

**MAKING COLLEGE AFFORDABILITY A PRIORITY:  
PROMISING PRACTICES AND STRATEGIES**

---

**HEARING**  
OF THE  
**COMMITTEE ON HEALTH, EDUCATION,  
LABOR, AND PENSIONS**  
**UNITED STATES SENATE**  
**ONE HUNDRED TWELFTH CONGRESS**  
SECOND SESSION  
ON  
EXAMINING MAKING COLLEGE AFFORDABILITY A PRIORITY, FOCUSING  
ON PROMISING PRACTICES AND STRATEGIES

\_\_\_\_\_  
JULY 19, 2012  
\_\_\_\_\_

Printed for the use of the Committee on Health, Education, Labor, and Pensions



Available via the World Wide Web: <http://www.gpo.gov/fdsys/>

U.S. GOVERNMENT PUBLISHING OFFICE

93-479 PDF

WASHINGTON : 2015

---

For sale by the Superintendent of Documents, U.S. Government Publishing Office  
Internet: [bookstore.gpo.gov](http://bookstore.gpo.gov) Phone: toll free (866) 512-1800; DC area (202) 512-1800  
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS

TOM HARKIN, Iowa, *Chairman*

BARBARA A. MIKULSKI, Maryland	MICHAEL B. ENZI, Wyoming
JEFF BINGAMAN, New Mexico	LAMAR ALEXANDER, Tennessee
PATTY MURRAY, Washington	RICHARD BURR, North Carolina
BERNARD SANDERS (I), Vermont	JOHNNY ISAKSON, Georgia
ROBERT P. CASEY, JR., Pennsylvania	RAND PAUL, Kentucky
KAY R. HAGAN, North Carolina	ORRIN G. HATCH, Utah
JEFF MERKLEY, Oregon	JOHN MCCAIN, Arizona
AL FRANKEN, Minnesota	PAT ROBERTS, Kansas
MICHAEL F. BENNET, Colorado	LISA MURKOWSKI, Alaska
SHELDON WHITEHOUSE, Rhode Island	MARK KIRK, Illinois
RICHARD BLUMENTHAL, Connecticut	

PAMELA J. SMITH, *Staff Director, Chief Counsel*

LAUREN MCFERRAN, *Deputy Staff Director*

FRANK MACCHIAROLA, *Republican Staff Director*

# C O N T E N T S

## STATEMENTS

THURSDAY, JULY 19, 2012

Page

### COMMITTEE MEMBERS

Harkin, Hon. Tom, Chairman, Committee on Health, Education, Labor, and Pensions, opening statement .....	1
Enzi, Hon. Michael B., a U.S. Senator from the State of Wyoming, opening statement .....	2
Burr, Hon. Richard, a U.S. Senator from the State of North Carolina .....	4
Bingaman, Hon. Jeff, a U.S. Senator from the State of New Mexico .....	42
Alexander, Hon. Lamar, a U.S. Senator from the State of Tennessee .....	44
Franken, Hon. Al, a U.S. Senator from the State of Minnesota .....	46
Merkley, Hon. Jeff, a U.S. Senator from the State of Oregon .....	48
Hagan, Hon. Kay R., a U.S. Senator from the State of North Carolina .....	50

### WITNESSES

Heller, Donald E., Dean of the College of Education at Michigan State University, East Lansing, MI .....	5
Prepared statement .....	7
Leath, Steven, President, Iowa State University, Ames, IA .....	9
Prepared statement .....	12
Murdaugh, Jim, President, Tallahassee Community College, Tallahassee, FL ..	15
Prepared statement .....	16
Snyder, Thomas J., President, Ivy Tech Community College, Bloomington, IN .....	24
Prepared statement .....	26
Twigg, Carol A., President and CEO, National Center for Academic Transformation, Miami, FL .....	28
Prepared statement .....	30

### ADDITIONAL MATERIAL

Response to questions of Senator Enzi by:	
Donald E. Heller .....	60
Steven Leath .....	61
Jim Murdaugh .....	64
Thomas Snyder .....	67
Carol A. Twigg .....	68
Response to questions of Senator Bennet by:	
Steven Leath .....	64
Jim Murdaugh .....	66
Carol A. Twigg .....	68



## **MAKING COLLEGE AFFORDABILITY A PRIORITY: PROMISING PRACTICES AND STRATEGIES**

---

**THURSDAY, JULY 19, 2012**

U.S. SENATE,  
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,  
*Washington, DC.*

The committee met, pursuant to notice, at 10:01 a.m. in room SD-430, Dirksen Senate Office Building, Hon. Tom Harkin, chairman of the committee, presiding.

Present: Senators Harkin, Enzi, Bingaman, Alexander, Burr, Hagan, Merkley, and Franken.

### **OPENING STATEMENT OF SENATOR HARKIN**

The CHAIRMAN. The Senate Committee on Health, Education, Labor, and Pensions will come to order.

As we approach the start of a new academic year, millions of students and families across America are struggling to pay the escalating costs of college. During these difficult economic times, soaring tuition and shrinking real incomes are making college less and less affordable. Over the past decade, State and local funding for students dropped by 25 percent, while tuition and fees at 4-year public schools increased by 72 percent.

Student debt crossed the \$1 trillion mark and surpassed credit card debt for the first time ever. The news media is rife with stories of crushing student debt, including graduates with \$120,000 debt making \$225 a week working two jobs. For millions of young people, these trends are putting the American Dream on hold or out of reach.

A national survey of recent graduates, released this past spring, found that 40 percent had delayed making a major purchase, like a home or a car, because of college debt. About one-fourth had decided to put off continuing their education, or had moved-in with relatives, to save money. Americans aged 25 to 34 now make up a little more than one-fourth of all home buyers, the lowest share in the past decade.

There is no need to cite more of these grim statistics and stories today, but the message is clear: college is increasingly out of reach for students from working families and lower income families and our Nation is losing ground in having a well-educated workforce that can compete in the global economy.

One of my top priorities as chair of this committee is to address this college affordability crisis, and to try to find ways to help curb

the ever-growing financial barriers to college. This is the second HELP committee hearing this year focusing on college affordability. As with the previous hearing in February, I want us to move beyond merely bemoaning the severity of the problem. Our focus will be on institutions that are breaking with “business as usual” to implement promising strategies and practices, innovations and initiatives to improve college affordability.

Today’s panel emphasizes efforts at the institutional level that are proving successful in curbing costs, both for colleges and students, while improving student access and student success. These innovations can help inform our committee’s work in designing Federal policy, and may be worthy of being replicated and scaled up to help America regain and retain its global leadership.

We will also hear some expert insights into how tuition pricing and financial aid policies can promote affordability. How do some schools take an unsparing look at their operations to find efficiencies, so savings can be translated into minimal or no tuition increases and more effective student supports? How are schools working with students and families to ensure they are making sound financial decisions and accessing all of the aid available to them? How are innovative leaders in academia realigning and reinventing their operations? How are some schools realizing gains in retention and completion while bringing down costs per student? How do some schools maximize their financial aid resources by targeting aid to students with the most financial need?

In short, how can colleges and universities make it a priority to strengthen post-secondary access and to boost the success of students from lower and middle income families in the face of State cuts, growing costs, and increasing calls for better responsibility and outcomes?

I look forward to working with our distinguished Ranking Member, Senator Enzi, and my colleagues on both sides to ensure that a college education remains affordable and within reach for all Americans regardless of background.

With that, I invite Senator Enzi for opening remarks.

#### OPENING STATEMENT OF SENATOR ENZI

Senator ENZI. Thank you, Mr. Chairman.

I am glad that we are having this hearing, and I appreciate this outstanding panel. I appreciate the extensive testimony that has been provided. I only regret that you will have to reduce that so we can stay within the timeframe, and so that we will have time for questions, but what you have provided already is extremely helpful.

Not only do we have this distinguished panel but, of course, we have the former president of the University of Tennessee serving on this committee. He has been suggesting ways for a long time on how colleges could solve some problems, and that we could quit laying some burdens on the colleges. So I thank you, Mr. Chairman, for having this hearing.

As we discussed at our February hearing on the cost of higher education, college has become too expensive and shows no signs of getting any cheaper anytime soon. If this trend is not changed, it

will be almost impossible for us to achieve the President's challenge to, again, become first in the world in college attainment.

Many would say the solution lies with us, but no progress will be made if institutions do not first lead the way by finding ways to cut costs and save students money. I know this is possible because today's witnesses are doing just that.

In recent years, each of these individuals has been faced with the challenge of doing more with less as funding from State appropriations has fallen, and the demand for higher education has increased. Each of these educators has responded through thoughtful budgeting and cost-cutting that has enabled their institutions to continue successfully serving their students without sacrificing educational quality. I hope that what we hear today will be heard by others, and will serve as a model for how institutions of higher education can start making changes now.

With this in mind, I recognize that Congress also has a responsibility to help. Over the last 3 years, dramatic changes have been made to increase access to Federal student aid, and to help mitigate the cost of college for a greater number of low-income students. These changes, while well-intentioned, have led to persistent funding problems in the Pell grant program, including a \$6 billion funding gap that is now projected for fiscal year 2014.

These funding gaps have been regularly addressed through a series of ad hoc changes to the Federal student aid programs in annual appropriations bills. While these changes successfully generated sufficient savings to maintain the Pell grant in the short term, they have come at the expense of other low- and middle-income students, and have done nothing to avoid future funding gaps.

Therefore, I urge this committee to begin addressing the long term sustainability of Pell sooner rather than later. As we learned earlier this year with respect to student loan interest rates, waiting will only result in yet another costly, last minute, short term solution.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Enzi.

We will now go to our panel of witnesses. We have an exceptional panel of witnesses with us today. I want to thank all of you for taking the time to be here and sharing your expertise. I will go down and introduce our panel, and then we will start with Dr. Heller and work through.

I will start by welcoming our first witness, Dr. Don Heller, who has been dean of the College of Education at Michigan State University since January. Previously, Dr. Heller taught and served as the director of the Center for the Study of Higher Education at Penn State University, and also held a faculty appointment at the University of Michigan.

He is well known as an expert on higher education finance and economics, especially financial aid and tuition pricing, widely published in scholarly journals, and his work has been frequently reported on by the media.

Next, we will hear from Dr. Steven Leath, president of my alma mater, Iowa State University, who has made college affordability a top priority for his tenure at ISU. Dr. Leath took the reigns at

Iowa State in January, coming from North Carolina where he spent many years as a faculty member, research program leader, and high level administrator with the University of North Carolina System and North Carolina State University.

He currently serves on the Iowa STEM Advisory Council, and is a member of the Greater Des Moines Committee's Capital Crossroads Implementation Committee. I know that the entire ISU community is very excited about Dr. Leath's arrival, and shows great signs for doing great things for ISU and the State of Iowa.

Since he spent so much of his life in North Carolina, I would like to yield to my good friend and the Senator from North Carolina, also for purposes of recognition.

Senator Burr.

#### STATEMENT OF SENATOR BURR

Senator BURR. Mr. Chairman, thank you.

It is tough when you take one of the Chairman's witnesses, and ask to recognize him, and introduce him.

But let me say to my colleagues, Steve Leath has a remarkable record within the North Carolina University System. Not only has he served in numerous capacities in his field of agriculture, Steve led an effort by the University System in a public-private partnership to create the largest research campus in the world for the study of human nutrition. It is truly a model of success for public-private partnerships. Not limited to the University System, it has six academic campuses on the research campus park. It is the only facility in the world that has some of the equipment that they currently have.

Steve has had an unbelievable history of increasing the grants and research programs within the University System, which has led the North Carolina University System to be one of the most impressive research organizations in the country. He has also pioneered what, I believe, is one of the most important public-private partnerships and will be a model for others to try to replicate around the world.

Mr. Chairman, he was a graduate of Pennsylvania State University, Master's at the University of Delaware, and his doctorate in plant pathology from the University of Illinois. I cannot think of a person with a better background than to serve as the president of one of your esteemed institutions.

Thank you.

The CHAIRMAN. Thank you very much, Senator Burr.

Our next witness, Dr. Jim Murdaugh, is president of Tallahassee Community College. Before coming to Tallahassee Community College, Dr. Murdaugh spent over 20 years working in law enforcement and criminal justice, and served 30 years in the U.S. Air Force Reserve. He was elected to the board of the Florida Association of Colleges and Universities, and will chair its legislative agenda committee for the upcoming school year.

Next, we will hear from Thomas J. Snyder, the president of Ivy Tech Community College in Indiana. Mr. Snyder came to Ivy Tech in 2007 after a successful career as a business executive including time at General Motors, and most recently as president and CEO of Delco Remy International. A recognized leader in advanced man-



ufacturing and alternative energy, Mr. Snyder's company participated in the introduction of the first U.S.-produced hybrid vehicle drive. "The Chronicle of Higher Education" named him as one of seven community college presidents making a difference nationwide.

Our final witness, Dr. Carol Twigg, is president and CEO of the National Center for Academic Transformation. Dr. Twigg is an internationally recognized expert in using information technology effectively to transform teaching and learning in higher education. Prior to founding NCAT in 1999, she was the vice president of Educom, an association of colleges and universities dedicated to effectively using technology. She has also served as the Associate vice chancellor for learning technologies for the State University of New York (SUNY), and has held many senior academic administrative positions at SUNY Empire State College.

As I said, we have a very, very distinguished group as a panel, today. All your testimonies will be made a part of the record in their entirety. We will start with Dr. Heller and go through. If you could just sum up your testimony in 5 or 7 minutes or so, the clock says 5, if you go a little bit over, I am not worried too much. But I know a lot of Senators want to get engaged in a colloquy with all of you, so if you can summarize your testimony, I would appreciate it.

We will start with you, Dr. Heller. Please proceed.

**STATEMENT OF DONALD E. HELLER, DEAN OF THE COLLEGE OF EDUCATION AT MICHIGAN STATE UNIVERSITY, EAST LANSING, MI**

Mr. HELLER. Chairman Harkin, Senator Enzi, and members of the committee thank you for the opportunity to address you on this critical issue affecting our Nation.

I come to you today having conducted research on financial aid, tuition pricing policies and their impact on college access for over 15 years, and not as a representative of Michigan State University.

As you are aware, tuition prices at colleges and universities have skyrocketed. Over the last 3 decades, prices in both public and private institutions have grown more than 3 times faster than inflation, and more importantly, 3 times faster than median family income in our country.

The purpose of my testimony today is not to examine the reasons behind these rising prices, but to discuss what governments, and colleges, and universities can do to ensure that college remains accessible for all students. My remarks are focused on what we can do to promote college access and success for students from low- and moderate-income families because it is these students who are on the margins of attending college, and these we need to focus on if we are to achieve, as Senator Harkin mentioned, President Obama's goal of returning the United States to world leadership in educational attainment.

For poorer students, the sticker or the posted price of college is what drives their perception of what it costs to attend. In a world of perfect information about prices and financial aid, students would be able to accurately calculate the true net price that they face, but this fantasy world does not exist. The world of higher edu-

cation finance is a mysterious place for most of these students. While the Department of Education and some higher education institutions have taken important steps to disseminate better information about financial aid, there is still much that needs to be done.

The hundreds, if not thousands, of studies that have been conducted on financial aid will tell us what we need to do to ensure college participation for these students with financial need. Because they base their college-going decisions on sticker prices, financial aid programs need to be simple, easily accessible, and provide information early in student's lives so that they can make good decisions about preparing for college academically and financially.

We also know that grants are much more effective in promoting college participation than are student loans. Poorer students have been shown to be more averse to borrowing than their wealthier peers and they, instead, will often choose to enroll only part time and work more hours, behaviors that we know are detrimental to completing a bachelor's degree program.

Thirty percent of the grants are awarded by States and 55 percent of institutional grants are awarded without any form of means testing. We need to encourage States and universities to focus their support on students with financial need. Higher education institutions need to ensure that they are doing all they can to keep tuition prices in check, and I know that my colleagues on this panel will be talking about that.

Some observers have argued that Federal financial aid serves little purpose than to provide incentives for institutions to raise their prices and capture that aid, but there is no credible evidence to support this proposition.

During the administration of former president George W. Bush, the Department of Education published a highly respected study on tuition price increases and what caused them. It found that the primary driver of tuition price increases in public institutions, where over three-fourths of our undergraduate students attend college, is the change in State funding. As States invest less money in higher education, the institutions respond by raising prices. This study found no relationship between the availability of Federal and State grants and the ensuing tuition price increases in either public or private not-for-profit institutions.

Now, when institutions raise prices, they have an obligation to ensure that they increase their own financial aid program to hold harmless these neediest students. For example, last year our State cut Michigan State University's appropriation by 15 percent, and our board raised tuition 6.9 percent to compensate, in part, for these cuts. But the board also increased our own institutional grant aid by 10 percent with 83 percent of these grant dollars going to students with financial need. This is an example of what institutions need to do with their own financial aid programs.

While Pell grants receive bipartisan support from Congress, one problem with the program is that its maximum awards have not kept pace with the increase in tuition prices. So I would encourage you to restore the purchasing power of the Pell grant.

A second problem with Pell is that most students are not aware of the Grants until late in their senior year of high school. They receive a financial aid offer from an institution, and it is only then that they know what kind of grants they will be receiving. This is too late to help students who are deciding earlier in their lives if they can afford to attend college.

To address this problem, I would strongly encourage you to fund a small provision in the Higher Education Opportunity Act called the Early Federal Pell Grant Commitment Demonstration Program. This innovative program would test the efficacy of awarding Pell grants to eligible students in the eighth grade. By awarding grants to students in middle school, they would have at least 4 years of high school to prepare academically, socially, and financially to attend college.

The Demonstration Program was modeled on the State of Indiana's Twenty-first Century Scholars Program, which provides a guarantee to middle school students who are on free or reduced lunch, that the State will pay all of their tuition at any public institution in Indiana.

This Demonstration Program—that was authorized by the Higher Education Opportunity Act but not yet funded—would be a very modest effort. I encourage you to fund it and implement it so then we may learn how we can make Pell grants even more effective than they already are today.

I will close by thanking you once again for the opportunity to address this committee. And I would be happy to take your questions after the remaining witnesses have testified.

Thank you.

[The prepared statement of Mr. Heller follows:]

#### PREPARED STATEMENT OF DONALD E. HELLER

Chairman Harkin, Senator Enzi, and members of the committee, thank you for the opportunity to address you on this critical issue affecting our Nation. I come to you today as someone who has been conducting research on financial aid and tuition pricing policies, and their impact on college access, for over 15 years, and not as a representative of Michigan State University.

As you are aware, tuition prices in colleges and universities have skyrocketed. Over the last three decades, tuition prices in both public and private institutions have grown more than three times faster than inflation, or more importantly, more than three times faster than median family income in the Nation.<sup>1</sup> This phenomenon has been well-documented and analyzed by the Department of Education, congressional committees, the media, and researchers. The purpose of my testimony today is not to examine the reason behind these rising prices, but rather, to discuss what governments and colleges and universities can do to ensure that college remains accessible for all students who are able to benefit from a post-secondary education.

I am going to focus my remarks on what we can do to promote college access and success for students from low- and moderate-income families, because it is these students who are on the margins of attending college. If we are to achieve President Obama's goal of returning the United States to world leadership in educational attainment, it is these students on whom we need to concentrate our efforts.

