 Second, higher education must be available  
21 throughout an individual's life. And we spent some  
22 time talking about that and showed some data about the  
23 importance. We talked about higher education must be  
24 available to all Americans. And this notion not only  
25 through their life but also to all Americans without  
26 regard to the demographics, socioeconomic and ethnic  
27 position. We talked about higher education must

1 provide world class quality with increasing efficiency  
2 and affordability as one of our shared values.

3 We talked about the higher education  
4 system must provide world class research innovation  
5 and knowledge creation for the nation to sustain its  
6 leadership in a global economy. And Charles just  
7 talked about that. We talked about the teaching, the  
8 delivery side, but clearly that's an important element  
9 about the values of higher education as well.

10 Then two others; higher education must  
11 adapt to changes driven by the focus that includes  
12 globalization, technology, change in demographics, new  
13 providers, and new paradigms, if in fact, they're  
14 going to be successful long term. And the last that  
15 we have on the shared values is education must enable  
16 jobs and career opportunities to allow students to be  
17 competitive in the global market.

18 Now, the reason I bring that up is not as  
19 the exhaustive list of all what was covered but kind  
20 of a framework we've talked about that in the end, I  
21 think these are some elements that we all have gotten  
22 behind and when we think about our report coming out,  
23 we have to recognize that not only for the Secretary  
24 but, I think, part of our role is going to be to help,  
25 you know, make sure that we're really talking about  
26 where are we trying to go and what are the values we  
27 want out of higher education on the long term.

1           The next point that I'd like to bring up  
2           is I think as we look at where we're trying to go,  
3           this report must drive, whether you call that with a  
4           stick of with incentives and a carrot, it must drive  
5           behavior for the stakeholders and the system. This is  
6           a point, I think, we just began to walk through a  
7           little more definitively some of Gerri's comments, but  
8           you know, think about who are all the stakeholders in  
9           this system, and this is a very complex system. It's  
10          driven by federal funding and that's clearly from the  
11          Secretary's standpoint, the opportunity to drive on  
12          both sides of that fence as a carrot and a stick.

13                 But it's also huge regulatory requirements  
14                 which are set by not only the Administration but also  
15                 Congress and other elements who play at the regulatory  
16                 level. And so we've got to drive their behavior. We  
17                 also must drive behavior amongst, you know, the  
18                 leaders of our educational institutions because they  
19                 have a different set of incentives in many cases, then  
20                 maybe some of the other stakeholders. We have to  
21                 drive behavior relative to students, you know, and  
22                 their expectation. We have to drive behavior relative  
23                 to parents who may say you head down this path. We  
24                 have to drive behavior relative to employers, those of  
25                 us who complain loudly about what's working and not  
26                 working. We have to drive behavior amongst guidance  
27                 counselors. We have to drive behaviors against those

1 who deliver which are the professors, the teachers,  
2 the faculty and I think overall, we have to think  
3 about what behaviors we're driving for the American  
4 public which is really what this is about and all of  
5 the elements associated with that.

6 So with that as background, I think, you  
7 know, from our standpoint we've all hit around it, is  
8 this report needs to really, you know, drive that  
9 behavior and I think where we're at right now is,  
10 we've put a lot of work into as a Commission  
11 providing, I think, a framework for the staff to begin  
12 drafting a report that we will then start heading down  
13 the path and I know Charles will talk to that after  
14 I've finished about where he sees that going. But I  
15 would also add that as part of that, I think it's  
16 going to be important in the report that we come up  
17 with it must be driven by data and facts and we've got  
18 to get that on the table to support the positions that  
19 we have. And I think that's going to be an important  
20 element for all of us to recognize because I know we  
21 all have strong opinions about a number of elements  
22 but the more we can have with factual based data, the  
23 stronger coalition we will have for being able to go  
24 forward on our implementation.

25 I think the last comment I'd make is that  
26 you know, we could talk about a lot of things in this  
27 report and from my standpoint, I am one who would

1 encourage that fewer bold recommendations are much  
2 better than many, many recommendations. I know we're  
3 all going to struggle with that but that will be an  
4 important point for us to rally around and once again,  
5 going to drive the behavioral changes necessary in the  
6 system to be successful. So with that as background  
7 and a flavor perspective, I think, that kind of  
8 coalesces some of our thought process, what I thought  
9 it worthwhile doing is just flipping through kind of  
10 the top level problem statements that we've each  
11 talked to in each of the areas of universal access,  
12 preparation, affordability, accountability, you know,  
13 meeting the labor market needs, capacity, innovation,  
14 gaps and new areas. And as I think about that, there  
15 are a lot of things that overlap. I think this is as  
16 much about integration of those concepts to those few  
17 salient key bold initiatives rather than trying to  
18 have a point about every one of the eight, and I think  
19 that's an important element to try and drive to.  
20 Difficult to do, but I think that's the challenge that  
21 we have before us is, it's about the integration  
22 because there are so many elements about overlap  
23 whether you talk about universal access, preparation,  
24 affordability, accountability.

