

S. HRG. 108-665

**THE ROLE OF HIGHER EDUCATION FINANCING  
IN STRENGTHENING U.S. COMPETITIVENESS IN  
A GLOBAL ECONOMY**

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**HEARING**

BEFORE THE

**COMMITTEE ON FINANCE  
UNITED STATES SENATE**

ONE HUNDRED EIGHTH CONGRESS

SECOND SESSION

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JULY 22, 2004  
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**THE ROLE OF HIGHER EDUCATION FINANCING IN STRENGTHENING U.S. COMPETITIVENESS IN A GLOBAL ECONOMY**

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THURSDAY, JULY 22, 2004

U.S. SENATE,  
COMMITTEE ON FINANCE,  
*Washington, DC.*

The hearing was convened, pursuant to notice, at 10:05 a.m., in room SD-215, Dirksen Senate Office Building, Hon. Charles E. Grassley (chairman of the committee) presiding.

Also present: Senators Thomas and Baucus.

**OPENING STATEMENT OF HON. CHARLES E. GRASSLEY, A U.S. SENATOR FROM IOWA, CHAIRMAN, COMMITTEE ON FINANCE**

The CHAIRMAN. The hearing will come to order.

Thank you all very much for being here. We are going to have to keep everything on schedule today because the Senate has scheduled votes for soon after 11:00. We will find some way of accommodating those votes if we are not done with the hearing, but we need to move along so we are not going to wait for other members to come.

The Finance Committee, today, examines what we consider a very important topic because we have been legislating in this area for a long time with tax incentives to help higher education. We are looking at the role of Federal tax incentives in assessing today how they meet higher education costs and what might be done for the future.

We all know that an educated and skilled workforce is critical to compete in today's global marketplace. As we sit here today, there are young people throughout the country, throughout the world, with the potential to one day develop the technologies of tomorrow and engine our economy for the future.

It should be one of our primary purposes to ensure that these bright lights of tomorrow have every opportunity to reach their full potential and help lead a 21st century of innovation that is even more spectacular than the last century.

The Tax Code is only one piece of our overall education policy, but we consider it, on this committee, a very important piece. In recent years, a number of tax incentives have been enacted to help Americans save for college and other higher education expenses and to reduce the burden of the expenses that have occurred.

We have created new education savings vehicles, allowed for the deductibility of interest on student loans, and provided deductions and credits for higher education expenses.

In this hearing today, we have brought together a distinguished group of witnesses to help us examine what is happening with college and other higher education costs.

We will probe key questions like: where are we today, and where are we going to go with higher education costs? How does our higher education financing fit into our overall economy and our competitiveness with the global economy? How are tax incentives that we have put in place working? Can they be improved, and if so, how?

I am looking forward to hearing the views of all of our witnesses.\*

I am going to take this opportunity before Senator Baucus speaks to introduce our panel. Susan Dynarski of Harvard University's Kennedy School of Government will provide a general overview of higher education financing trends and the tax provisions that we will be examining today, and tax changes as well, including credits and deductions that have been enacted, and utilization of those incentives.

She has studied and teaches in education policy, tax policy, and educational statistical methods, and she has published a lot of scholarly journals.

We have Peter Corr, senior vice president for Science and Technology at Pfizer, where he is responsible for aligning the company's worldwide researchers and development organizations with licensing activities and science medical advocacy. Dr. Corr will testify on the role of higher education financing for developing a skilled and competitive workforce.

Then we have Dr. Watson Scott Swail, president of the Education Policy Institute, Stafford, Virginia. Dr. Swail will compare the U.S. higher education financing system with that of other countries. He has authored several recent comparative studies between U.S. and other industrialized countries.

So with the introduction of panel one, I will now call on Senator Baucus.

**OPENING STATEMENT OF HON. MAX BAUCUS, A U.S. SENATOR  
FROM MONTANA**

Senator BAUCUS. Thank you very much, Mr. Chairman.

Mr. Chairman, I regard this as an extremely important hearing on an extremely important matter. I believe, frankly, that our country needs to wake up to the challenges that face us worldwide, the challenges of skills that are being developed in other countries, challenges of innovation, of the number of engineers produced, math and science courses taught, and the failure of enough Americans to realize that high school students educated in Pusan, Korea are just as well-educated as high school students in virtually any high school in America, and they are more hungry. They have got a lot more to strive for than a lot of students do in America.

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\*For more information on this subject, *see also*, Joint Committee on Taxation document, "Present Law and Analysis Relating To Tax Benefits for Higher Education" (JCX-52-04), July 21, 2004.

To me, this is very similar to Sputnik, but with one major difference. We woke up not too long ago and saw Sputnik up in the sky. Holy mackerel, a lot of Americans thought. What is going on? What happened? We must have been asleep at the switch. So, we put a satellite up there.

We responded, as Americans, to the challenge. It was a crisis and we responded. We put, not too much later, a man on the moon. So, we can respond to challenges. There have been many crises in American history that we responded to.

I personally believe this is another, similar crisis, only this is kind of a stealth crisis. It is getting harder to see. It creeps up on us a little bit more. It is not like waking up one morning and seeing Sputnik up there.

I worry that if we do not get on the ball here, that we are going to wake up one morning and realize, where have we been? Why did we not do more? Why did we not make sure that the American people, not only students but all Americans, have more available to them, resources, to be trained and get the skill sets and education that is needed to compete in the world community?

I think, the comparative advantage that Americans can have is brain power. It is the added value of more knowledge, of higher skill sets to develop more and different kinds of products. We are not going to have the lowest wages in the world. We do not want the lowest wages in the world.

There are other costs of doing business that are lower in other parts of the world that we do not want either, but we do want to have, I think, the best-trained people and the best opportunity for Americans to grow, develop, and be well-educated.

I have often thought that one basic reason our country has been strong in the past, is there is more opportunity and more mobility in America compared with other countries. A person can do well in America if he or she wants to.

But these days, a person has to have, again, the knowledge and the skill sets to be able to do all that. I think we do a much, much better job in American of providing all of that.

I have a prepared statement, Mr. Chairman, which, frankly, I am not reading, because this means so much to me, I just started talking.

The other part I want to focus on, too, as we will with these panels—I thank you so much, all of you, for coming today—is sort of matching the current programs we have with the need and finding out where the matches do not work very well, and how we can improve it and make that work better.

In my home State of Montana, there are a lot of younger people who just have a hard time going to college or going to community college just because a lot of them are single moms today. It is just tough, finding the financial resources to go to college and do what they want to do.

And a third area which I think we need to focus on, and I do not know if this panel is focusing on that. I do not think it is, Mr. Chairman, but our country must, is more math, more science, more hard skill sets that are key. There is no getting around it. Those are key to success and to better-paying jobs.

Ultimately, we want more Americans to have more opportunities to do more in their lives, and that almost always only happens with better incomes and with a higher knowledge base and skill set. So, I thank you very much for holding this hearing.

It is my hope, Mr. Chairman, that you, I, and others can help generate a greater sense of urgency about these matters, which I think would be a great service for our children and for our grandchildren. If we fail to do so, I think it will be an equally great disservice.

But thank you very much for holding this hearing.

[The prepared statement of Senator Baucus appears in the appendix.]

The CHAIRMAN. In response to your efforts that we try to do something more in this area and kind of drive it, we either drive it or we are going to be driven by the global competition that we are in that is creating potential problems for our economy, and maybe some problems that are already here.

I think I am going to go in the order I introduced you, so I am going to start with Dr. Dynarski. I hope I pronounced your name right.

**STATEMENT OF DR. SUSAN DYNARSKI, HARVARD UNIVERSITY  
KENNEDY SCHOOL OF GOVERNMENT, CAMBRIDGE, MA**

Dr. DYNARSKI. You did very well.

Chairman Grassley, Senator Baucus, I am pleased to have the opportunity to testify before you today.

I am going to say right at the start that this is my first time testifying before Congress, so I hope you will be merciful to me in the question and answer session.

Senator BAUCUS. Well, that is an opportunity for you, too. [Laughter.]

Dr. DYNARSKI. That is right.

I have studied the impact of college costs on college attendance for 10 years, first as a graduate student, and now as a professor. I am interested in the topic for the same reason that you are. I believe that a well-educated workforce is key to the competitiveness of the United States and the economic well-being of its families.

Growing up, I had it drummed into me that college was important. My dad was a high school dropout, but my parents wanted more for their kids. My mother set a good example, going to night school for years and trying to get a college degree, and she made sure her daughters went to college.

Now, getting more people into college is good for America. Why? Scarcity of anything, including labor, drives up its price. A shortage of college-educated workers drives up their wages, and that increases inequality in the United States and pushes employers to find cheaper skilled labor overseas. Chairman Greenspan made exactly this point yesterday in testimony to the Banking Committee.

By making college affordable, we can open good jobs to more Americans and keep America competitive. Right now, the education tax incentives provide relief for middle- and high-income families, but the incentives do not encourage more people to go to college. Today I am going to suggest how we could use the tax incentives to get more people into college, which is our goal.

So the tax incentives work in two ways. One, they help families pay for college today, that is, the Hope Tax Credit, the Lifetime Learning Credit, the tuition tax deduction. And they help families save to pay for college in the future, the 529 savings plans set up by the States, and the Coverdell Education Savings Accounts.

Now, the tax incentives were introduced at a time of rising college tuition prices. Tuition and fees at 4-year private colleges in the early 1980's were \$9,200, on average. Twenty years later in 2003, they were \$20,000, on average, and that is controlling for inflation.

So it is perhaps with an eye to these eye-popping tuitions that the tax credits and deductions were designed to give the greatest help to students at quite expensive institutions.

For example, the full \$2,000 benefit of the Lifetime Learning Credit does not kick in until tuition and fees are at least \$10,000. Now, \$10,000 does not sound very high. Tuition and fees at Harvard were \$27,000 this year. But the truth is, very, very few students attend schools with tuition and fees anywhere near \$10,000 a year. No community college has tuition that high.

Seventy-one percent of 4-year college students go to schools with tuition and fees less than \$10,000. So, we have designed tax incentives that offer the most help to a very atypical student, the one who attends an elite private university.

Now, this brings me to my first broad recommendation, that we focus the incentives on those on the brink of going to college, that single mother that you were talking about. She is the one who needs some help to push her through the door and get her into college.

Now, such a potential college student is not teetering between skipping college and going to Harvard, which costs \$27,000 a year. She is teetering between skipping college and going to the local community college, which might cost \$2,700 a year.

Making community college cheaper will draw many more people into college, making Harvard cheaper does not. It might make the families of Harvard students happier, but it does not bring more people college.

My second broad recommendation, in addition to focusing on the tax incentives, is to simplify them. Families cannot respond to an incentive if they do not understand it. The current jumble of credits, deductions, and savings plans, however well-intentioned, is too complicated for families to actually understand.

Clear, simple programs have the greatest impact. Georgia's Hope Scholarship makes college free for high school students with a B average. It is very simple and very easy to understand. Get a B, go to college for free. Ninety percent of Georgia's high school freshmen know about Hope and can explain its rules.

We should strive to make these tax incentives this simple. Guarantee college students a tax credit of \$2,000, the cost of community college. Very simple. Go to college, get \$2,000. That kind of program could have a real impact, giving people the push they need to get them into college.

Now, how can we do this? Merge the credits and the deduction into a single refundable tax credit for educational expenses, including tuition, fees, room and board.

Why one credit? Having three different tuition tax incentives is confusing to families. Why refundable? Well, right now, families cannot count on the credit. Half of families do not get the full credit because their tax liability is too low, so families thinking of enrolling their students in September do not know whether they are going to get a credit come April. This uncertainty blunts the impact of the credits.

Why cover all expenses, including room and board? Right now, each incentive has a different definition of college expenses. The savings plans include room and board, the credits do not. This is unnecessarily confusing.

Including room and board would open the credit to students at public colleges where tuition and fees are too low to yield the full credit right now. I believe that such a simple program would have a powerful impact on college attendance, strengthening the skills of our workforce and honing America's competitive edge.

Thank you again for the honor of testifying on this important issue.

Senator BAUCUS. Not bad for the first time. [Laughter.]

Dr. DYNARSKI. Thank you.

The CHAIRMAN. I agree with him.

[The prepared statement of Dr. Dynarski appears in the appendix.]

The CHAIRMAN. Dr. Corr?

**STATEMENT OF DR. PETER B. CORR, SENIOR VICE PRESIDENT  
FOR SCIENCE AND TECHNOLOGY, PFIZER, NEW YORK, NY**

Dr. CORR. Mr. Chairman, Senator Baucus, I am Peter Corr, senior vice president for Science and Technology at Pfizer. Thank you for allowing me to address the committee today on a critical issue, the link between our Nation's global competitiveness and our investments in both K-12 and higher education.

Mr. Chairman, I am going to summarize my testimony this morning and request that the entirety of my statement be placed in the hearing transcript.

The CHAIRMAN. Yes. And let me make that clear. Without anybody asking, we do want your entire statement to be included in the record if you want it. You will not have to ask. Then we would ask you to summarize in 5 minutes.

Dr. CORR. Thank you.

Every single day in my work at Pfizer, I see irrefutable proof that a workforce with higher education is absolutely crucial to the ability of the United States to maintain its leadership position in science, technology, and business.

With regard to this, virtually every day I am reminded of at least three things: science is getting much tougher and more complex. We need more scientists who can master multiple scientific disciplines. To meet this need, we must begin training scientists at an earlier age and nurturing their interest in science as they learn.

This was my view during 15 years as a university professor and it has been reconfirmed in my position at Pfizer, the largest private biomedical research organization in the world.

Inquisitive, highly-skilled scientists are the lifeblood of any science-based business, and that is true of technology-based as

well. Pfizer really depends on the dogged inventiveness of 15,000 scientists, including chemists, clinicians, those trained in integrated biology, molecular biology, pharmacogenomics, and virology, to name just a few.

While Pfizer currently has little trouble finding quality candidates, we see some really warning signs. For example, although the number of non-social science doctorates awarded has declined by about 7 percent from 1997 to 2001, the number of doctorates awarded in the physical sciences has fallen by almost 15 percent, and in the biological and agricultural sciences by almost 9 percent.

In 1987, Dr. Robert Solow won the Nobel Prize in Economics for demonstrating that technological advances are more important to a country's long-term economic growth than capital investments.

This is also reflected in the recently announced National Institutes of Health roadmap for medical research in the 21st century, where its director, Dr. Elias Zerhouni, makes two points central to this discussion.

First, as biomedical research grows ever more complex, we need scientists who are well-versed in multiple disciplines. This kind of renaissance approach to science requires that our scientists be able to move between disciplines and contribute to interdisciplinary teams.

This includes biologists who understand molecular biology, as well as integrative, whole organ biology, bioinformatics, genetics, mathematics, physics, chemistry, and other disciplines.

Minds like these can only be shaped by the best educations possible. This type of education argues for scientists with multiple or multi-disciplinary degrees, those that require more courses and require more time and money.

The second point that emerges from the NIH roadmap is that clinical research is becoming much harder to do. Many of the "easy" diseases have already been addressed. Again, this is an issue I know all too well.

Tougher research requires better minds with better training. This requires clinicians who are well-trained in basic science and are able to take these findings to the clinic for evaluation in humans, and are able to employ the most advanced approaches in emerging technologies.

A recent monthly labor review analysis projected that expected growth for scientists and engineers in the United States is about 47 percent, or roughly 2 million more jobs. So who are going to fill these jobs as the number of doctorates awarded continues to decline?

It does not appear as though our international competitors will have the same problem. Japan proportionately awards three times as many scientific graduate degrees as we do. Germany awards six times as many natural science degrees.

How then, as Americans, do we address these problems? We have to realize that this is not just a college-level problem. A student who does not develop ease with mathematics and a love for science in his or her earlier years will most likely be uninterested in science courses in college.

A survey reported by the Committee for Economic Development finds that the number of American high school seniors who like

science and math and who believe it is relevant to their lives has dropped dramatically since 1990.

Another disturbing finding: while 70 percent of fourth graders like math, only 47 percent of twelfth graders make the same statement. Such statistics should be taken as a national “wrong way” sign.

I assume we all agree that in the 21st century, science is as important as reading and writing and arithmetic. How many times have you had a 5- or 6-year-old recite for you the Latin species and genus for dinosaurs? Kids are up to the task if we could somehow engage their imagination and sense of wonder and maintain it. Both the private and public sectors need to contribute to this effort.

I would just like to take a moment, if I could, Mr. Chairman, to summarize some of Pfizer’s efforts only as examples of possible private sector endeavors.

Through the Pfizer Education Initiative, more than 1,700 of our employees volunteer with almost 300 community schools to develop more robust elementary math and science programs.

We have helped to provide 18 schools with new labs. More recently, Pfizer has partnered with New York City schools to provide summer study grants for elementary and secondary science teachers to learn best-in-practice techniques for teaching science. We are also looking at other programs such as those being developed at the Connecticut Science Center, as well as other centers around the country.

Pfizer also has a broad range of undergraduate, graduate fellowship, and internship grant programs as well. Congress is also taking a lead. Many of you and your colleagues are advancing bills to provide tax incentives for the development of primary and secondary education math, science, and technical programs.

You also want to increase the number of quality teachers in these disciplines. You are looking for ways to provide parents the resources to help their children develop the real joy of discovery.

Pfizer applauds this committee’s attention to this issue. We must consider all feasible ways and means of getting more Americans interested in science at an early age, and then to pursue science in their undergraduate and graduate studies.

I would, however, like to add a few ideas on the issue of college affordability. Some have argued that college education tax incentive programs mostly help people who would go to college anyway. That point is very important, but I would add an additional perspective.

These programs you explore today make a difference in the quality of education, not just its affordability. Again, this is critical. For science-based industries, a small difference in quality of education and skills can make a big difference in the complex research, discovery, and development process in many industries.

For the United States to remain competitive in the global market, we need our best students to be able to afford to attend the best colleges. That need will only grow as our scientific knowledge expands and our science-based industries advance.

Let me just address one final issue. To keep scientists in this country, we also need tax incentives that are directly linked to our ability to hire the best at competitive salaries.

U.S. high-risk, high-reward business must be able to attract and retain the most capable and best-trained employees if they and this country are to remain globally competitive.

Without the research and development tax credit which just expired June 30, the research and development budgets across industries will become more expensive to finance than it is today. Study after study has shown that the R&D tax credit has led to increased private sector investment in research and development.

I am aware that pending legislation would extend this credit from June of 2004 through the end of 2005. We need the R&D tax credit extended permanently, and we need it soon.

Thank you. I look forward to answering your questions.

[The prepared statement of Dr. Corr appears in the appendix.]

The CHAIRMAN. Dr. Swail?

**STATEMENT OF DR. WATSON SCOTT SWAIL, PRESIDENT,  
EDUCATIONAL POLICY INSTITUTE, STAFFORD, VA**

Dr. SWAIL. Thank you.

Mr. Chairman, Senator Baucus, and committee members, good morning. My name is Scott Swail, president of the Educational Policy Institute. We are an international think tank on educational opportunity.

Over the past year, there has been an increased awareness on the outsourcing of traditional U.S.-based jobs to countries overseas. A recent "60 Minutes" report cited estimates of as many as 400,000 jobs outsourced in the last 3 years.

Most outsourced jobs have been in relatively low-tech areas such as telemarketing and related employment, but that is changing. IT and engineering positions are now moving from U.S. soil to countries like India, China, South Korea, and Taiwan.

The biggest reason these jobs are being outsourced is cost. Quite simply, U.S.-based companies can find lower-cost skilled labor abroad. Simply put, if the sole interest is to create a profit margin, an employer is more likely to hire a \$15,000 engineer in Delhi compared to a \$75,000 engineer in Reston.

Both may have essentially the same credential, but whether that credential is equivalent is worthy of discussion in another forum. Some economists suggest that outsourcing may be the only way for American firms to remain competitive on the international market.

Now, in terms of higher education, the reality is that higher education is a lever to scientific and technological competitiveness and productivity. As the world continues to open up economically, so does the transfer of information, technology, and the sciences.

It follows then that our new competitors are becoming prolific in higher education. Between 1990 and 2000, South Korean higher education enrollment more than doubled; China enrollments grew by two-thirds in only 5 years; and India's enrollment increased by one-third between 1996 and 2002. Comparatively, between 1990 and 2000, our enrollments increased by 11 percent.

These international trends are fueled by the same factors that fueled all of our higher education growth in America: a clear understanding of the importance of higher education to the individual and society.

What we see in the Euro-Asian market is an opening of higher education much as we saw here at home after World War II. Our troops were welcomed back from the battlefield with the GI bill, which almost single-handedly transformed our higher education system.

A similar sea change is taking place on the other side of the globe. But the inducement is not war, but rather economic prosperity. Places where higher education was reserved for society's elite has been expanded to a greater percentage of the population.

And while it is true that China and India have post-secondary attendance rates which are a fraction of what we have in the United States, the sheer size of these countries' populations mean that these countries are now producing as many, if not more, higher education graduates than the United States.

Our best opportunity for continued prosperity and economic advantage in the United States is to continue doing what we do well. We produce more scientists and engineers than any country on earth, and we produce the best.

But in order to secure our competitive advantages in higher education and technology, we must exploit our own talent pool toward its fullest potential. That can only happen if higher education is uniformly affordable for all.

Unfortunately, recent budget cuts at the State and Federal levels have left public colleges and universities in dire straits, need-based aid has stagnated, Federal loan limits are too low for many students, and early intervention programs for needy students at the middle and high school levels are dramatically underfunded and reach only a minimal level of students.