In discussing college prices, we need to distinguish between two important concepts: (1) the sticker price, or the posted price on college Web sites or admissions materials; and (2) the net price, or what students are actually charged after financial aid is taken into account. For poorer students, the sticker price of college is

<sup>1</sup> College Board. (2011). *Trends in college pricing*. Washington, DC: Author; and U.S. Census Bureau. (2012). *Race and Hispanic origin of householder—Families by median and mean income: 1947 to 2010*. <http://www.census.gov/hhes/www/income/data/historical/families/f05.xls>.

what drives their perception of what it costs to attend college. In a world of perfect information about prices and financial aid, we would not have to concern ourselves with sticker prices, as students would be able to quickly and accurately calculate the true net price they would face.

But this fantasy world does not exist. Instead, the world of higher education finance is a complex and mysterious place, particularly for these low- and moderate-income students, and for those who are the first in their family to attend college. While the Department of Education and some higher education institutions have taken important steps to disseminate better information about financial aid, there is still much that needs to be done.

The hundreds, if not thousands, of studies that have been conducted on financial aid<sup>2</sup> provide us with a very clear picture of what we need in our college financing policies to ensure successful college participation for these students:

- They base their college-going decisions primarily on the posted sticker price on college, so we need to ensure that our financial aid programs are simple to understand, are easily accessible, and provide information early enough in students' lives so that they and their families can make good decisions about preparing for college both financially as well as academically.

- Grants have been shown to be much more effective in promoting college participation than are student loans. While loans have become an important tool for those from middle- and upper-income families, poorer students have been shown to be more averse to borrowing to finance their college education. They instead will often choose to enroll only part-time and work more hours, behaviors that we know are detrimental to completing a bachelor's degree program. Thus, grant aid is particularly critical for ensuring their access to and progress through post-secondary education.

- Almost 30 percent of the grants awarded by States to undergraduate students, and 55 percent of those awarded by institutions, were awarded without means testing. Research has consistently shown that these merit grants are awarded disproportionately to students from wealthier families.<sup>3</sup> The most effective grants are those that are targeted on the poorest students, as Federal Pell grants are, so we need to encourage States and institutions to refocus their efforts on supporting students with financial need.

We should not let our higher education institutions off the hook with respect to their obligations to ensure that they are doing all they can to keep tuition price increases in check. Some observers have argued that Federal financial aid serves little purpose other than to provide incentives for colleges and universities to raise their prices. But there is no credible evidence to support this proposition.

The most thorough and authoritative analysis that has examined the reasons behind tuition price increases was mandated by Congress in the 1998 reauthorization of the Higher Education Act, and was published by the Department of Education in 2001 during the administration of former president George W. Bush.<sup>4</sup> The key finding of this report was that the primary driver of tuition price increases in public institutions—where over three-quarters of our undergraduates attend college—is the change in State appropriations. As States invest less money in their colleges and universities, the institutions respond by raising prices faster. This study found *no relationship* between the availability of Federal and State grants, or student loans, and tuition price increases in either public or private not-for-profit institutions.

When colleges and universities do raise prices, they have an obligation to ensure that they also increase their own institutional aid programs in order to hold harmless low- and moderate-income students. Let me give you one example of how my institution, Michigan State University, has done this. Last year, when the State of

<sup>2</sup>For an overview of this literature through the years, see: Baum, S., McPherson, M., & Steele, P. (Eds.). (2008). *The effectiveness of student aid policies: What the research tells us*. New York: The College Board; Heller, D.E. (1997). Student price response in higher education: An update to Leslie and Brinkman. *Journal of Higher Education*, 68(6), 624–59; Kim, J. (2010). The effect of prices on post-secondary access: An update to Heller. *Higher Education in Review*, 7, 23–46; and Leslie, L.L., & Brinkman, P.T. (1988). *The economic value of higher education*. New York: American Council on Education/Macmillan Publishing.

<sup>3</sup>See for example Heller, D.E., & Marin, P. (Eds.). (2002). *Who should we help? The negative social consequences of merit scholarships*. Cambridge, MA: The Civil Rights Project at Harvard University; Heller, D.E., & Marin, P. (Eds.). (2004). *State merit scholarship programs and racial inequality*. Cambridge, MA: The Civil Rights Project at Harvard University.; and Heller, D.E. (2006). *Merit aid and college access*. Madison: Wisconsin Center for the Advancement of Post-Secondary Education, U. of Wisconsin.

<sup>4</sup>Cunningham, A.F., Wellman, J.V., Clinedinst, M.E., & Merisotis, J.P. (2001). *Study of college costs and prices, 1988–89 to 1997–98, Volumes 1 and 2*. Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Michigan cut our appropriation by 15 percent, our Board of Trustees voted to make up for some of this cut by raising tuition 6.9 percent. But it also increased our grant budget by 10 percent, with 83 percent of grant dollars awarded to undergraduate students going to those with demonstrated financial need. For next year, when the Board voted to increase tuition by 3.5 percent, it increased the grant budget by 6.5 percent. It is this kind of commitment to increasing need-based grants at a higher rate than tuition increases that should be encouraged in other institutions, public and private alike.

This year we are celebrating the 40th anniversary of the creation of the Higher Education Act's Basic Educational Opportunity Grant program, later renamed Pell grants after one of the program's chief supporters, the late Senator Claiborne Pell of Rhode Island. This program has long received bipartisan support from Congress, and the members of this committee and its counterpart in the House should be applauded for that support. One major problem with the Pell grant program is that its maximum awards have not kept pace with the increase in tuition prices, so I would encourage you to restore the purchasing power of Pell grants.

A second problem with Pell grants is that most of the students who are eligible for them are not aware of that eligibility until late in their senior year of high school, after they have already applied to a college, been accepted, and are presented with a financial aid offer. This process does not help those students who are wrestling earlier in their high school careers with the question of whether they can afford to attend college.

To address this problem, I would encourage you to fund a small provision in the last reauthorization of the Higher Education Act in 2008. Section 894 of the Higher Education Opportunity Act authorized the "Early Federal Pell Grant Commitment Demonstration Program," an innovative program that would test the efficacy of awarding Pell grants to eligible students while they are in the eighth grade. The idea is that by awarding the grants to students when they are in middle school, they would have 4 years of high school to prepare themselves academically, socially, and financially to attend college. The demonstration program was modeled on the success that has been shown by similar State efforts, such as Indiana's 21st Century Scholars Program. That initiative, in place for over 20 years, provides a guarantee to middle school students who are eligible for free or reduced lunch that the State will pay all of their tuition at a public college or university in the State after they graduate from high school.

The demonstration program authorized by section 894 of the Higher Education Opportunity Act would be a very modest effort that has yet to be funded. I would encourage you to work with the Department of Education to fund and implement this program so that we may learn how we can make the Pell grant program even more effective than it already is.

I have taken more than enough of your time, so I will close by once again thanking you for the opportunity to address you today. I would be happy to take your questions after the remaining witnesses have testified.

The CHAIRMAN. Thank you very much, Dr. Heller.  
Dr. Leath, welcome. Please proceed.

#### **STATEMENT OF STEVEN LEATH, PRESIDENT, IOWA STATE UNIVERSITY, AMES, IA**

Mr. LEATH. Good morning and I thank you for this opportunity to testify today.

As you know, I have the honor of being the 15th president of Iowa State University, which is Iowa's public land grant university. I mention this because here in Washington and throughout the Nation, we are celebrating the 150th anniversary of the Morrill Act that created land grant universities, and Iowa was the first State in the Nation to accept the terms of the Morrill Act.

These land grant universities were created to make higher education accessible and affordable for the working classes, which is very relevant to this topic we are discussing today. That is, the rapidly rising costs of attending college and the resulting debt load that many of our young people carry whether they graduate or not.

I, like many of you in this room, had to work to pay for my education. I attended three public universities in pursuit of my three degrees, and I worked two jobs throughout college so I could graduate without debt. It was the best investment I ever made, and with that in mind, I want to make this opening statement that I hope we can all agree on, that higher education is a good investment for this Nation.

Our Nation's place in the world economically, and as a leader in social and humanitarian issues, depends on having a highly educated workforce and citizenry. In this knowledge-driven economy, jobs are increasingly linked to the application of new knowledge in the marketplace, and for individuals getting a well-paying, secure job, it is highly dependent upon continuing their education beyond high school.

Not only are earnings higher for people with education beyond high school, but their unemployment rate is significantly lower. This means we must continue to make higher education accessible to all who wish to pursue it, and being accessible means being affordable without being burdened by unmanageable debt load which, unfortunately, is the case for many of our students today.

This is an especially important issue for us at Iowa State because the State of Iowa has the third highest average student debt load in the Nation. We are working to lessen this debt load for our students by using an aggressive, four-part approach, and I would like to talk about that briefly.

The first part of this is holding down costs. We have a responsibility as presidents of our universities to do everything we can to reduce the overhead for the education we provide; everything from lights, to computing, to administrative and support positions. Due to State budget cuts and a responsibility to drive our costs lower, we have eliminated hundreds of positions and gained substantial efficiencies by combining and consolidating colleges, departments, reorganizing our administrative offices, merging major administrative computing systems, and finding more cost-effective ways of providing services such as student e-mail. We are now saving tens of millions of dollars annually thanks to these measures, and we are proud that our tuition is now the lowest of all universities in our peer group.

The second part of our approach is to provide better financial aid counseling and financing options for our students and families. Our Financial Award Notice Letter to students now includes, very prominently, their current indebtedness and how much their payments will be after graduation based on their borrowing trends. The Notice also emphasizes that the loans are optional, and encourages the use of other methods to pay for their education. We also help our students make better financial decisions. Iowa State is one of only five major universities in the Nation with a full service financial counseling clinic for our students.

The third part of our effort is to be more creative in helping students find alternative and lower cost pathways to a college degree. Key to this approach is working with our community colleges. One-fifth of our new students now are transfers from community colleges, and an increasing number of our high school students come to us having already earned college credits; these are mostly from

community colleges. Both paths speed a student's time to graduation, reduce the overall cost, and reduce their debt load.

At Iowa State now, we have established articulation agreements with every community college in the State of Iowa. We also offer an admissions partnership program in which community college students, who plan to continue their education at Iowa State, can dual enroll at the University.

The fourth part of our effort is maximizing revenue streams, other than tuition, to support our academic mission. The precipitous decline of State support for public higher education across the Nation really needs to stop. In 1981 in Iowa, State appropriations covered 75 percent of the cost of a resident student's tuition in education. Last year, that figure dropped to 36 percent, less than half of what it was in 1981. Now fortunately, we see a modest increase from the legislature for the coming year, so we are optimistic that this downward trend may have slowed or stopped.

But the Federal Government also has an important role to play. Pell grants have long been an important part of financing a student's education, especially lower cost students, where affordability is linked to access. Pell grants need to keep pace with inflation. I applaud Congress' recent efforts to increase Pell grants for the 2013–14 academic year. Holding down interest rates on Federal student loans is also critical to making higher education more affordable. And again, I applaud your recent efforts in doing so.

But we at the institutions have to do more to provide funding to help students pay for their education. Iowa State recently completed a major campaign that brought in about \$867 million in pledges, and commitments, and gifts, and one-fourth of that, \$236 million, was for student scholarships. Most of this funding goes into endowments, so to put that into perspective a land grant university like Iowa State increased its annual scholarship dollars for students from \$9 million a year in 2004 to \$21 million last year. Soon, we will be launching an aggressive, new fundraising campaign that will be focused on student scholarships.

I would say, overall, thanks to institutional efforts like these and some Federal programs, scholarships and grants increased nationally over the past decade by 10 percent. As a result, total borrowing by both students and parents is 10.4 percent less than it was a decade ago. These are good trends, but more needs to be done because the debt is still unmanageable for many.

But we did not get into this dilemma overnight. It has taken decades of cost increases, State decreases in funding, and poor financial decisionmaking by students to reach this critical debt level, and we will not get out of this overnight, either. This is going to take a long term, multifaceted approach. With all the stakeholders working together—State, Federal Government, colleges, and our students—we can make real progress to making college more affordable than it has been in a long time.

Thank you very much. And at the end, I will be happy to answer any questions.

[The prepared statement of Mr. Leath follows:]

## PREPARED STATEMENT OF STEVEN LEATH

## SUMMARY

Our Nation's place in this world—economically and as a world leader in social and humanitarian issues—depends on having a highly educated workforce and citizenry. In this knowledge-driven economy, today's jobs are increasingly linked to the application of new knowledge to the marketplace. And for individuals, getting a well-paying, secure job is highly dependent upon continuing their education beyond high school.

That means we must continue to make higher education accessible to all who wish to pursue it. And being accessible means being affordable, without being burdened by an unmanageable debt load, which unfortunately is the case for many today.

At Iowa State, we are working to lessen the debt load for our students using an aggressive four-pronged approach.

1. We are reducing the “overhead”—everything from lights to computing to administrative and support positions;
2. We are providing better financial counseling and financing options for students and families;
3. We are being more creative in helping students find alternative and lower-cost paths to a college degree; and
4. We are maximizing revenue streams other than tuition to support our academic mission, meaning:

- The precipitous decline in State support for public higher education across the Nation must stop; States need to realize that it is in their best interests to invest in higher education for their citizens if they are to capitalize on the knowledge-driven economic opportunities ahead;
- The Federal Pell grants need to keep pace with inflation and student loan interest rates must be kept low; and
- We, as institutions, must increase efforts to raise private funds for student scholarships.

Thanks to institutional efforts like these and some Federal programs, scholarships and grants have increased nationally over the past decade by 10 percent. As a result, total borrowing—by both students and parents—is 10.4 percent less than a decade ago, and loans borrowed in the student's name have dropped by 18.2 percent. These are good trends, but more needs to be done because the debt is still unmanageable for many.

We didn't get into this dilemma overnight. It's taken decades of cost increases, State support decreases and poor financial decisionmaking to reach this critical debt level. And we won't get out of it overnight. But with all stakeholders working together—States, Federal Government, colleges, and students—we can make real progress toward making college more affordable and, therefore, more accessible.

---

Good morning, Mr. Chairman and other distinguished members of the committee. I'm Steven Leath and I have the honor of being the 15th president of Iowa State University, which is Iowa's public land-grant university. I mention this because here in Washington and throughout the Nation, we're celebrating the 150th anniversary of the passage of the Morrill Act that created land-grant universities, and Iowa was the first State in the Nation to accept the terms of the Morrill Act. One of the main reasons land-grant universities were created was to make higher education accessible and affordable for the working classes. That makes our experience especially relevant to the topic we are discussing today: the rapidly rising cost of attending college and the resulting debt load that many of our young people carry, whether they graduate or not.

I, like many of you, worked to pay for my education. I attended three public universities in pursuit of my degrees, and I worked two jobs throughout college so I could graduate without debt. It was the best investment I ever made.

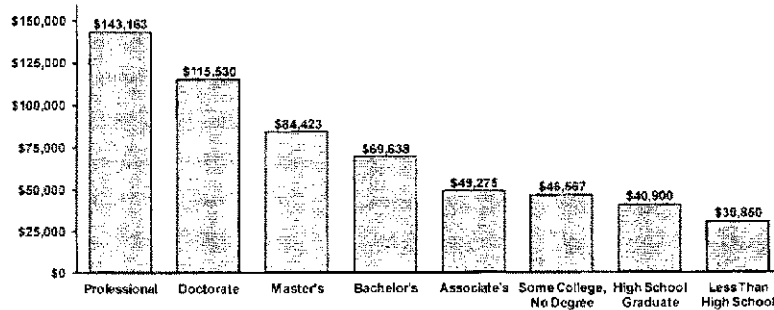
With that in mind, I want to begin by making a statement that I hope we can all agree upon: Higher education is a good investment for this Nation.

Our Nation's place in this world—economically and as a world leader in social and humanitarian issues—depends on having a highly educated workforce and citizenry. We are in a knowledge-driven economy, and today's jobs are increasingly linked to the application of new knowledge to the marketplace. And from an individual standpoint, getting a well-paying, secure job is highly dependent upon continuing their education beyond high school, whether that's at a vocational school or at a college or university. The tables below show that not only are earnings higher for people



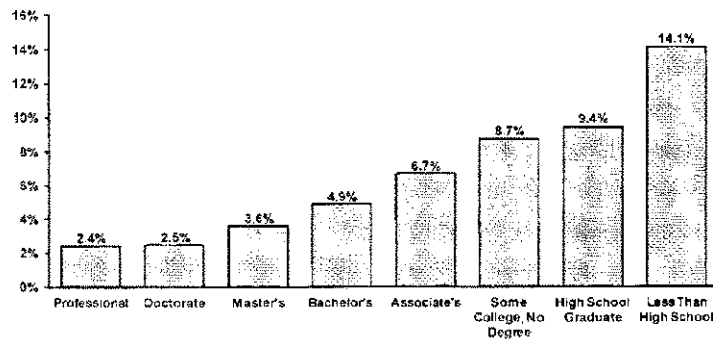
with education beyond high school, but the unemployment rate is significantly lower, and the more education you have, the lower it is.

*Mean earnings in 2010 by education level:*



Source: *Postsecondary Education OPPORTUNITY, May 2012*

*Unemployment rate in 2011 by education level:*



Source: *Postsecondary Education OPPORTUNITY, May 2012*

That means we must continue to make higher education accessible to all people who wish to pursue it. And being accessible means being affordable, without being burdened by an unmanageable debt load, which unfortunately is the case for many today.

This is an especially important issue for us at Iowa State, because for students who graduate with debt, the State of Iowa has the third-highest average debt load in the Nation. We are working very hard to lessen the debt load for our students using an aggressive four-pronged approach.

*The first part of this effort is to hold down costs.*

We have a responsibility to do everything we can to reduce the “overhead” for the education we provide—everything from lights to computing to administrative and support positions. Due to State budget cuts and the need to reduce our costs, we have eliminated hundreds of positions and gained substantial efficiencies by combining and consolidating colleges and departments, reorganizing administrative offices, merging major administrative computing systems, and finding more cost-effective ways of providing services, such as student e-mail. We are saving tens of millions of dollars annually thanks to these measures, and we are proud that our tuition is the lowest among our peer group.

*The second part of this approach is to provide better financial counseling and financing options for students and their families.*

Our financial award notice letters to students now include—very prominently—their current indebtedness and how much their payments will be after graduation

based upon their borrowing trends. The notice also emphasizes that the loans are optional and encourages the use of other methods to pay for their education.

We also help our students make better financial decisions. Iowa State is one of only five major universities with a full-service Financial Counseling Clinic, which offers individual counseling, workshops and courses on personal finance—such as budgeting and the responsible use of credit. Participation in these courses and programs has more than doubled in recent years, but the number is still too low, so we are stepping up our efforts to attract more students.

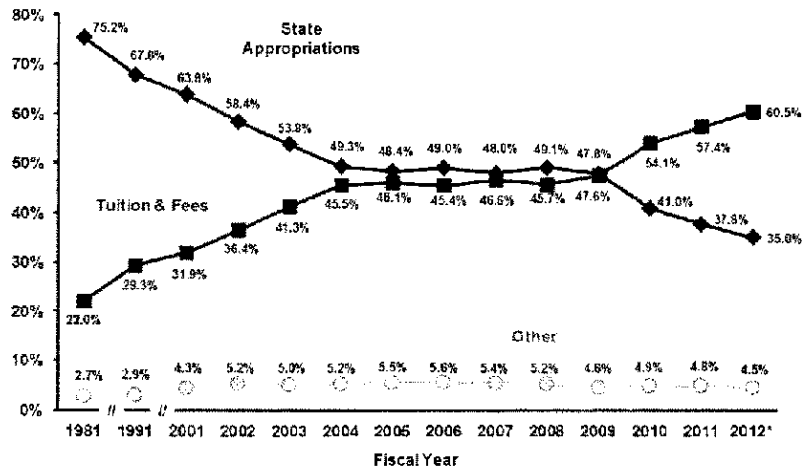
*The third part of this effort is to be more creative in helping students find alternative and lower-cost paths to a college degree.*

Key to this effort is working with community colleges. Fully one-fifth of our new students are transfers from community colleges, and an increasing number of high school students come to us having already earned college credits—also mostly from community colleges. Both paths speed a student's time to graduation, lessen the overall cost, and debt load.