25 Those all overlap and if we can come up  
26 with some bold objectives that drive that, I think  
27 we'll be in good shape. So back to, you know,

1 universal access that Charlene talked about, here's  
2 what we talked about, you know, preparation for,  
3 preparation in and you know, progression through  
4 higher and further education need to be increased  
5 particularly for under-represented populations.  
6 That's what we talked about. We had a number of  
7 discussion points that went into that but I think that  
8 begins to provide a framework for going forward.

9 Let's go onto the next one. Under-  
10 affordability, you know, secondary education becoming  
11 increasingly unaffordable for a greater number of  
12 Americans especially low income minorities and, you  
13 know some key elements about a problem and how do we  
14 go off and address that. Clearly, you know, this  
15 notion about unilateral access and, you know,  
16 affordability are, in fact, you know, tied closely  
17 together.

18 And another -- and the next one, you know,  
19 a problem statement relative to accountability. You  
20 know, information about an institution's higher  
21 education is inadequate and unavailable for a large  
22 set of consumers to define broadly, therefore, we need  
23 more access to the data that we can all look at and  
24 say yea, verily this is where we're at.

25 The next one, in terms of accreditation,  
26 you know, it's a critical element, you know, and we've  
27 got to have a robust -- and again, transparency, again

1 all about data, getting that out on the table relative  
2 to the accreditation process. I think we had a nice  
3 lively discussion about this notion about, you know,  
4 being able to move and records accountability, move  
5 from institution to institution, an important part,  
6 you know, tied back to again data relative to  
7 accreditation.

8           Next; in the workforce development, you  
9 know, it really is about, you know, requiring a change  
10 in our education but it is again, all about  
11 accessibility of all environments from an economic,  
12 from an age, from a diversity standpoint and the  
13 flexibility to be able to meet the workforce needs as  
14 it goes forward, some degreed, some not degreed, and  
15 really helping people advance their skill set to be  
16 successful in the global market.

17           Next one; you know, increasing capacity,  
18 you know, the education effectiveness across the broad  
19 spectrum of secondary education regarding students,  
20 you know, how do you make sure you've got the  
21 effective with equality including using, you know,  
22 research and effective teaching models, you know,  
23 going forward.

24           I think then in terms of mix, you know,  
25 this notion about innovation, you know. Having an  
26 innovative engine is critically important from an  
27 economic standpoint and the educational system is a

1 fundamental important, you know, part of that. So and  
2 then we talked about some gaps and I'm not sure  
3 there's a page on gaps, but you know, we talked about  
4 some of the gap elements. My sense, again, is that I  
5 think as we've looked at all of these, we're pretty  
6 well hit on the major elements and important, again, I  
7 think are the challenges, how do we integrate it in a  
8 way that makes sense? I would tell you echoing Nick's  
9 comments, in my time on this Commission, I've learned  
10 one heck of a lot more about education and I think the  
11 challenge we face is writing a report that is concise,  
12 cohesive and will help the nation understand what's  
13 going on from higher education so that we can be  
14 successful going forward, making the changes necessary  
15 and I guess I would leave with a little bit of a  
16 parable.

17           And that is the -- there is a guy, the Zen  
18 master and the Zen master was walking down the street  
19 in a large metropolitan city and he walks up to a  
20 hotdog stand. And at the hotdog stand he walks up and  
21 asks for a hotdog and something to drink and he hands  
22 the hotdog vendor a \$20.00 bill. And the hotdog  
23 vendor took the \$20.00 bill and immediately went onto  
24 the next customer. So the Zen master is standing  
25 there a little bit confused. You know, \$20.00 for a  
26 hotdog and something to drink seems a little bit high  
27 and immediately went on and the hotdog vendor is

1 serving up other hotdogs and finally the Zen master  
2 comes back up to the hotdog vendor and says, "Well,  
3 sir, I gave you a \$20.00 bill for my hotdog. It seems  
4 a little bit high." And the hotdog vendor says, "You,  
5 above all, must know that change must come from  
6 within".

7 (Laughter)

8 COMMISSIONER STEPHENS: The reason I bring  
9 up that story is we all have our perspectives about  
10 this notion of higher education. We all bring values  
11 and intensity and elements but I think we amongst  
12 Commissioners must recognize and this nation must  
13 recognize change for higher education must come from  
14 within. We can help start that and move it forward.  
15 I think this report is a great opportunity to start  
16 that. And with that, I turn it back to the Chairman  
17 for closing comments.