Please do not let this message get lost. Assistance is needed to help our youth see a better future through higher education. If they make it, so will the country as a whole.

Second, we must also ensure that our quality of higher education remains uniquely high. There is worry that the quality of higher education is being diluted in the United States because of shrinking resources.

Institutions are being forced to cut or limit courses, services and activities in order to balance budgets. This impacts instructor/student ratios, quality of instruction, and quality of the physical plant and classroom.

Third, and perhaps the most difficult challenge we face, is to turn around our K-12 system. We have pockets of excellence in our public schools from coast to coast, but no uniform stamp of excellence.

Again, the budget crunch has hurt our ability to reinvest in education and truly reform how we teach children, but the truth is, we were not doing such a great job of this when we were in prosperity in the 1990's.

In conclusion, I would like to say that our ability to remain competitive and lead the world significantly depends on our support of the educational process from kindergarten to post-graduate education.

Mr. Chairman, our competitors are not our enemies. Our enemy is here at home and it is in our inability to appropriately fund public education.

I will conclude my remarks with that.

[The prepared statement of Dr. Swail appears in the appendix.]

The CHAIRMAN. I think most of the questions I was going to ask were responded to by your testimony, so let me say, as I viewed some things about higher education in America, and particularly how certain nationalities and ethnic groups respond to our educational system and seem to make better use of it than other groups, let me ask you this question.

What is the extent to which financing—which is the purpose of this hearing—and how our tax laws work to encourage that financing to help families the issue we have got to deal with?

To what extent do you folks see other things impacting upon Americans not making adequate use of the resources we already have? I think the thing that stands out most in my mind is the outstanding records of Asian Americans as just one group.

So, it seems to me that with a high percentage, out of a group, they show up as being superior students? There has got to be something other than just financing that has got something to do with the quality of our education.

You are here to respond to our financial needs, but is that the most important thing? Are there other things we ought to be doing in America if we are going to compete in the global economy?

Dr. SWAIL. I will begin the response to that. I think you are right. It is a multitude of factors. Finance is an important issue in terms of access and completion to keep ourselves competitive, but if the preparation is not there, finance does not necessarily mean a whole lot. So it comes into what we traditionally call non-cognitive factors.

You specifically point out Asian Americans, and even Asian immigrants. One of the reasons that they are successful, is that they have a dynamic worth ethic and focus that we do not generally see in some other groups.

That happens because of upbringing, because of their culture, because of their parents' focus on where they want to go. That is the type of thing we need to expand in other ways in America, to get people to understand that higher education is important, it makes a difference, it changes lives.

Now, back to the finance position. The one way you can do that is by setting an example through the Finance Committee and saying, yes, we believe it is the most important thing that we can do for American youth, and we are going to make it affordable, and we are going to provide opportunities for them to go. That will go back in the pipeline to get that message to parents and to students.

Dr. DYNARSKI. I would agree, Chairman Grassley, that finance is just half the story. If kids are not ready for college, then making it free, even, will not get them in. They need to have good, strong preparation at the K–12 level and better coordination between K–12 and college.

I was reading recently about a high school in Texas that made it a requirement of high school graduation that kids actually apply to college. This is important because quite a few kids do not have an example at home to inform them that they should be going to college.

For the schools to push kids into school, I think, would be important. That is not really a role that this committee can play, but making college affordable and then pushing the schools to help the kids get into college are the two sides of the equation that we need to take care of.

The CHAIRMAN. Dr. Corr?

Dr. CORR. I would also agree with that. Finance certainly is critical, but again, the K-12 issue, that is where minds are formed about science and mathematics. I gave some statistics about the issues related to that.

Teachers need to be much better trained in science and math. In many of the schools—and I can give particular statistics—teachers of math and science courses are often teachers out of field, that is, they do not even have a major or a minor in the sciences or mathematics. That is simply because we have a shortage.

Furthermore, the family support issue is important. The public needs to begin to understand science and mathematics, the joy of discovery, to carry that through to the family. I think that addresses part of the Asian issue, I believe.

Second, is broad experiences. Everything we can do to entice companies and others that would allow students to spend internships and so on, we try to do as much as we can. We are involved in 20 major areas of the country in trying to do that. But we need to do more. We need to call on other companies to do more because this will be a critical component of our competitiveness worldwide.

The CHAIRMAN. Thank you.

Senator Baucus?

Senator BAUCUS. Thank you, Mr. Chairman.

Dr. Corr, that is very interesting. As you were speaking, I was trying to think of ways to incentivizing kids to get more interested at an earlier age in math and science, and internships is one small way, but it is very effective.

I know that we have an internship program in our office; every Senate House office does. Those kids get more interested in public service, and understand government, and feel like they are much more a part of the community as a consequence. It is amazing, the education that provides.

When you think about all this, how do you get more interest in math and science in K-12?

Dr. CORR. We came up with a program called the SAM JAM, which is the Science and Math Jamboree, which we do at our sites across the country. It is a two-day program for elementary school students. They come in and they get that.

Now, it is only 2 days, but they get excited about it. We try to do it a couple of times a year. We try to reach into schools, particularly in depressed neighborhoods, minorities and so on, but not exclusively. I think that is one approach.

Another would be, how much does the U.S. Government spend at universities across the country, particular medical schools, funding through the NIH, and so on? Why is it that we could not “entice” people to expand their internship programs for summer?

What about spending a half a day a week at a medical school, working with physicians or working with scientists? In other words, thinking through this in a different way. Maybe programs

where you entice, but you do not have to throw money at it, or minimal amounts of money.

I think the same thing about industry. I mean, we are concerned about it. We need to do something about it. We need to be asked to step up to the plate and incentives that you could put into place. I am not necessarily talking about monetary incentives, but I think we need to have incentives to do that.

I think if we get people interested early in school about the joy of science, medicine, technologies, engineering, math, then we will be competitive. I think that speaks to Senator Grassley's point about the Asian community.

Senator BAUCUS. Right.

Any other thoughts from the other two panelists on how you stimulate earlier interest?

Dr. SWAIL. I think Dr. Corr has it right. We need to stimulate that interest.

Senator BAUCUS. How?

Dr. SWAIL. Well, I think if you want to do it systematically, it has to happen through curriculum. If you have special programs here, that is fine. That is great for the very small pocket of students who get to experience it. But it does not change the world. It does not change our system.

You really have to go at it from a curriculum perspective. That is difficult in America because you have 50 separate systems to run from, and they do not really like the Federal Government telling them what to do. That is just a reality.

However, it does not mean that the Federal Government cannot play a lead role in trying to suggest what happens with curriculum.

In the TIMSS study a few years back—the Third International Math and Science Study that was done internationally—they compared the United States with the world. What they found, was in terms of curriculum, the United States tried to keep on piling on and adding more and more subject knowledge into the curriculum, where other nations were actually pulling back, allowing for more experimentation, experiential learning.

We stuff it in with the standards-based reform, which is not a bad thing. But we try and shove so much stuff in, there is no room for electives, no room for experimentation. There is not a whole lot of room for kids to have fun in school any more, and people learn best when they are having fun learning.

Our system does not allow for that any more, and it is even going further down that pike. So, I take it back. If you really want a systematic change in this, it has to happen at a curricular level.

Senator BAUCUS. Dr. Dynarski?

Dr. DYNARSKI. I would say that anything that improves the general functioning of the schools is also going to encourage children to go into science and math. Children love to learn.

If they enjoy going to school and benefit from it, more kids are going to go into math and science, and more kids are going to go to college in general, whether they are going to do math and science or become writers.

Evidence shows that smaller classes are one of the most effective ways to improve the schools and improve outcomes for children, as well as better-trained teachers.

Senator BAUCUS. Your point, Dr. Swail, about the tension between Federal involvement and local school boards. In other countries, it is my understanding that there is more of a Federal system.

That is, they do not have local school boards like we do. That is not to say local school boards are bad. They are good. But how do we start to bridge that gap, start to say, all right, we are all Americans. I am a Montana.

I come from Helena, Montana and they have got school boards there. But I am also a Federal official. I want what is right for kids in my community, like we all do for our own communities. How do we start getting thoughts on how we start to work a little more cooperatively? I guess part of it is resources and money.

I know in my State, my gosh, it is terrible. Teachers are having a hard time making a living. A lot of teachers have to go to other States and start to teach because the salaries are so low. We have a property tax system which has squeezed the State budget, which has squeezed schools, and so forth. How do you start to bridge that gap?

Dr. SWAIL. I think we have started doing it. The Federal Government has always had some role, usually at the research level or special targeted populations. That has been expanded through the No Child Left Behind Act, which, regardless of which side of the aisle, it received a lot of support from Democrats and Senators. I think most people believe it is a good act. It is providing a potentially appropriate role for the Federal system.

However, there becomes an issue of funding or unfunding in terms of the States. I think if we can up that on the Federal level, that will make a critical difference, but it is making that conversation and having shared investment on behalf of localities, States, and the Federal Government. I think when there is a shared, even a matching type of program, that necessitates the type of cooperation that can help for this.

Senator BAUCUS. My time is up. The red light has been on for a while. That is a huge subject and I have tons of other questions. I wish we could get into a lot more. I am tempted. I will not resist the temptation.

How do you get kids interested, like in the subject of one of today's papers where Dr. Steven Hawking admitted he made a mistake, that information can now come out of black holes?

How do you get people interested in that kind of stuff? I find it fascinating. I do not know why, but I just do. I do not understand any of it. [Laughter.] But how do you get people interested in things like that? That stimulates interest.

Dr. SWAIL. I will make one comment. Make it fun.

Dr. CORR. That is what I was going to say. Make it fun. I spent 7 years as a technology teacher in middle school in a former life.

Senator BAUCUS. Yes.

Dr. CORR. They are great courses, great opportunities to learn. But students, as I said before, do not have the opportunity for a lot of these electives. They are being shut out because they are costly programs. So how do you make it fun when we are taking the exciting elements of the curriculum out?

Senator BAUCUS. This is very helpful, but it is also very frustrating. Thank you very much.

The CHAIRMAN. Senator Thomas?

Senator THOMAS. Thank you, Mr. Chairman.

I was listening to the 11 September hearing earlier, so I missed your comments. I wanted to hear what the panel had to say, more than anything.

I guess you probably would talk more about additional resources being needed. Is that the bottom line for most of it? It always is in education, it seems like. Or have you talked about ways you could change the program that exists, or do we have programs that need to be changed? Do we have programs that need to be updated, and so on or is it just, put some more money in and continue on with what we are doing?

Dr. DYNARSKI. I addressed simplifying and focusing the tax incentives. So, I would say that the current system of tax incentives with the two different tax credits, the deduction, is quite confusing for families. If it is too confusing for them to understand, they cannot respond to it.

If you do not understand an incentive, you cannot respond to it. So I had suggested that we collapse the deduction and the two credits into a single super credit that is refundable so the kids just know, they go to college, they get a credit, and it is generous enough to cover the cost of community college.

In this way, it would be patterned on the successful programs that many States have introduced, such as in Georgia, where you know if you do well in high school, tuition and fees are free at the public universities and colleges in the State.

Very simple. Kids understand it. It has had a real impact, my research has shown, on college attendance. I think, similarly, a very simple tax credit could also have an impact.

Senator THOMAS. How much of an impact do tax credits have on relatively low-income families?

Dr. DYNARSKI. If it is refundable, it can have an impact.

Senator THOMAS. It is not a tax credit then, it is a payment.

Dr. DYNARSKI. All right. The folks that we need to focus the money on are the ones who are not sure they are going to go to college. That largely consists of low-income individuals. If you look right now at who goes to college, high-income kids with low test scores go to college at the same rate as low-income kids with very high test scores. So, money makes a difference.

Senator THOMAS. Sure.

Dr. DYNARSKI. So we are wasting some resources among those low-income kids who have high test scores but are not going to college. An extra boost financially could get them across the threshold and into college where we can make use of their brains.

Senator THOMAS. All right. Thank you.

Dr. SWAIL. If I could make a comment. You are right. We can make programs better. We can start tweaking with those things, or even do some wholesale changes, although it is hard in an incremental system to do that.

But I will be bold and say, is it a money issue? Yes, it is a money issue. We do not spend nearly as much as we should on education.

Part of the big problem of it is, it is a discretionary program at the Federal level and it gets boxed out once the budget comes down.

It just what happens. I do not think that is a blame, but it is the reality of what happens. It gets edged out. In each State, it gets edged out. We do what we can, but our financing system is not appropriate for the task needed.

In terms of refundability, I think Dr. Dynarski is dead on about that. In 1997 in the Tax Act, we talked about trying to make it refundable. That was boxed out pretty darn quickly. But realize what that tax credit is. It is a way to give people who are going to college a slightly more affordable option. It is not an access tax law.

Now, maybe that is not what it is supposed to be. All right. But let us just be real about what it is. It is not access. It is an affordability thing. That is important, but it is only important if we are also keeping the PEL grant and other options up to snuff as well.

Senator THOMAS. Thank you.

Dr. CORR. Senator Thomas, I would just add, I talked extensively about science, math and technology education and where we are really falling behind. Much of it would be experiences. I will not repeat what I talked about; it is in the record.

But I think acknowledging the professionalism of teachers is a very, very critical component, and starting salaries that would be more competitive and entice students, and programs which would entice teachers to spend their summers doing things that would keep them up to date, excited as well about the subject. If the teacher is excited, so will be the student. That is the problem we have.

Senator THOMAS. Thank you.

The CHAIRMAN. Thank you.

Go ahead.

Senator BAUCUS. I just want to say, I appreciate all this very much. Dr. Dynarski, you made some very good comments. My failure to focus on you in the last round of questioning does not indicate lack of interest or support. I think you had some great ideas to combine and simplify, to make it more accessible to lower income students or potential students. I very much agree with that.

Dr. CORR, your idea about making the status of teachers a little higher up professionally is so important. We have not got a lot of time here, but I remember years ago when I was over in Japan. It just struck me, one reason the Japanese were doing well then is because the status of teachers was at such a high level compared to the United States.

The Japanese teachers, at that point, automatically got, I think, 10 or 15 percent more than the average civil servant salary in Japan. It was just automatic. So, teachers were on almost a pedestal. It caused me to wonder—this is a nutty idea—but to a large degree, Japan grew 20 to 30 years ago because they put a ticket tax on motorcycle races.

Motorcycle races in Japan were very popular. A portion of that tax went to a fund, which then went to the auto industries in Japan to help them with R&D and so forth. So my thought was, put a tax on the manufacture of all TV sets and Game Boys, and so forth, and put that into a fund for teachers.

Whatever teachers get paid at home, there is a little extra bonus or something. I do not know how you figure it all out. I have not refined it. But it just seems to me, that might be one way to handle it.

Dr. SWAIL. Us parents will die if there is a tax on Game Boys.  
[Laughter.]

Senator BAUCUS. That is true.

Dr. CORR. To show the importance of teachers, if I could just make one comment, Mr. Chairman, to respond to that, if you will remember the Olympics in Seoul, Korea, in fact, three teachers were the ones that were chosen to light the torch at the Olympic Games. When has that ever happened in the United States?

Senator BAUCUS. I agree.

The CHAIRMAN. In my judgment, the one thing that would enhance teaching is if we reestablished the authority of the teacher in the classroom. The teacher in the classroom is not just another participant. When I grew up, we respected teachers.

Today, teachers are not respected. There is something wrong with our society that we do not respect teachers the way we should. They do not get paid very well. Maybe they ought to get paid more to show our respect.

But the very least we can do is respect them for who they are and what they are, and I speak as a person who has a sister who is going to go into her forty-sixth year of teaching at the same small high school in Iowa.

Thank you all for your participation.

The CHAIRMAN. Our second panel is a distinguished group of witnesses who can testify to the way that the education tax incentives we have enacted are working out in the real world.

Dr. Robert Paxton is president of Iowa Central Community College, Ft. Dodge, Iowa. Dr. Paxton will focus on student utilization of various deductions and credits and the community college perspective.

Dr. David Forbes, dean of the School of Pharmacy, University of Montana. I will let Senator Baucus say an additional introduction there.

Then we have Hon. Randall Edwards, serving as treasurer of the State of Oregon. As Oregon State treasurer, Mr. Edwards spearheaded the effort that resulted in the creation of Oregon's 529 College Savings. Mr. Edwards will provide testimony on his experience with that 520 program.

Mr. Chuck Toth is manager of the Education Savings program at Merrill Lynch. Mr. Toth will testify on education savings from the perspective of financial institutions that help its clients prepare for education costs.

Mr. Jim Fadule is president of UPromise Investments. He will discuss the UPromise program and will also discuss emerging trends.

Senator Baucus, do you have anything you want to add?

Senator BAUCUS. We are all very honored to introduce people from our home States, and I have such an honor today. It is Dr. David Forbes, who is the dean of the University of Montana School of Pharmacy. I have known Dave Forbes for a long time. He has

got a great program at the Pharmacy School at the University of Montana.

There are about 94 programs in the country. We think we have got one of the best. It is second in the Nation for attracting non-Federal grants. We work at it. We know how important all that is. We are pretty high up there for Federal grants, as well.

I might say that the Montana State Pharmaceutical Association honored Dr. Forbes as Pharmacist of the Year just a few years ago, and he serves on many state-wide health boards and organizations.

He is also chairman of the board of St. Patrick's Hospital in Missoula, Montana, and dedicates himself very effectively to teaching students and raising the standards of quality and excellence in our State in Montana, and we are very honored to have him here.

The CHAIRMAN. We will go in the order that I introduced you. Dr. Paxton, I did not say so. I hope people know I am from Iowa, and you are one of my constituents. You have been a long-time president there and a leader in the community college field in our State, and before where you came from, I think from Kansas.

Dr. PAXTON. Yes.

The CHAIRMAN. Dr. Paxton?

**STATEMENT OF DR. ROBERT PAXTON, PRESIDENT, IOWA  
CENTRAL COMMUNITY COLLEGE, FORT DODGE, IA**

Dr. PAXTON. Thank you, Chairman Grassley, Ranking Member Baucus, and other members of the committee for having me testify before this committee today.

I, too, agree with what has been said already, that I am very, very concerned about what is happening in America with regard to our competitiveness with other countries. I am also concerned about the number of students entering into the math, sciences, and technologies.

It is with great honor and respect that I give you my perspective on what is happening with regard to community colleges, 4-year colleges, and universities in our Nation and in the midwest, and particularly in Iowa, to provide quality education to our students.

Senator Grassley, as a fellow Republican, I appreciate all that you do, and are doing, to provide effective tax incentives to our students and to our workers.

Senator BAUCUS. This is a nonpartisan committee. [Laughter.]

Dr. PAXTON. I thought we would get that little shot in.

I do know that the tax incentives have helped a number of students in our State, and continue to help our students.

I would like to point out that 20 percent of the Iowa workforce makes \$7 or less an hour. These are people who have children that are coming to colleges. Most often, they are going to community colleges. Without the Hope Scholarship, they may not be able to attend otherwise. Without their attendance, we would not be able to provide a competitive workforce in the midwest and in Iowa.

Iowa Central Community College, 10 years ago, served about 2,100 students. Today, it serves over 5,100 students. The growth in the last 10 years can be attributed to our strong recruitment efforts, but also our incentives both at the Federal level and the State level to get students into college.

The cost of higher education has exploded in our country and students are walking away from the doors of higher education because they can no longer afford to enter those doors.

Without their attendance, without their competencies, we will continue to have the backslide and will continue to lose the industries in America.

I would like to point out that, over this last year, of the 5,100 students that attended Iowa Central Community College, 3,500 of those students received dollars from the Hope Scholarship. Those dollars accounted for about \$841 per student and really paid for about one-fourth of their tuition at Iowa Central Community College.

State-wide, in 2001, almost 100,000 students in the State of Iowa took part in the Hope Scholarship and the Learning Tax Credit, and the total dollar amount of that was nearly \$73 million in the State of Iowa alone.

Does the program need tweaking? Yes, it needs tweaking. But it is working. It is helping meet the needs of our students and our families.

We do need to look strongly at the area of advanced manufacturing, the life sciences and information solutions. Sixty percent of the jobs in Iowa are related to these three areas and require an associate's degree better.

The Hope Scholarship and the credit need to be emphasizing these three areas of advanced manufacturing, the life sciences, and the information solutions, in order to attract students to those areas.

Anything you can do to maximize the Hope Scholarship and the Learning Tax Credit program and keep the deduction for student loan interest and the educational IRAs will be helpful.

It would be also helpful for you to look, I think, at the redact dollars—and this is an aside—in terms of distribution for retraining and retention of jobs in America. Those dollars get caught up in the State coffers for specific uses and do not reach the employees that it could reach. I would encourage you to look at that.

The bottom line, from my perspective, is that the more we can do to keep Federal programs targeted towards specific areas and not get caught up into the educational bureaucracies, and keep it in the hands of students, the better off we are.

Therefore, I really believe that the tax credits do provide an incentive. I do agree with our former panelists that it needs to be simplified, that there needs to be some tweaking that needs to be done.

I have four specific areas I would like for you to consider. That would be: (1) to lower the threshold of tuition rates for the Lifetime Learning Tax Credit; (2) to simplify the system; (3) to raise the threshold for the family AGI for the Hope Scholarship and the Lifetime Credit; and (4) provide additional incentives for math, science, health, and technology careers.

With that, I will answer any questions.

[The prepared statement of Dr. Paxton appears in the appendix.]