At Iowa State, we have established formal articulation agreements with every community college in Iowa, and in fact, we now offer what we call an Admissions Partnership Program in which community college students who plan to continue their education at Iowa State can enroll simultaneously at Iowa State. By doing so, they have access to all of the benefits that Iowa State has to offer, such as library materials, student services and advising—making their transfer to Iowa State seamless.

*The fourth part of our effort is maximize revenue streams other than tuition to support our academic mission.*

The precipitous decline in State support for public higher education across the Nation must stop. The table below shows that in 1981 in Iowa, State appropriations covered 75 percent of the cost of an education at Iowa State, and tuition covered 22 percent. Last year, the State figure was 35 percent—less than half of what it was in 1981. The most precipitous decline occurred from 2008 to 2011 when Iowa State lost about 25 percent of its State support. Fortunately, we will receive a modest increase for the coming year, so we hope the downward trend has slowed or stopped. States need to realize that it is in their best interests to invest in higher education for their people if they are to capitalize on the knowledge-driven economic opportunities that lie ahead.



The Federal Government also has a role to play. Pell grants have long been an important part of financing a student's education, especially lower income students, where affordability is critical to access. Pell grants need to keep pace with inflation, and I applaud Congress' efforts to increase Pell grants for the 2013–14 academic year. I would also add that holding down interest rates on Federal student loans is also critical to making higher education more affordable, which was recently accomplished, so again, I applaud your efforts.

We as institutions also have to do more to provide funding to help students pay for their education. Iowa State recently completed a major fund-raising campaign

that brought in more than \$867 million in gifts, pledges and commitments. More than a quarter of that—\$236 million—was for student scholarships, creating 832 new scholarship programs and expanding many others. Most of this funding goes into endowments that fund scholarships in perpetuity, so to put it in perspective, the campaign increased annual scholarship dollars for ISU students from \$9 million in fiscal year 2004 to \$21 million in fiscal year 2011. Soon, we will be launching a new private fund-raising initiative with student scholarships as its primary target.

Overall, thanks to institutional efforts like these and some Federal programs, scholarships and grants have increased over the past decade by 10 percent. As a result, total borrowing—by both students and parents—is 10.4 percent less than a decade ago. Loans borrowed in the student's name have dropped by 18.2 percent. These are good trends, but more needs to be done because the debt is still unmanageable for many.

We didn't get into this student debt dilemma overnight. It's taken decades of cost increases, State tax support decreases and poor financial decisionmaking to reach this critical debt level. And we won't get out of it overnight. But with all stakeholders working together—States, the Federal Government, colleges, and students—I know we can make real progress toward making college more affordable and, therefore, more accessible.

Thank you. I'd be happy to answer any of your questions.

The CHAIRMAN. Thank you, Dr. Leath.

Dr. Murdaugh, welcome and please proceed.

**STATEMENT OF JIM MURDAUGH, PRESIDENT, TALLAHASSEE  
COMMUNITY COLLEGE, TALLAHASSEE, FL**

Mr. MURDAUGH. Chairman Harkin, Ranking Member Enzi, and distinguished members of the committee, thank you for inviting me.

I represent a comprehensive community college in the capital city of Florida serving over 15,000 students, and I appreciate the opportunity to share with you some of the actions at our college to maintain affordability of access to the American Dream.

Let me begin by saying that I believe we are an example of the fact that college can be affordable without reducing quality. This year following the Florida legislature's decision to fund colleges at a continuation level, we chose to hold tuition constant despite being given the authority to increase tuition by up to 5 percent. Our decision this year to hold tuition at the same level as last year is a strong statement of what our trustees, and our college leadership, value. We value access to higher education, and we believe access is only real for those who can afford it.

Keeping our tuition for a full year of college at \$2,304, we are one of the most affordable institutions of higher education in the country. In fact in 2010 and 2011, including fees, our net price was 36 percent lower than the national average for 2-year public institutions. Within the State of Florida, we are among the most affordable of the State's 28 community and State colleges, and our tuition and fees are roughly half those of State universities for the first 2 years of college.

Our low tuition has not negatively impacted our quality or our productivity. According to "Community College Week's Top 100 Associate Degree Producers" listing for 2012, TCC ranks fourth nationally among 2-year institutions in awarding A.A. degrees. And for associate degrees rewarded to African-American students, we are proud that we rank sixth nationally.

We are also above the State average in retention and completion rates, and we have a significantly higher percentage of students

who transfer to 4-year institutions than the State average of colleges in Florida.

Like all colleges, our first strategy is to keep TCC affordable by seeking efficiencies to keep our costs low. And I certainly do not want to minimize that, as those other representatives up here will speak to that issue.

The one thing I would like to talk about is where I believe we have great promise in an area of efficiency in academic planning and execution that helps students enter, remain, and complete college. And I believe that holds, perhaps, as much promise in keeping college affordable as our efforts in administrative efficiencies, but there is still much to learn. This helps students avoid paying for unnecessary courses, it improves their likelihood of persistence which avoids wasting their tuition dollars, and provides them with degrees and credentials that lead to jobs that provide an appropriate return on that investment.

We make extensive use of acceleration mechanisms such as dual enrollment before students arrive at TCC to save them money and expedite their time to completion. Nearly one-fourth of previously dual-enrolled students who come to our college arrive with over 20 college credits earned at no cost to them while they were still in high school. This saves them money in tuition, and it expedites their time to complete the Associate's degree.

We create individualized learning plans that assure they take the right courses to achieve their career and academic goals. And of the 6,713 students in fall of 2011 with less than 18 college credits, 85 percent had a complete plan and 90 percent a career interest.

We engage in a continuous course redesign to improve success rates and help students move through college. We focus on the top 10 highest enrollment classes and gateway courses to achieve the greatest impact on student success. We believe the results of our efforts, in terms of academic efficiencies, are that our students earn their degrees in a relatively timely manner.

Among 2-year public institutions nationwide, our graduation rate within 3 years is 10 percent higher than the national average. I have provided much more information in my written testimony on a number of these, and other, initiatives.

Mr. Chairman, Ranking Member, and distinguished members of the committee, I look forward to any questions you might have.

[The prepared statement of Mr. Murdaugh follows:]

#### PREPARED STATEMENT OF JIM MURDAUGH

We are committed to helping people, not only by providing an open door, but by caring about whether someone who wants to pursue education beyond high school can reasonably do so, and we acknowledge that ultimately we don't determine our affordability, students do.

Our college has a track record of producing high quality degrees and credentials that have market value and social value while keeping costs to students at an affordable level and providing compensation to our faculty and staff that enables us to recruit and retain high quality educators.

TCC is among the most affordable colleges of the State's 28 community and State colleges and about half the cost of State universities for the first 2 years of college.

Tallahassee Community College (TCC) is also one of the most affordable institutions of higher education in the country. In fact, TCC is ranked nationally among the top 3 percent when comparing the lowest cost-per-completion. In 2010-11, our

net price as a 2-year public institution was 36 percent lower than the national average.

Our first strategy to keep TCC affordable is simply to keep our cost low, while maintaining academic excellence. We keep our cost low through tuition pricing that balances what students are asked to pay with State support for community colleges, financial aid that provides a wide range of public and private grants and loans to reduce the financial barrier many of our students face to entering college, focusing on productivity and efficiency of faculty and staff to keep personnel costs low, and targeting student outcomes that keep students from incurring debt without finishing college.

Our second strategy to keep TCC affordable is to minimize time to completion for students with effective individual learning planning that assures students take the right courses to achieve their goals, articulation agreements and transfer policies that make it seamless for them to enter and leave TCC, acceleration mechanisms such as dual enrollment that minimize time to completion, and a focus on continuous course redesign to improve success rates and help students move through college.

---

Chairman Harkin, Ranking Member Enzi and distinguished members of the committee, thank you for inviting me to testify on the issue of making college affordability a priority. I represent a community college in the capital city of Florida serving over 15,000 students and I appreciate the opportunity to share with you some of the actions at our college to improve the affordability of access to the American Dream.

For us at Tallahassee Community College (TCC), being sensitive to the role that affordability plays in access to higher education fundamentally begins with a discussion of our values as an institution. We are committed to helping people, not only by providing an open door, but by caring about whether someone who wants to pursue education beyond high school can reasonably do so.

Our college has a track record of producing high quality degrees and credentials that have market value and social value while keeping costs to students at an affordable level and providing compensation to our faculty and staff that enables us to recruit and retain high quality educators. Our decisions have consistently and significantly contributed to our current level of affordability.

Within the State of Florida, TCC is among the most affordable of the State's 28 community and State colleges, and our tuition and fees are roughly half the price of State universities for the first 2 years of college.

Our first strategy to keep TCC affordable is simply to keep our cost low, while maintaining academic excellence. We keep our cost low through tuition pricing that balances what students are asked to pay with State support for community colleges, financial aid that provides a wide range of public and private grants and loans to reduce financial barriers, focusing on productivity and efficiency of faculty and staff to keep personnel costs low, and targeting student outcomes that keep students from incurring debt without finishing college.

While keeping cost low, we monitor indicators of our academic excellence to ensure students receive value for their tuition.

TCC is a national leader both in awarding Associate in Arts (AA) degrees and in graduating African-American students. According to *Community College Week's* "Top 100 Associate Degree Producers" listing for 2012, TCC ranks 4th nationally among 2-year institutions awarding AA degrees. For Associate degrees awarded to African-American students, TCC ranks 6th nationally. Compared to its peers, TCC is in the 99th percentile for completions per 100 students (29 per 100).

Educational quality is also translating credentials to high employment rates for TCC graduates. The State accountability data show that 98 percent of TCC students who complete vocational programs (i.e. Associate in Science (AS) degrees, Associate in Applied Science (AAS) degrees, and certificates) find employment compared to the State average (90 percent).

Our second strategy to keep TCC affordable is to minimize time to completion for students. We accomplish this by working with students to create individualized learning plans that assure they take the right courses to achieve their goals, maintaining articulation agreements and transfer policies that make it seamless for them to enter and leave TCC, offering acceleration mechanisms such as dual enrollment, and focusing on continuous course redesign to improve success rates and help students move through college.

TCC students earn their degrees in a timely manner. Among 2-year institutions nationwide, TCC's graduation rate within 3 years is 37 percent, which is 10 percent higher than the national average of 27 percent.

## WHAT STEPS HAS TCC TAKEN IN THE AREA OF TUITION PRICING?

Having set tuition for a year of college (30 semester hours) at \$2,304 this year, TCC is one of the most affordable institutions of higher education in the country. In fact, Collegemeasures.org ranked TCC among the top 3 percent nationally when comparing the lowest cost-per-completion (\$29,767 per student). In 2010–11, including fees, our net price (\$4,125) was 36 percent lower than the national average for 2-year public institutions (\$6,485).

I wish I could describe a process for tuition pricing at our institution that would provide a stable, predictable plan over time that is controlled by the Trustees who govern our institution. However, our decisions on tuition pricing take place within a broader environment where the Florida Legislature sets the maximum amount of tuition a college can charge and it determines the level of State funding we receive each year. Those two variables significantly impact the decisions we are able to make at the college level.

The Florida college system works closely with the legislature to demonstrate the return on investment that is provided by the system from dollars spent. We enjoy a very positive relationship with lawmakers and the results we are able to document continue to provide an atmosphere of cooperation in even the most difficult budget times.

This year, following the Legislature's decision to fund colleges at a continuation level we were able to review our financial condition and make the decision to hold tuition constant, despite given the authority to increase tuition by up to 5 percent. Our decision to hold tuition constant would not have been possible if the State had made a decision to cut State funding to colleges as it did the previous year.

Our decision this year to hold tuition at the same level as last year is a strong statement of what we value. We value access to higher education. We believe access is only real for those who can afford it.

We have committed ourselves to ensure that any tuition increase, which we know will take place in our future, will be tied to improving the quality of an education the student receives at our college as measured by documented learning outcomes. We also have committed ourselves that a tuition increase needs to be directed at proven strategies that are effective in improving completion and placement rates for our graduates.

And, because of the nature of our community college in serving the workforce needs of our community, we will examine the extent to which any increases in our tuition can be documented in terms of their effectiveness in helping the unemployed and underemployed enter, remain, and advance in jobs in our community.

## WHAT STEPS HAS TCC TAKEN IN THE AREA OF FINANCIAL AID?

About 65 percent of our students receive some grant or scholarship aid. Since 2009, TCC has gone from serving 9,282 students on financial aid to 11,494 in 2012, an increase of 24 percent. The amount of financial aid disbursed by TCC (now totaling over \$76 million) increased by over \$29 million in the past 3 years. In 2009, 5,072 students received Federal Pell grants at TCC totaling \$16 million. Thus far in 2012, 8,312 students received Federal Pell grants for a total of nearly \$31 million, and that is with the elimination of the policy allowing students to receive two Pell grants in an award year.

TCC is committed to ensuring every student is made aware of financial aid opportunities that can make a college education more affordable. TCC makes every effort to encourage students to apply for financial aid by conducting "FAFSA Days" on campus, financial aid nights at high schools, participation in events like College Goal Sunday, an onsite program that helps prospective students and their families complete the FAFSA, and by communication with high school students.

With regard to loans, TCC takes our fiduciary role seriously in loan default prevention and requires students to complete entrance counseling that includes a financial literacy module. When students borrow \$13,000 or more, new awards are not issued until the student meets with financial aid staff to ensure they understand their aggregate loan limits. While we cannot deny the loan, we can keep the student advised of the consequences of borrowing.

## WHAT STEPS HAS TCC TAKEN TO INCREASE PRODUCTIVITY AND EFFICIENCY?

*Instruction.* To develop course offerings that are based on student need rather than just faculty preferences, TCC uses an annual guaranteed course schedule. The schedule is built based on data from previous terms as well as any known conditions for change, such as new programs or deleted programs, or population changes.

For both students and faculty, this ability to plan based on the guarantee allows us to start classes right—both students and faculty are prepared the first day. An example of the efficiency of the schedule for 2011–12 follows:

Planned: 117,898 seats; 4,284 Sections

Actual: 119,644 seats; 4,273 Sections

That is: 1,746 more seats were offered in 11 fewer sections than budgeted.

*Advising.* Prior to the beginning of fall term 2011, we held a Student Success Summit that included faculty, staff and community partners. We have as a core value the belief that the Student Success and Completion Agenda is the future of TCC: *Completion matters and every student counts.*

Specific examples of our student success programs designed to improve student outcomes include mandatory orientation and advising. New students to the college, including first-time and transfers, are required to attend orientation. The objectives of the orientation program are for students to receive an overview of college, learn about campus resources, meet with an advisor, initiate an *Individualized Learning Plan* which will include registering for first-term classes, and receive information about living in Tallahassee.

We opened an Advising Center prior to the start of the fall semester in 2011. During the first two terms it was open, it logged 21,000 visits. It is important for students to “start right.” Therefore, we require mandatory advising for students with 0–18 college credit hours. Students in dual enrollment courses also have mandatory advising. These efforts are initial steps to helping students achieve their goals efficiently.

At the conclusion of orientation and advising, students register for their first semester with assistance from an advisor. Prior to the end of their first term in college, students make an appointment with an advisor to discuss first-term progress, potential career objectives and next steps for completing their *Individualized Learning Plan*. We have assigned advisors to each of our academic divisions and physically located them in the divisions as part of our strategy to “meet students where they are.” The Advising Center is designed to support intentional planning and success strategies. Students who attended and enrolled during the Center’s first semester (4,796) had a 99 percent retention rate.

*Administrative Services.* We regularly review college operations that directly and indirectly support instruction to identify opportunities to streamline, eliminate, or improve them to keep costs down. Those reviews include program reviews of administrative areas to assess costs and trends.

One such effort led the college to implement campus-wide changes in HVAC equipment, lighting, and computer labs to achieve greater efficiencies. Changes in equipment and policies led to a dramatic reduction in energy costs at TCC. The Florida Department of Education (FDOE) recently recognized TCC as the most energy efficient college campus in the State.

For each of the past 3 years, the percentage of the college’s operating budget spent on administrative expenses has declined from 9 percent in 2008–9 to a current level of 8 percent in 2010–11.

#### WHAT STEPS HAS TCC TAKEN TO IMPROVE STUDENT OUTCOMES?

Since 2003, TCC has moved from below average performance in areas of retention and student success to becoming a top performer in the State. The college is now above the State average in retention and completion rates. The State data show that TCC has a significantly higher percentage of students (75 percent) transferring to 4-year institutions than the State average (60 percent).

TCC has developed a “data-informed” culture, using internal data; State, regional, and national data; and feedback from surveys such as the *Community College Survey of Student Engagement* and the *Survey of Entering Student Engagement* to redesign services and support and to retrain faculty and staff to support learners. The college’s “data-informed” has been further enhanced through its participation in the national *Achieving the Dream* initiative.

TCC’s strategic plan focuses on student success and meeting local educational needs. Budget decisions are based on meeting the goals in the college’s strategic plan. Goals require data analysis and specific outcomes to be presented for budget consideration.

TCC has worked to strengthen the culture of success at the college. Every employee has a role in student success; every encounter with a student is an opportunity to help a student succeed. For example, a simple recognition from maintenance and grounds staff that students often lose their way the first 2 or 3 days of fall classes has led to an official welcome plan the first 2 days that includes tents, maps, and all staff taking turns to welcome and guide new students on the campus.

TCC strives to prepare every student to arrive to class in the best condition to learn by offering excellence in all services to avoid distractions of financial aid problems or bookstore issues, by guaranteeing a schedule of classes in which no class with students enrolled will be canceled, and by offering a high level of academic support and social engagement outside the classroom.

Faculty have developed a set of effective learning strategies for the classroom based on widely accepted principles that place learning first and provide educational experiences for learners anyway, anyplace, anytime. These principles permeate faculty hiring, new faculty seminars, faculty professional growth plans and instructional delivery and design.

Student Affairs and Academic Affairs have worked together to align services to meet student needs. Students are guided through orientation, career and academic planning, and transition to work or a university through TCC's individualized advising system.

To improve student outcomes, we have developed a number of strategies to meet student needs as they are presented and provide support outside the classroom. For example, we know that students who start in two or more developmental courses often display weaknesses in time management, commitment, and other success strategies. Therefore, we require these students to take a three-credit College Success course in their first semester.

Making the College Success course mandatory for underprepared students has increased the persistence and success of developmental students, though more work needs to be done. This course teaches students success strategies and academic habits that are applicable across the curriculum, thus reducing the need for further individual interventions. The College Success skills are reinforced in TCC's *Learning Commons* and in a number of "gateway courses."

Results show that the developmental students who succeeded in the College Success course in fall 2010 enrolled in the spring term at a 93 percent rate compared to an 85 percent return rate for those who started college ready and did not take the course. Course success rates (with a grade of A, B or C) still showed a gap in the spring 2011 semester (53 percent vs. 62 percent). As a result of redesigning the course and adding a new level of College Success in fall 2011, preliminary data suggest that the course success rate gap may no longer exist.

We also know that most of our students need support beyond the classroom. Therefore, we have expanded our *Learning Commons*, the college's tutoring and academic support center, and moved it to a location in the center of the campus, connected to the library. In 2011–12, we logged a total of 284,521 visits, with 14,106 total students (credit and non-credit) receiving assistance for 543 different courses.