18 CHAIRMAN MILLER: Thank you. Wonderful.  
19 Good summary.

20 (Applause)

21 CHAIRMAN MILLER: Let me offer a couple of  
22 ideas and then ask for some help. I'm glad I talked  
23 you all into doing this session this way. It's been a  
24 wonderful experience for me and I think it's been very  
25 productive for everybody. I'm not very hopeful about  
26 convening a whole set of this group again and even in  
27 the June meeting, we -- it's going to be hard during

1 the summer to get a lot of us together. So I think it  
2 would be very helpful starting on Monday or as soon as  
3 you get home to start giving us some advice about  
4 structure and organization and how to do the process.

5 I had somebody organize -- I mean, outline something  
6 that could be the organization of the report months  
7 ago. I'd have to go back and find it. I'm not sure I  
8 can or what the right organization of the report  
9 should be.

10 I have some of my own ideas. I'd  
11 appreciate any input on that. I see it as those four,  
12 five, six broad themes, starting with trying to look  
13 at the access, the four that the Secretary gave us and  
14 workforce, but maybe then because they are  
15 overlapping, just fold them in or blend them into  
16 something broader. For example, for me one of the  
17 clear indications out of all of this is we have a  
18 really big separation going on in society from those  
19 that have an education and those that don't and it's  
20 increasing or accelerating and geometrically or  
21 whatever and it's geographic and things like that.  
22 And I think we have to really highlight that and focus  
23 on it whether it's more financial aid for the needy or  
24 any combination of it, preparation, that that would be  
25 the kind of theme that we should really hit and so  
26 what the solutions are come from that theme to some  
27 extent. So finding those four, five or six big issues

1 I can think of more issues than problems, brings us  
2 toward some of the solutions we've come up with and  
3 then maybe we can make them efficient and combine  
4 them. So I think we can begin to do some things with  
5 a variety of people writing parts of it, if we can get  
6 those things but even putting things out there that we  
7 might just discard, in other words, I think it's going  
8 to have to be an iterative process where we cut and  
9 paste and cut and paste and do that for awhile, with  
10 the target of August 1 to have a draft of a report  
11 that then we could fine tune over the next period of  
12 time.

13 And we talked earlier about having a  
14 telephonic meeting too, somewhere that we can do some  
15 resolution which we could do in a quick sense. So  
16 when we get back, we'll start some people writing on  
17 some parts of things or outlining some ideas and  
18 putting them out there for you all to respond to and  
19 then anybody that wants to initiate some of those  
20 things I'd appreciate. We're going to need full  
21 involvement from the Commission and we may ask a few  
22 of you and probably will, to write some things or  
23 themes or parts of it. If anybody has any other  
24 ideas, I'd like to hear them?

25 COMMISSIONER VEDDER: I think that's  
26 wonderful. I don't know really how else you could do  
27 it. Some of us feel very, very strongly about one or

1 two things and there are only going to be a half dozen  
2 points there. I wonder if it would be -- at least I'm  
3 going to do this to you and to Cheryl. If there's one  
4 or two things that, you know, it's just critical to  
5 you that it be included in the report, that it is --  
6 it would be shameful if it were not in the report, I  
7 couldn't sign it if it weren't in the report, that  
8 kind of thing, I think you ought to know about it,  
9 because there are -- we have a lot of different  
10 recommendations we all agree with but there's also the  
11 issue of the intensity of feelings and we all, I  
12 think, agree as you said, on the -- broadly, let's  
13 call it the access issue. I don't think we need to  
14 debate that. I think that's already a given.

15           The wording and the concreteness of it is  
16 certainly up for grabs but some people feel more  
17 strongly about quality issues. Some people feel more  
18 strongly about costs and effectiveness issues. I  
19 think it would be useful for Cheryl and you as you go  
20 forth to know what is really critical to us. I mean,  
21 in fact, I would limit it to one point or two. I  
22 mean, we don't want to go through another long laundry  
23 list. We've already been through a lot of laundry  
24 lists, but if there's one thing that, you know, is a  
25 stopper, I mean, if there's -- I can't sign this  
26 report unless this is in there, I think you ought to  
27 know it now rather than later. And this should be

1 done privately through --

2 CHAIRMAN MILLER: Well, give us that  
3 input, let's say one to six. Give us that input.  
4 Don't use that last line. Let's just say we're going  
5 to sign it and let's say tell us what those intense  
6 strong feelings are and do several if you want to do  
7 that. I mean, I think that's very valuable.