The CHAIRMAN. We are consulting here about going over to vote. I will go vote and come back, and then Senator Baucus will go vote. That is what we do when we have votes during a session.

Dr. Forbes, would you start out, please?

**STATEMENT OF DR. DAVID FORBES, DEAN, SCHOOL OF  
PHARMACY, THE UNIVERSITY OF MONTANA, MISSOULA, MT**

Dr. FORBES. Yes, sir. Good morning. Thank you very much, Chairman Grassley. Senator Baucus, thank you very much for your kind introduction.

My name is Dave Forbes. I am dean of the School of Pharmacy and Allied Health Sciences at The University of Montana, and today I would like to share with you some of our programs on campus which have benefitted a great deal from the Federal Government.

The first program has to do with recruiting students, and it is our Health Careers Opportunity Program. As Senator Baucus knows, that program has assisted us to recruit Native American students and Alaskan Native students into our pharmacy program.

Earlier for our previous panelists, Senator Thomas asked if we needed more money. The answer is yes. If we are going to have more of those students enter our professional programs on our campus—pharmacy, physical therapy or social work—the Indian Health Service would need more scholarships for those students.

The second program we have is a Center of Excellence Program. That program is also a Health and Human Services derivative and has provided us with support to recruit minority faculty, as well as to better prepare our students to provide health care services to minority populations.

Another program we have benefitted from is a Disadvantage Scholarship Program. Of the 292 students in our pharmacy program, 91 are disadvantaged. So for the last 5 years, we have received some substantial support from Health and Human Services which has been allocated to those students.

Essentially, what that money has done is relieved those students of a good deal of the loan burden. Students these days are graduating with more and more debt, and that is going to be more and more of a problem for the future.

With respect to research, we have benefitted a great deal. Senator Thomas Wyoming, as well as Montana, are known as EPSCoR States in National Science Foundation parlance. EPSCoR stands for Experimental Programs Stimulate Competitive Research.

NIH also has a similar program called the IDeA program, which stands for Institutional Development Award. These programs are designed for states like Montana and Wyoming that historically have not done well in terms of receiving competitive grants from the Federal Government.

Those have been very, very important for us. The IDeA program has allowed us to create two Centers of Biomedical Research Excellence, and then it filters downward from there. We have been able to hire superior and additional faculty and recruit superior and additional graduate students.

We have been able to set up programs with the hospital on which I serve as board chair, St. Patrick Hospital and Health Sciences Center in Missoula, in order to work more closely with physicians and be more involved in research where the clinicians work with the basic scientists on our campus.

Two other initiatives we have done with the hospital. We have put together the International Heart Institute, as well as the Neuroscience Institute. Once again, those are programs that have helped us generate new knowledge and provide better patient care.

I agree with a good deal of what the previous testifiers have said, so I will not repeat what they have said. My suggestions for the future would be to continue on with support for the EPSCoR and the IDeA programs.

I think those have been very, very important for our state, and I believe for other states as well. There are 22 or 23 states that are known as EPSCoR or IDeA states. It has made a great, great deal of difference.

I have to say, as an educator, faculty that are actively involved in competitive research do a better job in the classroom and change the culture of the educational facility and the environment, and we have done that. So, I would encourage we continue on with those programs.

Also, in terms of minority student recruitment grants such as HCOP and COE, those generally are on a 3-year cycle. It would be helpful if those were on a 5-year cycle. That would give us a longer period of time to meet programmatic goals.

Also, as I mentioned a minute ago, it would be helpful if there were more IHS/Indian Health Service scholarships. The HCOP program I mentioned a minute ago brings students to the campus in the summertime. One of our previous testifiers talked about, students need to be excited. I agree with that 100 percent.

We bring students to The University of Montana in the summertime and we work hard to increase their math and science skills so they will be competitive and they can enter our pharmacy program and compete with the other students, graduate with the other students, and pass the National Licensing Exam.

Anyway, that completes my testimony today. I appreciate very much the opportunity to be here. Thank you, Senator Baucus.

Senator BAUCUS. Thank you very much.

[The prepared statement of Dr. Forbes appears in the appendix.]

Senator BAUCUS. Mr. Edwards, you are next.

**STATEMENT OF HON. RANDALL EDWARDS, OREGON STATE  
TREASURER, SALEM, OR**

Mr. EDWARDS. Thank you, Mr. Chair and members of the committee. My name is Randall Edwards. I am the State treasurer of Oregon, and chair of the Oregon 529 College Savings Board.

I also serve on the executive board of the College Savings Plans Network, which coordinates States' 529 efforts to improve industry practices and develop self-regulating policies.

I am honored to be here to tell you about the great accomplishments of 529 plans, how States are vital to their continued success, and to ask for your help.

The States have been working with the Finance Committee for over a decade to increase access to college, culminating in a 2001 tax exemption for qualified withdrawals from the 529 plans.

Your vision is being realized each day in every State. More than 400,000 students have already used these plans to pay for college, and another 6 million are waiting for the future.

Oregon's story is no different. In just 3 years more than \$300 million has been invested in our plan, despite one of the worst financial markets in history. Our program puts investors and beneficiaries first. That is why Oregon has three plans to meet the wide range of investors' needs in Oregon.

Our flagship low-cost plan is designed to encourage moderate- and low-income families to save by allowing investors to start an account with as little as \$25 a month. While this may not sound like a lot, it helps build that saving ethic and the expectation that that beneficiary will attend college.

529 plans are a shining example of how good public policy can enhance the future of many Americans. In establishing Section 529, Congress built upon the strong foundation of the States and has been instrumental in fostering that savings ethic.

So why is it so important? Well, the headlines in Saturday's edition of The Oregonian newspaper says it all. That is, "Costs of College Rising Again," the headline of The Oregonian.

At the University of Oregon itself, annual tuition costs have risen 248 percent since 1990, and this story is being repeated across the country.

Despite the rising costs, the value of a college education is enormous. Advanced education or training is becoming a necessity and a key in keeping our workers competitive in this global economy. That is why Oregon and other States have developed innovations in their 529 programs.

For example, we have structured our program with low-cost mutual funds, online enrollment, low investment minimums, and allowance for low-income Oregonians to access matching funds for their 529 plans through Individual Development Accounts.

Our program is increasingly important in Oregon higher education policy making, and a member of the Board of Higher Education serves on our College Savings Board.

State oversight of these programs adds credibility and encourages new investors who otherwise might not invest for college. The Oregon College Savings Plan is administered directly out of my office, as is the case for many State treasurers, adding an essential layer of protection and accountability for participants.

Our program operates under an independent State board and is governed by State laws and rules, such as public meeting rule laws, ethical standards, and financial reporting and requirements.

In Oregon, we are selective about with whom we do business. Investment managers must maintain high investment and ethical standards and commit to act in the best interests of our investors.

Further, our board takes its fiduciary duties seriously. Oregon was the first—and I believe the only—State to terminate a 529 program manager over the mutual fund scandal. This kind of independent, unbiased oversight can be achieved only through the involvement of States.

Recently, we have adopted new disclosure guidelines through the College Savings Plan network, that is, they were developed by that network to provide more transparency and give investors more uniform information regarding fees, investment performance, tax treatment, and other benefits.

Mr. Chairman, members of the committee, I would like to conclude by asking for your help. We need the Federal tax exemption on 529 withdrawals to become permanent. This exemption is a powerful incentive for all Americans to save for college.

Most people invest with the understanding that they will receive this Federal tax exemption regardless of when they make their withdrawal. The sunset is creating a climate of confusion and misunderstanding.

Section 529 is working. Citizens are investing in these plans in great numbers because they trust that the States are working in their best interests.

All of us involved in 529 plans, States and vendors alike, urge you to make the Federal tax exemption permanent, and we are ready to work with you to make that a reality.

Again, I thank you for the opportunity to be here and look forward to answering any questions you may have.

Senator BAUCUS. Thank you very much, Mr. Edwards.

[The prepared statement of Mr. Edwards appears in the appendix.]

Senator BAUCUS. Mr. Toth?

**STATEMENT OF CHUCK TOTH, DIRECTOR, EDUCATION SAVINGS, MERRILL LYNCH & CO., PRINCETON, NJ**

Mr. TOTH. Thank you. Good morning, Mr. Chairman, and good morning, Senator Baucus.

My name is Chuck Toth and I am Director of Education Savings at Merrill Lynch. In that capacity, I am responsible for educating and encouraging Merrill Lynch's individual clients on the need to prepare and save for college.

I work closely with the Treasurer and Finance Authority of Maine in assisting them to administer the NextGen College Investing Plan. I also serve as chairman of the College Savings Foundation, a not-for-profit organization dedicated to the promotion of Section 529 college savings programs, and my firm is a member of the Securities Industry Association, also known as the SIA.

We commend members of this committee for what you have already accomplished and encourage you to continue your efforts to promote policies that will help families prepare to send future generations on to college.

Congress created Section 529, and its subsequent enhancements to the law have strongly supported the important public policy goal of helping Americans save for higher education.

Today, American families confronting college education costs for one child face a formidable task. But when you think of it for families with two, three or more children, college education can simply be overwhelming. In fact, for many families, the cost of college may exceed the cost of purchasing a home.

A post-secondary education is critical to helping many people reach their full personal and professional potential. The high cost of getting a college degree is well-documented. For example, in 2003–2004, the average cost of attending a 4-year public school increased 9.8 percent to \$10,636, while the average cost of a 4-year private college increased 5.7 percent, to \$26,854.

If you assume such costs increase by about 5 percent a year, the projected cost of college in 15 years will be about \$100,000 for a 4-year public college, and over \$200,000 for a 4-year private college.

Today, 4 years of college is often not enough training. It has become increasingly common that graduate training is also necessary to stay current with the demands in a given field.

Furthermore, as individuals more frequently deal with the reality of job changes and layoffs, an increasing number are going back to school later in life to retrain for their second careers.

Our history has clearly demonstrated that education has been America's most successful differentiating advantage in the increasingly competitive global economy. Federal Government programs and policies have historically been designed to help people pay with the cost of college and assistance through a "pay-as-you-go/pay-after-you-go" method of financing.

Yet, reliance on "pay-as-you-go" incentives and loans can be risky. To begin, there is no guarantee that these resources will be available when the child reaches college, and in many cases families that have not saved for a college education in advance are forced to make imprudent choices. Some may not be able to attend the college of their choice, or any college at all. Other families are forced to choose between depleting their retirement savings to pay for college education.

We think the least disruptive is to have people save as much as possible for college in advance. We are pleased to report that 529 savings plans have been a tremendously successful innovation under the leadership of the State governments.

With almost 5 million 529 accounts in existence, college savings through 529 plans has increased exponentially. For example, we have seen a 371 percent increase in 529 assets in just over 2 years.

With the enhanced Federal tax benefit provided by EGTRRA, the increase in popularity of the 529 savings plans has been nothing short of spectacular. At the end of 2001, there were 1.4 million 529 plan accounts. By the close of the first quarter of 2004, that number had grown to 4.7 million, a stunning 236 percent increase in just over 2 years.

A recent survey conducted by the College Savings Foundation indicated that 73 percent of all accounts had balances of less than \$10,000 and that the average balance as of March of 2004 was \$8,223, making it clear that millions of American families have only just begun to take advantage of the 529 plans that this committee helped create.

Many of these individuals have learned through their own personal experience with 401(k) plans that the way to save for the longer term is by taking a disciplined approach and setting aside some portion of their monthly income.

Yet, as awareness of 529 plans continue to grow, these programs continue to improve to meet consumer demands. I fully expect that it will not be long before the phrase "529 plan" joins 401(k) plan in the daily vocabulary of almost every American.

But before we get there, it is necessary to address the single most important concern facing 529 plans today, and that is the fact that Federal tax incentives are not permanent.

Although an increasing number of U.S. families are utilizing 529 plans, there is growing concern whether the Federal benefits will be there when the child goes to college. Probably the greatest inhibitor to investing in a 529 plan today is the uncertainty whether the tax incentive will be renewed after it sunsets December 31, 2010.

It is critical to understand that the problems the EGTRRA sunset creates for 529 plans are completely different than those of other tax provisions of EGTRRA that are scheduled also to sunset.

Consumers today invest with the expectation that distributions for qualified higher education expenses will be tax-free when their child goes to college. However, the sunset effectively means that anyone with a child who does not finish college before 2010, which generally would apply to all children under the age of 16, cannot be certain that this tax advantage will be there when it is most needed.

Surveys consistently show that the need to save for a child's education is second only in importance to one's own retirement, and individuals with younger children are interested in starting now to save for college.

However, due to the sunset provision, they are reluctant to make that long-term commitment because they are uncertain if the tax benefit will be there when the child begins college.

Therefore, in order to continue to help American families save for the children's post-secondary education and to keep up with the critical momentum established to date, Congress should continue to encourage and provide incentives for education as it has in the past.

As the promise of tax-free distributions is one of the most attractive features of investing in 529 plans, Congress should make the tax-free treatment of qualified distributions permanent to ensure that American families can invest in these plans with well-deserved confidence that the tax incentives available today will be there tomorrow. In so doing, you will help further strengthen our Nation by creating a better educated workforce to compete in a global economy.

Thank you again for the opportunity to appear today.

[The prepared statement of Mr. Toth appears in the appendix.]

The CHAIRMAN. Mr. Fadule?

**STATEMENT OF JAMES J. FADULE, PRESIDENT, UPROMISE INVESTMENTS, NEEDHAM, MA, ACCOMPANIED BY EVAN WEISENFELD**

Mr. FADULE. Mr. Chairman, thank you for the opportunity to share with you the mission of UPromise. I am president of UPromise Investments, and with me is a colleague, Evan Weisenfeld.

Our company, UPromise, was launched 3 years ago in recognition of the need to save for college, which we know is becoming increasingly more challenging for American families.

We help families save for college in three ways: one, by helping millions recognize the importance of saving; two, by providing a free and simple way to jump-start family efforts through cash re-

bates on everyday purchases, and, finally, by providing the opportunity to invest their own money when possible.

In just 3 years, over 5 million people have joined UPromise. We would like to demonstrate how a family can save for college at the grocery store, such as a Giant or a Safeway market here in the Washington area.

The family, buying Coke, Huggies diapers, Tide, and the other products listed, could earn up to \$21 in their UPromise account on a grocery bill of \$79, assuming that they were an AOL customer and used the city UPromise card. This rebate of 27 percent is on top of any store or product promotions running at the time.

We have teamed up with hundreds of companies who offer anywhere from 1 to 10 percent back on several thousand products and services, ranging from home purchases, restaurants, hotels, to school supplies, dishwashers, auto parts, and gasoline.

The service is free, it is simple, and it is the cure. UPromise members get rebates to help pay for college, participating companies attract new customers and build product loyalty, and the companies pay UPromise a fee for administering the service.

Consumers join at the UPromise Web site, register key information, and then shop with the partners. There are no coupons to clip, no receipts to keep, and cash contributions are automatically deposited into the UPromise account.

Unlike most consumer loyalty programs, UPromise members earn real dollars, not points, which are funded by the corporate partners, and we vigorously protect member privacy.

Members can expand their saving opportunities by inviting grandparents, family members, and friends to designate their savings for the same child.

Obviously, we recognize that all members can, or will, take advantage of the special offers available through UPromise, and we are not suggesting that the contributions are the solution for the challenge of saving for college.

However, a UPromise member who actively uses the program can earn hundreds of dollars annually, and presuming a family gets started early, can accumulate thousands of dollars over time.

UPromise recognized the importance of families saving their own money with the introduction of the UPromise College Fund, a section 529 plan sponsored by the State of Nevada and made available at the UPromise Web site. UPromise also administers New York's 529 College Savings Plan, and most recently, College Savings, Iowa.

529 investors can select from several high-value, low-quality investment portfolios specifically designed by the Vanguard Group. The plans consistently receive high ratings from respected national publications such as Kiplinger's and the leading mutual fund rating agency, Morning Star.

This chart indicates that UPromise is having success in reaching middle American families. For example, almost half of the UPromise members have household incomes below \$50,000, and that is a trend and a percentage that is growing.

For families who invest their own money in the UPromise College Fund 529 plan, the average opening balance is just about \$500, which by industry standards is low, reflecting UPromise tar-

getting of modest income households, many of whom get started for as little as \$50 a month.

Encouragingly, after roughly 18 months, the average account size has nearly tripled to over \$1,400, demonstrating that we are having impact, reaching middle American families with the program.

With half of the participants signed up for automatic investing, it is reasonable to expect that many who get started with us will accumulate tens of thousands of dollars, enough to make a meaningful impact on college.

We recognize that college education is a fundamental building block in keeping America competitive, and we look forward to helping more and more American families achieve the dream of college education.

Mr. Chairman, thank you for your interest in UPromise and for the important subject of higher education financing. We welcome the opportunity to work with you to continue to provide the best in college savings to American families.

[The prepared statement of Mr. Fadule appears in the appendix.]

The CHAIRMAN. Yes. It may be, if I have to go to a vote and Senator Baucus, because he is on crutches cannot come back right away, that I may have to shut the meeting down, recess it just for a little while. I hope that does not inconvenience any of you.

I am going to take a couple of minutes to ask some questions for Senator Smith, because, Mr. Edwards, he could not be with us today. So, this is the first question from Senator Smith, and it is for you.

I understand that some individuals have called for tax parity in the treatment of State tax deductions for all State-sponsored 529 plans.

Would you please comment on the issue of tax parity?

Mr. EDWARDS. Thank you, Mr. Chairman. Yes. This has been an issue that has been percolating out there around 529 plans. Personally, I oppose any sort of attempt to provide tax parity at the State level.

As I indicated in my testimony, each State took this challenge of trying to take the Section 529 Tax Code and fit it to their State. As a result, you have seen States from across the country tackle this in a way to best meet the needs of their constituencies.

I think any attempt to try to say all States should have the same treatment misses the point, that we, as State elected officials and those running these 529 plans, really need to continue to find ways that we feel our plan can best meet the needs of our constituents.

Again, I would be very concerned if there was an effort to try to treat all States, who have varying differences in their tax treatment at the State level, making sure that they have that freedom to, again, craft a program that meets the needs of their constituencies.

The CHAIRMAN. Senator Smith is a member of this committee, for the rest of you who might not understand that, from Oregon.

His second question is, I understand that State treasurers recently approved a set of voluntary disclosure principles for 529 plans. How will these principles benefit the average investor saving for higher education?

Mr. EDWARDS. Again, thank you, Mr. Chairman. These principles were recently developed. They were developed both within the States, with our private sector vendors, and outside groups to make sure that we begin bringing uniformity to disclosing to investors across this country our programs.

We have shared that with the Securities and Exchange Commission, Chairman Donaldson, and we are working with them to make sure that these are accepted practices and principles to, again, provide clarity and understanding of how these 529 plans across the country are working and performing and giving investors good advice.

The CHAIRMAN. All right.

My first question to the panel is, I would like the group to address a point that the prior panel raised. There was talk about the lack of application of Hope, the Lifetime Learning Credit, and tuition deductions to lower income tax groups, a legitimate question.

However, in order to put the education assistance issues into the proper perspective, do we not need to acknowledge the fact that middle income families, especially those that save, are not generally eligible for financial aid, so should we not view the incentives as a complementary program?

What I am asking is, do we not need to focus on all middle income families? Dr. Paxton? I should say, whoever wants to join in in answering. You do not necessarily all have to answer, but I would like to have a response.

Dr. PAXTON. Chairman Grassley, from both a community college president's standpoint and as a parent, I believe that we really need to look at the Hope scholarship and the Lifetime Learning Tax Credit, as well as the deductibility issue in terms of the family AGI.

I think it would be very worthwhile in looking at the middle income or upper middle income levels in raising that AGI threshold. I think that would be helpful to family members.

I really believe, as you look at the increasing costs of college, that although it seems that a family that makes an adjusted gross income of \$140,000 to \$150,000 a year can easily afford education even at the community college level, between tuition fees, housing and books, you are looking at a cost of \$10,000 to \$15,000 a year.

If you have two or three children attending college at the same time, with your adjusted gross income at \$140,000 to \$150,000 a year, it is quite a burden and one that the Hope scholarship, because you are not eligible for other forms of financial aid, the tax credits and the deductibility issue could address those for those levels of income.

The CHAIRMAN. All right.

Anybody else want to join in on that question?

[No response.]

The CHAIRMAN. All right.

Then I would ask any or all of you, where are we behind other countries in the world in terms of higher education financing, and are there any lessons that we can learn from them and areas where we can improve?

Mr. EDWARDS. Mr. Chairman, I think this is an issue that is not only global, but national. Maybe the best practices are looking at

the States and trying to find where States are really adding value to their higher educational experience.

I think the last panel hit it on the head. States have been struggling over the last 3 years as a result of budget crunches and higher educational tuitions have been rising.

As I indicated in this article, a great driver of the cost of tuition rising in my State, and probably every State represented in this country, is because of budget challenges. Again, I think the quality of education is directly tied to the funding of our educational system, and that is also included in K-12.

So, I think we need to look at that longer term, how we as a country, as a State, as a school district, as a university system, are meeting the needs of our children and the future generations, which is really, I think, one of the challenges that this country truly faces and it is one where I think we can learn, not only globally, but also look at ourselves and figure out where we have been successful and where we are still struggling.

The CHAIRMAN. Mr. Toth?

Mr. TOTH. Yes. Thank you, Mr. Chairman. Just to add to that. I think part of the recommendations are really what the committee already started, and kind of changing from a pay-as-you-go or pay-after-you-go type of financing to encouraging people to save. Again, making deductions permanent at the Federal level, I think, goes that way.