In fall 2011 we examined the performance of students in the top 50 highest enrolled credit classes. Among those enrolled, 26 percent of students who visited the *Learning Commons* succeeded at rates 5 to 9 percentage points higher than those who never visited the *Learning Commons*.

An early alert system guides students to support as soon as issues are identified, and the *Learning Commons* staff proactively work with students to plan for success. In 2010–11, the over 15,000 students (unduplicated) visited the *Learning Commons*. Those students who use its services regularly (4 or more times) have an 18 percent higher 3-year graduation rate than those who never visit.

Although the initial investment in the *Learning Commons* and the additional staff needed to meet student demand for services was a sizable financial commitment, the results are far beyond our expectations, both in participation numbers (there are often students lined up to get in when the doors open in the morning) and in increased success rates. The central location and structured support have proven to be much more successful and beneficial than individual tutoring, extra class sessions, use of faculty office hours and other methods.

The *Learning Commons* is structured to teach students to grow from one-on-one tutoring, to group sessions, to independent study. Efficiency is achieved as students learn the skills and strategies needed to study and succeed on their own as well as through students helping and tutoring one another.

In addition to the *Learning Commons*, TCC has also developed a STEM (Science, Technology, Engineering and Math) center to assist students in STEM majors. Students participate in peer-led tutorial sessions, student success seminars, and summer workshops and internships. The *STEM Center* supports minorities, women and financially needy students majoring in STEM fields and is funded by the *NSF Florida-Georgia Louis Stokes Alliance for Minority Participation (FG-LSAMP)* program and the *NSF STEM-Star (S-STEM)* scholarship program.

In 2011–12, 63 percent of African-American students who used the *STEM Center* passed college algebra, compared to 36 percent for those African-American students who did not use the Center. For Trigonometry, African-American students who used



the Center had a passing rate of 70 percent; those who did not use the Center, only 19 percent.

#### WHAT STEPS HAS TCC TAKEN IN THE AREA OF THE INDIVIDUALIZED LEARNING PLAN?

The concept and initial design for an *Individualized Learning Plan (ILP)* began fall 2004 and was implemented spring 2007 as part of the advising and intervention services provided by our *Student Success Center*. Prior to this, credit students had the ability to plan their academic future at TCC via an advising system online, however this system was set up as “one-size-fits-all” and didn’t allow for customization based on the individual student’s abilities and needs.

Our approach to improving the efficiency of academic planning by and for students was to create a case management system to track each individual student’s progress and give the student the ability to plan their academic future, whether it is as a credit student transferring to a university or a continuing education student intending to advance their work skills. The *ILP* helps students identify their academic goals, choose courses needed to achieve their goals, and expedite their path to completion. Thus, establishing the most efficient and affordable path to graduation.

While still a work in progress, the *ILP* improves the efficiency of student progression using an electronic, user-friendly, visual format which allows the student to become more responsible for achieving their educational goal. The student can identify and research a career path in consultation with an advisor, confirm their TCC objective, select a university major and transfer institution (if applicable), map out all courses required for graduation and their university prerequisites (if applicable), map out the number of semesters it will take to meet all requirements, and receive alerts regarding excess hours and financial liability.

All students who use the *ILP* tools have a customized, documented action plan and support system to guide their educational experience. Of the 6,713 students in fall 2011 with less than 18 college credits, 85 percent had a complete plan and 90 percent selected a career interest that they and their advisors could use to guide course planning.

#### WHAT STEPS HAS TCC TAKEN IN THE AREA OF ARTICULATION AGREEMENTS?

TCC has vibrant articulation agreements with each of the three local school districts in our service area. In addition to dual enrollment agreements, we also collaborate on career course articulation. Currently we articulate high school certifications to college-level credit in 17 areas ranging from carpentry to digital design and web development.

We collaborate on dual enrollment, but we also have other, regular meetings to ensure a smooth working relationship between the schools and our college. Our advisors, faculty and deans meet with high school teachers, guidance counselors, principals and assistant principals to address issues impacting student preparedness for college. In addition, I meet regularly with superintendents to make sure our efforts are supportive and aligned.

TCC also has very active advisory boards for the AS degree and certificate programs. Currently, TCC has 17 advisory boards with 160 community members who provide input on training and employment needs, and on the skills, knowledge and abilities that need to be taught.

#### WHAT STEPS HAS TCC TAKEN IN THE AREA OF TRANSFER POLICIES?

A critical quality indicator at TCC is the number of students who transfer to 4-year institutions. Data from the FDOE show that TCC has a significantly higher percentage of students (75 percent) transferring to 4-year institutions than the State average (60 percent). Articulation agreements between community colleges and State universities in Florida spans four decades. Common course numbering and enhanced articulation policies ensure students the ability to transfer to a State university following graduation with an AA degree from one of the State’s 28 community colleges. Florida’s seamless 2+2 higher education system is a model for the rest of the country.

Our higher than average transfer rates are due to the fact that we do not rely passively on opportunities for students to transfer. We work closely with our two local State University System (SUS) institutions, Florida State University (FSU) and Florida Agricultural and Mechanical University, as well as institutions around the State. Specifically, we have provided office space in the Student Union for our two local institutions to allow our students access to university advisors. Students are able to discuss upper division majors and specific prerequisites that will prepare them to transfer with appropriate background coursework. The relationship with

our sister institutions helps our students avoid taking excess courses, transfer with junior status, and is a cost savings to students who are able to follow the exact course of study as a native student.

However, what makes us unique are the five private 4-year institutions we house on our campus to give our students more transfer choices. We established a *University Center* on campus where students can continue their education at any of five private upper division colleges and universities. This gives our students an on-campus alternative to complete a bachelor's degree, specifically in Education and Business, two areas that have limited access in the SUS. The greater transfer opportunities expand the pool of students who can take advantage of this cost-saving approach, and also saves students the expense of relocating when transferring.

#### WHAT STEPS HAS TCC TAKEN IN THE AREA OF DUAL ENROLLMENT?

TCC uses several strategies to assist students who can benefit from acceleration mechanisms. We support Advanced Placement, International Baccalaureate, the College Level Examination Program, the Advanced International Certificate of Education, and military credits through prior learning assessments. We are also particularly proud of the role of dual enrollment in helping students accelerate their higher education experience before they even graduate from high school.

We have a robust dual enrollment program and work closely with local schools to assure quality education for those who test college-ready while in high school. TCC has agreements with all three public school districts in our service area as well as with several private and charter schools. In 2011–12 for example, 834 high school students took 7,861 credit hours from TCC. On average, these students who later attend TCC for college arrive with over a semester's worth of credits (14 credits). Further, nearly one-quarter (24 percent) of previously dual enrolled students attending TCC arrive with over 20 college credits earned at no cost to them while they were still in high school. This not only saves students money in tuition (roughly \$100 per credit hour at TCC), but expedites their time to complete the baccalaureate degree.

Classes are offered on high school campuses, but about 40 percent of the dual-enrolled students attend class either at TCC or online. Success rates of dual-enrolled students exceed those of native TCC students in the same classes, and these students succeed at equivalent rates to university and community college students once they matriculate into college.

#### WHAT STEPS HAS TCC TAKEN IN THE AREA OF COURSE REDESIGN?

TCC regularly monitors success rates and curriculum as part of our annual assessment. We pay particular attention to the top 10 highest enrollment classes and to "gateway courses." In both cases, the majority of these classes fall into the developmental education, math, and English course areas. However, course redesign has occurred in all subject areas.

The primary assumptions of course redesign is that it will increase success rates and is modeled on best practices including active learning components such as student-faculty interaction, cooperation among students, student participation, prompt feedback, and time on task. Our course redesigns have not incurred additional costs for the college.

*English.* TCC's College Composition course underwent a major redesign in 2009. The redesign resulted in a professional, collegiate writing focus, thus, a more rigorous curriculum. This content redesign was undertaken after several meetings with faculty in our primary transfer institution, FSU. Changes to the pedagogy and support materials resulted in increased success rates, despite the more challenging curriculum. The course success rate in fall 2011 (73 percent) was substantially higher than rates in prior years (e.g., 66 percent course success rate in fall 2005).

Based on assessments of learning outcomes, redesign of the general education humanities courses focused on improving students' writing skills. Pre-test writing assessments were done in the first week; faculty developed videos, on-line tutorials, and used the *Learning Commons* resources to target practice and remediation based on the skills each student lacked. They increased journal writing and used the professional tutoring service *Sm@rthinking* to further assist students; rubrics were used to ensure standard assessment across courses and classes.

Results were positive. For example, in the African-American Literature course, the post-test essay showed students moved from 48 scoring a 1 or 2 to none scoring a 1 or 2, and 181 scored 5 compared to 84 on the pre-test.

*Information Technology.* In our Technology and Professional Programs division, courses were redesigned to include industry certifications, resulting in over 300 new certifications obtained by TCC students in the past year. In chemistry laboratories,

redesign focused on “argument-driven inquiry” designed to improve students’ critical thinking skills, use of data, and research and presentation skills. All students made gains (6.22 points average), but the writing gains for typically low performing students are particularly high (11.44 points), measuring scores from the first report to the sixth in spring 2011.

*Math.* TCC is also part of the Carnegie *Statway* Networked Improvement Community, an acceleration plan to move students from developmental math into statistics more quickly. Initial results are positive. All subject areas in developmental education have been redesigned over the past 3 years, emphasizing more hands-on work, more collaboration, and providing opportunities for acceleration. The redesign (funded primarily by a grant through Title III of the Higher Education Act) involved two levels of English, math, and reading and the college success course. Success rates improved in all areas except the lower level English class, with the average course success rate increasing by nearly 5 percent (the goal was 5 percent). The greatest success was seen in the upper level math and writing courses; these students are sustaining higher success rates in subsequent courses as well.

*Nursing.* The nursing curriculum at TCC was redesigned over a period of 2 years using resources from the National League for Nursing; The Joint Commission; the Quality and Safety Education for Nurses; and the Florida Board of Nursing. In addition, recent graduates and local clinical affiliates participated in its development by providing feedback about the preparation of our graduates. The content of the curriculum is based on the National Council Licensure Examination for Registered Nurses (NCLEX–RN) blueprint created by the National Council of State Board Exams and aggregated data gleaned from the results of student Health and Environmental Sciences Institute (HESI) testing.

The re-design changed the five semester program to four and moved to a systems approach and away from the simple to complex methodology the previous curriculum implemented. Faculty were evaluated and every attempt made to place them in courses which matched their field of expertise. Remediation plans were employed to improve retention, but if a student was unsuccessful, they were re-admitted in the next semester if clinical space was available, reducing the time out of the program for the student.

The first class to complete the re-designed curriculum graduated in April 2012. Forty-two of the original 48 graduated with their initial cohort. Of the 39 students who have taken the NCLEX–RN test so far, the pass rate is almost 98 percent.

*Emergency Medical Technician (EMT).* The EMT program was redesigned to consolidate the courses within the paramedic program to allow for growth in the courses in anticipation of a new national Emergency Medical Services (EMS) curriculum and to provide more continuity between EMS courses. A new national EMS curriculum was released a few years ago and we have been told it has been accepted by the State of Florida EMS Bureau. The national accrediting body is also considering the adoption of this curriculum as the standard. Because of the faculty’s actions, TCC stands ready to implement the new national curriculum.

Consolidation of courses will also allow for continuity between EMS courses taken in the same semester. Due to the broad knowledge expected of the paramedic in medical and traumatic emergencies, smaller credited courses result in silo learning—students often struggle to put all the pieces together in this situation. This new curriculum will force students to look at the patient as a whole and not just the small pieces they have been looking at.

*Distance Learning (DL).* TCC has experienced rapid growth in student demand for DL classes and has worked to meet the demand. In the past 5 years, web-delivered courses have grown from 92 sections in fall 2007 to 192 sections in fall 2011. Enrollments have increased from 2,772 in fall 2007 to 5,768 in fall 2011. TCC’s goal is for DL success rates to be equal to or greater than traditional delivery. In fall 2007, the overall college success rate (with a grade of A, B or C) was 67 percent. Web course delivery rates were 65 percent. However, by fall 2010 that gap had increased; web classes were 5 percent lower in course success rates. The rapid growth, expanded numbers of instructors, and lack of centralized policies were assessed as the issues. TCC invested in a new Distance Learning Center with five full-time staff. A mandatory, free student orientation is now required, faculty must follow a standard rubric, and training and retraining of faculty is required. Best practices have been implemented. TCC expects to see the gap close in 2012–13.

I have spent the majority of my time discussing, with some degree of pride I must add, what Tallahassee Community College is doing to keep college affordable. I will conclude this testimony with a request for your help in the following areas. To ensure students have affordable access to higher education, I hope you will support the following:

1. Fund the Federal Pell grant program at the full amount authorized. By fully funding the Federal Pell grant program students, particularly at-risk students, will have to borrow less. This will have a positive impact on default rates and will serve as an incentive for students who demonstrate need to begin the college process. Many of our low-income families are discouraged by the prospect of student loans.

2. Provide a special or expanded grant program for students who test into remedial course work. These are our most at-risk students whose possibility of success is low, yet deserve the opportunity to improve skills and realize the American dream. Most of these students are served by community colleges.

3. We appreciate congressional support in extending the 3.4 percent rate on subsidized student loans. Please ensure the loan interest rates are always at the lowest rate possible.

4. Limit borrowing by students in certificate and 2-year programs to 60 percent of the aggregate loan limit. This will limit students' debt burden. Exceptions can be provided for students who finish one certificate or 2-year programs and seek to enter a new program.

5. Work collaboratively with the U.S. Department of Education to identify strategies to address the unique nature of borrowing by at-risk populations.

6. Recognize and support institutions who seek to keep tuition affordable.

Mr. Chairman, Ranking Member and distinguished members of this committee, I will conclude by once again thanking you for the important work you are doing to help make college affordable and for allowing me to contribute to your efforts in some small way. I look forward to any questions you might have.

The CHAIRMAN. Thank you very much, Dr. Murdaugh.

And now we turn to Mr. Snyder, Thomas Snyder, and welcome. Please proceed.

**STATEMENT OF THOMAS J. SNYDER, PRESIDENT, IVY TECH  
COMMUNITY COLLEGE, BLOOMINGTON, IN**

Mr. SNYDER. Thank you very much. Mr. Chairman, Ranking Member Enzi, distinguished committee members.

Ivy Tech is a statewide community college in Indiana serving 200,000 students, 23 campuses, and 100 learning centers.

I would like to start by thanking the committee for its leadership in maintaining low student loan interest rates. The millions of community college students who attend our institutions appreciate the continuation of these low interest rates for the coming year.

I also want to thank the members of the committee, and especially you, Mr. Chairman, for your support of Pell grants. Community colleges need to have a strong partnership with the Federal Government and input on Pell grants as they are particularly critical to the students attending our institutions.

Pell grants, and low interest rates, are only part of the college cost concerns of our students and their families. We must have low cost, high quality options for individual students, the economy, and our Nation's competitiveness as a whole.

As a former auto industry executive, I have watched how companies have gained shares of businesses by providing high quality product at low cost. I witnessed the emergence of Toyota and the Japanese auto industry, the Hyundai and the Korean car industry, and now China where the most popular car is, surprisingly, a Buick. This is a business model that is highly competitive, outcome and value-driven, customer-focused, and a relentless pursuit of lower costs.

What I found in higher education was something quite different. Large grants, State subsidies combined with routine increase in tuitions, and a revenue model that outpaced inflation by a significant amount with little focus on actual cost.

When I joined Ivy Tech in the summer of 2007, higher education did not look like a sustainable business model. Because of that, we made quality and efficiency pillars in our strategic plan, and started to reduce internal costs and improve outcomes. Let me share some examples.

We instituted a single bookstore for all of our campuses, capped the number of textbooks that are required for both online and in-present courses. One unified bookstore with greater purchasing power has translated into fewer and less costly textbooks for our students. A centralized purchasing system led by a single executive, statewide contracts in areas like computers, IT networks, furniture, copiers, telecommunications, and healthcare.

This year, we joined the State of Indiana to have a single prescription management program for all State employees including higher education.

We are simplifying our registration and financial process for students. Perhaps like your own experience when you had to go to six or seven different offices to enroll in school, we are building a one-stop system that allows our students to go to one place and do everything, saving money for Ivy Tech and time for the students.

On the academic side, we have launched an accelerated program called ASAP. Students can get a 2-year transferable degree in 1 year, attending 5 days a week for 11 consecutive months. Initial completion rates are 75 percent, 3 times the national average for community colleges.

We created one of the largest online offerings for community colleges in the country, reaching almost half of our students; 80,000 students taking an online course during the year.

We are credentialing, widely, high school faculty across Indiana. Dual credit students now exceed 25,000 students, saving parents more than \$12 million in tuition costs because they are taking courses in high school.

We have also worked with our State legislature to ensure that credits transfer better. We do look at Florida as a real role model which we hope to emulate. We have more work to do in this area.

Let me close by giving you these facts. In the past 2 years with the savings we have generated, the actual cost for a full-time student at Ivy Tech has dropped in real dollars since 2008. Affordability is today's most important question. The cost in this segment of society has far outstripped not only inflation, but the income growth of most Americans. The concern I have for my home State is the sad fact that the 4-year residential experience is out of reach for half of the Hoosier families. Community college is a response to this affordability crisis.

We have focused in the past on low cost and open access. We need now to shift to a completion agenda while maintaining our low cost. We, the community colleges, become a critical part of the affordability solution, and Ivy Tech is committed to that goal.

Thank you very much.

[The prepared statement of Mr. Snyder follows:]

## PREPARED STATEMENT OF THOMAS J. SNYDER

## SUMMARY

Ivy Tech Community College is the statewide system of community colleges in Indiana. We are the largest singly accredited community college system in the country. Ivy Tech serves 200,000 students annually at 23 campuses and 100 learning centers.

I am also here as a founding member of Rebuilding America's Middle Class (RAMC), a coalition of community colleges focused on improving student access and enhancing student success.

While my testimony is specific to Ivy Tech, RAMC is working with other community colleges to ensure they have the necessary tools to produce low cost, high quality programs.

Let me share some examples of what Ivy Tech has done to keep college costs down while providing high quality learning experiences.

- We reduce internal cost and complexity behind purchasing student textbooks by instituting a single bookstore for all of our colleges and capping the number of required textbooks a student must buy per course.
- We have also unified our overall procurement system by creating a centralized purchasing system led by a single executive.
- We have begun to simplify our registration and financial aid process for students.
- We launched the Associate Accelerated Program or "ASAP" in order to provide students with the opportunity to earn a transferable degree in 1 year instead of the traditional 2-year track. Completion rates of 75 percent in this program are three times the national average of community colleges.
- We actively provide dual credit programs that allow high school students to earn college credit at no cost. This past year, Ivy Tech Community College enrolled 25,429 Indiana high school students in dual credit programs, saving Indiana parents more than \$12.2 million in tuition costs while allowing them to further their college education.
- We have dramatically expanded our online offerings, with almost 80,000 students taking courses online this past year.
- We have worked with our State legislature to ensure that credits which students earned at Ivy Tech transfer to the 4-year Indiana schools which they go on to attend.
- We set a goal of reducing costs and have done so through a one-time reduction of 10 percent and a recurring savings of more than 10 percent.

These and other efficiencies have enabled us to respond to a 45 percent increase in enrollment over the last 4 years with limited additional State funding and modest tuition increases of 2 to 3 percent per year.

For higher education today, affordability, while maintaining quality, is the most important question. Cost in higher education is outstripping the incomes of most Americans. Community colleges are a response to this crisis by focusing on maintaining low costs.