8 COMMISSIONER VEST: Mr. Chairman, first of  
9 all, I think it's been a terrific session. I want to  
10 support the path forward you've outlined but I would  
11 like to encourage you to do these first couple of  
12 iterations still at the outline level because what  
13 we've got to do is focus. We need bullet points. If  
14 we've got a lot of rhetoric out there. And then the  
15 number two thing is I hope that someone very quickly  
16 will start on what I've sort of called the preamble,  
17 the front material that's going to lay out the system  
18 and what it is we're going to talk about in the  
19 report. Those are the two things, bullet points --

20 CHAIRMAN MILLER: That last is interesting  
21 because I hear -- I've talked to the writer we've just  
22 engaged for example, and I've talked to other people  
23 who have done reports like this, I heard the opposite  
24 of that. I'm not even arguing about it, but somebody  
25 said to me let's work on the body of the report and  
26 write the preamble later. It was an interesting thing  
27 because it made some sense to me. I'm open to either

1 one of those. I don't really have a good process  
2 answer. It was kind of an interesting concept because  
3 you get into the actionable items easier and better  
4 that way and less breath.

5 COMMISSIONER VEST: Look, obviously, I'll  
6 do whatever people want to do but let me explain my  
7 reasoning for early work on the preamble. I think  
8 what -- speaking for myself and probably for most of  
9 us, what's been amazing about this group is that we  
10 represent so many different sectors, and I think what  
11 we've all learned about is, I think Nick used the word  
12 "integrated system", whatever you want to call it, and  
13 I think we all came in knowing our bits and pieces and  
14 it's sort of putting that holistic view together that  
15 I think it's helpful to get a good start on. I'm okay  
16 with that.

17 COMMISSIONER DUDERSTADT: You can actually  
18 do both. I think you begin with an outline and before  
19 you write the pieces, the preamble goes first but you  
20 have to have the outline before you can write the  
21 preamble.

22 CHAIRMAN MILLER: Yes.

23 COMMISSIONER ROTHKOPF: You go back and do  
24 the details and rewrite the preamble.

25 CHAIRMAN MILLER: Actually, that's the  
26 right way to say it. That is the right way to say it  
27 and actually that's what I wanted to say and I said

1 yesterday, until it's done it's not done. In other  
2 words, it's subject to continual change and whatever.

3 So nothing -- that's what I meant about let's not  
4 make a decision about whether we like it or not until  
5 it's really in that final form and we get a  
6 preponderance of people saying that, then it's done or  
7 closer to done.

8 GOVERNOR HUNT: Mr. Chairman, would we  
9 understand that as we go along, after we get our main  
10 points in and all of that, and the writer is actually  
11 drafting the report --

12 CHAIRMAN MILLER: No, we'll get a draft,  
13 Governor, and the writer will put it in words that are  
14 more -- I would say we will draft it and the writer  
15 will put it in words that are common and clear and  
16 organized in a certain way and things like that. So  
17 I'm being technical there but I want to make it clear  
18 that whatever we --

19 GOVERNOR HUNT: Sure.

20 CHAIRMAN MILLER: Thank you.

21 GOVERNOR HUNT: But we will then get  
22 copies of the draft that will come to us and we'll  
23 have a chance to go over those and send them back to  
24 you.

25 CHAIRMAN MILLER: Continuously, is what we  
26 hope. In other words, it might be fairly frequently  
27 and often and everything we can produce pretty quickly

1 to everybody. If it comes down to it's pretty onerous  
2 because we have, you know, 18 times a dozen ideas,  
3 that might become hard, so you may have to ask  
4 different members to help us sift it down. That may  
5 be one of the ways we do it. But we want everybody to  
6 be involved in that process thoroughly and  
7 continuously.

8 COMMISSIONER MADRID: Many years ago I ran  
9 an organization and one of the rules that we had, and  
10 Charlene will remember this is we didn't do  
11 pathologies. And I think it would be very important  
12 for us not to do pathology of higher education but to  
13 focus on what we need to improve and if there's any  
14 pathology it's why we need to improve.

15 CHAIRMAN MILLER: Thank you. Anything  
16 else? Send us your ideas right away. If you don't  
17 mind, at the start, send it to Cheryl and me  
18 simultaneously. We'll always get it to the group or  
19 to the people that need to see it right away. Thank  
20 you all very much.

21 COMMISSIONER VEDDER: I think we owe a  
22 special round of applause for Charles for his --

23 (Applause)

24 CHAIRMAN MILLER: The meeting is adjourned  
25 on time.

26 (Whereupon, at 12:34 p.m. the above-  
27 entitled matter concluded.)

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