I think also from a financial aid perspective, it is creating policies that do not penalize those individuals who start to save for college, but do not have enough to meet their goal.

The CHAIRMAN. Yes. Let me put it this way, and then we do not have to have you each answer. Is there anybody on the panel that would think, as a matter of tax policy for the future, that any of these tax incentive provisions that we have talked about should not be made permanently a part of the Tax Code? In other words, permanently extended. Is there anybody that disagrees with the permanent extension of that?

[No response.]

The CHAIRMAN. All right. Then let the record show that there was no disagreement with that position.

Dr. Paxton, what types of skills do your students want to develop? What skills do we need them to develop to contribute to our economy? Do you perceive that the educational tax credits that we have put in place are working to accomplish the goals that your students want to accomplish by going to your institution?

Dr. PAXTON. Well, I think the skills we would really like to see our students accomplish are the same skills that were addressed by the last members who spoke and testified. That is, in the areas of science, technology, mathematics, and the health sciences.

The CHAIRMAN. Now, let me clarify. That is what we think we should be emphasizing. My question was a little more directed towards what your students want to accomplish and whether we are meeting those needs.

Dr. PAXTON. Our students really desire to enter the college for one purpose, and that is to improve their life by getting a better job. Most of the students that enter the community colleges are coming for one reason, and that is to get the kind of education they

need to improve their lifestyle, to improve their part of life. Are they getting that accomplished? For the most part, they are.

By the mere fact that, in the Hope scholarship alone, one-fourth of the dollars that they are receiving in that credit is actually going towards the cost of tuition, this is really benefitting those students.

The CHAIRMAN. Yes. And perhaps I was rude, because you did speak to what we need to have happen to be competitive. I do not want to detract from that. But I wanted to emphasize it as your students would see it.

Dr. PAXTON. As our students see it, these things are working. Our financial aid people take a lot of time to explain the Hope scholarship and the Lifetime Learning tax credits, as well as the deductibility in terms of the student loans. That helps them to better understand how they can finance their education, along with the other aspects of the Federal aid packages that they are eligible for.

The CHAIRMAN. All right.

Now, to Mr. Edwards, Mr. Toth, and Mr. Fadule. Could you elaborate on the typical person using the vehicles that you had talked about and how they are using them, and what they are using them for?

Mr. EDWARDS. I guess we will go down the row here.

The CHAIRMAN. Yes.

Mr. EDWARDS. Thank you again, Mr. Chairman.

In Oregon, we have been at this, again, for three years. We are learning, as I think the industry is, about how to stretch these programs to meet a variety of investors. If you look at the median account size in the Oregon plan, it is just a little over \$2,000, which means there are a number of accounts that are smaller than \$2,000 and many that are above.

I think what we are trying to do is make sure, in my view and as State treasurer overseeing this program, is looking not necessarily at the dollars invested, but the number of accounts that are invested in this program.

For me, success is looking at stretching it, finding new ways in which new constituencies might not save otherwise but for the 529 plan. We are working with tribes in Oregon and other minority communities to try to make sure they are aware of our 529 plan.

And again, I think this is an area where the partnership with the private sector has been critical. Their ability to help deliver a low-cost, good-performing product driven by the public policy and the oversight by States has really made this a strong plan. Again, we are continuing to push that envelope.

The CHAIRMAN. Mr. Toth, anything to add?

Mr. TOTH. Yes. Just to add to that, again, we, through some surveys, have seen, again, 73 percent of the accounts had balances of less than \$10,000. I think equally important is the way they are getting there, or that individuals are taking the long-term approach.

They are putting away what we call dollar cost averaging, where, on a monthly or quarterly basis, they are having money come out of their checking account or out of their paycheck and they are putting it into these accounts. So, they are taking a long term ap-

proach. Again, I think it is what they have learned from the 401(k) type of behavior.

The CHAIRMAN. Mr. Fadule?

Mr. FADULE. Our members are clearly middle America, and even a cross section of lower income families as well. We have had literally over 5,000 testimonials from customers, praising the service and explaining why this is one of the few ways they have to actually save for college.

Our focus, as it relates to the States' efforts, is to try and bring private sector, meaning corporate America, get them to reallocate a portion of their marketing spend to what is, we all known, an important cause for the country, and then have that as a benefit available to plan administrators, who in turn can offer it as part of their offering as they go out in their individual States and help get middle income families to save for college.

So, we see our role as an additional generator of leads in terms of helping families save for college, and then trying to complement the efforts that the States are doing.

The CHAIRMAN. Yes. This is the way we are going to handle the rest of the hearing. I have one question I want to ask Dr. Forbes for Senator Baucus. Senator Baucus will not be able to come back. I will adjourn the hearing now, because I have to go vote.

I would ask you, Dr. Forbes, to answer this for the record right now, even though I am not here. Then it is just automatically adjourned, except for the fact that, either from Senator Baucus, me, or other members who could not be here, you may get questions for answer in writing. We would like to have you do it that way, if you would. That is kind of standard procedure, not just because we are voting. I need to thank all of you for coming.

Here is the question. You are to be congratulated for running a program ranked in the top 15 in the country. You have made huge strides in staying competitive, both globally and nationally. How does the School of Pharmacy maintain such a high level of success?

Dr. FORBES. Thank you for your question. One minute ago, you asked Dr. Paxton about what students were looking for, and I might add to that. You can talk to our students and they have a lot of answers, but when you get right down to the bottom line, they are looking for a good job.

Anyway, I think the University of Montana is in an attractive part of the country to recruit faculty to. We have lots of outdoor activities. Lots of our faculty are into other activities besides their research. But it is an entire package.

I think it is the culture that the university has created to attract research faculty. We are a rather small university, only 12,000 students. We have small classes. The faculty enjoys smaller classes, getting to know the students.

We have a diverse student population. Approximately 6.2 percent of our State is made up of American Indian students, and we are working hard to bring more and more of those students to campus. It just seems like success breeds success.

We have had good support, as I mentioned, from the Federal Government in terms of the EPSCOR programs and the IDEA programs, which have brought to us significant resources.

I cannot put my finger on any one item, but I would think that just the culture that we have created, the faculty that we have hired, the students that we have, it is all one large package that has attracted additional faculty to our program. Thank you very much.

[Whereupon, at 11:43 a.m., the hearing was concluded.]

## APPENDIX

### ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

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PREPARED STATEMENT OF DR. PETER B. CORR

Mr. Chairman, Senator Baucus, Members of the Committee:

I am Peter Corr, Senior Vice President, Science and Technology, Pfizer, Incorporated. Thank you for allowing me to address the Committee today on a critical issue—the link between our nation’s global competitiveness and our investments in higher education.

Every single day in my work at Pfizer, I see irrefutable proof that a workforce with higher education is absolutely crucial to the ability of the United States to maintain its leadership position in science, technology and business. The scientific and technological advances we can expect in the near future—particularly in medicine, with our budding knowledge of genomics, proteomics and gene therapy—will make higher education increasingly important to society.

With regard to this, virtually every day I am reminded that:

- Science is getting more difficult, more complex, because we are learning more with better—more demanding—approaches;
- We need more scientists who can master multiple scientific disciplines.
- And, to meet this need we need to begin training scientists at an earlier age and nurturing their interest in science as they learn.

The availability of world class scientists from multiple disciplines is *the* critical element in the US retaining its worldwide leadership in the biomedical sciences, advancing our understanding of disease processes, and discovering and developing new therapeutics.

This was my view during my 20-year tenure as a university professor, and it has been reconfirmed in my position at Pfizer, the largest private biomedical research organization in the world.

Inquisitive, highly skilled young scientists are the lifeblood of any science-based business. Pfizer depends on the dogged inventiveness of over 15,000 scientists, including chemists, clinicians, and those trained in integrated biology, molecular biology, pharmacogenomics and virology to name a few areas. While the number of non-social science Doctorates awarded has declined about seven per cent from 1997 to 2001 (the last year for which the National Science Foundation had such data), the number of Doctorates awarded in the physical sciences has fallen by almost 15 per cent and in the biological and agricultural sciences by almost nine per cent. Furthermore, although Pfizer has not experienced any significant problems in finding quality candidates to fill our needs, we are seeing a lack of fully qualified candidates in areas such as transporter science and exploratory clinical skills, as well as in multidisciplinary skills that I will discuss further.

In 1987, Dr. Robert Solow’s won the Nobel Prize in Economics for showing that technological advances are more important than capital investments to a country’s long-term economic growth.

This is also reflected in the recently announced National Institutes of Health Roadmap for medical research in the 21st Century where its Director, Dr. Elias Zerhouni, makes two points central to this discussion.

First, as biomedical research grows ever more complex, we need scientists who are well versed in multiple disciplines and collaborate with their colleagues in other disciplines easily. This includes biologists who understand molecular biology as well as integrative whole-organ biology, bioinformatics, genetics, mathematics, physics and chemistry, and other disciplines.

This kind of Renaissance approach to science requires the best education possible. It argues for multiple degrees or multidisciplinary degrees, degrees that usually re-

quire more courses and take longer than a single discipline Bachelors, Masters, or Doctorate. These are also degrees that cost more in tuition and opportunity costs for the student and the future employer.

The second message from the NIH Roadmap is that human clinical research is becoming harder to do. The “easy” diseases have already been addressed. Again, this is an issue I know all too well. Tougher research requires better minds, with better training. This requires clinicians who are well trained in basic science, who are able to take basic science findings from the laboratory to the clinic for evaluation in humans, and who are able to employ the most advanced and emerging technologies and approaches to their research.

The need for these kinds of scientists raises a number of educational questions and challenges. Sciencebased industries require a college-educated work force including those with advanced degrees. The National Science Board estimates that during the economic expansion of the 1980s and 1990s, the number of science and engineering jobs increased 159 per cent. And for this current economic resurgence, a recent Monthly Labor Review analysis projected that expected employment growth for scientists and engineers is about 47%, or roughly two million more jobs. Yet as I discussed previously, the number of physical and biological science Doctorates awarded in the United States continues to fall. That’s in stark contrast to the our international competitors, where, for example, Japan awards three times as many scientific graduate degrees (as a percentage of all graduate degrees awarded) as does the United States, and Germany awards six times as many natural science graduate degrees (as a percentage of all graduate degrees awarded) than the United States.

We often approach this as a college level problem—how do we convince college students to pursue scientific and technical degrees. But students make the decision whether or not to pursue technical degrees and careers long before college. If they haven’t made this decision and the necessary preparations in their early educational endeavors, it is very difficult to convince them to pursue these disciplines after they enter college. The problem is that most students don’t even think of pursuing technical and scientific education or careers because they are not taught early enough, or consistently enough, to develop an ease and love for mathematics and the sciences. Simply put, most children are scared of math and science.

As recently reported by the Committee for Economic Development, both the number of high school seniors that like math and science, and who believe it is relevant to their lives has dropped dramatically since 1990. Interestingly, it also drops dramatically as they advance through the primary and secondary educational systems, with 70 per cent of fourth graders stating they like math, but only 47 per cent of twelfth graders making that same statement. The Committee goes on in their report, “Learning for the Future: Changing the Culture of Math and Science Education to Ensure a Competitive Workforce,” as to the reasons for this, and they are across the spectrum from cultural attitudes against learning math and science, poor teacher qualifications to teach these subjects, and poorly developed curriculums in our schools.

This is wrong. And this is dangerous. Core curriculums need to be developed to immerse elementary and secondary students in mathematics and science from the earliest days of their cognitive development and to continue that immersion throughout their education. We all know our children can do it. Most five- and six-year olds can recite the Latin species and genus of most every dinosaur, We should not let them lose that wonder and joy in the discovery of scientific and medical disciplines.

There’s a reason that many students change their approach to their first high school science courses from wonderment to dread: They do not learn to think like scientists when their minds are young. By the time they reach late adolescence, the parts of their brains needed for science have not been effectively developed, which makes the necessary training at this stage much more difficult. And when they enter college, such students, bright though they may be, often avoid science courses altogether, because frankly, they are no longer equipped to succeed in these areas.

I know that many Senators are concerned enough to introduce legislation that address these concerns. I commend your leadership. Let me share some Pfizer programs that we believe are advancing the important task of encouraging young people to pursue careers in science and medical investigation. Through the Pfizer Education Initiative, we have over 1,700 of our employees volunteering with almost 300 community schools to develop more robust elementary and secondary math and science programs. In addition, we have engaged in a vigorous school science laboratory renovation and construction program, providing 18 schools with new labs. Similarly, Pfizer partnered with New York City schools to provide summer study grants

for elementary and secondary science teachers to learn best-in-practice techniques for teaching science.

Finally, Pfizer has a broad range of undergraduate and graduate fellowship, internship, grant, and research opportunities. These programs integrate students and researchers in the Pfizer industrial research programs, and provide them the means to engage in cutting edge research both within the Pfizer complex and their home institutions. One of these programs is the Pfizer Minority Medical School Scholarship Program, where \$10,000 tuition scholarships are provided to eight students annually from four historically black US medical schools. To date, 135 medical students have received these scholarships.

Pfizer applauds this Committee's attention to this issue, and to its commitment to the development of primary and secondary education math, science and technical programs, increasing the number of quality teachers in those disciplines, and providing parents the resources necessary to help their children develop that joy of discovery. We must consider all feasible ways and means of getting more Americans interested in science at an early age; and then to pursue undergraduate and graduate programs.

This presents us with several related tasks: We need to improve the quality of science education at all our colleges and universities, as well as our secondary and elementary schools. We also need increase the number of colleges and universities that offer superior science educations. And, we need to increase the opportunity for science-oriented students to receive the best education possible. This is important, for in a science-based career, a small difference in the quality of education and skills can make a big difference in a person's success in the complex research, discovery and development process. For the United States to remain competitive in the global market, we need our best students to be able to attend the best colleges. And that need will only grow as our scientific knowledge expands and our science-based industries advance.

Let me address on final issue. To keep scientists in this country, we also need tax incentives that are directly linked to our ability to hire the best at competitive salaries. Without the Research and Development Tax Credit, which just expired June 30th, our research and development budget, will become more expensive to finance than it is today. Study after study has shown that the R&D tax credit has led to increased private sector investment in research and development. I am aware that pending legislation would extend the credit from June 30, 2004 through the end of 2005. While I regret that this legislation does not make the credit permanent, I encourage you to help ensure the extension of the R&D credit is enacted before Congress adjourns this Fall.

We need the R&D tax credit extended permanently, and we need it soon. Thank you very much for your thoughtful consideration. I will be happy to answer any questions you may have.

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PREPARED STATEMENT OF DR. SUSAN DYNARSKI

Chairman Grassley, Senator Baucus, Members of the Committee, I am pleased to have the opportunity to testify before you today on the tax incentives for higher education.

I have studied the impact of college costs on college attendance for ten years. I am interested in the topic for the same reason you are: because I believe that a well-educated workforce is key to the economic competitiveness of the United States and the economic security and well-being of its families.

Growing up, I had it drummed into me that college was the key to economic security. My father was a high school dropout, but my mother went to night school well into her fifties, trying to earn her degree. She knew that education was the key to success in life. Even though she never was able to finish that BA, she made sure that all of her daughters got through college.

College attendance is good not just for me and my sisters, but good for America. Scarcity of any good, including labor, drives up its price. A shortage of college-educated workers drives up their wages, increasing inequality in the US and pushing employers to find cheaper, skilled labor overseas. By making college affordable for more people we can open good jobs to more Americans and keep America competitive.

Today I will talk about how the tax incentives for higher education can help us achieve these goals. As structured, they provide tax relief for middle- and high-income families who are currently sending their children to college—a worthy goal. But as structured, the tax incentives do not encourage more people to go to college.

In my testimony, I will suggest how the tax incentives can be modified so that they do encourage more people to attend college.

*Background on Tax Incentives for Higher Education*

During the 1990s, the federal and State governments introduced a number of tax policies intended to increase college-going. The tax incentives work in two ways:

- (1) Help families save for college
  - 529 Savings Plans
  - Coverdell Education Savings Account
- (2) Help families pay for college today
  - Hope tax credit
  - Lifetime Learning Credit
  - Tuition Tax Deduction

The tax incentives were introduced in the context of rapidly escalating college tuition prices. As shown in Exhibit 1, tuition and fees at four-year, private colleges rose from an average of \$9,200 in 1982 to nearly \$20,000 in 2003—and those are inflation adjusted dollars.<sup>1</sup>

*Tax Incentives Are Most Valuable for Those at the Most Expensive Colleges*

Perhaps with an eye to these eye-popping tuitions, the tax credits and deductions were designed to give the greatest help to students at expensive private colleges. For example, the full benefit of the Lifetime Learning Credit does not kick in until tuition and fees are \$10,000 a year (Exhibit 2).

\$10,000 a year does not sound very high. After all, Harvard's tuition and fees are over \$27,000. But the truth is that 71 percent of students at four-year colleges attend schools with tuition and fees under \$10,000. The typical student attends a public university, where annual tuition and fees average \$4,700; only four percent of students at public universities pay tuition and fees over \$8,000. Or she attends a community college, where average costs are less than \$2,000.<sup>2</sup>

Why does it matter that the typical student, at the typical college, cannot qualify for the maximum tax credit? Because it is a typical person—not the potential Harvard student—that we are trying to get into a college.

*How Do We Modify The Tax Incentives To Get More People into College?*

There are three key ways to alter the tax incentives so that they increase college-going.

- *Focus* the incentives on those on the brink of college
- *Simplify* the incentives so that families understand and respond to them
- *Coordinate* the incentives with financial aid to avoid harming families who get aid

*I. Focus the incentives on those on the brink of college.*

To get more people into college, we need to aim our tax incentives at those on the brink of college, who need a little push. These potential college students are not teetering between skipping college and going to an expensive school like Harvard. They are teetering between skipping college and going to Iowa Central Community College, where tuition and fees are \$2,700.<sup>3</sup>

It is this student—trying to decide whether college is the right path, her family nervous about the costs—that we need to help if we want to increase the skills of our workforce. Making the local community college or public university cheaper may just convince her to go to college.<sup>4</sup> Making Harvard cheaper will not.

*II. Simplify the incentives so that families understand and respond to them.*

Simplicity is not a word that we usually associate with the Internal Revenue Code. But to the extent that we can simplify the tax incentives for education, we will make them more effective. Families cannot respond to an incentive if they do not know about it or do not understand it.

Clear, simple aid programs have the greatest impact on college attendance. For example, Georgia's HOPE scholarship waives college tuition and fees for high school students who achieve a B average in high school. Simple, easy to understand: get

<sup>1</sup> Prices are in constant 2003 dollars. The College Board, *Trends in College Pricing 2003*.

<sup>2</sup> The College Board, *op cit*.

<sup>3</sup> Research shows that the tax credits have not affected college attendance rates, and this is attributed to the inability of low-income families to access the credit. Bridget Terry Long, "The Impact of Federal Tax Credits for Higher Education Expenses," in Caroline Hoxby, ed., *College Choices* (University of Chicago Press, forthcoming)

<sup>4</sup> Extensive research shows that reducing college costs increases college attendance. For a review of this literature, see Susan Dynarski, "Behavioral and Distributional Implications of Aid for College," *American Economic Review* (May, 2002).

a B, go to college for free. 90% of Georgia's high school freshmen know of this aid program and can explain the eligibility rules.<sup>5</sup> We can strive for similar simplicity with the tax incentives. For example, college students could be guaranteed a tax credit of \$2,000, the current maximum of the Lifetime Learning Credit and the cost of the typical community college. Very simple: go to college, get a credit of \$2,000. At the end of this testimony, I suggest modifications to the incentives that take them in this direction.

*III. Coordinate the incentives with financial aid to avoid harming families who get aid.*

The tax incentives for education do not exist in a vacuum. They are layered onto an existing system of financial aid for college students. The tax incentives and financial aid are run by different agencies and overseen by different committees. Without careful coordination between these two sets of policies, families can get hit hard.

The federal aid system's treatment of the Coverdell is a case in point. The aid formula considers assets and asset income to be resources for college, and so aid is lower for families with higher assets and higher income. Until recently, Coverdells were treated particularly harshly.'

As of last fall, a family with \$1,000 in a Coverdell could lose \$1,200 in aid over four years of college. The family was worse off because it saved in a program intended to encourage college attendance.<sup>6</sup>

The Department of Education just changed these rules this winter, after the Coverdell had been in existence for *seven years*. There are still problems to be corrected: for example, a family that has saved in a 529 prepaid plan has its financial aid reduced one dollar for each dollar distributed by the plan. Again, this family is worse off than if it had not saved at all.

FOUR RECOMMENDATIONS TO  
FOCUS, SIMPLIFY AND COORDINATE  
THE TAG INCENTIVES FOR EDUCATION

*(1) Merge the Hope and Lifetime Learning Credits and the tuition tax deduction into a single, refundable credit.*

- This simplifies the tax incentives and extends them to students on the brink of going to college.
- Having three different tuition tax incentives is confusing; families don't understand which they qualify for.
- 49% of those who file for Hope and LLC do not receive the full credit because their tax liability is too low.<sup>7</sup>
- Tax liability is not known until filing, so families are uncertain in September about how large a credit they will receive in April. Families who are struggling to pay for college need to be able to count on the credit—it can't be a gamble whose outcome they discover in April.