---

Good morning. Chairman Harkin, Ranking Member Enzi, I am Tom Snyder, president of Ivy Tech Community College. Ivy Tech Community College is the statewide system of community colleges in Indiana. We are the largest singly accredited community college system in the country. Ivy Tech serves 200,000 students annually at 23 campuses and 100 learning centers that provide a full-spectrum of educational resources, transfer credits, associate degrees, workforce training and professional certification.

I am also here as a founding member of Rebuilding America's Middle Class (RAMC), a coalition of community colleges focused on improving student access and enhancing student success. While what I talk about today will be specific to Ivy Tech, RAMC is working with other community colleges to ensure they have the necessary tools to produce low cost, high quality programs. RAMC recently held a conference in Indianapolis that allowed community college leaders to exchange ideas and methods for accomplishing this very important work.

I would like to start by thanking the committee for its leadership on maintaining low student-loan interest rates for this coming school year. RAMC wrote this committee and the congressional leadership urging that the 3.4 percent rate be maintained. Like you, we realize the impact that the cost of college is having on students all across the country. College presidents, as well as the millions of students who

attend our institutions, appreciate the continuation of these low interest rates for this coming school year.

I would also be remiss if I did not thank the members of this committee, and especially you Mr. Chairman, for your support for Pell grants. Community colleges need to have a strong partnership with the Federal Government on Pell grants as they are particularly critical to the students that attend our institutions. Recent changes including elimination of summer Pell and changes to the ability to benefit rules have impacted prospective students seeking to attend Ivy Tech. We look forward to working with you to ensure Pell remains a strong program that meets the needs of community college students.

As you know, keeping interest rates low is only one part of the college cost pressure being placed on students, their families and institutions. Ensuring that we have low-cost post-secondary options that provide high quality learning experiences is essential for individual students, our economy and our Nation's competitiveness as a whole. As a former auto industry executive, I watched how competitors gained a share of the automotive business by providing a high quality product at a low cost. I witnessed the emergence of Toyota and the Japanese auto industry, Hyundai and the Korean car industry and now China where the most popular car is surprisingly—Buick. This is a business model that is highly competitive, outcome- and value-driven, customer-focused and has a relentless pursuit of lower cost.

What I found in higher education was something different: large grants, and State subsidies, combined with routine increases in tuition. This was a revenue model that outpaced inflation by a significant amount with little focus on actual cost.

When I joined Ivy Tech in the summer of 2007, this did not look like a sustainable business model.

Because of that, we made quality and efficiency one of four pillars in our strategic plan and started to reduce internal cost. Let me share some examples.

We have worked to reduce internal cost and complexity of what students must go through when they purchase their textbooks. We instituted a single bookstore for all of our colleges and capped the number of textbooks that are required for a course to three for bricks and mortar classes, and one for online course offerings. This has allowed our one unified bookstore greater purchasing power which has translated into fewer and less costly textbooks for students to purchase.

We have also unified our overall procurement system. We have created a centralized purchasing system led by a single executive. We've instituted statewide contracts in areas like computers, IT networks, furniture, copiers, office supplies, telecommunications, and healthcare.

This year we joined with the State of Indiana to have a single prescription management program for all State employees including higher education.

Recently, we have begun to simplify our registration and financial aid process for students. Perhaps like your experience, students currently go to six or seven offices to enroll, receive their financial aid and register for classes. To respond to this, we are building a one-stop system that allows our students to go to one place to accomplish all of this. This saves money for Ivy Tech, but also makes it easier for students to get on with their studies.

Ivy Tech has also launched the Associate Accelerated Program or "ASAP." This program provides students with the opportunity to earn a transferable degree in 1 year instead of the traditional 2-year track. Designed specifically for students from low-income households, ASAP targets students during the critical transitioning period between high school and college. It also includes significant wraparound services, which research shows greatly improve retention rates and student success. Students in the program attend as a cohort, enabling them to form a learning community and provide peer support to each other. Completion rates of 75 percent in this program are three times the national average of community colleges.

We have dramatically expanded online offerings reaching almost half of our students during the year with at least one course offering. With almost 80,000 students taking courses online during the year, we are significantly increasing the flexibility of each student to complete more rapidly and balance work, school, and home life challenges.

Ivy Tech also actively provides dual credit programs that allow high school students to earn college credit at no cost. This effort alone has generated huge savings for Indiana's families while also preparing high school students for the rigors of college. This past year, Ivy Tech Community College enrolled 25,429 Indiana high school students in dual credit programs, saving Indiana parents more than \$12.2 million in tuition costs.

We have also worked with our State legislature to ensure that credits which students earn at Ivy Tech transfer to the 4-year Indiana schools which they go on to attend. Nothing increases the cost of college more for a student than repeating

courses they have taken in the community college that the receiving institution will not accept. The legislature, with our support and encouragement, has established a credit limit for 2- and 4-year degrees to prevent "credit creep." Credit creep is adding one or two semesters to a 2- or 4-year degree without actually producing job market outcomes.

Early in my tenure, I set a challenge goal of saving 10 percent of our operating cost by 2010. At the same time we wanted to become a national leader in the Achieving the Dream program. Achieving the Dream is a reform network of community colleges aimed at helping low income and students of color complete their education and earn market-valued credentials.

I am pleased to say we handily beat our cost savings goal through one time savings of 10 percent and recurring savings of more than 10 percent. We also met important quality goals. Based on Achieving the Dream initiatives there was an increase in persistence from 55 percent–60 percent before interventions compared with 75 percent–80 percent after interventions. This is an increase of almost 20 percent. We expect completions to go up 10 percent–15 percent as a result.

This focus on quality and efficiency has enabled us to respond to a 45 percent increase in enrollment over the last 4 years with limited additional State funding and modest tuition increases of 2 to 3 percent per year. In fact, due to the savings we have generated, the actual cost per full time student at Ivy Tech has dropped slightly in real dollars since 2008.

Let me close by saying that for higher education, affordability is today's most important question. Cost in this segment of society has far outstripped not only inflation, but the income growth of most Americans. The concern I have for my home State, is the sad fact that the 4-year residential experience is out of reach for half of the Hoosier families. Community colleges are a response to this affordability crisis. We have focused on low-cost open access for decades. As we shift to a completion agenda, while maintaining low cost, we become a critical part in the affordability solution. Ivy Tech is committed to that goal.

Thank you for allowing me to testify. I would be pleased to answer any questions you may have.

The CHAIRMAN. Thank you, Mr. Snyder.

Dr. Twigg, welcome and please proceed.

**STATEMENT OF CAROL A. TWIGG, PRESIDENT AND CEO, NATIONAL CENTER FOR ACADEMIC TRANSFORMATION, MIAMI, FL**

Ms. TWIGG. Mr. Chairman and members of the committee, thank you for inviting me to testify.

I am president and CEO of the National Center for Academic Transformation, an independent, nonprofit organization founded in 1993. The Center's mission is to demonstrate how effective use of information technology can both improve student learning outcomes and reduce instructional costs. We focus on undergraduate higher education.

Now, everyone seems to agree that both the cost and price of higher education are too high. As Dr. Heller has pointed out, the primary driver of tuition price increases, at least at public institutions, has been changes in State appropriations. But the fact is that regardless of who pays what proportion—States, the Federal Government, or students and their families—the overall cost of higher education has risen well beyond reason. Without improvements in the overall productivity of higher education, these costs and the associated prices will continue to rise.

Unlike other industries where information technology has been used to change the way we do business, to reduce costs while increasing quality of service, higher education, by and large, has not been able to do so and I say this can be done in higher education as well.



For the past 13 years, our Center has worked in partnership with more than 200 colleges and universities demonstrating how course redesign using technology can change the way they do business to achieve both quality improvements, as well as dramatic reductions in cost. Altogether, we have produced more than 150 large scale redesigns, which impact literally hundreds of thousands of students each year.

What are the results we have achieved thus far? These course redesigns have reduced instructional costs by 37 percent on average; the savings ranging from a low of 9 percent to a high of 77 percent. And collectively, these redesigned courses produce a cost savings of about \$15 million a year.

Now, reducing instructional costs by 37 percent in higher education is, by itself, a significant achievement especially when just about everyone in higher education says it cannot be done. But what about quality? Each of the participating organizations has conducted a rigorous evaluation of student learning, comparing the outcomes from traditional ways of teaching to the redesign teaching methods. The results of those evaluations show that student learning outcomes have improved in 72 percent of the redesigns with the remaining 28 percent showing learning equivalents to traditional formats. Other positive outcomes include increased course completion rates, improved retention, and increased student satisfaction with the new mode of instruction.

Now, I wanted to say a bit more about these redesigns. Most of these redesign projects focus on large enrollment introductory courses. Now, why did we choose such a focus? The reason is because undergraduate enrollments in the United States are concentrated, heavily, in only a few academic areas. In fact, just 25 courses generated about 50 percent of all enrollments at community colleges, and those same 25 courses generate about 35 percent of enrollment at 4-year institutions, which translates to about 42 percent of all undergraduate enrollments. Consequently, these 25 courses consume a substantial amount of institutional resources.

In addition, completion of these courses is critical for student progress toward a degree, but failure rates in many of these courses—which range from 15 percent at our research universities, to 30 to 40 percent at our comprehensive institutions, and are as high as 50 percent at our community colleges—can contribute heavily to overall institutional dropouts between the first and second year. Making improvements in these key, critical courses has a direct impact on student retention and on-time degree completion.

We have worked with all types of institutions, research universities, comprehensives, community colleges, and private institutions in all areas of the country to demonstrate that these techniques can be used across the board in higher education. We have also worked in all undergraduate disciplines to demonstrate that the redesign is applicable to all disciplines. My written testimony discusses in detail the techniques we have used to achieve these accomplishments, but I wanted to emphasize sort of three key ideas in our redesign methodology.

The first is that the redesigns move students from a passive learning stance. If you think of a student sitting and listening to a lecture while someone is talking at them, which is the norm in

most freshmen courses and often the cause of high failure rates, to a much more active engagement in learning.

The second is each of these redesigns uses high quality interactive instructional software where appropriate in the learning place. Tasks that faculty members would be performing are offloaded to the software, and that enables them to deal with more students and more directly with students.

And then finally, the redesign process methodology encourages college faculty and administrators to think outside the box, if you will. To sit down and examine who does what and why, and decide where they can make changes that lead to improved student learning and reduced instructional costs.

And I would be happy to answer any questions that you may have.

[The prepared statement of Ms. Twigg follows:]

PREPARED STATEMENT OF CAROL A. TWIGG

SUMMARY

I am president and CEO of the National Center for Academic Transformation (NCAT). NCAT was established in 1999 as a university center at Rensselaer Polytechnic Institute and became an independent non-profit organization in 2003. NCAT's mission is to help colleges and universities learn how to use technology to improve student learning outcomes and reduce their instructional costs.

Over the past 13 years, NCAT has worked in partnership with more than 200 colleges and universities, demonstrating how course redesign using technology can achieve both quality enhancements and cost savings. NCAT has conducted four national and six State-based course redesign programs, producing about 153 large-scale redesigns. Partner institutions include research universities, comprehensive universities, private colleges and community colleges in all regions of the United States.

Redesign projects have focused primarily on large-enrollment introductory courses that affect significant student numbers and generate substantial cost savings. Why focus on such courses? Because undergraduate enrollments in the United States are concentrated heavily in only a few academic areas. In fact, just 25 courses generate about half of all student enrollments in community colleges and about a third of enrollments in 4-year institutions.

NCAT required each partner institution to conduct a rigorous evaluation focused on student learning, comparing the outcomes of redesigned courses with those of courses with the same content delivered in a traditional (pre-redesign) format. Results show improved student learning in 72 percent of the redesigns with the remaining 28 percent showing learning outcomes equivalent to traditional formats.

Each redesign team was also required to develop a detailed cost analysis of both the traditional and the redesigned course formats using activity-based costing. (NCAT created a spreadsheet-based course planning tool to guide institutions in this process.) *All* redesigned courses have reduced cost, on average by 37 percent, ranging from 9 percent to 77 percent.

Other positive outcomes associated with the redesigned courses included increased course-completion rates, improved retention, better student attitudes toward the subject matter and increased student satisfaction with the new mode of instruction.

NCAT's course redesign methodology is applicable to all academic disciplines as evidenced by the redesigns already produced: 16 in the humanities (developmental reading and writing, English composition, fine arts, history, music, Spanish, literature and women's studies); 93 in quantitative subjects (developmental and college-level mathematics, statistics and computing); 23 in the social sciences (political science, economics, psychology and sociology); 15 in the natural sciences (anatomy and physiology, astronomy, biology, chemistry and geology); and 6 in professional studies (accounting, business, education, engineering and nursing).

---

Mr. Chairman and members of the committee, thank you for inviting me to testify. I am president and CEO of the National Center for Academic Transformation (NCAT). NCAT was established in 1999 as a university center at Rensselaer Poly-

technic Institute with funding from the Pew Charitable Trusts and became an independent non-profit organization in 2003. NCAT's mission is to help colleges and universities learn how to use technology to improve student learning outcomes and reduce their instructional costs.

Over the past 13 years, NCAT has worked in partnership with more than 200 colleges and universities, demonstrating how course redesign using technology can achieve quality enhancements as well as cost savings. NCAT has conducted four national and six State-based course redesign programs, producing about 153 large-scale redesigns. *All* redesigned courses have reduced cost, on average by 37 percent, ranging from 9 percent to 77 percent. Learning outcomes improved in 72 percent of the redesigns with the remaining 28 percent showing learning equivalent to traditional formats. Partner institutions include research universities, comprehensive universities, private colleges and community colleges in all regions of the United States.

It is important to understand what NCAT means by course redesign. Course redesign is the process of redesigning whole courses (rather than individual classes or sections) to achieve better learning outcomes at a lower cost by taking advantage of the capabilities of information technology. Course redesign is not just about putting courses online. It is about rethinking the way we deliver instruction in light of the possibilities that technology offers.

#### THE CHALLENGE

American colleges and universities continue to be challenged by the need to increase access to higher education, to improve the quality of student learning, and to control or reduce the rising cost of instruction. These issues are, of course, inter-related. As tuition costs continue to rise, access is curtailed. If the quality of the curriculum inhibits students from successfully completing courses and programs, promises of increased access become hollow.

Solutions to these challenges appear to be interrelated as well. Historically, either improving quality or increasing access has meant increasing costs. Reducing costs, in turn, has meant cutting quality, access, or both. In order to sustain higher education's vitality while serving a growing and increasingly diverse student body, we must find a way to resolve this familiar—and seemingly intractable—tradeoff between cost and quality.

America's colleges and universities have discovered exciting new ways of using technology to enhance teaching and learning and to extend access to new populations of students. For most institutions, however, new technologies represent a black hole of additional expense. This is because the majority of them have simply bolted new technologies onto an existing set of physical facilities, a faculty already in place and an unaltered concept of classroom instruction.

Under these circumstances, technology becomes part of the problem of rising costs rather than part of the solution. In addition, comparative research studies show that, instead of improving quality, most technology-based courses produce learning outcomes that are only "as good as" their traditional counterparts—what has come to be known as the "no significant difference" phenomenon. By and large, colleges and universities have not yet begun to realize the promise of technology to improve the quality of student learning, increase completion and reduce the costs of instruction.

#### THE INITIAL PROOF OF CONCEPT

Supported by an \$8.8 million grant from the Pew Charitable Trusts, NCAT created the Program in Course Redesign (<http://www.theNCAT.org/PCR.htm>) in April 1999 to address the issues discussed above. The program taught colleges and universities how to redesign instruction using technology to achieve quality enhancements as *well* as cost savings. Thirty institutions were selected to participate from hundreds of applicants in a national competition.

All 30 redesign projects focused on large-enrollment introductory courses that have the potential to affect significant student numbers and generate substantial cost savings. Why focus on such courses? Because undergraduate enrollments in the United States are concentrated heavily in only a few academic areas. In fact, just 25 courses generate about half of all student enrollments in community colleges and about a third of enrollments in 4-year institutions.

The topics of these courses are no surprise and include introductory studies in disciplines such as English, mathematics, psychology, sociology, economics, accounting, biology, and chemistry. Successful completion of these courses is critical for student progress toward a degree. But typical failure rates in many of these courses—15 percent at research universities, 30 percent to 40 percent at comprehensive univer-

sities, and 50 percent to 60 percent at community colleges—contribute heavily to overall institutional drop-out rates between the first and second year.

The insight that these figures point to is simple and compelling: In order to have a significant impact on large numbers of students, an institution should concentrate on redesigning the 25 courses in which most students are enrolled instead of putting a lot of energy into improving quality or cutting costs in disparate small-enrollment courses. By making improvements in a restricted number of large-enrollment prerequisite or introductory courses, a college or university can literally affect every student who attends.

The Program in Course Redesign produced many different models of how to restructure such courses to improve learning as well as to effect cost savings. In contrast to the contention that only certain kinds of institutions can accomplish these goals, and in only one way, the program demonstrated that many approaches can achieve positive results. And to counter the belief that only courses in a restricted subset of disciplines—science or math, for instance—can be effectively redesigned, the program comprised successful examples in many disciplines including the humanities, math and statistics, the social sciences, and the natural sciences. In each case, the *whole course* rather than a single class or section was the target of the redesign.

Here is a breakdown of the 30 participating institutions by curricular area:

#### QUANTITATIVE (13)

- *Mathematics*: Iowa State University; Northern Arizona University; Rio Salado College; Riverside Community College; University of Alabama; University of Idaho; Virginia Polytechnic Institute and State University
- *Statistics*: Carnegie Mellon University; Ohio State University; Pennsylvania State University; University of Illinois at Urbana-Champaign
- *Computer Programming*: Drexel University; University at Buffalo

#### SOCIAL SCIENCE (6)

- *Psychology*: California State Polytechnic University, Pomona; University of Dayton; University of New Mexico; University of Southern Maine
- *Sociology*: Indiana University—Purdue University Indianapolis
- *American Government*: University of Central Florida

#### HUMANITIES (6)

- *English Composition*: Brigham Young University; Tallahassee Community College
- *Spanish*: Portland State University; University of Tennessee, Knoxville
- *Fine Arts*: Florida Gulf Coast University
- *World Literature*: University of Southern Mississippi

#### SCIENCE (5)

- *Biology*: Fairfield University; University of Massachusetts, Amherst
- *Chemistry*: University of Iowa; University of Wisconsin—Madison
- *Astronomy*: University of Colorado at Boulder

Each of the 30 participating institutions conducted a rigorous evaluation focused on student learning, comparing the outcomes of redesigned courses with those of courses with the same content delivered in a traditional (pre-redesign) format. Results show improved student learning in 25 of the 30 projects, with the remaining five showing learning outcomes equivalent to traditional formats.

Each redesign team developed a detailed cost analysis of both the traditional and the redesigned course formats using activity-based costing. NCAT created a spreadsheet-based course planning tool (<http://www.theNCAT.org/PlanRes/CPTdesc.htm>) to guide institutions in this process. Completing the course planning tool allowed faculty members to consider changes in specific instructional tasks, make decisions about how to use technology (or not) for specific tasks, visualize duplicative or unnecessary effort and complete a cost/benefit analysis regarding the right type of personnel for each instructional task. At the beginning of each project, baseline cost data for the traditional course and projected redesigned course costs were collected; actual redesigned course costs were collected at the end.

Results showed that all 30 projects reduced costs by 37 percent on average, ranging from 15 percent to 77 percent. Other positive outcomes associated with the redesigned courses included increased course-completion rates, improved retention, better student attitudes toward the subject matter, and increased student satisfaction with the new mode of instruction. Collectively, the 30 redesigned courses impacted more than 50,000 students and produced an annual cost savings of \$3.6 million—while simultaneously improving student-learning outcomes and increasing retention.

Since developing the Program in Course Redesign, NCAT has conducted four national and six State-based course redesign programs, producing about 153 large-scale redesigns. The number of disciplines have multiplied, including 16 in the humanities (developmental reading and writing, English composition, fine arts, history, music, Spanish, literature and women's studies), 93 in quantitative subjects (developmental and college-level mathematics, statistics and computing), 23 in the social sciences (political science, economics, psychology and sociology), 15 in the natural sciences (anatomy and physiology, astronomy, biology, chemistry and geology) and six in professional studies (accounting, business, education, engineering and nursing).

Detailed descriptions of each redesign project can be found on the NCAT Web site ([http://www.theNCAT.org/PCR/Proj\\_Discipline\\_all.html](http://www.theNCAT.org/PCR/Proj_Discipline_all.html)).

#### QUALITY IMPROVEMENT STRATEGIES AND SUCCESSES

Redesigned courses effect significant changes in the teaching and learning process, making it more active and learner-centered. The primary goal is to move students from a passive listening and "note-taking" role to an active-learning orientation. As one math professor succinctly puts it, "Students learn math by doing math, not by listening to someone talk about doing math." Lectures are replaced with a wide variety of learning resources, all of which involve more active forms of student learning or more individualized assistance. In moving from an entirely lecture-based to a student-engagement approach, student learning is less dependent on words uttered by instructors and more dependent on reading, exploring, and problem-solving undertaken actively by students themselves.

Many of the projects have demonstrated statistically significant improvements in student understanding of course content by comparing the performance of students enrolled in traditional and redesigned courses on commonly administered assignments and examinations. Redesign-course students in statistics at Mississippi State University, for example, performed significantly better on assignments (average score of 90 versus 73) and in-class tests (average score of 79 versus 66) than their peers in the traditional group at a 95 percent confidence level. At Carnegie Mellon University, the performance of redesign-course students in statistics increased by 22.8 percent on tests of skills and concepts, and redesign-course students also demonstrated an enhanced ability to identify the appropriate statistical analysis to employ in a given real-world problem situation. At the University of Maryland Eastern Shore, the traditional and redesigned formats of an introductory chemistry course were taught using the same materials, homework assignments and exams. The number of students who earned a grade of C or better in the traditional course was 54.5 percent compared with 69.4 percent in the redesigned course.

Other projects have shown statistically significant improvements in overall student understanding of course content as measured by pre-and post-assessments that examine key course concepts. For example, at Northeast State Technical Community College in Tennessee, students enrolled in a traditionally configured developmental reading course posted an 11-point improvement on the standardized Nelson Denny examination, while the average gain of 21 points for students in the redesigned course was almost double that amount. The University of Tennessee, Knoxville found a significant and favorable five-point difference between student exam scores in a redesigned Spanish course and those of students enrolled in traditional sections.

Many of the projects have also reported significant improvements in their drop-failure-withdrawal (DFW) rates. At Arizona State University, the number of students earning a C or better in a computer literacy course increased from 26 percent in the traditional course to 65 percent in a demonstrably more difficult course. At the University of Alabama, the percentage of students completing a redesigned intermediate algebra course with a grade of C or better improved from 40 percent to close to 80 percent. At the University of Idaho, the percentage of students earning a D or failing was cut by more than half. Drexel University reduced its DFW rate in computer programming from 49 percent to 38 percent, Florida Gulf Coast University from 45 percent to 11 percent in fine arts, Indiana University-Purdue University Indianapolis (IUPUI) from 39 percent to 25 percent in introductory sociology, and the University of New Mexico from 42 percent to 25 percent in psychology.

What techniques have institutions found to be the most effective in improving student learning? The most prominent are the following:

- *Online Tutorials:* In redesigned courses, web-based resources—either commercially produced or developed by colleges and universities—that support greater student engagement with the material replace standard presentation formats. Such resources may include interactive tutorials and exercises that give students needed

practice; computerized or digitally recorded presentations and demonstrations; reading materials developed by instructors or in assigned textbooks; examples and exercises in the student's field of interest; links to other relevant online materials; and individual and group laboratory assignments.

Ideally, materials like these are modularized and tailored to incorporate examples drawn from a variety of disciplines to match the learning circumstances of students with different professional and personal goals. Using modularized materials also allows changes in content or format if students are having difficulty understanding a particular part of the course.

Building on substantial experience in using and developing interactive materials, the University of Wisconsin at Madison developed 37 Web-based instructional modules in chemistry. Each module leads a student through a particular topic in 6 to 10 interactive pages. When the student has completed the tutorial, a debriefing section presents a series of questions that test whether the student has mastered the module's content. Students especially like the ability to link from a problem they have difficulty with directly to a tutorial that helps them learn the concepts needed to solve the problem.

Virginia Tech uses a variety of web-based course-delivery techniques like tutorials, streaming video lectures, and lecture notes as tools for presenting materials in a linear algebra course. Consisting of concrete exercises with solutions that are explained through built-in video clips, such tutorials can be accessed at home or at a campus lab. In redesigned courses, tutorials have taken over the main instructional task with respect to transmitting content: 86 percent of the students enrolled in Virginia Tech's linear algebra course reported that the computer presentations explain the concepts effectively.

- *Continuous Assessment and Feedback*: Shifting the traditional assessment approach in large introductory courses, which typically employ only midterm and final examinations, toward continuous assessment is an essential pedagogical strategy in these redesigns. Many of the projects include numerous computer-based assessments that give students instantaneous feedback on their performance. Automating assessment and feedback enables repeated practice as well as providing prompt and frequent feedback—pedagogical techniques that research consistently has proven to enhance learning.

Students are regularly tested on assigned readings and homework using short quizzes that probe their preparedness and conceptual understanding. These low-stakes quizzes motivate students to keep on top of the course material, structure how they study and encourage them to spend more time on task. Online quizzing encourages a “do it till you get it right” approach: Students are allowed to take quizzes until they master the material.

Quizzes also provide powerful formative feedback to both students and faculty members. Faculty can quickly detect areas where students are not grasping key concepts, enabling timely corrective intervention. Students receive detailed diagnostic feedback that points out why an incorrect response is inappropriate and directs them to material that needs review. For example, at the University of Northern Arizona, online quizzes used in a redesigned psychology course were perceived very favorably, as indicated by the percentage of students who agreed “somewhat” or “strongly” that quizzes were useful (60.4 percent), promoted understanding of class material (61.3 percent), helped in exam preparation (64.8 percent), and encouraged textbook reading (71.8 percent). Since students are required to complete quizzes before class, they are better prepared for higher-level activities once they get there. Consequently, the role of the instructor shifts from one of introducing basic material to reviewing and expanding what students have already been doing.

- *Continuous Support*: Various kinds of support systems enable students to receive help when they need it, not just when they go to class. Helping students feel that they are a part of a learning community is critical to persistence, learning, and satisfaction. Active mentorship of this kind can come from a variety of sources, allowing students to interact with the person who can provide the best help for the specific problem they have encountered.

Many of the redesign projects replace lecture time with individual and small-group activities that take place in computer labs staffed by faculty, graduate teaching assistants (GTAs) and/or peer tutors. In several instances, increasing lab hours has enabled students to get access to more one-on-one assistance. Students welcome the reduction in lecture time and the opportunity to work in groups to apply what they have learned. Collaboration also triggers peer pressure within groups, which can be a powerful incentive for students to keep up with their work.

- *Undergraduate Learning Assistants (ULAs)*: Institutions such as Arizona State University, SUNY Buffalo State College, Frostburg State University, the University at Buffalo and the University of Colorado-Boulder employ ULAs in lieu of GTAs.

These institutions and others have found that ULAs turn out to be better at assisting their peers than GTAs because of their understanding of the course content, their superior communication skills, and their awareness—based on their own recent experience—of the many misconceptions that undergraduate students often hold.

In Colorado's redesigned introductory astronomy course, the instructor meets weekly with the ULAs and discusses in detail what is working and where students are having difficulty. Feedback from these weekly meetings gives the instructor a much better sense of the class as a whole, and of the individual students in it, than would otherwise be possible with a class of more than 200 students.

- *Increased Interaction among Students:* Many redesign projects take advantage of the Internet's ability to support useful and convenient opportunities for discussion among students. Students in large lecture classes tend to be passive recipients of information, and student-to-student interaction is inhibited by class size. Through smaller discussion forums established online, students can participate actively. The University of Central Florida and IUPUI create small online discussion groups in which students can easily contact one another in their redesigned American government and introductory sociology courses. Students benefit from participating in the informal learning communities that are created in this manner. Software allows instructors to monitor the frequency and quality of student contributions to these discussions more readily and carefully than would be the case in a crowded classroom.

People who are knowledgeable about proven pedagogies that improve student learning will find nothing surprising in the above list. Among the well-accepted *Seven Principles for Good Practice in Undergraduate Education* developed by Arthur W. Chickering and Zelda F. Gamson in 1987 are such items as "encourage active learning," "give prompt feedback," "encourage cooperation among students," and "emphasize time on task." Good pedagogy in itself has nothing to do with technology, and we've known about good pedagogy for years. What is significant about the redesigns is that they are able to incorporate good pedagogical practice into courses with *very large numbers of students*—a task that would have been impossible without technology.

In the traditional general chemistry course at the University of Iowa, for example, four GTAs used to be responsible for grading more than 16,000 homework assignments each term. Because of the large number of assignments, GTAs could only spot-grade and return a composite score to students. By automating the homework process through redesign, every problem is graded and students receive specific feedback on their performance. This, in turn, leads to more time on task and higher levels of learning. Applying technology is not beneficial without good pedagogy. But technology is essential to move good pedagogical practice to scale, where it can affect large numbers of students.

#### COST REDUCTION STRATEGIES AND SUCCESSES

There are a variety of ways to reduce instructional costs. As a result, there are also a variety of strategies for pursuing instructional redesign, depending upon institutional circumstances. For instance, an institution may want to maintain constant enrollments while reducing the total amount of resources devoted to the course. There are two primary ways an institution can decrease costs per student even though the number of students enrolled in the course remains unchanged. First, it can use technology for those aspects of the course where it would be more effective, engaging faculty only in tasks that require faculty expertise. Cleveland State Community College, for example, was able to double the number of sections taught by faculty member in developmental mathematics without increasing individual workload. Second, it can transfer other tasks that are less academically challenging to those with a lower level of education. The use of ULAs described above exemplifies this approach.

But if an institution is in a growth mode or has more demand than it can meet through existing course delivery, it may seek to increase enrollments while maintaining the same level of investment. Many institutions have escalating demand for particular subjects like business, Spanish or information technology that they cannot meet because they cannot hire enough faculty members. By using redesign techniques, they can increase the number of students they enroll in such courses and relieve these academic bottlenecks without changing associated costs. Arizona State University, for example, has been able to increase the annual enrollment in Organizational Management and Leadership from 270 students to approximately 6,500 without additional resources. The University of North Carolina at Chapel Hill was able to increase the number of students enrolled in introductory Spanish by 40 percent while reducing the number of instructional staff in introductory Spanish.

What are the most effective cost-reduction techniques used by the redesign projects? Since the major cost item in instruction is personnel, reducing the time that faculty members and other instructional personnel invest in the course, and transferring some of these tasks to technology-assisted activities are key strategies. Some of the more predominant cost-reduction techniques used by the projects include:

- *Online Tutorials:* Computer-based, modularized tutorials are designed to lead a student through a particular topic that is presented interactively online. When students have completed the tutorial, they are presented questions that test whether they have mastered the content of the module. Online tutorials at Wisconsin help structure subsequent discussion sections by raising the probability that students will come to class prepared to ask questions. This means less preparation time for instructors.

Similar use of online tutorials have been particularly effective in both developmental and college-level mathematics redesign at institutions such as Chattanooga State Technical Community College (TN), Cleveland State Community College (TN), Jackson State Community College (TN), Louisiana State University, Manchester Community College (CT), the Universities of Alabama and Idaho and Virginia Tech. Off-loading preparation time from instructors to software has enabled radical restructuring of teaching staff that reduces costs. Individual faculty members are no longer required to present the same content through duplicative efforts. Nor do they need to replicate exercises and quizzes for each section. Interactive tutorials can replace part—and, in some cases, all—of the “teaching” portions of the course.

- *Automated Assessment of Exercises, Quizzes, and Tests:* Automated grading of homework exercises and problems, of low-stakes quizzes, and of examinations for subjects that can be assessed through standardized formats not only increases the level of student feedback but also offloads these rote activities from faculty members and other instructional personnel. Some of the projects use the quizzing features of course management systems like Blackboard. Others take advantage of the online quizzes and tests that are built into software like MyMathLab and ALEKS from textbook publishers.

Online quizzing sharply reduces the amount of time faculty members or GTAs need to spend on the laborious process of preparing quizzes, grading them, and recording and posting the results. Automated testing systems that contain large numbers of questions in a data base format enable individualized tests to be easily generated, then quickly graded and returned.

- *Staffing Substitutions:* By constructing a support system that comprises various kinds of instructional personnel, institutions can apply the right level of human intervention to particular kinds of student problems. Highly trained (and expensive) faculty members are not needed to support all of the many tasks associated with delivering a course. As noted above, many universities are employing ULAs in lieu of GTAs as a key cost-saving device. By replacing expensive faculty members and graduate students with relatively inexpensive labor, an institution can increase the person-hours devoted to the course and at the same time cut costs.

Another solution, implemented by Rio Salado College in Phoenix, is to employ a “course assistant” to address the many nonacademic questions that arise as any course is delivered—questions that can characterize up to 90 percent of staff interactions with students. This frees the instructor to handle more students and to concentrate on academic interactions rather than logistics.

- *Online Course-Management Systems:* Course management systems—software packages that are designed to help faculty members transfer course content to an online environment and assist them in administering various aspects of course delivery—play a central role in most of the redesigns. Some projects use commercial products like Blackboard; others use homegrown systems created centrally for campuswide use or specifically for the redesigned course. Still others use instructional software that includes an integrated course-management system. Sophisticated course-management software packages enable faculty members to monitor student progress and performance, track their time on task, and intervene on an individualized basis when necessary.

Course management systems can automatically generate many different kinds of tailored messages that provide needed information to students. They can also communicate automatically with students to suggest additional activities based on homework and quiz performance, or to encourage greater participation in online discussions. Using course-management systems radically reduces the amount of time that faculty members typically spend in nonacademic tasks like calculating and recording grades, photocopying course materials, posting changes in schedules and course syllabi, sending out special announcements to students—as well as docu-



menting course materials like syllabi, assignments, and examinations so that they can be used in multiple terms.

- *Shared Resources:* When an entire course (or more than one section) is redesigned, faculty begin by analyzing the amount of time that each person involved in the course spends doing each activity. This highly specific task analysis often uncovers instances of duplicated effort and can lead to shared, more efficient approaches to course development. The often substantial amounts of time that individual faculty members spend developing and revising course materials and preparing for classes can be reduced considerably by eliminating such duplications.

For example, Penn State has constructed an easy-to-navigate Web site for its introductory statistics course that contains not only material on managing the course but also a large number of student aids and resources, including solutions to problems, study guides, supplemental reading materials for topics not otherwise treated in the text, and student self-assessment activities. Putting assignments, quizzes, exams and other course materials on a community Web site for the course can save a considerable amount of instructional time.

- *Reduced Space Requirements:* Using the Internet to deliver particular parts of a course as a substitute for face-to-face classroom instruction enables institutions to use classroom space more efficiently. Two or three course sections can be scheduled in the same classroom where only one could be scheduled before.

With regard to cost savings, the redesign methodology is an unqualified success. Virtually every NCAT project has produced cost savings, again ranging from 9 percent to 77 percent. Some saved more than they planned to; others save less. Why is there such a large range in cost savings across the projects? Differences are directly attributable to the different design decisions made by the project teams, especially with respect to how to allocate expensive faculty members. Redesigns with lower savings tended to redirect, not reallocate, saved faculty time: They keep the total amount of faculty time devoted to the course constant, but they change the way faculty members actually spend their time (for example, interacting with students rather than lecturing.)

Others substantially reduce the amount of time devoted to the course by non-faculty personnel like GTAs, but keep the amount of regular faculty time constant. Decisions like these reduce total cost savings. By radically reallocating faculty time to other courses and activities, in contrast, Virginia Tech produced cost savings of 77 percent in its redesigned linear algebra course. Most projects *could* have saved more with no diminution in quality, if they had made different design decisions.

By using technology-based approaches and learner-centered principles to redesign their courses, these pioneering institutions are showing us a way out of higher education's historical tradeoff between cost and quality. Some of them rely on asynchronous, self-paced learning modes, while others use traditional, synchronous classroom settings but with reduced student/faculty contact hours. Both approaches start with a careful look at how best to deploy *all* available instructional resources to achieve the desired learning objectives. Questioning the current credit-for-contact paradigm of instruction, and thinking systematically about how to produce more effective and efficient learning, are fundamental conditions for success.

#### IMPLICATIONS FOR THE FUTURE

Now that it is clear that large-scale course redesign *can* produce substantial savings, an obvious question that arises is, who should benefit from these savings?

Institutions that have produced savings from course redesign have used the savings in many different ways:

- stay in the department to support continuous improvement of the course and/or the redesign of other courses;
- underwrite a greater range of course offerings at the upper division or graduate level;
- allow the institution to accommodate greater numbers of students with the same resources;
- stay in the department to reduce teaching loads and to provide more time for research;
- allow the institution to redesign similar courses outside of the original department;
- enable the institution to offer distance learning courses that were previously impossible due to resource constraints;
- allow the institution to free up classroom space as a result of the reduction in face-to-face class time; and
- improve the training of part-time faculty.

Once institutions start creating pools of surplus instructional resources through redesign instead of simply spending every resource that is available, we will be forced to rethink many of our assumptions about planning and budgeting. How should those funds be reallocated? Should the resulting extra resources, for example, be reinvested in ongoing course development? Should the faculty members involved in the redesign benefit directly as a reward for increased productivity? Perhaps the academic unit should capture the savings to reinvest in further course redesign. Or should the savings be returned to the institution to be reallocated for other uses? A host of institutional policy issues about who gets what and for what will be involved, as well as numerous practical matters like ensuring continuous investment to support the innovations that will be needed to keep generating such cost savings. How an institution rewards faculty and staff for increased productivity is also an important consideration in building the case for academic restructuring. Ultimately, *if implemented on a large scale across the institution*, course redesign can be an important tool in stopping the relentless rise in college costs.

Higher education has traditionally assumed that high quality means low student-faculty ratios, and that large lecture-presentation techniques supported by cheap labor constitute the only viable low-cost alternatives. But it is now clear that course redesign using technology-based, learner-centered principles can offer higher education a way out of this historical tradeoff between cost and quality. New models demonstrate that it is indeed possible to improve learning and reduce costs at the same time. For the first time, we can have our cake and eat it too.

The CHAIRMAN. Thank you very much, Dr. Twigg. Yes, I sat through a lot of those lectures.

Thank you all very much. We will begin a round of 5-minute questions here.

Dr. Heller, we will start with you. Your testimony explains that a better way to encourage access and completion is to focus on need-based aid. Two days ago, "The New York Times" reported that the percentage of students receiving merit aid grew so rapidly from 1995 to 2008 that by 2008, it was equal to the percentage of students receiving need-based aid. They also said that even public universities, despite State budget cuts, continued to offer merit aid to try to attract high achieving students without considering their financial need.