*(2) Define qualified expenses the same for all the tax incentives.*

- Each incentive defines qualified expenses differently. This is confusing to families trying to figure out the costs of college and how to pay.
- Room and board are qualified expenses for the savings plans but not the credits.
- Many students who want to attend a public college do not qualify for the credits because their tuition and fees are too low. Adding room and board to the crediteligible expenses would aim more funds at students at the brink of college.

*(3) Alter the treatment of non-qualified use of the Coverdell to prevent its abuse.*

- Those who use the Coverdell for non-qualified purposes should not benefit from doing so.

<sup>5</sup>For an analysis of the impact of Georgia's HOPE program on college attendance see Susan Dynarski, "Hope for Whom: Financial Aid for the Middle Class and Its Impact on College Attendance," *National Tax Journal* (September, 2000). For an examination of similar programs in other states, including how their program design affects their impact on college attendance, see Susan Dynarski, "The New Merit Aid," in Caroline Hoxby, ed., *College Choices* (University of Chicago Press, forthcoming).

<sup>6</sup>For discussion of the interactions of the Coverdell with financial aid see Susan Dynarski, "Tax Policy and Education Policy: Collision or Coordination? A Case Study of the 529 and Coverdell Saving Incentives," James Poterba, ed., *Tax Policy and The Economy* (2004).

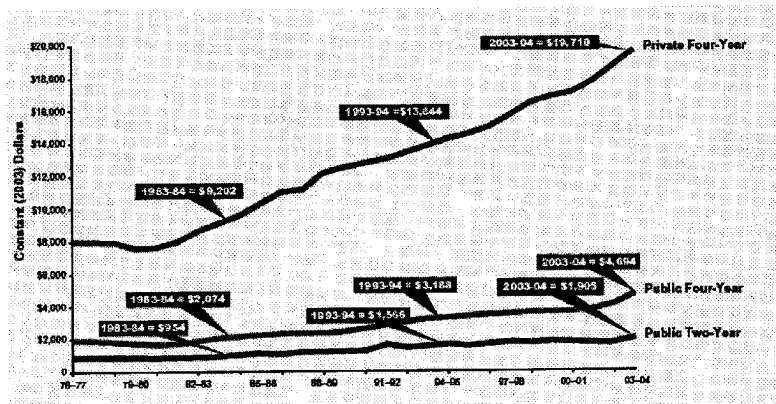
<sup>7</sup>Bridget Long, "Using the Tax Code to Provide College Aid: The Higher Education Tax Credits, 1998–2001," Harvard University manuscript, 2004.

- Currently, high income families get more benefit from non-qualified use than low-income families get from qualified use.<sup>8</sup>
- This is because non-qualified withdrawals from the Coverdell are taxed at the child's rate. This is a boon to high income families, because the child's tax rate is so much lower than the parent's (Exhibit 3).
- Solution: tax withdrawals at the parent's rate. Half the states follow this approach in taxing non-qualified withdrawals from the 529. See Exhibit 4 for the incentives this would create.

(4) *Maintain or increase the current Coverdell contribution limit*

- The \$500 limit on the Coverdell severely limited its appeal as a vehicle for college saving.
- If the \$2,000 limit cannot be maintained the Coverdell should simply be scrapped, as it adds to the complexity of the tax incentives without providing sufficient value to induce students into college.
- Consider substantially raising the contribution limit on the Coverdell and setting a joint contribution limit with the 529 plans. The Coverdells are simple, have the same rules nationwide, and generally have low fees. Families choose the financial products they wish to place in a Coverdell, and any mutual funds they invest in are subject to the usual SEC rules on disclosure. In all of these characteristics, the Coverdell compares favorably with the 529 savings plans.

**Exhibit 1:**  
**Average Tuition and Fee Charges, 1976-77 to 2003-04**



Source: *Trends in College Pricing 2003*, College Board (2004).  
Tuition are in 2003 dollars and enrollment weighted.

<sup>8</sup>By investing in a Coverdell and using the funds for college, a low-income family gains 19 percent over investing in a standard mutual account. By investing in a Coverdell and *not* using the funds for education, a high-income family gains 21 percent over investing in a standard account. Source: Susan Dynarski, "Who Benefits from the Education Saving Incentives? Income, Educational Expectations and the Value of the 529 and Coverdell," *National Tax Journal* (June, 2004).

**Exhibit 2**  
**Examples of Tax Savings**  
**Hope Credit, Lifetime Learning Credit, & Higher Education Tax Deduction**

Tuition and fees	Value of tax benefit per return			
	Hope Scholarship Credit	Lifetime Learning Credit	Higher education deduction	
			15% marginal tax rate <sup>a</sup>	25% marginal tax rate <sup>b</sup>
\$350	\$350	\$70	\$53	\$88
700	700	140	105	175
1,700 <sup>c</sup>	1,350	340	255	425
2,000	1,500	400	300	500
3,000	1,500	600	450	750
4,100 <sup>d</sup>	1,500	820	450	750
7,500	1,500	1,500	450	750
10,000	1,500	2,000	450	750
18,300 <sup>e</sup>	1,500	2,000	450	750

Source: U.S. Congressional Research Service.

<sup>a</sup> Represents married-couple family filing jointly with one child enrolled full-time in the freshman year of college at an eligible institution of higher education with an AGI of \$56,000, which is below the Hope and Lifetime Learning credits' income phase-out range.

<sup>b</sup> Represents married-couple family filing jointly with one child enrolled full-time in the freshman year of college at an eligible institution of higher education with an AGI of \$82,000, which is below the Hope and Lifetime Learning credits' income phase-out range.

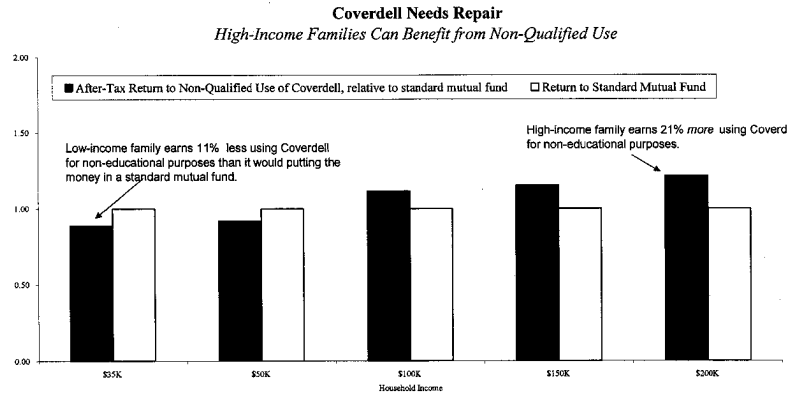
<sup>c</sup> Average tuition and fees at 2-year public postsecondary institution in 2002-2003, according to The College Board, *Trends in College Pricing 2002*.

<sup>d</sup> Average tuition and fees at 4-year public postsecondary institution in 2002-2003, according to The College Board, *Trends in College Pricing 2002*.

<sup>e</sup> Average tuition and fees at 4-year private postsecondary institution in 2002-2003, according to The College Board, *Trends in College Pricing 2002*.

Source: Congressional Research Service, *Higher Education Tax Credits and Deduction: An Overview of the Benefits and Their Relationship to Traditional Student Aid*.

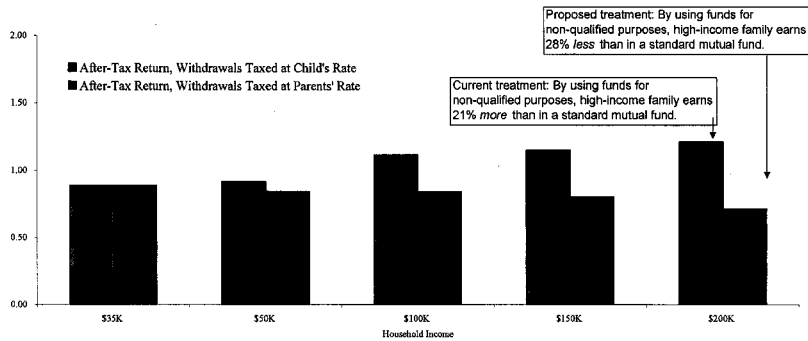
Exhibit 3:



Source: Susan Dynarski, "Who Benefits from the Education Saving Incentives? Income, Educational Expectations and the Value of the 529 and Coverdell," *National Tax Journal* (June, 2004).

Exhibit 4:

**Taxing Non-Qualified Withdrawals at the Parent's Tax Rate**  
*Would Discourage Abuse of the Coverdell*



Source: Susan Dynarski, "Who Benefits from the Education Saving Incentives? Income, Educational Expectations and the Value of the 529 and Coverdell," *National Tax Journal* (June, 2004).

PREPARED STATEMENT OF HON. RANDALL EDWARDS

Mr. Chairman and Members of the Committee, my name is Randall Edwards. I am the State Treasurer of Oregon and Chair of the Oregon 529 College Savings Board. I also serve on the executive board of the College Savings Plans Network (CSPN), which is an affiliate of the National Association of State Treasurers. CSPN coordinates states' 529 efforts by harnessing their collective resources to improve industry practices and develop self-regulating policies.

It is my sincere pleasure to be here today to speak with you about 529 college savings plans, the State of Oregon's perspective and philosophy regarding these plans, and how states are making them successful.

The states have been working with the Finance Committee for over a decade to increase access to college. This partnership culminated in the enactment of the tax exemption for qualified distributions from the plans in the Economic Growth and Tax Relief Reconciliation Act of 2001. Since 2001, these plans have grown tremen-

dously, and we thank this committee for its vision and leadership in enhancing the ability of the states to build the college savings plans, which in turn makes higher education more affordable and accessible to families. You should know that your vision is being realized every day as 529 plans in all 50 states continue to help families achieve the dream of a college education. Families in record numbers are putting their hard earned dollars in 529 plans, and that commitment is paying off. More than 400,000 students nationwide already have used their 529 resources to pay for college, and another six million are waiting to use their accounts when they go to college.

*Oregon's story is no different.*

We began offering 529 plans in January of 2001, and in the short three and a half years since then, Oregonians have responded to 529 plans with unbelievable excitement and enthusiasm. More than \$311 million has been invested in our program. That excitement and high level of response is even more amazing when you consider that we started this plan in one of the worst financial markets in history. Oregonians clearly understand the need for higher education and what it will take financially to achieve their goals. 529 plans have given Oregonians a real incentive and flexible vehicle to save for college.

Our 529 program is built on the foundation of putting the investors and beneficiaries first. We weigh every program decision against the effect on the average investor. And while we maintain outstanding relationships with our private-sector partners, our first priority is always to our investors, the plan participants. That is why Oregon currently has three 529 plans to choose from, each offering investors a distinct set of investment portfolios and mutual funds. A key component of our 529 program is our lowest-cost option. This option is designed to encourage moderate- to low-income families to save for college, allowing them to set up an account for as little as \$25 with \$25 monthly contributions, or for a one-time contribution of \$250. It is our goal to offer solid investment choices to attract a wide range of investors with varying risk tolerances and investment philosophies.

We believe our approach is working, with nearly 52,000 accounts opened since 2001 and new investors joining daily.

*The Public Policy Behind 529*

The states long recognized the need to foster saving for college, which is economically more sound than borrowing, both for families and for institutions of higher education. Beginning in the late 1980s, the states established tuition savings programs to encourage families to save for college, leading the way in meeting the needs of families to save for college by developing innovative plans to reach families of every income level and in every community. The mission of the state college savings plans, whose existence predates the passage of Section 529 of the Internal Revenue Code, has always been to increase access to higher education by offering families a simple, safe, affordable and dedicated way to save for college tuition. In 1996, Congress recognized the need to develop supportive federal policies to encourage and empower more Americans to save for college. Today, 529 plans are shining examples of how good public policy can enhance the futures of many Americans. My passion and my interest in the 529 program is the same as yours—to foster a savings ethic and help all families save for a college education.

So what is the challenge that Oregon families face to send their children to college?

The headline from last Saturday's edition of *The Oregonian* newspaper says it all: "Cost of college rising again." While Oregonians continue to take advantage of the 529 plans, they see the cost of college rising steadily every year. Families are doing financial back-flips to meet the rising cost. Many are forced to rely heavily on debt to meet their needs. According to the College Board's *Trends in College Pricing 2003*, average annual tuition and fees at a public four-year college in current dollars has increased from \$617 to \$4,694 since 1976, an increase of 761 percent. At the University of Oregon, annual tuition costs alone have increased 248 percent since 1990.

Despite the rising cost, the value of a college education is enormous. To give you an example, median annual earnings for full-time workers with bachelor's degrees are about 60 percent higher than earnings for those with only a high school diploma. Over a lifetime, this gap exceeds one million dollars in earning potential. Further, more and more jobs require technical training and post high-school education.

That is why Congress and the states long have recognized the need to foster a college savings ethic. A more educated workforce is a critical part of a stable economy with higher-paying, family-wage jobs. Today, states design 529 plans to specifi-

cally promote future access to higher education for children of all economic means. These plans provide a unique savings opportunity for two-year, four-year, or graduate schools, vocational or technical schools, or any accredited educational institution, and the plans can be used any time in your life.

Everyone talks about the amount of money saved in 529 plans, and it is substantial, but I believe the more important statistic is the number of accounts. I don't care whether people are saving \$25 or \$25,000, as long as they save. In Oregon, we have developed a broad-based public awareness campaign to ensure that every Oregonian, regardless of income, understands and has easy access to the 529 program. I am proud to say that we have account owners in all of Oregon's 36 counties.

#### *State Oversight*

The states have a legitimate, vested interest in making college more affordable and more accessible for their citizens.

State oversight of 529 plans has been a critical element in the growth and success of these programs. We have found that the imprimatur of the state's administration of these programs helps add credibility and therefore encourage new investors who otherwise might not have considered such a vehicle for their college savings needs.

States have become very innovative in their approaches to attract college savers, using everything from state tax deductions, scholarship programs, matching grant programs, low-cost mutual funds, easy contribution and withdrawal features, online enrollment and account access, and low investment minimums.

In Oregon, I have authored a number of legislative initiatives that have enhanced the state's 529 program in an attempt to attract more savers: a \$2,000 state tax deduction, a tax roll-forward provision on contributions above \$2,000, state tax-free withdrawals, and an allowance for low-income Oregonians to access the 529 plan through Individual Development Accounts.

The Oregon 529 program is administered directly out of my office, as is the case for many state treasurers around the country. This allows me, and my staff, under the direction of the Oregon 529 College Savings Board, to exercise full control over the program as well as oversee our private-sector program managers. Every decision made regarding the program, whether investment-related or administrative, is analyzed and approved by my office and the Board.

This level of state oversight of 529 plans provides an essential additional layer of protection and accountability for the participants. Our program is administered by an independent state board, which holds all 529 assets in trust. Our program is governed by state law and administrative rule, and must adhere to state procurement laws, ethical standards, and open public records and meetings laws. In addition, our program is subject to financial reporting and auditing requirements. Financial reports are submitted to the Governor and the State Legislature every biennium.

The 529 plan in Oregon is becoming an increasingly important tool in the higher education policy toolbox in our state. The recent and continuing state budget crises hit Oregon especially hard, and General Fund support for higher education has suffered, resulting in rapid tuition increases. Nevertheless, the Oregon Board of Higher Education and Governor Kulongoski share a deep commitment to access to secondary education, and support the efforts of our program to provide investor education and access to savings opportunities for Oregon citizens of all income levels. More cooperation and collaboration is expected in the future. A member of the Oregon Board of Higher Education now serves as a member of the Oregon 529 College Savings Board, and we are beginning work to develop grants and scholarships from our 529 program to reach students who otherwise would be unable to attend college. It is imperative to the health of higher education and of our economy in Oregon that the state exercises every resource for higher education available. Our 529 program has become a visible and vital resource.

Another critical aspect of state oversight is choosing investment managers. In Oregon, we are very selective about whom we elect to do business with. Investment managers must meet and maintain a host of high standards: from top-quality, low-cost mutual funds and outstanding customer service to high ethical standards and a commitment to act in the best interest of our investors. We have formally adopted investment policies to which every investment manager must adhere.

Our Board takes its fiduciary duty seriously. In fact, Oregon was the first and, I believe the only, state to terminate a 529 program manager as a result of the recent mutual fund scandal. Our Board determined that one of our program managers violated investors' trust and put the program at risk. This kind of independent, unbiased oversight can be achieved only through the involvement of the states.

Recently, our program adopted new disclosure guidelines developed by the College Savings Plans Network and state treasurers to provide more transparency and give

investors more uniform information regarding fees, expenses, investment performance, state tax treatment, and other benefits. These self-regulating guidelines will also make it easier for investors to compare all 529 plans and is another step to make them easier to understand for the average investor.

#### *Federal Tax Permanency for 529 Plans*

Mr. Chairman and Members of the Committee, we need your help. We need the federal tax exemption on 529 withdrawals to become permanent. This exemption, created in 2001, is a powerful incentive for average, middle-income investors to save for college.

Because the exemption sunsets in 2010, it is difficult for investors to understand and awkward for the states to explain and disclose. My belief is that most people invest with the understanding that they will receive the federal tax exemption regardless of when they withdraw their money. The sunset is creating a climate of confusion and misunderstanding. All of us involved in 529, states and vendors alike, urge you to make the federal tax exemption permanent, and we are ready to work with you to make this happen.

#### *Conclusion*

Creating greater access to higher education and encouraging savings over borrowing is sound public policy. The 529 plans are designed to improve access to higher education and, through the states' administration of the plans, do in fact improve access. The state 529 plans provide opportunities for investment and savings for low- and middle-income investors, support investor education, and reduce the need for financial aid and loans. In the longer term, the plans provide our states and nation a better-educated workforce, and help individuals to secure higher-paying jobs. And Section 529 is working: Citizens are investing in these plans in great numbers because they trust that the states are administering them in the best interest of the participants. The public policy goals of the Section 529 qualified tuition programs are foremost in the administrative efforts of the states, and the states are in a unique position to further those goals.

You have my commitment to work with you and the other states to continue to improve the 529 plans and make them the best way for American families to save for a college education.

Thank you for the opportunity to be here today. I will happy to answer any questions.

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#### PREPARED STATEMENT OF JAMES J. FADULE

#### *Introduction*

Mr. Chairman, and distinguished Members of this Committee, thank you for the opportunity to share with you the capabilities of Upromise and to share with you our initial results in helping families get started saving for college. My name is Jim Fadule. I am a senior officer of Upromise, Inc., and president of its subsidiary, Upromise Investments, Inc., a registered broker dealer.

A college degree has never been more important. Over a lifetime, the difference in earnings between those with a B.A. or higher and those with a high school diploma exceeds \$1,000,000 (based on data from the U.S. Census Bureau, as presented by *The College Board, Trends in College Pricing, 2003*). Yet paying for college continues to be a challenge for many students and families, especially those with modest incomes. The gap between the savings available to families and the cost of college continues to widen, and families are looking for ways to help them bridge the gap.

#### *Upromise Overview*

Upromise was founded with the singular purpose of helping families save for college. We do that by helping millions of American families recognize the importance of saving for college; second, by providing families with a free and simple way to jump-start their efforts by providing real cash rebates on their everyday purchases, which can be used to help pay for college; and lastly, by encouraging families to prudently invest their own money for college as their circumstances permit. Upromise has teamed up with hundreds of companies, including Coca-Cola, McDonald's, Citi, America Online, ExxonMobil and Procter & Gamble, who provide rebates on customer purchases. In short, Upromise Members get rebates to help pay for college from participating companies, who benefit by attracting new customers and building loyalty toward their company's products. Upromise is a for-profit company where

the participating companies pay Upromise an administrative fee for managing the service.

Over 5.2 million people across the country have joined Upromise, representing typical parents, grandparents and future students. In total, Upromise Members have accumulated over \$165 million in college savings from Upromise partner contributions.

*Private Sector Coalition Administered by Upromise*

Upromise has been effective in mobilizing Corporate America, whose willingness to allocate marketing funds toward a fundamental need in the country has resulted in a nationwide effort to help families save for college.

Over 300 companies currently participate in the Upromise coalition, offering anywhere from 1–10% back on thousands of products and services. Below are some general examples of the ways families can save through Upromise:

- 2% back on school supplies at Staples
- Up to \$3,000 back on the sale or purchase of a home through a participating Century 21, Coldwell Banker or ERA real estate agent
- Up to \$35 back on a new Whirlpool dishwasher
- 5% back on a transmission repair at AAMCO
- 2% back on all purchases through Wal-Mart.com

Members can save on over 7,000 items across more than 18,000 grocery and drug stores nationwide, on gasoline at more than 15,000 locations, on dining at over 9,000 restaurants, on lodging at over 10,000 hotels, as well as tens of thousands of retail locations, and over 200 online shopping sites.

*How It Works*

Consumers join free at the Upromise website. They securely register certain key information, such as their grocery loyalty cards or the credit or debit cards they already carry, then shop with any of the hundreds of Upromise partners. Contributions are automatically deposited into the Member's account with each qualifying purchase.

There are no coupons to clip, and no receipts to keep. Unlike most consumer loyalty programs, Upromise provides actual dollars (not points), which are funded by corporate partners. We vigorously protect Member privacy, do not sell or lease Member information, and only use credit card information so that we can recognize qualified purchases and deposit the appropriate rebate in the Member's account.

Members can also expand their savings opportunities by inviting family and friends to join. For example, grandparents, aunts, uncles or anyone else can join Upromise and designate their savings to benefit the same future student.

Members can save even more through special programs such as with the Citi® Upromise® Card or as a customer of America Online, which offers Members double savings on everyday purchases such as groceries and gas. Members have access to their Upromise account online 24 hours a day and can watch their savings grow with each company's contribution. If Members have questions, they can contact the Upromise Customer Care department through email or a toll-free telephone number.

Appealing to a Financial and Emotional Need

We believe that our adoption rate has been robust because Upromise appeals to families' financial need to save for college and their emotional desire to do something positive for their children. Since launching the service 3 years ago, we have received over 5,000 unsolicited testimonials. I would like to share with you a few pieces of correspondence from Upromise Members that demonstrate the impact we are having on families:

**Upromise Member Testimonials**

"I love Upromise because as a single mother, I need all the help I can get. And the best part is that it DOESN'T COST ME ANYTHING to save for my son's future!"

*-Upromise Member from Hoover, Alabama*

"We do okay day to day but paying for college may be out of our reach. We're saving what we can and every little bit helps."

*- Upromise Member from Bedford, New Hampshire*

"I wanted to thank you from the bottom of my heart for participating in the Upromise program – it means a lot to me and my friends. I didn't get a chance to go to college and for companies like you to help me send my son to college, I think that it's absolutely wonderful. It also encourages me to buy more of your brands. Keep up the good work."

*- An anonymous Upromise Member*

**Upromise Partner Testimonial**

"At last count, we'd received over 650 requests, many of them pleading with us... 'Please, please consider adding [Upromise].' We pride ourselves on listening and responding to our customers, so when it became clear that so many of our loyal customers wanted to take part in the program, we went back to the drawing board."

*-- Mary Ellen Burris  
Senior Vice President of Consumer Affairs, Wegmans*

Upromise Grocery Savings

A particularly successful Upromise program involves helping families save for college when they buy grocery and household items at over 18,000 grocery and drug stores nationwide.

Participating products include many of the most well known consumer brands in the country, such as:

- Coca-Cola
- Kellogg's
- Keebler
- Huggies
- Skippy
- Welch's
- Kleenex
- Beech-Nut
- Folgers
- Lysol
- Tylenol
- Tide

and over 7,000 other items in categories ranging from milk and pasta to light bulbs, batteries and film.

*Hypothetical Grocery Store Example*

I'd like to provide an example of how effective a family trip to the grocery store, such as a Kroger, Albertsons, or a Giant and Safeway supermarket here in the Washington area, could potentially be:

Upromise AOL

Account #: 001-009-0060 Member Since: 10/2001

Transaction date: 07/06/04

GROCERY

Purchase Details for 07/06/04 (Tue)

Item	Qty	Price	Contribution	Savings
AquaFresh Toothpaste	1	\$2.50	5%	\$0.13
Beech Nut Baby Food	10	\$5.00	3%	\$0.15
Coca-Cola	1	\$3.99	1%	\$0.04
Cottonelle Tissue Paper	1	\$7.49	5%	\$0.37
Danimals Yogurt Pack	1	\$3.89	3%	\$0.12
Gorton's Fish Sticks	1	\$4.99	3%	\$0.15
Heishey's Chocolate M&M's	1	\$2.39	3%	\$0.07
Huggies Diapers	1	\$14.99	3%	\$0.45
Kellogg's Corn Flakes	2	\$5.18	1%	\$0.05
Land O' Lakes Butter	1	\$1.99	3%	\$0.06
Lysol Bowl Cleaner	1	\$2.59	3%	\$0.08
Minute Maid Orange Juice	1	\$2.99	1%	\$0.03
Skippy Peanut Butter	1	\$3.99	3%	\$0.12
Tide Laundry Detergent	1	\$14.99	3%	\$0.45
Walt's July	1	\$1.79	3%	\$0.05
		\$78.76		\$2.32
Doubled by AOL				\$2.32
Citi Contribution and Bonus				\$18.86
<b>TOTAL SAVINGS</b>				<b>\$21.18</b>

The Upromise Member could receive \$2.32 into their Upromise account, and that contribution would be doubled through the "AOL Members Save Double" program, then further enhanced by an additional 20% contribution through the Citi® Upromise® Card program in the grocery stores. Combined the Member could receive up to \$21.18 into their Upromise account on a grocery bill of \$78.76 a rebate of 27% on their total trip to the grocery store in addition to any store and product promotions running at the time.

Obviously, we recognize that not all Members can or will take advantage of special offers available through Upromise, and we are not suggesting that the contributions earned are the solution to the challenge of saving for college.

However, Upromise Members who are actively committed to the program can earn hundreds of dollars annually which, presuming a family gets started when the child is young, could lead to thousands of dollars over time.

*Supporting the Efforts of State 529 Plan Administrators*

Upromise recognized the importance of helping families save their own money with the introduction of the Upromise College Fund, a section 529 plan sponsored by the State of Nevada, and made available at the Upromise website through Upromise Investments.

Through a partnership with The Vanguard Group, 529 plan investors can select from several low cost investment portfolios specifically designed for an average family investing for college.

Families can get started with as little as \$50 per month. Administrative services are designed to make it easy for families to establish and manage an online 529

account at the Upromise website, while taking advantage of the most recent web-based technology available to Members.

Through our subsidiaries, Upromise currently administers the Upromise College Fund 529 Plan and The Vanguard 529 College Savings Plan, as well as the New York's 529 College Savings Program. The company administers over 502,000 529 plan accounts, including 66,000 Upromise College Fund 529 Plan accounts. Recently, Upromise began administrative duties in service to College Savings Iowa.

With Vanguard as the investment manager, the plans have been recognized by national publications such as Morningstar, Kiplinger's, and Money Magazine.

#### *Reaching Modest Income Families*

Upromise's initial results suggest that we are helping families, including lower and middle-income families, to get started saving. For example:

- 46% of Upromise's 5.2 Million Members have a household income below \$50,000

Families who open a Upromise College Fund 529 Plan account have average opening balances of \$542 and an average account size of \$1,429 (*data as of June 30, 2004*). These figures are significantly lower than the 529 industry average account size of \$8,500 and are lower than the investment minimums for many investment products offered by traditional firms (*529 industry data from the College Saving Plan Network as of March 31, 2004*).

Upromise College Fund accounts are opened online 96% of the time. 52% of accounts enroll in an automatic investing plan, with an average monthly investment of \$80, reflecting the company's success in helping families get started with modest, regular contributions.

Account owners also have the ability to potentially channel additional contributions from grandparents, relatives, and friends.

As an option available to Members, Upromise will sweep Upromise rebates into the 529 account automatically on a quarterly basis, and then report back to the college saver the total value of their accumulated savings for college.

#### *Private Sector and Public Sector Coordination*

Upromise has experienced first hand that an increasing number of middle-income families are taking advantage of 529 plans. The States' efforts over the past decade to promote the importance of saving for college—combined with the compelling federal tax advantages of 529 plans—have led to more and more families taking action to save for college. Upromise continues to collaborate with existing State clients to bring private sector marketing innovations in support of the States' continued efforts.

#### *Close*

Thank you again, Mr. Chairman and Members of the Committee, for your interest in Upromise and in the important subject of higher education financing. Without question, higher education is a foundation for our society. The more we can do to support the availability and attainability of college for our students, the stronger our society will be. We welcome the opportunity to work with you to continue to provide the best in college savings to American families.

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#### PREPARED STATEMENT OF DR. DAVID FORBES

Chairman Grassley, Senator Baucus, and Members of the Committee on Finance, thank you for the opportunity to provide testimony today. The Title of today's hearing, "The Role of Higher Education Financing in Strengthening U.S. Competitiveness in a Global Economy" is one of great importance. I will focus on a number of health education and graduate programs at The University of Montana because the graduates of these programs will have a large impact on the health status of our citizens. There is no doubt that a healthier population will translate into an enhanced ability by our citizens to be competitive in a global economy. Programs at the University of Montana and the School of Pharmacy and Allied Health Sciences have benefited a great deal from support from the Federal Government. This support has allowed my colleagues to not only expand programmatic size but to improve access as well. Or in other words, improved access leads to a healthier community, which is more competitive.

#### *Montana*

Montana is a poor, rural state. According to the Bureau of Economic Analysis in 2002, Montana ranked 45th of the 50 states in per capita personal income. The median household money income in Montana was \$33,024 compared to \$41,994 nationally. Updated census data indicates that 14.6% of Montana's population lives in pov-

erty (128,355 of 904,433). Poverty is high, especially among Montana's youth as 43.6% are classified as low income and uninsured (Catholic Campaign for Human Development, 12/16/2003). The reality on some of the reservations is even more dismal. There are over 2.4 million (0.9%) American Indians in the U.S. of whom sixty-four thousand (2.7%) live in Montana and account for the largest minority group (6.2%) in the state but less than 3% of students enrolled at the state universities. This poor representation is foreshadowed by a high school dropout rate twice that for non-Indian students and dismal ACT scores. A scarcity of health careers role models contributes to a severe pipeline problem. The small number of American Indian/Alaskan Natives (AI/AN) entering and graduating from professional programs has created a larger demand for AI/AN pharmacists than for any other ethnic group. In Montana, only 0.6% of pharmacists are AI/AN. Eighty-two percent of counties meet the Health Professional Shortage Area (HPSA) definition and 57% are Medically Underserved Areas.

#### *The University of Montana*

The University of Montana (UM) is accredited by the Northwest Association of Schools and Colleges and consists of the College of Arts and Sciences and seven professional schools.

- Total number of UM students—12,150
- Undergraduate—10,379
- Graduate—1771
- Residents—68%
- Nonresidents—32%

#### *School of Pharmacy and Allied Health Sciences*

The School of Pharmacy and Allied Health Sciences consists of the professional disciplines of pharmacy, physical therapy, and social work.

- Pharmacy students—232
- Physical therapy students—82
- Social work students—
  - Masters in Social Work (MSW)—50
  - Baccalaureate in Social Work—175
  - Graduate students—Biomedical and Pharmaceutical Sciences—35

The School offers the following degree programs:

- Doctor of Pharmacy (Pharm.D.)
- Doctor of Physical Therapy (DPT)
- Baccalaureate in Social Work
- Masters in Social Work (MSW)
- Doctor of Philosophy (Ph.D.)
  - Pharmaceutical Sciences
  - Toxicology
  - Neurosciences

The University of Montana's total enrollment (12,150) includes 5,011 disadvantaged students and of the 232 students in the Doctor of Pharmacy Program, 91 are economically disadvantaged.

#### *Federal Government Student Support*

The Federal Government has provided a good deal of support for the students either in the Doctor of Pharmacy Program or preparing to enter the Program. These initiatives include:

- Health Careers Opportunity Program (HCOP)—HHS (HRSA) has provided the School with support for approximately the last decade to recruit, train, and graduate American Indian and Alaska Native students in pharmacy. One hundred and eighty-nine students have been part of this program (1998–2004).
- Center of Excellence (COE)—HHS (HRSA) has provided the School with support for a three-year period with purposes to include increasing the number of minority faculty and students in pharmacy, improving health care delivery to minority populations through better professional preparation, and achieving cultural competence for all pharmacy graduates.
- Endowment Fund Program—HHS (HRSA—National Center on Minority Health and Health Disparities) has provided the School with support to increase the School's capacity (via an endowment fund) to enhance minority recruitment and health disparities research in Montana.
- Scholarships for disadvantaged students—For the academic year 2001–02, the pharmacy program received \$326,212 from HHS (Division of Student Assistance) to award as scholarships to disadvantaged students. For 2002–03, the pharmacy program received \$312,776; in 2003–04 the pharmacy program received \$351,484. For 2004–05 the pharmacy program received \$426,359. Stu-

dents completing the HCOP summer enrichment program are given priority for this funding. The pharmacy program has awarded scholarships to disadvantaged students ranging from \$400 to \$6,500 from these funds.

- Loans for disadvantaged students—From 1991 to 1995, the pharmacy program received a total of \$83,392 from HHS (Bureau of Health Professions) to award as loans to disadvantaged pharmacy students and the School program provided matching money of \$10,741. For 2003–04 the pharmacy program received an additional \$21,518. Today, with interest earned, approximately \$125,000 remains in circulation with about \$25,000 re-loaned each year. Another \$51,000, donated by the Burroughs Wellcome Drug Company, is available to award as short-term loans to students.
- Community Health Center (Partnership Health Center in Missoula)—HHS provided Missoula County's Community Health Center (known in Missoula as the Partnership Health Center) with support (the School was a subcontractor) to assist other Montana Community Health Centers with the implementation of pharmacy services. The School utilizes community health centers statewide as advanced practice sites for pharmacy students.

#### *Successes from the Above Programs*

The School's Office of Diversity Programs operates in part with funding from HRSA's Health Careers Opportunity Program (HCOP) and their Centers of Excellence Program. The Diversity Program Office resides in the Office of the Dean for the School of Pharmacy.

The following table shows the increase in the number of applications received for the HCOP summer programs. This increase shows evidence of the success of the program.

**Table 1**  
Summer Enrichment Program Applications

Summer Program Dates	Applications Mailed (P1 & P2)	Applications Received (P1 & P2)	Applications Accepted (P1 & P2)
1998-1999	798	32	22
1999-2000	1,200	35	21
2000-2001	1,250	53	28
2001-2002	1,320	60	42
2002-2003	1,400	65	42
2003-2004	1,810	91	34
<b>Totals</b>	<b>7,778</b>	<b>336</b>	<b>189</b>

For the academic year 2003–04, there are 10 American Indians/Alaska Natives enrolled in the pharmacy program, one African-American and two Hispanic, and three Asians. One American Indian, one Native Hawaiian/Pacific Islander and one Asian student are currently enrolled in the Physical Therapy program.

Fourteen HCOP students have graduated from the School of Pharmacy and Allied Health Sciences with degrees in Pharmacy since 1998. At the present time one student is enrolled in the Pharm.D. /Ph.D. program and he is scheduled to graduate by 2008.

The professional program overall retention rate of minority students is 100%. This was accomplished in conjunction with the School's Health Career Opportunity Programs and the Office of Diversity Programs by providing over 250 hours of tutoring to disadvantaged students in the pre-professional program and other allied health science fields. All students participating in tutoring were required to meet with a tutor 2–3 hours per week, schedule a meeting time with the coordinator to discuss success and failures, and meet with faculty members to evaluate their progress.

The School of Pharmacy implemented an Early Warning System for students who are having academic difficulty. After a student has performed poorly (grade of D or F) in their, first exam, the professor asks the student to visit with them to discuss the nature of the difficulty. If a student receives a second poor score, the Assistant Dean for Student Affairs is notified. The Assistant Dean contacts the student to further help resolve the difficulty. Sometimes a student can improve with a simple change in his or her study habits. Other times, it may be necessary to refer that student to a campus resource. This system allows for early identification of students in academic difficulty and puts a plan in place to address the problem. If these attempts to improve academic performance fail and a student earns a grade of D or F in a required pharmacy course, an alternate course of study is designed specifically for that student. It may mean reducing the credit load to a more reasonable

level even though the student would necessarily take longer than usual to complete the course of study.

The following table shows the American Indian student involvement in research projects.

**Table 2**  
UM Pharmacy Student Undergraduate AI/AN Research Projects

Year	Student	Faculty Mentor	Title
2002	Walter Gardipee	Howard Beall	Novel Indolequinone antitumor agents
2003	Brian Hall	Keith Parker	Gene Cloning and Expression
2003	Jamie Kennedy	Ann Cook	National Rural Bioethics Project.
2003-2004	Brian Hall	Keith Parker	Pharmacology of Cannabidiol at Serotonin Receptors

These projects resulted in the following:

Swann, E., Barraja, P., Oberlander, A.M., Gardipee, W. T., Hudnott, A. R., Beall, H.D. and Moody, C. J. Indolequinone antitumor agents: correlation between quinone structure and rate of metabolism by recombinant human NAD(P)H:quinone oxidoreductase. Part 2. *J. Med. Chem.* 44:3311–3319 (2001).

Fryatt, T., Pettersson, H. I., Gardipee, W. T., Bray, K. C., Green, S. J., Slawin, A. M. Z., Beall, H. D., Moody, C. J. Novel quinolinequinone antitumor agents: structure-metabolism studies with NAD(P)H:quinone oxidoreductase (NQO1). *Bioorg. Med. Chem.*, in press.

Beall, H. D., Oberlander A. M., Goroski D. T., Gardipee W. T., Swann E., Hudnott A. R., Barraja, P. and Moody C. J. Novel Indolequinone antitumor agents: effect of substituents at the indole-1- and indole-3-positions on substrate specificity for NAD(P)H:quinone oxidoreductase (DT-diaphorase). *Proc. Am. Assoc. Cancer Res.* 41:767 (2000).

Gardipee, W. T., Oberlander, A. M., Moody, C. J., and Beall, H. D. NAD(P)H:quinone oxidoreductase 1 (NQO1)-directed drug discovery: novel indolequinone antitumor agents. Pharmacy Student Research Conference—Western Region, Denver, CO, June 2001.

Hall, B., Christians, A., Halley, C., Parker, L., Russo, E., and Parker, K.K. "Pharmacology of Cannabidiol at Serotonin Receptors." *Proc. West. Pharmacol. Soc.* 47: 43 (M-24), 2004, at the 47th Annual Meeting of the Western Pharmacology Society, Honolulu, HI, January 26, 2004.

The Native American Center of Excellence Grant supports faculty efforts in undergraduate minority research by formalizing the Undergraduate Research Program (URP). The URP aims to involve more undergraduates in cutting-edge research projects prior to graduation. It has been remarkably successful over the past thirteen years. With the support of the Department of Biomedical and Pharmaceutical Sciences (BPS), the URP seeks to increase participation by minority students. The following criteria is used for student research selection and completion of research:

- Undergraduate researcher will arrange for laboratory experience with a full-time research faculty member
- BPS provide assurances of adequate space and resources; faculty mentor will provide infrastructure (work space, supplies, etc) and make a time commitment
- Student and faculty commitment will be for an entire semester; award renewals may be possible for an additional semester
- If undergraduate research student will be working with any hazard, the proper assurances must be filed and an appropriate training workshop completed in advance of the project
- Undergraduate researcher will complete a written report within 30 days of the completion of the research project
- Undergraduate researcher will prepare a professional presentation of the research for a statewide conference such as the Montana Academy of Science (MAS) or a national conference such as National Conference on Undergraduate Research (NCUR).

The COE Program Coordinator will take deliberate steps to inform and encourage AI/AN students to participate in the URP.

One American Indian student who graduated with the Pharm.D degree in 2003 has successfully completed a post-graduate Pharmacy residency program at Community Medical Center in Missoula, Montana.

A second student who will graduate with the Pharm.D degree in May of 2004 has been admitted to the Juris Doctor program at Creighton University in Omaha, Nebraska.

*Federal Government Support (Faculty and Students—Research):*

The Federal Government has provided a good deal of support for the faculty (and indirectly to graduate students) in terms of research grants. The doubling of the budget of the National Institutes of Health has provided many additional opportunities for peer reviewed grant proposals to be funded. The programs, which have benefited Montana a great deal, include:

- COBRE Grants—The School has two Center of Biomedical Excellence Research grants from the National Institutes of Health (Nffi) National Center for Research Resources (NCRR). This support provided the resources for the School to create two campus centers—the Center for Functional and Structural Neuroscience and the Center for Environmental Health Sciences.
- NSF EPSCoR Grants—The School administratively houses the National Science Foundation (NSF) Experimental Program to Stimulate Competitive Research.
- Building Grant (NCRR)—NCRR has awarded the School three million dollars towards a fourteen million dollar research addition to the present Skaggs Building.

The two NIH–NCRR Centers of Biomedical Research Excellence Grants have allowed the School and the University to accomplish the following:

- Recruit 11 new faculty for Pharmacy, Biological Sciences, Chemistry and Computer Sciences. Five more were recruited with NSF EPSCoR funding specifically for development of the School's Center for Environmental Health Sciences.
- Implement two new doctoral training programs (Toxicology and Neurosciences).
- Provide stipend support for 14 students in these two new programs, helping overall enrollment of doctoral students to reach 35 students.
- Encourage undergraduates to pursue science careers by offering numerous lab assistant positions.
- Stimulate interaction/collaboration with other institutions.
  - Provide grant support to collaborating faculty at Montana State University (MSU) and McLaughlin Research Institute (Great Falls, Montana).
  - Implement a joint doctoral program in neurosciences with MSU.
  - Drive the development of interactive-web based course instruction with MSU via Access Grid Nodes (distance education technology).
- Create new economic development opportunities.
  - Creation of a Molecular Medicine Lab at St. Patrick Hospital and Health Sciences Center (Missoula, Montana) to develop gene therapies for neurological diseases.
  - Foster continued development of Montana Neuroscience Institute and International Heart Institute of Montana (Missoula).
- Enhance the focus on health care issues relevant to Montana.
  - Arsenic accumulation in water supplies due to gold mining that may lead to enhanced cardiovascular risk.
  - Lead accumulation in attic dust in Butte, Montana and surrounding communities that may lead to hearing loss and other neurological problems in children.
  - Vermiculite/asbestos contamination in Libby, Montana that may lead to dramatically enhanced lung fibrosis and cancers.

Additionally, the COBRE and EPSCoR grants have been instrumental in enhancing the competitiveness of the faculty in terms of successful federal grant applications. The American Association of Colleges of Pharmacy (AACP) collects successful grant data from the Federal Government and using "Direct Costs per FTE Ph.D. Faculty Member", the University of Montana's pharmacy faculty rank 7th nationally, only behind the Universities of Washington, California-San Francisco, Kansas, Florida A & M, Michigan, and Arizona.