Can you describe what we can do to encourage schools to use their limited resources on more need-based aid, and why it is important to do so? You have mentioned in your testimony that 30 percent of grants by State, 55 percent of grants by institutions have no means testing.

Why is it important, and what can we do to encourage them to focus more on need-based?

Mr. HELLER. Senator Harkin, if we are going to achieve President Obama's goal, and this is not just President Obama's goal, there are many organizations. The Lumina Foundation, for example, that has established the goal of trying to increase post-secondary attainment rates in the Nation. But if we are going to do that, we have to focus on those students who are on the margins of going to college, and this is predominantly low- and moderate-income students.

Students from upper-middle income and upper-income families, we know from the data, are going to college. They are generally successful once they are there, and they, frankly, do not need assistance from the Federal Government and the State governments in the form of merit-based grants.

So focusing the financial aid, particularly grants, on needy students is going to have the biggest bang for the buck whether we are talking about Federal aid, State aid, or institutional aid to help

accomplish the goal of increasing attainment rates. Simply subsidizing students who would have gone to college anyway is not going to get any more college graduates for the Nation. This is why the emphasis on financial means testing as a way of awarding grants is so critical.

And that "*New York Times*" article was absolutely right. If you go back to the 1990s, you had less than 10 percent of State grants and maybe about one-third of institutional grants were awarded based on merit without means testing, and now it has flipped so that well over half of the institutional grant dollars—

The CHAIRMAN. Why the big shift?

Mr. HELLER. I think there are a number of reasons. A big reason is the competitiveness among institutions. Institutions have realized that if they use their financial aid, not to ensure that poor students can make it to college, but instead to try to attract high achieving academic students which, unfortunately in this country, come predominantly from upper income families because of the relationship between class, social class, and performance on the kinds of tests that are used to award merit grants, whether it is an SAT, or ACT, or even just high school grades.

Because of that relationship, when you use merit rather than means testing, you are going to give more money to higher income students. I think that has been a big driver for why you are seeing institutions get into the enrollment management business with grants, rather than ensuring college access for financially needy students.

The CHAIRMAN. Thank you.

Dr. Leath, getting to the debt and the loans, I was surprised. I read in the "*Des Moines Register*" in May that you had surveyed your students, found that 1 in 8 do not realize they owe student loans, while 2 in 5 do not realize how much they owe. So this is great to get this data, and I suspect this is pervasive on campuses throughout the Nation.

How do we explain such misunderstanding and misinformation? What do we need to do to reverse this trend? Dr. Murdaugh mentioned that at Tallahassee, if the student borrows more than \$13,000 they do not get any new awards until they sit down with financial counseling or something like that.

Is this something we need to do?

Mr. LEATH. We found we definitely need to do it. The fact that 40 percent of our students did not know how much they owe is alarming, and some of this comes from the fact they have had no financial literacy before they got to school. Their parents handled all finances for them. They did not see those numbers constantly in front of them of what their obligation would be when they finish. So a couple of things we have done.

One is to give them those numbers at every tuition bill now, so they know how indebted they are, what their interest will be, how much they will owe when they finish.

But we partner very closely with the government of the student body, and Jared Knight, our university president for the students, is onboard to push this financial literacy program. It is one of only a handful in the country. It is being very well received. It is making a huge difference. The students are responsive.

I think nationwide, the more financial literacy we can give our students early in their college career, the better off they are going to be, not only in college, but really, in life.

The CHAIRMAN. Now, you said Iowa State is one of only five major colleges with a full-time financial counseling clinic. Is that having some effect?

Mr. LEATH. That is having a huge effect because as related to that clinic, we are teaching a course similar to the one we teach like on alcohol awareness to incoming freshmen. When they adjust to college life and being away from home, there are a number of things that they need to be educated on in terms of personal responsibility, whether it is alcohol or whether it is financial responsibility, and these are making a huge difference.

The CHAIRMAN. Very good. I have more questions, but my time is up.

I will yield to Senator Enzi.

Senator ENZI. Thank you.

Dr. Leath, you mentioned that you worked two jobs through college. I am curious if you, and Dr. Murdaugh, and President Snyder find as many kids working today in school?

Mr. LEATH. No, I think there is a tendency right now with a lot of parents to give their children as many opportunities as possible, and they tend to not be work opportunities.

We are blessed in Iowa that we still have a large number of our students come from farm families where they have worked, and they have a great work ethic, and that is probably one of the reasons we are placing 98 percent of our agriculture students when they graduate because of that work ethic.

But if we could tie some of our financial aid to programs like work-study programs and co-ops, I think we would be better off because we would lower student debt. We would give them work experience and a work ethic. It is a bigger problem in a lot of schools than Iowa State, but it is a problem everywhere.

Senator ENZI. Dr. Murdaugh.

Mr. MURDAUGH. Yes, Senator. I think you would find that, in general, the experience is different across community colleges where a significant percentage of our students are, in fact, working and coming to school part-time. I think you would find, in general, it is a very distinct difference between community college demographics and university demographics.

Senator ENZI. Do you find that, too, Mr. Snyder?

Mr. SNYDER. Yes, we do. In fact, Stan Jones who testified, I think, earlier on the Hill this week talked about the traditional student who was going to a residential school is not traditional anymore; that it is like 25 percent. About 70 percent of our students work and go to school part-time.

The accelerated program that I mentioned, which deals with young high school graduates, they actually sign a pledge not to work for that first year, and we find that that has a huge boost in completion rates. But it is really a matter of family access to costs and what they can really afford.

Senator ENZI. Each of you three presidents mentioned the importance of the Pell grant program. And as you are well aware, a num-

ber of changes have been made to the Federal student aid programs over the last 3 years to preserve that maximum Pell grant.

How have these changes impacted your institutions, and how have they impacted student completion?

Mr. SNYDER. I think for community colleges what we see going forward is that if Pell is roughly equivalent to free and reduced lunch, it is a little bit lower. If 50 percent of the country is going to be Pell eligible and if that is the case, it is not sustainable without rethinking it, and we believe that.

I think community colleges, and this group that I am part of, RAMC, want to help you have a seat at the table and think through that. We are nipping around the edges of Pell, and perhaps that hurts our students because we are a bit more of the edges than other institutions.

Going forward, we recognize we have to clearly think about this if we are going to reach the attainment levels of Korea and Canada.

Senator ENZI. Thank you.

Dr. Murdaugh.

Mr. MURDAUGH. Yes, sir.

We have seen a dramatic increase in the number of students, the percentage of students, in fact, that are benefiting from Pell.

I would share the comment that the sustainability of the model needs to be reviewed, but I must tell you that it is changing real peoples' lives. And while we, at the institutional level, can control tuition price in collaboration with our legislatures, hopefully, at the end of the day, you are making a real difference in real peoples' lives through the funding of Pell.

Senator ENZI. And at 4-year institutions?

Mr. LEATH. We have about 26 percent of our students on Pell grants, and they have been extremely helpful, and they will continue to be, especially as affordability has been an issue in a down economy.

We have had quite a bit of pushback and lack of understanding of why students could not participate in the summer like they used to. We got quite a bit of pushback in an agrarian State like Iowa that professional students, like our veterinary students, are no longer eligible.

We understand some of the realities of the money and the funding, but some liberalization of terms would certainly be helpful for our students.

Senator ENZI. Thank you.

Dr. Twigg, could you go into just a little bit more how this redesign works? You gave the results, but a little bit more of what it is all about, how the technology works.

Ms. TWIGG. Certainly. What happens in the redesign process is that the course that is taught as a whole is redesigned by a group of faculty members.

So if, say, LSU offers 40 sections of college algebra, they work on the course as a whole, and start to say, "Well, does every professor have to do the same thing: stand up and talk, develop a syllabus, teach the problem, grade the tests, make up the tests?", et cetera, etc. There are some things the technology could do better.

Currently on the market, there are a lot of very sophisticated instructional software programs, particularly in mathematics and the sciences. And, in essence, they present the material to students, give them examples, give them practice quizzes, show them what they are doing wrong, tell them where they need to remediate. And so, they can work through this software, gaining help from the teacher when needed to intervene. But it offloads a lot of the tasks that individual professors would be doing one by one, and the professor becomes more of a monitor of student progress, a helper intervening when necessary.

And so, since so many of the tasks that the professor used to do individually is being done by the software, just think about grading, for example. It then allows the professor to handle, in some cases, twice as many students while still not working harder. It is an application of using the technology in the teaching process. Does that make sense?

Senator ENZI. It does. Thank you, and I will study that a little bit more, and I will have some more questions for all of you.

A big question we all have is how Federal regulation is affecting what you are doing, but I suspect that Senator Alexander will cover a little bit of that in his opportunity.

The CHAIRMAN. Thank you.

Senator Bingaman.

#### STATEMENT OF SENATOR BINGAMAN

Senator BINGAMAN. Thank you all for your testimony.

Let me followup with this issue of the redesign of these courses that Dr. Twigg has been talking about. We have had at the University of New Mexico a grant, I gather, from your organization and it has allowed us to put in place our redesign of the first year psychology course, which has been very successful. Students are doing better than they ever did, and everyone is learning more, and enjoying it.

The obvious question that occurs to me is that technology, I think, has changed a lot of things in our society and it seems to me we are just now beginning to see the potential impact of technology in higher education.

If you have a group of faculty, from wherever, get together and design a course in introductory psychology or any other subject, why is not that course appropriate to be offered online everywhere in the country at that point? Why should the University of Tennessee do a version of that, and the University of New Mexico do a different version, and the University of Iowa do a different version? I mean, if they want to change it or add bells and whistles on it, fine.

But why are not all of the schools in the country that are offering a course in introductory psychology using that basic redesigned course, Dr. Twigg?

Ms. TWIGG. It might not surprise you to know that I get asked that question quite frequently.

Just to give you an idea of the diversity in general psychology, there are 72 general psychology textbooks on the market today; 72. Now, that is a pretty big number for a subject most of us would think is quite similar. But there are differences within general psy-

chology, what people want to emphasize, what the level of the students are. So there are reasons for the diversity.

However, one of the big contributions of instructional software, which is becoming much, much more prevalent, is commercial textbook publishers are creating software as well as individual companies. It is that they create materials that are much more able to be used widely; they are not as specific as textbooks. A community college can use the same piece of software that the University of New Mexico can use, and that is making a major contribution.

Once you have software playing such a big part, in many ways, these courses are being replicated. All these things have individual instructors in the place where the students are to keep them on-task, and mentor them, et cetera. But all that development work that goes on is a waste of time in many of these intro courses that can be mitigated by those packages.

Senator BINGAMAN. You indicated there are 25 courses that account for 42 percent of the instruction that goes on in universities. It would seem that you could have the best designed course that we could come up with, "we" as a country, could come up with for each of those 25, and have that available online to be used by any institution in the country.

Ms. TWIGG. There is a second part of it, though, that is really critical because a lot of people are talking about creating free courses, and this is going to solve the problem. The materials that are created are essential, but also important is the way in which the materials are used.

In other words, you can have one set of course materials, and if the faculty member just says to the students, "Well, go off and study it, and I hope you do well," and pays no attention, chances are the students are not going to do well. But if they structure the course and he is interacting with the students using those materials, that is where you see the gains in learning.

It is more than just the course materials. It is really the pedagogy that surrounds the teaching, and that is something that is quite new for most college faculty. That is why these redesigns, while they have been spreading across the country, we have 153 not 1,053.

Senator BINGAMAN. Mr. Snyder, I think you indicated you have 100 learning centers in your—

Mr. SNYDER. Right. We have about 40 locations where you can pursue a degree, and then we are teaching at satellite facilities in 60 others.

Senator BINGAMAN. OK. Now how does the use of online instructions like we have been discussing here, how does that work in the context of your school?

Mr. SNYDER. We are unique, and that is, we are a statewide college. We are essentially just one college regardless of where you go.

So what you talk about in terms of why can there just be one course that everybody takes? That happens in Indiana. We limit face-to-face courses to three books and online courses to one book, and a student can signup online and receive instruction from any professor anywhere in the State, although we encourage them to get their counseling at home.

We think online is a perfect fit, and there has to be a certain amount of preparatory work. We actually have a program called Smarter Measure, which we are going to make widely available that will help you, as a student, determine: are you capable of navigating an online IT system? But we think online will be prevalent.

We are a big partner with Western Governors, which is a totally online university. It is very forward-thinking and we are trying to learn as much from them, although we are probably the largest online community college provider in the country and offer it across State borders.

Senator BINGAMAN. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator Alexander.

#### STATEMENT OF SENATOR ALEXANDER

Senator ALEXANDER. Thanks, Mr. Chairman. I want to thank Senator Harkin for this hearing, and even the constructive way that it has been conducted, and such a distinguished group of witnesses for coming.

I have been asked, "What is more difficult, being a Governor, or a member of a president's cabinet, or a university president?" And my answer always is, "Obviously, you have never been a university president or you would not ask a question like that." So I share your, I understand what you are doing.

Dean Heller said that it is unquestioned that the change in State funding is the principle reason for the rise in tuition.

And Dr. Leath remembered that in 1981, I believe it was you, 75 percent in Iowa, the State paid the cost of a student going to Iowa State and the students paid the other part. That was true in Tennessee in 1981. I was Governor then. It was 70/30. And we had a deal with the students, "If we increase tuition by 2 percent, we will increase the State funding by 2 percent," that is what we did. And today, it is just the reverse in our State, as it is just reversed in your State based on what you said.

But I did not hear any of you say what you think is the principle reason why States have failed to fund higher education as well today as they did 30 years ago. Anyone want to say what that is?

Mr. HELLER. Sure, Senator Alexander. I have actually written about this a lot because this question comes up. Why have States been disinvesting in higher education when we can all sit here and talk about the great benefits of higher education both to individuals, as well as to the Nation?

I think the primary reason is because of politics, not economics. That both legislatures and Governors have discovered that public higher education institutions are one of the few sectors of State government that have the ability, as well as the willingness, to raise sufficient revenues on their own. With the exception of toll roads, perhaps, there are not other parts of State government that have that ability to raise their own revenues and fund their own operations. And in most States, we have very smart legislators and very smart Governors who have discovered this. They found out that as they cut appropriations or they let them grow not as fast as they had in the past, the universities do not shutdown, they



maintain quality, and they do so primarily by raising tuition, as well as looking for additional sources of revenue.

Senator ALEXANDER. Any other ideas about that?

Mr. SNYDER. I have a slightly different view having looked at it when I came in.

No. 1, Indiana kept funding, pretty generously, the university system until 2008–9, until State budgets forced them to rethink that. In the course of that, we are now moving to performance funding, and that is, it is going to be based on outcomes instead of just enrollment, which it was, and I think that we are one of a handful of States starting to move in that direction.

It seems to me that when you contrast what is going on in other institutions compared to the community colleges, the community colleges, really—because of the network and the local support—kept their tuition increases quite low. Such that a community college can deliver the first 2 years transferrable almost anywhere, the first 2 years of college, for between \$6,000 and \$10,000; maybe between \$5,000 and \$10,000.

The actual book cost of delivering the first 2 years could be based on the community college, and anything above that is based on institutional costs that do not really relate to the delivery of the first 2 years.

Senator ALEXANDER. I only have 1 minute left. Let me use it in this way, if I may, without interrupting.

I have my own view of the real reason, and I am pretty sure of it having watched it over that period of time, and it did not start with President Obama, and it did not even start with President George W. Bush, and it is a single word. It is Medicaid.

I mean, 30 years ago, State budgets were 8 percent Medicaid; today, they are 25 percent. And I know from my own experience as you go down to the end of the budget process, you really, after you fund highways with the road tax, and the courts run a certain number of things, you get down to two pots of money. It is higher education or it is Medicaid. And as long as the Federal Government requires States to continue to fund Medicaid in a preferential way, public higher education, in my own view, is going to be seriously damaged.

This is a longer discussion, but it is an important discussion, and maybe you can come back to it during this time. But despite all the innovative things you can do with 3-year degrees, or 2-year, or 1-year degrees, or operating in the summer, it seems to me that unless we unleash the States from Federal Medicaid requirements that our public research universities, our comprehensive universities, and our community colleges will continue to be underfunded, and tuition will go up, and loans will go up. And I think that increase from 8 percent to 25 percent of the State budgets is, by far, the principle reason.

Thank you, Mr. Chairman.

The CHAIRMAN. I might add, Senator Alexander, I will just throw in here.

I have had numerous town meetings in Iowa over the last 20 years or so, it has come up time and time again about funding for higher education, and what I have heard people say is,

“Well, you know, we have put all the money into Iowa State and Iowa, and educate those kids, and they go to California, they go to Texas, or Colorado, or Florida, or someplace like that. We are not seeing the benefit of it.”

This has popped up at town meetings I have had for a long time, and I wonder how much that seeps through legislative thinking. I do not know. I know that I have heard that before.

Senator ALEXANDER. I think one reason for the increase in scholarships like the HOPE Scholarship or broad-based merit scholarships which, in Tennessee will give every student, who makes an “A” or a “B,” \$4,000 to go to a Tennessee institution, is the hope that having gone to the University of Tennessee, they will stay in Tennessee, which I think is a valid goal. It started in Georgia and it makes a difference. But that is an interesting observation.

The CHAIRMAN. Thank you very much.

Senator Merkley.

Senator MERKLEY. Thank you, Mr. Chair.

The CHAIRMAN. I am sorry. Senator Franken was next. I apologize. I got out of line. Senator Franken.

Senator MERKLEY. I withdraw my thank you.

[Laughter.]

The CHAIRMAN. I did not look at my list here.

#### STATEMENT OF SENATOR FRANKEN

Senator FRANKEN. Yes, well, I will take his thank you and I will raise it one.

Dr. Leath, you have testified about some of the information that Iowa State University includes on its financial aid award letters, including information about a student’s current indebtedness and the amounts of their loan repayment after school.

Can you explain why you feel it is so important to include this type of information in award letters?

Mr. LEATH. There are a couple of reasons. One of the things we try and do is educate our students beyond the actual material in the classroom; in other words, make them better citizens. And it is hard to get this level of personal responsibility if they are not well-informed in these areas.

And as we have shown by our data, the kids coming in do not understand personal financial commitments or even their obligations. To be good citizens and managing money well, we have got to do this.

The other thing is we think it can have a significant role in driving down indebtedness just through the educational process. We are finding the students that go through these programs, and see the numbers in front of them tend to borrow less after the program.

Senator FRANKEN. I agree with you. Unfortunately, not every school is moving to include this type of important information on their financial aid award letters. In fact, some school’s letters do not even distinguish between grants and loans.

I have seen letters where they have a Stafford Loan just like some code. They do not even say it is a loan. It looks for all pur-

poses, especially when it is an award letter. The word “award,” you usually do not pay interest on an award.

I recently introduced a bill to require universities to use a universal financial aid award letter that would include some of the information that you highlighted in your testimony. And this bill will help students have accurate information on the true cost of college.

Do you see value in directing other schools to do what you have done with financial aid award letters so that they can really, the student can judge apples to apples and oranges to oranges?

Mr. LEATH. Absolutely, I think we have put huge emphasis on it, and we have seen results. But yet, our students who take our financial literacy program are still sometimes confused comparing obligations or possibilities at Iowa State to other schools because not everyone uses the same language or the same terms.

I think it would be a great service. It is, maybe, unfortunate we have to legislate it, but it would be valuable.

Senator FRANKEN. Yes, well I think we do have to legislate it.

President Snyder, aligning education with workforce needs is critical. I think more students would be willing to go to college if they had a clearer sense that a degree would lead them to a job.

Can you talk about the work that you have done to align college and workforce needs, and what the Federal Government can do to support alignment between schools, and industry, and workforce boards?