The above listed faculty success in obtaining federal competitive grants has materially enhanced the University's and the School's ability to recruit and retain high quality faculty. Additionally, success breeds success in that a higher quality graduate student will be attracted by these faculty and then our programs should be more competitive in terms of further extra mural support.

Finally, the federal support has been instrumental in assisting in securing private support for the University's health educational programs as well. For example, The ALSAM Foundation and American Stores (now Albertsons) provided the School with

over eight million dollars to build additional classrooms and research space. Once again, new laboratory space attracts high quality faculty who are better suited to secure extra mural funding necessary to attract better students and hopefully the cycle continues. As of today's date, the School is in dire need of research space and the NCRR has provided the School with three million dollars towards a fourteen million dollar research building addition. The University has bonded for seven million dollars and is seeking private support for the remainder. Ground breaking on the research addition to the Skaggs Building is scheduled for March of 2005.

*Federal Government Support (Rural Training):*

*ImProving Health Among Rural Montanans (IPHARM)*

IPHARM is a mobile wellness-testing program serving the state of Montana and is operated by the School of Pharmacy and Allied Health Sciences. IPHARM provides the following tests:

- a. Bone density
- b. Cholesterol
- c. HbA1c (long-term blood glucose control)
- d. Spirometry (lung function test)
- e. Blood pressure

In late 2002, IPHARM received a grant from the Office for the Advancement of Telehealth (OAT). After hiring staff, securing test equipment, and developing policies and procedures, IPHARM began service in February 2003. Since beginning testing, IPHARM has served over 1900 clients in more than 40 sites in Montana and provided over 3000 tests.

The IPHARM mission is to provide wellness tests to Montanans who otherwise would not be tested. This includes those folks who cannot afford the tests or those geographically isolated. IPHARM works with partners to bring this testing program to their communities. Some of the partners with whom IPHARM has worked include:

- a. The Ennis Lion's Club
- b. The Montana Migrant Workers Program
- c. Montana Community Health Centers
- d. Blue Cross Blue Shield of Montana
- e. The United States Forest Service
- f. The Montana Diabetes Project

An important aspect of this project is the opportunity for pharmacy students to interact with rural patients in applying their knowledge of disease states when counseling patients during or after a test. Students are rotated through all aspects of the program (all offered tests) under the supervision of a pharmacist. Each day is different for the faculty mentor and the students thus allowing the students to obtain a rich patient centered experience. There is a significant shortage of pharmacists in the U.S. and rural areas are especially in need and one of the goals of this program is for more students to select rural practice sites upon completion of the Doctor of Pharmacy Program.

Partners are asked to help by arranging for a place for the event and utilities for test equipment. Partners also are asked to work in their communities to advertise or in other ways arrange for people to schedule tests. IPHARM will provide tests at no charge for those unable to pay or if a partner is unable to find local donations to offset these tests. In Federally Qualified Health Centers, IPHARM provides all services at no charge.

IPHARM operates in communities only with a partner. It is not the intention of IPHARM to compete with any local provider. Partners are asked to work with providers in their communities to assure that IPHARM and its' services are welcome.

My colleagues and I very much appreciate the support our programs have received from the various agencies of the Federal Government. We are committed to enhancing the diversity of our student population and ultimately the health professionals who provide the vital health care needed by our citizens. Additionally, we are committed to conduct research at the highest levels necessary to provide new and innovated therapies for disease treatment. We will, whenever possible, include our students in our research so that we can graduate excellent health care professionals dedicated to solving health care problems with creative and critical thinking.

With respect to suggestions, I propose the following:

- It would be helpful for HCOP and other similar programs, such as the Center of Excellence (academic enrichment programs) to have longer funding cycles (at least a five-year cycle) in order for funded programs to achieve the expected outcomes.
- The NSF-EPSCoR program and the NIH-IdeA (Institutional Development Award) program are critical for rural states like Montana (especially those

states that do not have medical schools) to enhance basic research, career development in the sciences, doctoral training opportunities, and economic development. Strong support for these programs is warranted based on their documented success and positive impact in these states.

- Incentives should be created to encourage professional students (such as Doctor of Pharmacy), to seek joint training for the Ph.D. degree (Pharm.D./Ph.D.). The cost of obtaining the professional degree is steep, prohibiting most students from considering advanced degree training. The need for this type of training is crucial, not only to maintain training for pharmacy faculty, but also to address the need for having pharmaceutical experts (Pharm.D.'s) become part of the biomedical research work force.
- It would be helpful to have consistent data collection and reporting requirements for all grants in order for better data collection during the entire grant cycle.
- Enhanced support for programs that stimulate economic development in rural states (SBIR and similar programs) is needed since these states typically do not have sufficient resources to attract biotechnology companies or to provide start-up incentives for the formation of new companies.
- It would be helpful if a larger portion of Indian Health Service professional scholarships were awarded to health professional students in disciplines other than medicine.
- Support for doctoral training in the biomedical sciences (predoctoral fellowships and training grants), should be enhanced for rural states (EPSCoR/IDeA states) especially in non-medical school programs (pharmacy, biological sciences).

Thank you.

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PREPARED STATEMENT OF HON. CHARLES E. GRASSLEY

Today, the Finance Committee examines a very important topic—the financing of higher education in this country and the role of federal tax incentives in helping Americans meet higher education costs. We all know that an educated and skilled workforce is critical to compete in today's global marketplace. As we sit here today, there are young people throughout our country and throughout the world with the potential to one day develop the technologies of tomorrow and the engines that will keep our economy growing. It should be one of our primary purposes to ensure that these “bright lights” of tomorrow have every opportunity to reach their full potential and to help lead a 21st century of innovation that is even more spectacular than the one we have left behind.

The tax code is only one piece of our overall education policy, but it is an important piece. In recent years, a number of tax incentives have been enacted to help Americans save for college and other higher education expenses and to reduce the burden of the expenses that they have incurred. We have created new education savings vehicles, allowed for the deductibility of interest on student loans, and provided deductions and credits for higher education expenses.

In this hearing today, we have brought together a distinguished group of witnesses to help us examine what is happening with college and other higher education costs. We will probe key questions confronting us. Where are we today and where are we going with higher education costs? How does our higher education financing fit into our overall economy and our competitiveness in the global economy? How are the tax incentives that we have put in place working? Can they be improved, and if so, how? I am looking forward to hearing the views of all of our witnesses on these questions and this important topic.

At this time, I would like to introduce our first panel of witnesses. Dr. Susan Dynarski of Harvard University's Kennedy School of Government will provide a general overview of higher education financing trends and the tax provisions that we will be examining today tax changes, including credits and deductions, that have been enacted and utilization of those incentives. At Harvard, Dr. Dynarski studies and teaches education policy, tax policy, economics and statistical methods. She has published numerous articles on the economics of education in scholarly journals, with her most recent research focusing on the intersection of tax policy and higher education policy.

Dr. Peter B. Corr is senior vice president for science and technology at Pfizer, where he is responsible for aligning the company's worldwide research and development organization with licensing activities, science and medical advocacy, global medical relations and science policy. Dr. Corr will testify on the role of higher education financing in developing a skilled and competitive workforce.

Dr. Watson Scott Swail is the President of the Educational Policy Institute in Stafford, Virginia. Dr. Swail will compare the U.S. higher education financing system with other countries. Dr. Swail is well known for his research on college access and affordability in the U.S. and has authored several recent comparative studies between the U.S. and other industrialized nations.

Our second panel is a distinguished group of witnesses who can testify to the way that the education tax incentives we have enacted are working out in the "real world." Dr. Robert Paxton is the President of Iowa Central Community College in Fort Dodge, Iowa. Dr. Paxton will focus on student utilization of various deductions, credits, etc., and the community college perspective on higher education financing.

Dr. David Forbes has been the Dean of the School of Pharmacy at The University of Montana for the last 17 years. Dr. Forbes will provide a "front lines" perspective on higher education financing.

The Honorable Randall Edwards has served as the Treasurer for the State of Oregon since 2001. As the Oregon State Treasurer, Mr. Edwards spearheaded the effort that resulted in the creation of the Oregon 529 College Savings Network. Mr. Edwards will provide testimony on his experience on 529 college savings plans.

Mr. Chuck Toth is the manager of Education Savings Programs for Merrill Lynch. Mr. Toth will testify on education savings from the perspective of a financial institution that helps its clients prepare for education costs.

Mr. Jim Fadule is the President of UPromise Investments. Mr. Fadule will discuss the UPromise program, and will also discuss emerging trends in higher education financing.

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PREPARED STATEMENT OF DR. ROBERT PAXTON

Good Morning Chairman Grassley, Ranking member Baucus, and other members of the committee.

It is with great honor and respect I give you my perspective on the strong need for financing higher education in America and how that support helps community colleges like Iowa Central Community College in Fort Dodge, Iowa provide access to affordable education for our students and for the training needs of our employers.

Senator Grassley, I appreciate all that you are doing to help provide targeted and very effective tax incentives so our students and workers can afford the education and training they so desperately need. I know for a fact that many of the students we have currently enrolled and in the past, could not have afforded, nor their families been able to afford, to attend our community college.

20% of Iowa's workforce earns \$7/hour or less, and they are the people we need to help get access to technical training and education. Your leadership will help us achieve that goal. If we can help this portion of our Iowa and American workforce get the training and education they need, they will help replace the thousands of Iowa and American workers who will be retiring over the next several years

*Background:*

Iowa Central Community College is based in Fort Dodge, Iowa, with satellite campuses in Webster City, Eagle Grove and Storm Lake, Iowa.

Iowa Central was organized in 1966 with a mandate to offer an array of educational opportunities to residents of a nine county area in north central Iowa. Iowa Central is a comprehensive community college with an open admissions policy. There are thirty-one school districts within our service area with a total population of 141,088.

Our enrollment has doubled in size since 1997 to the current record number of over 5,000 credit students and 38, 209 non-credit students enrolled, even though our marketplace we serve is the fastest declining population region of Iowa. We are the 43rd fastest growing community college in the nation, out of over 1,000. The average age of our students is 20.4 years old.

As the cost of higher education has exploded, it is critically important that state and federal funding be targeted to areas of specific need within the higher education community. We feel students should be given the option of selecting the most practical and cost-effective higher education delivery mechanism available to them so state and federal assistance that is provided can be maximized.

*Hope and Lifetime Learning Tax Credits / Other Programs*

At Iowa Central, of the approximately 5,100 students enrolled, 3,479 were notified via the IRS Notice 1098T, that they or their parents were eligible to receive the Hope and Lifetime Learning Credits. We estimate the average benefit of these credits for each Iowa Central Community College student to be approximately \$841 dol-

lars annually. If each of those students/parents took advantage of those credits, Iowa Central and those families would have received an in-direct benefit of over \$2.9 million.

Statewide, in 2001, over 95,000 students were able to take advantage of these credits with a value of over \$72 million dollars.

#### Iowa Hope and Lifetime Learning Tax Credits

Year	Number	Dollars
1998 .....	78,390	57,938,000
1999 .....	93,591	71,596,000
2000 .....	93,110	70,529,000
2001 .....	95,163	72,139,000
2002 .....	Not available on July 19, 2004	
2003 .....	Not available on July 19, 2004	

Source: IRS via. Iowa College Student Aid Commission

As you can see, there has been strong growth in this program so we hope you will continue to fully fund them because they get into the hands of the students and their families, not the education bureaucracy. This outstanding program will allow us to educate and train our students while helping families afford higher education tuition.

#### *Summary of Iowa Central Community College Skilled Training Needs*

To put this in perspective, a recent Iowa Central survey of area employers revealed a crucial need for replacement workers as the "Baby Boomer" generation retires. The "Skills 2006" Survey that Iowa Central conducted is part of a state wide study by Iowa's community colleges to target their workforce training and resources, "to improve Iowa's economy by adjusting community college curriculum to meet the immediate needs of employers and the workforce".

This important survey focused on Iowa's three-targeted clusters:

- Advanced Manufacturing;
- Life Sciences;
- Information Solutions.

The biggest issue facing employers is the need for skilled replacement workers. The survey results indicated that the demand for replacement workers exceeded the demand for new positions by 3 to 1. Further broken down the survey showed that:

- 37% of the replacement jobs will require at least a high school degree;
- 57% of the replacement jobs will require a technical certification or two-year community college degree;
- 6% will require a four-year degree

Employers are using all available resources to educate and train the existing workforce and 87 percent said they use community college trainers and services.

The study also revealed the three major factors impeding employers from growing or expanding in our area.

1. Quality of the workforce
2. Labor attitude
3. Availability of skilled labor.

The Center for Rural Development, a division of the Kansas City Federal Reserve Bank, has concluded that where there are pockets of prosperity in rural America you will find a skilled workforce, a two-year technical college and regional economic development cooperation among communities.

#### *Summary*

Anything you can do to maximize the Hope and Learning Tax Credit programs, keep the deduction for student loan interest, and Education IRA's would be very helpful. It would also be helpful if at some point in the future you could look at the modification of the Reed Act which regulates how states can distribute excess Federal Unemployment Insurance Trust Act reserves. These "excess" dollars could be better managed at the state level and Could possibly be used to create "Community College Job Retention Training Funds" at the state level nationwide. It would not be a tax increase, just a better use of excess Federal Unemployment Insurance Trust funds by helping retrain workers they may have been laid off or could be laid off if their skills are not updated.

Bottom line, from my perspective, the more you can do to keep federal programs as targeted and flexible for the students and business and industry, the better. A locally elected, democratic board of directors who are accountable to local taxpayers

manages our community college, like most. We know best how to meet the needs of our students, workers and business marketplace, so give us the assistance we need and let us train our existing and future workforce.

Thank you for your consideration of my thoughts and on behalf of Iowa Central Community College, its students, faculty, staff and board of Directors, thank you Senator Grassley for all you are doing for us. I would be happy to answer any questions you may have.

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PREPARED STATEMENT OF DR. WATSON SCOTT SWAIL

Good morning, Mr. Chairman and members of the Committee. My name is Scott Swail, President of the Educational Policy Institute, an international think tank on educational opportunity headquartered in Northern Virginia. We conduct research on issues related to educational opportunity for students, especially those who are historically underrepresented at the postsecondary level.

I was invited to speak today about how the US compares with its global partners and competitors in higher education and how our system fairs in preparing our citizens for an increasingly competitive global environment.

Over the past year there has been an increased awareness of the outsourcing of traditionally USbased jobs to countries overseas. A recent 60 minutes report cited estimates of as many as 400,000 jobs outsourced in the last three years. Most outsourced jobs have been in relatively low-tech areas, such as telemarketing and related employment. But that is changing. IT and engineering positions are now moving from US soil to countries like India, China, South Korea, and Taiwan.

The biggest reason these jobs are being outsourced is cost. Quite simply, US-based companies can find lower-cost skilled labor abroad. Simply put, if the sole interest is to create profit margin, an employer is more likely to hire a \$15,000 engineer in Delhi compared to a \$75,000 engineer in Reston. Both may have essentially the same credential, but whether that credential is equivalent is worthy of discussion in another forum. Some economists suggest that outsourcing may be the only way for American firms to remain competitive on the international market.

*Competition in Higher Education*

Higher education is a lever to scientific and technological competitiveness and productivity. As the world continues to open up economically, so does the transfer of information, technology, and the sciences. It follows, then, that our new competitors are becoming prolific in higher education. Between 1990 and 2000, South Korean higher education enrollment over doubled from 1.5 million to 3.4 million; China enrollments grew by two thirds to 9 million between 1995 and 2000, and are likely to be above 12 million this year; and India's enrolment increased 36 percent between 1996 and 2002 to 8.8 million. Comparatively, our enrollment grew by 11 percent over the 1990s, or about 1.5 million students.

These international trends are fueled by the same factors that fueled our higher education growth in America—a clear understanding of the importance of a higher education to the individual and society. What we see in the Euro-Asian market is an opening of higher education much as saw here at home after World War II. Our troops were welcomed back from the battle field with the GI Bill, which almost single-handedly transformed higher education in America. A similar sea change is taking place on the other side of the globe, but the inducement is not war, but rather, economic prosperity. Places where higher education was reserved for society's elite has been expanded to a greater percentage of the population. And while it is true that China and India have post-secondary attendance rates which are only a fraction of what we have in the United States, the sheer size of these countries' populations mean that these countries are now producing as many, if not more, higher education graduates than the US

*Preparing for a Brave New World*

Our best opportunity for continued prosperity and economic advantage in the United States is to continue doing what we do well. We produce more scientists and engineers than any country on earth. But in order to secure our competitive advantages in higher education and technology, we must exploit our own talent pool toward its fullest potential, and that can only happen if higher education is uniformly affordable for all. Unfortunately, recent budget cuts at the state and federal levels have left public colleges and universities in dire straights. Need-based aid is stagnated, federal loan limits are too low for many students, and early intervention programs for needy students at the middle and high school levels are dramatically underfunded and reach only a minimal level of students. Don't let this message get

lost—assistance is needed to help our youth see a better future through higher education. If they make it, so will America in the global economy.

Second, we must also ensure that our quality of higher education remains uniquely high. There is worry that the quality of higher education is being diluted in the US because of shrinking resources. Institutions are being forced to cut or limit courses, services, and activities in order to balance budgets. This impacts instructor: student ratios, quality of instruction, and quality of the physical plant and classroom.

And third, and perhaps the most difficult challenge we face, is to turn around our K–12 system. We have pockets of excellence in our public schools from coast to coast, but no uniform stamp of excellence. Again, the budget crunch has hurt our ability to reinvest in education and truly reform how we teach our children, but the truth is that we weren't doing such a great job of reform during the stunning economy of the 1990s. Between our partisan quibbles about school reform and our fiscal challenges, we are doing a very poor job of finding ways to serve our youth better. If we can recommit ourselves to a high-quality education system, then we solve much of our outsourcing and competitive issues.

#### *Conclusion*

In conclusion, I'd like to say that our ability to remain competitive and lead the world significantly depends on our support of the educational process, from kindergarten to post-graduate education. Mr. Chairman, our competitors are not our enemies. Our enemy is here at home in our inability to come together to fund public education. I thank you for this opportunity to testify today.

**Table 1.** Comparison of Higher Education Finance and Enrollment Indicators in the United States and its Primary Economic Competitors

Country	Avg Tuition <sup>1</sup>	Grants	Loans	Tax Credits	Gross Enrollment Ratio, 2000	Change in enrolment, 1995-2000	Expenditure on PSE as % of GDP, 1995 and 2000	% of Expenditures from Public Sources, 2000
Canada	\$3000 (US)	Means-tested	Means-tested	Yes, Extensive	60%	0	2.3/2.6	62%
China	\$2000 (US)	Means-tested	Means-tested	No	7.5% (98-02)	67%	0.5/0.6	67%
Chinese Taipei (Taiwan)	\$1500 (US)	Merit-tested	Means-tested, merit-tested	No	Not Available	69%	??/1.4 (public only)	Not available
France	<\$1000 (US)	Means-tested, Merit-tested	Limited Universal	Yes	53.6%	-1%	1.1/1.1	91%
Germany	None	Means-tested, Merit-tested	Yes (limited)	Yes, extensive	46.3%	-4%	1.1/1.1	91%
India	\$85 (US)	Merit-tested	Yes (limited)	No	10.5% (98-02)	36% (96-02)	0.6/0.9 (96/01)	93%
Ireland	\$900 (US)	Means-tested	No loans	Limited	47.5%	30%	1.3/1.5	80%
Italy	\$1200 (US)	Means-tested, Merit-tested	Means-tested	Yes	49.9%	6%	0.8/0.9	80%
Japan	\$4000 (US)	None	Merit-tested	No	47.7%	Not available	1.1/1.0	45%
Republic of Korea	\$6000 (US)	Merit-tested	Some merit-tested, Some means-tested	No	Not Available	54%	??/2.6	16%
UK – England/Wales	\$2000 (US)	Means-tested	Universal for tuition, means-tested for maintenance	Limited	59.5%	14%	1.2/1.0	70%
United States		Means-tested	Some universal, some means-tested.	Yes, Extensive	72.6%	n/a	??/2.7	33%

<sup>1</sup> In most countries, tuition ranges widely around an average.

<sup>2</sup> Gross enrollment ratio, is the sum of all tertiary level students enrolled at the start of the school year, expressed as a percentage of the mid-year population in the 5 year age group after the official secondary school leaving age.

SOURCE: Educational Policy Institute ([www.educationalpolicy.org](http://www.educationalpolicy.org)).

## PREPARED STATEMENT OF CHARLES TOTH

### Introduction

Good morning Mr. Chairman and members of the Committee.

My name is Chuck Toth and I am the Director of Education Savings at Merrill Lynch & Co. Inc. In that capacity I am responsible for educating and encouraging Merrill Lynch's individual clients on the need to prepare in advance to finance ever-escalating college costs. I work closely with the Treasurer and Finance Authority of Maine in assisting them to administer the NextGen College Investing Plan, Maine's section 529 college savings program. I also serve as Chairman of the College Savings Foundation, a not-for-profit organization dedicated to the promotion of section 529 college savings programs, and my firm is a member of the Securities Industry Association (or SIA). Both of these organizations share a mission of helping American families achieve their education savings goals and have been actively involved in all aspects of the evolution of section 529 education savings plans.

On behalf of the College Savings Foundation and the SIA, I thank you for giving me the opportunity to appear today to discuss the importance of saving for college.

Due in large measure to the bipartisan efforts of the Finance Committee, huge strides have been made in recent years to increase the level of college savings in America, especially through the creation and expansion of section 529 college savings plans.

We commend the members of this Committee for what you have already accomplished and encourage you to continue your efforts to promote policies that will help families prepare to send future generations on to college. Congress' creation of Section 529 and its subsequent enhancements to the law have strongly supported the important public policy goal of helping Americans save for higher education. And, as I will discuss later, the specific improvements made by Congress in the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA), have had the most significant positive impact.

The College Savings Foundation (or CSF) is an organization of firms that assists States in the management, marketing, and operation of their 529 programs and/or participate in those programs as investment managers. Associate members include State governments and agencies. The primary focus of the College Savings Foundation is building public awareness of and providing public policy support for 529 savings plans—an increasingly vital college savings vehicle.

The Securities Industry Association<sup>1</sup> brings together the shared interests of nearly 600 securities firms to accomplish common goals. As financial intermediaries and providers of investment advice, SIA member firms are deeply committed to reviving a national culture of saving. SIA members are actively involved in all phases of the management and marketing of 529 plans and in educating the public about those plans.

Today, American families confronting college education costs for one child face a formidable task. For families with two, three or more children, college education costs can be overwhelming. In fact, costs of college exceed home purchase costs for many families. Section 529 plans and other education savings vehicles pioneered by this Committee (like the Coverdell Education Savings Accounts) are for the first time providing specifically targeted help to families starting to save for college education.

We are pleased to report that 529 savings plans have been a tremendously successful education savings innovation under the leadership of State governments. With almost 5 million 529 accounts in existence, college savings through 529 plans has been increasing exponentially. For example, we have seen a 371% increase in 529 assets in just over two years (from \$8.5 billion at the end of 2001 to over \$40 billion in the first quarter of 2004).<sup>2</sup>

Almost overnight, 529 programs are becoming the bedrock of higher education savings strategies for more and more American families. The 529 plan holds the promise of revolutionizing the way Americans finance college—shifting away from “pay-as-you-go” financing and “pay-after-you-go” loans to a more certain and less disruptive prefunding of a growing portion of higher education costs. Regrettably, that promise will not be fulfilled unless the December 31, 2010 sunset on the section 529 tax advantages is eliminated and the current 529 plan rules are made permanent. We urge you to act promptly to ensure that participants can save in 529 plans with complete certainty as to the future tax rules applicable to these plans. Anything less is unfair to those families who have children reaching college age after the sunset date.

#### *The Education Savings Challenge*

A post-secondary education is critical to helping many people reach their full personal and professional potential. Indeed, financing a child's college education can often be the chief economic goal of an entire extended family. The high cost of getting a college degree is well documented. For the 2003–2004 academic year, the average annual cost of attending an in-state 4-year public college or university increased 9.8% to \$10,636.<sup>3</sup> The average annual cost of attending a 4-year private col-

<sup>1</sup>The SIA was established in 1972 through the merger of the Association of Stock Exchange Firms and the Investment Banker's Association. SIA member-firms (including investment banks, broker-dealers, and mutual fund companies) are active in all U.S. and foreign markets and in all phases of corporate and public finance. According to the Bureau of Labor Statistics, the U.S. securities industry employs 780,000 individuals. Industry personnel manage the accounts of nearly 93 million investors directly and indirectly through corporate, thrift and pension plans. In 2003, the industry generated an estimated \$209 billion in domestic revenue and \$278 billion in global revenues. (More information about SIA is available on its home page: [www.sia.com](http://www.sia.com)).

<sup>2</sup>Financial Research Corporation, Quarterly Update April 2004. <sup>3</sup>The College Board, “Trends in College Pricing” (2003). id

<sup>3</sup>The College Board, “Trends in College Pricing” (2003).

lege or university increased 5.7% to \$26,854.<sup>4</sup> Assuming such costs increase by 5% a year, the projected total cost of college in 15 years will be about \$100,000 for a 4-year public college and more than \$200,000 for a 4-year private college. Consequently, it is more important than ever to encourage Americans to save for their children's higher education.

Today, most families fund college education through a combination of "pay-as-you-go" financing and "pay-after-you-go" student loans. Over the last two decades, even as college tuition and other education costs have continued to rise, direct financial aid has diminished. As a result, it has become increasingly more difficult for families to cover college expenses as they are incurred. That, in turn, has meant that student and parent loans have been used to finance an increasing share of higher education costs. For many, financing a college education now involves having to deal with an overwhelming repayment burden that can stretch decades beyond graduation. All too often, loan defaults and demoralizing bankruptcy proceedings can result.

Financing higher education is an escalating challenge because the level of education and specialization required to compete in today's globally competitive job market is rapidly increasing. In the 1970s, a college degree replaced a high school diploma as a prerequisite for many jobs and translated into a marked enhancement in economic wellbeing. Indeed, full-time workers with bachelors degrees earn about 60% more than those with only a high school degree. Over a lifetime, the gap in earnings between those with only a high school diploma and those with a bachelors degree or higher exceeds \$1 million.<sup>5</sup>

Today, four years of college is often not enough training. It has become increasingly common that graduate training is necessary to stay current with either the technology or techniques in a given field. This needed graduate training (together with the continuing education required for many employees after they have started working) further increases the total costs of higher education. Furthermore, as individuals more frequently deal with the reality of job changes and lay-offs, an increasing number are going back to school later in life to retrain for their "second careers." Our history has clearly demonstrated that education has been America's most successful differentiating advantage in the increasingly competitive global economy.

Federal government programs and policies have historically been designed to help people deal with the cost of college through assistance with "pay-as-you-go" and "pay-after-you-go" methods of financing. Over the years, Federal assistance has taken many forms, ranging from grants and other financial aid, tax credits, subsidized higher education loans and tax advantages for student loans (such as the ability to deduct student loan interest). For those who have wanted to save for college in advance, there has been little incentive and considerable confusion as to how or whether saving in advance made sense.

Mr. Chairman, let me be clear that I am not saying that subsidized loans (and other Federal programs) to help pay for college education are bad. Just the opposite, student loans have helped many millions of Americans attend college. I certainly do not know how I would have made it through college without the availability of loans. Most families with children in college will continue to need all available resources—including grants, student jobs, loans, tax credits, and personal savings.

Yet, reliance on "pay-as-you-go" incentives and loans can be risky. To begin, there is no guarantee that those sources will be available in sufficient amounts when a child reaches college age. In many cases, families that have not saved for a college education in advance are forced to make imprudent choices. Some may not be able to attend the college of their choice or any college at all. Other families are forced to choose between depleting retirement savings or paying for education. Often, such families choose to fulfill their obligation to prepare their children for the world, but in doing so jeopardize their own long-range financial security. With the baby boom generation having children later in life than previous generations, depleting retirement assets is particularly dangerous because there are relatively fewer years between the age when children finish college and the parents' retirement.

The way to finance college education with the least disruption for families, and the smallest financial burden after college graduation, is to save as much as possible for college in advance. By saving before a child reaches college age, families can help ensure that adequate funds will be there to allow their children to attend college. Moreover, by beginning an education savings strategy for a child at an early age, the family further reduces its overall burden through the power of compounding.

Despite those and other advantages, there was, until recently, no targeted program designed to help families save for college. Recognizing the important policy

<sup>4</sup> id

<sup>5</sup> The College Board, "Trends in College Pricing" (2003).

goal of helping American families cope with the growing burden of college costs, many States pioneered the creation of dedicated pre-paid tuition plans in the 1980s. These plans permitted residents to contribute to a trust to lock in the costs of future tuition payments. The Federal tax rules governing contributions to and earnings in these plans, however, was uncertain during the early years of the plans' existence. To address that uncertainty, Congress approved an amendment to the tax code (Section 529 of the Internal Revenue Code) in 1996 to exempt State programs from federal income taxes on the earnings until the funds were distributed. Congress amended the rules for these Section 529 plans again in 1997 by including room and board expenses and making other technical changes. The most significant, beneficial change to Section 529 plans, however, came in 2001 when Congress authorized the tax-free treatment of distributions used for higher educational purposes as part of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA).

*The Evolving 529 Plan Success Story*

With 529 plans, the Congress, in cooperation with the States, has finally provided a vehicle that allows Americans to meet college costs by contributing to tax-favored, Statesponsored qualified tuition savings plans. Today, each of the 50 States and the District of Columbia has established and maintains a 529 program.

Generally, under the federal income tax rules, individuals can make after-tax contributions into 529 plans, have earnings grow tax-free, and receive tax-favored distributions for amounts used for qualified higher education expenses. While individual States create their own 529 plans, federal law does not require a State resident to invest in his or her own State's 529 program; instead, it provides a platform upon which a nationwide network of State-sponsored 529 plans can compete, providing Americans with multiple opportunities to save for post-secondary education expenses on a taxfavored basis.

With the enhanced federal tax benefit provided by EGTRRA, the increase in the popularity of Section 529 savings plans has been nothing short of spectacular. At the end of 2001, there were 1.4 million 529 plan accounts. By the close of the first quarter of 2004, the number of accounts had grown to 4.7 million, a stunning 236% increase in just over two years.<sup>6</sup> This means that today, between 7% to 8% of families with children under 18 own a 529 savings plan account.<sup>7</sup>

The growth in total college savings through 529 plans has been equally impressive. At the end of 2001, there was about \$8.5 billion held in 529 savings plans accounts. Through the first quarter of 2004, assets have grown to \$40 billion.<sup>8</sup> A recent survey conducted by the College Savings Foundation indicated that 73% of all accounts had balances less than \$10,000. The average account balance in 529 savings programs as of March 2004 was \$8,223,<sup>9</sup> making it clear that millions of American families have only just begun to take advantage of the 529 plans this Committee helped create. Naturally, and as noted above, the majority of these accounts have been established in just the last several years subsequent to Congress making qualifying distributions tax-free. Many of these individuals have learned through their own personal experience with 401(k) plans that the way to save for longer-term goals is by taking a disciplined approach and setting aside some portion of their monthly income.

In the future, we anticipate that many more of these account balances will grow to the amounts needed to achieve the goal of funding a college education. Many families are saving by dollar cost averaging, where they have set up a systematic process to regularly deposit monies into their child's 529 savings program on a monthly or quarterly basis. The results of a College Savings Foundation survey indicate that 39% of households contributing to 529 plans have established some sort of automatic investment program.

An interesting note is that we are seeing considerable interest by grandparents to help finance their grandchildren's college education through 529 plan contributions. For many of these grandparents, their children were the first in the family to be able to attend college. Having witnessed the positive impact that a college education has had on their children's lives, they realize the importance of giving the gift of education.

The dramatic growth in 529 plan usage has occurred at the same time that the various States have continued to improve the administration and attractiveness of their programs. Without the States' involvement, 529 savings plans would not exist.

<sup>6</sup>Financial Research Corporation.

<sup>7</sup>Cerulli Associates Presentation and Profile of Households Saving for College; Investment Company Institute Research Series, Fall 2003, p. 43.

<sup>8</sup>Financial Research Corporation, Quarterly Update April 2004.

<sup>9</sup>*Id.*

States either manage a 529 plan on their own, or select an outside manager (usually a brokerage firm, mutual fund company, or insurance company). States approve selection of investment options, administration issues, and fees. States usually approve the methods of distribution both inState and nationally, and broker-dealers that distribute 529 plans must also coordinate with the States to negotiate selling agreements and produce marketing and other program literature.

Of course, the rapid expansion of 529 plans has not come without some growing pains. States and the outside managers that work with them have been constantly revising and improving their administrative functions and investment options to better serve the needs of 529 plan account holders. With section 529 plans continuing to grow and evolve, the challenges and choices facing the States that establish and maintain these plans—and the financial institutions that administer them—can be expected to continue.

Yet, as awareness of 529 plans continues to grow and these programs continue to improve to meet consumer demands, I fully expect that it will not be long before the phrase “529 plan” joins “401(k) plan” in the daily vocabulary of almost every American. When that happens, we will have succeeded in dramatically increasing financial preparation for college education costs. Before we get there, however, it will be necessary to address the single most important concern facing 529 plans today—the fact that the Federal tax incentives are not permanent.

#### *Make the Tax-Free Treatment of Distributions Permanent*

Although an increasing number of U.S. families are utilizing 529 savings plans, there is growing concern about whether the Federal tax benefits will be there when the child goes to college. Probably the greatest inhibitor to investing in 529 plans today is the uncertainty regarding whether the tax incentive will be renewed after it sunsets on December 31, 2010. If Congress does not extend the policy of tax-free withdrawals from 529 plans, then beginning after December 31, 2010, earnings in the account will be taxed at the recipient’s rate as they are withdrawn.<sup>10</sup>

It is critical to understand that the problems the EGTRRA sunset creates for 529 plans are completely different than for the other tax provisions of EGTRRA that are scheduled to sunset. Consumers today invest with the expectation that distributions for qualified higher education expenses will be tax-free when their child goes to college. However, the sunset effectively means that anyone with a child who does not finish college before December 2010 (generally all children under the age of 16) cannot be certain that this tax advantage will be there when it is are needed.

Contrast this treatment with the result of the sunset for most other tax provisions of EGTRRA. For example, EGTRRA increased the amounts that could be contributed to a 401(k) plan. However, for amounts contributed before the EGTRRA sunset, the favorable 401(k) tax treatment continues even after the 2010 sunset. The same is true for almost all of the other provisions of EGTRRA, including, for example, contributions to IRAs, Roth IRAs, and Coverdell Education Savings Accounts. Only the 529 plan contributions are left with the potential “gotcha” of an individual making a contribution based on one set of expected post-sunset tax rules and then losing the favorable tax treatment if Congress fails to act.

Uncertainty with respect to section 529 tax treatment creates an unfortunate deterrent to the saving that is needed to meet the ever-rising costs of higher education. Surveys consistently show that the need to save for a child’s college education is second only in importance to one’s own retirement. Individuals with younger children are interested in starting now to save for college. However, due to the sunset provision they are reluctant to make the long-term commitment to a 529 savings plan because they are uncertain that the tax benefit will be there when their child begins college.

Congress should make the tax-free treatment of 529 plan distributions permanent as soon as possible to ensure that participants can invest in these plans with complete certainty that the tax incentive will exist when they make their withdrawals.

#### *Conclusion*

In order to continue to help American families save for their children’s post-secondary education and to keep up the critical momentum established to date, Congress should continue to encourage and provide incentives for education as it has in the past. As the promise of tax-free distributions is one of the most attractive features of investing in 529 savings plans, Congress should make the tax-free treatment of qualified withdrawals permanent to ensure that American families can in-

<sup>10</sup>The recipient’s income tax rate will in most cases be higher than the capital gains tax rate due on taxable investment accounts. This will clearly deter families from making contributions to 529 plans.

vest in these plans with well-deserved confidence that the tax incentives available today will be there tomorrow. In so doing, you will help to further strengthen our nation by creating a better educated workforce to compete in a global economy.

Thank you again for the opportunity to appear before you today. I would be happy to answer any questions you may have.

## COMMUNICATIONS

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### STATEMENT OF TIAA-CREF

[SUBMITTED BY HERBERT M. ALLISON, JR., CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER]

American colleges and universities—long world leaders in undergraduate and graduate education—have also played a key role in driving our nation’s economic growth, thanks to the research and innovation they foster. However, the world is rapidly adopting the U.S. model—of education and research as a mechanism for technology innovation and economic development—and challenging our nation’s economic supremacy.

At the same time, higher education faces a range of financial challenges that threaten its ability to effectively respond. Budgets at all levels of institutions—from universities to community colleges—are under pressure. As they look for ways to cut costs, some institutions are being tempted to take short-term steps that may undermine their mission over the long term.

We at TIAA-CREF exist to serve the higher education and research communities, so we understand the challenges our client institutions face. Andrew Carnegie founded our company in 1918 and gave us a unique mission: “to aid and strengthen” the institutions we serve and to help build financial security for their employees. Today, with nearly 3 million individual and 15,000 institutional clients nationwide, TIAA-CREF is one of the world’s largest retirement systems and manages more than \$300 billion in assets. We also manage more state education savings plans (529s) than any other company and recently created the Independent 529 Plan, the nation’s first pre-paid tuition program for private universities.

While TIAA-CREF is in no position to tell educators how to educate, we do have a unique perspective on the financial challenges higher education faces, a result of our 86-year dialogue with institutional leaders, professors and other university employees. We believe that to ensure its continuing contributions to U.S. competitiveness, the higher education community must address challenges in four primary areas:

- (1) Make higher education accessible and affordable.
- (2) Build and manage a quality faculty.
- (3) Utilize technology to deliver learning faster and less expensively.
- (4) Strengthen collaboration between government, the higher education community and business.

#### *Making Higher Education Accessible and Affordable*

Shrinking budgets represent a major threat to the accessibility and affordability of higher education. Budgets are being squeezed by several factors: endowments are growing more slowly, operating expenses are increasing, and government’s share of education costs is declining (State spending plans for higher education in the 2003–4 fiscal year fell 2.1 percent to \$60.3 billion.)

These trends have made tuition and fees an ever-more important source of income for institutions, leading to tuition and fee increases that continue to outpace both inflation and the growth in median family income. For 2003–4, tuition and fees grew approximately 6 percent at private colleges, 14.1 percent at four-year public institutions and 13.8 percent at two-year public colleges.

There have been a number of innovative responses to the challenge. Some institutions—including state schools—are adopting plans that freeze tuition at the level of the first year. Strong growth is projected for 529 plan savings assets, given the large number of plan providers, low penetration rates, and historical growth rates. (An overview of different types of plans by state is provided on the TIAA-CREF Institute web site at [www.tiaacrefinstitute.org](http://www.tiaacrefinstitute.org).)

### *Building and Managing a Quality Faculty*

Shrinking budgets also threaten faculty quality. A rising number of universities are employing less expensive non-tenure track instructors, decreasing their reliance on tenure-track faculty. While the cost savings are immediately apparent, less visible is the long-term impact on university productivity, student learning, graduation rates, research and American competitiveness.

Faculty compensation is an important concern. Universities require competitive salaries, benefits and working conditions to compete with the private sector in attracting and retaining a new generation of scholars. The graying of the professorate is a related issue. Universities must consider the cost and benefits of retaining older faculty, the need for planned retirements to allow the hiring of new faculty, and the need for flexibility in responding to new requirements for lifetime learning. TIAA-CREF has partnered with many client institutions to design defined contribution pension plans that manage employment costs, modify their faculty age structure through phased retirement arrangements, and support targeted retirement rates through early retirement incentives.

Another trend affecting faculty development is the shift in who earns PhDs and what they do after graduate school. According to the 2002 Survey of Earned Doctorates, U.S. universities conferred slightly fewer than 40,000 doctorates during the 2001–02 year, the lowest number since 1993. The decline is concentrated in chemistry, mathematics, physics and astronomy. The percentage of doctorates awarded to foreigners on temporary visas rose from 9 percent in 1972 to 26 percent in 2002.

The trend is concentrated in the natural sciences and engineering and accounts for more than half of all U.S. enrollments in those key fields. Furthermore, an increasing number of new PhDs in science and engineering are accepting post-doctoral positions rather than faculty positions.

In April 2004, the TIAA-CREF Institute sponsored a conference, designed to elucidate the problems confronting the academic labor market and identify potential solutions. Full papers shared at the conference—*Recruitment, Retention and Retirement: The Three R's of Higher Education in the 21st Century*—are available on the Institute's web site. TIAA-CREF plans to continue to conduct and support objective research that supports the business of higher education.

### *Using Technology to Deliver Learning Faster and Less Expensively*

In an increasingly global economy, technology has become a key weapon in both cutting costs and making education more accessible and affordable. Students and faculty are increasingly turning to the web instead of libraries for research, while the cost of purchasing, preserving and housing books in bricks-and-mortar sites is becoming prohibitive. At AllLearn, the online teaching venture between Oxford, Stanford and Yale universities that I managed during its start-up phase, we quickly built an impressive online library at remarkably low cost.

Students are turning to for-profit colleges—many of them online—as they prepare for the working world. The University of Phoenix is the largest college in the U.S., with an online enrollment approaching 100,000 students. More and more students will utilize a combination of online and on-campus learning as we come to accept that lifetime learning isn't an ideal, but a career necessity.

### *Strengthening Collaboration Between Government, the University and Business*

Greater cooperation is needed between government, business, and the higher education community. Most major American cities have experienced an outmigration of manufacturing. As colleges and universities become increasingly important economic engines for their communities, they can be more assertive in calling for local participation, sponsorship and financial support.

TIAA-CREF will continue to be an active partner to higher education. We are a unique company with a far-reaching network of relationships in academia, the business community, and government. I believe we can foster collaborations that cut across the sectors to the advantage of all. We at TIAA-CREF stand ready to work closely with campus leadership and other stakeholders to help colleges and universities respond effectively to the challenges of the 21st century—not only for the health and vitality of the academy, but for the sake of our country's economic vibrancy as well.

### *Next Steps*

TIAA-CREF believes that more research is needed to provide valuable insights into the challenges we have identified. As mentioned in the section on "Building and Managing a Quality Faculty," we plan to expand our existing body of research on the business of higher education. Several potential areas for examination include funding retiree healthcare insurance, studying the impact of plan design on retire-

ment preparedness, and understanding faculty attitudes that shape decisions regarding career transitions. We will continue to seek input from campus leaders and the education associations that represent them on these important topics. We also would welcome a dialogue with the Committee to further inform the research agenda and other initiatives we will pursue, and look forward to future opportunities to share our findings with you.