Mr. SNYDER. Now, I think that is a critical question.

Community colleges, as a unique part of higher education, are partners with WorkOne across the country. They are partners with the employers. Virtually every community college program in every college, in every community in the country has a program like industrial technology that has an industry advisory board. That is virtually the pattern, which is unique. That means there are actually local leaders that are part of that. We think that is a critical element.

We started a program—Senator Alexander just left—that clearly mimics the Tennessee Technology Centers, which we think are probably one of the best examples, particularly for employees that want to think about a job, where you can start with the end in mind, and the end may only take 1 year to get to an industry-recognized certificate. Which is another key element community colleges do, and that is 1-year industry certificates that are a first step in a 2-year degree.

I think partnership with WorkOne, some rethinking of we as it makes it more responsive, and the local WorkOne boards being more focused on training. And then more visibility in these programs like the Tennessee Technology Center, which in Indiana we call the Ivy Institute of Technology. But it is clearly a lift from what they are doing.

Those are the things that I think you actually have to demand the community colleges to do. It is your best workforce development tool because that is what we do. We tend to be underfunded because of the pockets that we come from and because we keep the costs low. But I think that there is huge entrepreneurial spirit in each community college president to keep doing this.

Senator FRANKEN. I think people are. There is a tendency toward this around the country, I believe. And I know I am trying to get it done in Minnesota and they are doing it.

I would like to say to the Chairman and the Ranking Member that we have reauthorization, I think, would be a very timely thing in terms of being able to coordinate between the industry, the workforce boards, and the colleges, and the 2-year colleges.

Thank you, Mr. Chairman. I have to go back to Judiciary.

The CHAIRMAN. Thank you, Senator Franken.

Senator Merkley.

#### STATEMENT OF SENATOR MERKLEY

Senator MERKLEY. Thank you, Mr. Chair.

I see a lot of young folks here attending the hearing today. I thought I would ask for you to raise your hand if you have college debt and you are kind of worried about the way that affects your future? Wow. Yes.

This is a major stress and I feel like I was very fortunate in college to have minimal loans coming out. My parents did not want me to work the first year. The school did not want me to work the first year to make that adjustment to college, but I worked a lot in the following 3 years. But there are so many students who find that they have to dropout of college.

I was interviewing someone for my staff yesterday who was talking about a family member, a brother, I believe it was, who had gone for a year, and then had to dropout, and work for a year to try to get the tuition to go back to community college. And in this work environment, it is pretty hard to just make ends meet, let alone save the money to return to college. So, then we end up with this prolonged period, and a lot of folks just simply do not make it back to fulfill the opportunity, or to fulfill the vision that they had, to fulfill their potential.

Dr. Heller, you mentioned this early Federal Pell grant commitment demonstration program, and the concept behind it is a message, "You will be able to afford college, and therefore utilize your high school experience productively because there is a future for you." Now you talked about the need to fund this.

Has it been funded at all, and do we have any results as a model, or is this a vision that has yet to be experimented with?

Mr. HELLER. My understanding is that it has not yet been funded. It was included in the reauthorization, but it has not yet been funded, and I do not believe the administration has yet included it in its request.

Senator MERKLEY. I think it is a powerful concept. We know that in some cases philanthropists have talked to kids in lower income areas, and adopted classrooms, and said, "We will fund your college." And so kids from grade one know that that is a possibility.

I come from a working class family where nobody had ever gone to college, but my parents said, "We will figure it out." So I always had it in the back of my mind that, yes, somehow we would make that happen.

That is not something that is in the back of the mind of many students across America, and I think your idea is a very good one, and worth our exploring. I appreciate that.

Dr. Leath, you talked about financial literacy. When I was in the State legislature, I pushed to make a financial literacy course a required part of a high school education. What I saw was a world that was much more complicated than it was 30 years ago.

When I got out of graduate school and came here to DC to work at the Department of Defense, I was turned down for a credit card because I did not have 2 years of work experience. Now it is like my dog gets applications almost daily, my children get applications. We have all sorts of high interest payday loans, and title loans, and even the school scholarships that, certainly, a lot of folks do not even know they have them as has been testified, and do not understand that they cannot be relieved by bankruptcy, that you are basically on the hook. You better make sure every dollar is well spent.

Do we need to have more financial literacy to prepare our children in high school to go into college and into life being able to manage their finances more effectively?

Mr. LEATH. We would certainly be supportive.

In some ways, when we started these programs, they almost seemed like they were remedial because you would expect people as smart as our college students are and seemingly mature, that they would be at a higher level of knowledge on financial literacy. That is why we instituted the program. If they came better prepared, we would be delighted.

Senator MERKLEY. I think it is worth continuing that conversation.

I want to turn to the growing examples of free university courses. Public radio had a segment about Coursera this last week where a number of universities have worked together to create free online courses. And I understand someone who was involved at Stanford and Google has left to create a company called Udacity that provides free online courses.

But I think even though they are participating in providing these courses as an opportunity for education, there is not a system in which other schools will accept credits from folks who take these.

Is that something that should be explored? It is great to have these terrific online courses, but is there a problem in terms of universities being willing to accept them as a source of education? I see, Dr. Twigg, you are nodding your head. Do you want to address that?

Ms. TWIGG. Yes, I think that there is a problem.

These courses are really more like continuing education courses in that they are not awarding college credit, and you cannot apply completion of them for a degree. In many cases what they are, are simply videotape lectures of professors' classes being put up on the Internet.

You have heard of these things called MOOC's, which are these mass online courses. One of these Stanford professors did this. He had 160,000 students, primarily students in other countries. It really remains to be seen whether this idea has any real applicability to American college students.

Senator MERKLEY. I am 20 seconds out of time. There is so much more I would like to ask. This is such an important issue for our future.

One of the things that deeply disturbs me is that we are becoming the first generation of parents whose children are getting less education than we got. I saw the statistics here in the materials that for the first time in history a generation of Oregonians, my State, age 55 to 64 are better educated than their 25- to 34-year-old counterparts; that is, 33 percent versus 27 percent, of having a bachelor's degree. This is a knowledge economy world. This is a terrible statistic. We should all be deeply concerned about it and the costs that we are discussing today are a huge part of this problem.

I really appreciate you all participating in this as we ponder how to take on this important problem.

The CHAIRMAN. Thank you, Senator Merkley.

Senator Hagan.

#### STATEMENT OF SENATOR HAGAN

Senator HAGAN. Thank you, Mr. Chairman, and thank you so much for holding this hearing.

Even though Dr. Leath is representing Iowa State, I am happy to see him here today. Prior to becoming president of Iowa State, Dr. Leath served as the vice president for research for the UNC System, and our UNC System comprises 16 universities across the State. I was also happy to read in your testimony that Iowa State and NC State are neck and neck among their peer institutions for having the lowest tuition and fees for undergraduate students.

In North Carolina, we have a long history of providing academic excellence at affordable prices. In fact, despite State budget constraints, the University of North Carolina System schools continue to be a great value in terms of providing a quality education for a reasonable price compared to many other colleges and universities across the country.

In 2006, the former president of our UNC System, Erskine Bowles, established the President's Advisory Committee on Efficiency and Effectiveness; it was called PACE. It was tasked not only with performing a comprehensive review of the UNC System schools, all 16 of them, and in making recommendations for how they can operate more efficiently, but also to establish principles promoting continuous identification and implementation of efficiency practices moving forward.

Additionally, the UNC at Chapel Hill launched a study that was titled "Carolina Counts," and that was a campus-wide initiative to make operations more efficient. And through Carolina Counts, Chapel Hill has identified and implemented \$50 million in permanent administrative savings, and serves as a way to help the institution wisely implement these budget reductions going forward.

I think there are some positive things that can be done, but we also are very concerned about the budget issues affecting higher education today.

Dr. Leath, I know Senator Merkley asked a question about financial literacy and I wanted to followup on that. I am happy to hear about the full service financial counseling clinic at Iowa State, which offers individual counseling workshops and courses on personal finance such as budgeting and the use of credit cards. I am a strong proponent of financial literacy requirements in education.

I think we need to be doing so much more to ensure that young people understand what it means to take out a student loan, and how to use a credit card. You cannot get by in our country today without an understanding of debt, and the difference between good and bad debt, as long as it is used for investment purposes.

I understand that this is a voluntary program and the participants in the financial counseling clinic have dramatically increased, but that you still are not hitting every student. When I was in the State legislature in North Carolina, I mandated that a financial literacy curriculum be taught in the high school. It is still not enough and it is still just a very, very small part of a larger class.

What have you been doing and what do you plan to do to attract more students? I am inclined to think that each and every student should take a course like this. Would you consider making this a mandatory course for all incoming students?

Mr. LEATH. We would consider making it mandatory. Where we are right now is we are pushing it a different way.

We teach an alcohol awareness training that also covers sexual responsibility, and we are up to about 83 percent on a voluntary level by pushing it in conjunction with the government of the student body. We are finding that the students are more receptive, retain the information more when they take it because their peers think it is important.

If we can drive up the financial literacy because other students and student Governor are pushing this, "It is really great. It was worthwhile. You should take it," we think it will be more meaningful. If we cannot get those numbers up soon, we would consider making it mandatory.

Senator HAGAN. Do any of the other witnesses have comments on that?

Mr. MURDAUGH. Senator, I would simply say our experience is that you have to make it mandatory, that when you make things optional for students, you simply do not get the kind of involvement that you need to have, unfortunately. So we would certainly support making it mandatory.

Mr. SNYDER. We are a member of this Achieving the Dream Initiative that many of your States have been involved in for low-income students of color and where it applies to race. We initiated mandatory advising for all incoming students.

Then we made it a mandate that if you are in a remedial course, which would be about half our students, you must take a student success course, either 1 or 3 credit hours which do not lead to a degree, but do cover financial literacy as part of that time management. That is mandatory if you are in remediation.

We have seen a big kick-up in persistence since we have done that, because students get lost between that first and that second year. So it is mandatory.

Senator HAGAN. How long is that class and what does it involve?

Mr. SNYDER. It would be 1 hour per week if you are in one class, so 3 credit hours, and it involves, really, how to get yourself into all aspects of college life. These are not residential students, so it is primarily going to be managing your courses, helping you to

choose your major, making sure you understand what the advisory system is, and a portion of financial literacy.

Community college tuition is less than the Pell. So the students have to figure out how to use that Pell money so that they do not have to go borrow. You should not really have to borrow at a community college either here or in Florida if you have a full Pell grant. But students do, and that is what we are trying to avoid.

Senator HAGAN. That is why I think our community colleges do such an excellent job.

I, too, think it should be mandatory. I think, as I said earlier, you cannot get by in our country today without understanding credit, and I do not think that schools do a good job at teaching this in middle and high school. I am very, very concerned about it.

The work that the UNC System and that Chapel Hill are doing is just one effective way to reduce costs that I talked about earlier.

Dr. Twigg, you have shared your work around the effectiveness of course redesign as a way to maintain or increase quality, but also save money.

What are some of the other practices that schools around the country are engaging in, or should consider, in order to save funds?

Ms. TWIGG. I think that schools are trying to do a number of different things. But most of the effort has been concentrated on at the administrative level, I would say, doing procurement programs, finding coalitions of other institutions to buy other kinds of things, and that is important. But I think that what is not really being touched is the academic program, which is the heart and soul of most institutions.

We used to say that faculty costs took up about 80 percent of the institution. That is no longer the case because there has been a lot of growth in administrative costs. But nevertheless, the fact that teaching methods remain much as they were 200 years ago makes them relatively inefficient and ineffective.

I think the thing that really needs to be done at institutions is to start on that aspect of the college or university, and that is to redesign the way academic programs are both constructed and delivered. That is where you will start to see much greater savings, I believe.

Senator HAGAN. Give me a picture of what this would look like.

Ms. TWIGG. One of the things we talk about is focusing on the top 25 enrolled courses. So at a community college, my colleagues here, that could affect about 51 or 52 percent of the overall enrollment.

Tallahassee Community College was a participant in our earliest redesign program. They redesigned their freshman English course and student outcomes were much superior to the pre-redesigned course. And they saved, this was 10 years ago, \$330,000 a year.

Senator HAGAN. What is a redesigned course?

Ms. TWIGG. In essence, rather than each individual instructor—Tallahassee had about 40 sections or so of freshman English—rather than every instructor doing his or her own thing individually, the old analogy about building a car in a garage as opposed to in a factory. Instead, the faculty worked as a team to develop materials jointly, so all of that preparation time is cut down. They developed examinations jointly, so that preparation is cut down. They



had some online exercises, so they are not doing everything—the teacher doing every single thing, grading and other things where they need a person.

They are analyzing what is going on and thinking where the technology can be applied to sort of offload some of the human effort, and where you have to keep the human part of the teaching. So there are different design decisions made according to the discipline.

Senator HAGAN. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Hagan.

A couple of final observations. This committee has conducted an extensive investigation over the last couple of years into the for-profit school industry. We have had a number of hearings on it. I have had professional staff involved in this. We will be putting out our findings of about a 2-year investigation with hundreds of thousands of documents reviewed. We will be putting this out. Hopefully, the week after next we will finally have our report. I think it will be quite startling.

Right now, about 25 percent of all Federal aid goes to the for-profit sector. Senator Hagan, by the way, has a bill in to say that none of that money could be used for advertising, not only just for-profits, every school. No Federal financial aid money should be used for advertising. I happen to be a co-sponsor of that bill. I think that is a step in the right direction.

The reason I bring that up is that in our investigation—and all the time I have spent looking at this—the for-profits, basically, have stepped into a void that was not being filled, and that is online courses. Now, I think they have skewed it greatly. In many cases, they have not provided the kind of student support services, things like that, that we will point out, but more and more, it keeps coming up.

I have heard it from just about everybody here in this panel about getting involved in more online activities. The young people today are learning that way. They are learning more that way. As adolescents, they are more and more adapting to learning online.

What can we do, on the Federal level, to help promote this? Whether it is Iowa State, or it is our community colleges which, I think, really ought to be involved in this because you know what needs to be done; when you have 98 percent of your students getting jobs, that is fantastic. I can tell you it is not that way in the for-profit industry.

Somehow there is great expertise here. Why are more schools not getting involved in online activities and extending out more: private colleges, public universities, regent schools, community colleges? Dr. Twigg, why?

Ms. TWIGG. The fact is that there are more and more schools getting involved in online activities. The number of students engaged in online courses grows by millions every year.

There is an organization called the Sloan-C, the Sloan Consortium sponsored by the Sloan Foundation that counts the number of online students, and these numbers are growing rapidly. There are not as many institutions that are devoted purely to online

courses. In general, there are traditional institutions that do some online.

The community colleges have been in the lead, in many ways, in online courses. For example, the Virginia Community College System here, the Northern Virginia Community College was one of the earliest leaders in using online courses, and they have hundreds of thousands of students taking online courses.

I think it is something where the average citizen thinks only a couple of people are doing it but, in fact, almost every institution in the country offers some kind of online activity.

The CHAIRMAN. Someone mentioned the Western Governors University.

Ms. TWIGG. Right.

The CHAIRMAN. Mr. Snyder, that they are doing some pretty fantastic stuff.

Mr. SNYDER. They have a great program, and we have worked with Bob Mendenhall. They have a process model that really focuses on the adult learner, which is another point that we need to make, and that is the adult learner is really the one that has been benefiting by online, and that was a void that the for-profits filled.

We have talked to the for-profits. We tried to learn a lot of things, certainly in the way they run their back office. They are much more efficient in the way they deliver different varieties of media.

A couple of concerns: I think we have to be thoughtful about new regulations because we do not want to sweep ourselves wherein everyone is concerned about outreach or advertising because the States may adopt similar rules. And pretty soon, you have no budget to explain to the high school student about how to go to college.

Also, there are the accreditors who get concerned about the media presented in online. In other words, it is OK to bring a textbook, but they get worried about a variety of other media, when really, online is all about this really open network of media. I think that is critical.

We are the largest, probably, online provider in terms of just actual headcount other than perhaps Apollo. We could not have operated in the last few years with a 40 percent increase in enrollment without online.

The CHAIRMAN. Anyone else?

Mr. MURDAUGH. Mr. Chairman, I would say, too, the proliferation of online has really outstripped our ability to understand the effectiveness of it. There are so many organizations, public and private, who have raced into the online world, and we are now beginning to be able to sort out which of those are actually delivering quality education and which are not. And as that emerges, I think people can make better decisions. We have a very robust online program.

But I would also like to add, sir, that we talk about it as if it is an either/or and we have found great effectiveness with blended learning programs where some of what we do, we do online. And then involve students in hands-on application of course material, which I think is an incredibly important part of online.

The CHAIRMAN. As you know, there was a Federal requirement that was put in by Sam Nunn from Georgia, in 1992 that required

at the for-profit schools that 50 percent of their students had to be campus-based; 50 percent. Now that was removed, if I am not mistaken, in 2005. And as our report will show in a couple of weeks, since that time, it has just skyrocketed in terms of how many students are online.

And you are right, we know what the dropout rates are now and the non-completion rates are of these schools, and it is abysmal. Before, we had a requirement, 50 percent. We do not have that requirement anymore.

Mr. LEATH. Senator, I would like to echo what my colleagues said. We found blended learning is really the right approach. Your alma mater jumped 23 percent in distance and online education credits last year.

But we are basically a science and technology university. There are many programs that still are better served in hands-on laboratories and other spaces. And in addition, we want to emphasize that there is also the added component, there is more to college than what you get in just intellectual material in the classroom whether it is team building, living in residence halls, and many other experiences that come with living on campus. We have got to get that blend right.

The CHAIRMAN. I agree.

Dr. Heller.

Mr. HELLER. If I may add, Senator, in your comments about the for-profit sector, as you know, the Department of Education last year promulgated a set of rules revolving around gainful employment, and those have been challenged in the courts. And I know on the other side of the Capitol, there has been some movement to prohibit the Department from enforcing those rules.

But I would strongly encourage the Senate to take a look at those and support the Department, because I think that is an important quality assurance mechanism that can be used, whether it is online programs, blended programs, or residential face to face programs to ensure that any institution is offering a high quality program if it is a vocationally oriented program.

The CHAIRMAN. I am going to use Tallahassee Community College as an example, quite frankly, in terms of employment and what can happen. It is wonderful.

I just had one other thing I wanted to cover. I do not mean to prolong this to do two different things.

For all of you, a report from 2011 found that bachelor degree graduates took 14 percent more credits than necessary for graduation, associate degree grads took 32 percent more credits than necessary, and certificate students took 112 percent more credits than necessary. I am not certain what all this means, but it does add extra financial burden to students and drains financial aid resources.

So what is this all about? Why are students taking or choosing to take additional credits? Is this something we should be concerned about? It is just curious how we looked at this, we saw this data.

Mr. MURDAUGH. If I might, sir, I think one of the things I referred to is the academic efficiencies that we need in terms of planning.

Our tool that we use is an Individualized Learning Plan that begins with a conversation between a student and an advisor where they talk about if the student knows what their long-term career plan is, then they build the academic ladder to get them to their career goal. Obviously, some do not know; we can start them on a very generic path, but it avoids exactly what you are talking about.

We focus the student both on the courses they need to take and we give them advice about our experience with regard to the sequencing of those courses that will serve them well, allow them to continue, and succeed.

The CHAIRMAN. Also, is it not true, Mr. Snyder, that a lot of times kids who go to college thinking they are going to pursue one course of study and find out they are not quite suited for that, so they switch over and they need to take extra credits for that? I know that happens too.

Mr. Snyder.

Mr. SNYDER. I think that a career path is important, but we have given it a term. We call it "credit creep," and that is that you would think you only need four semesters of 15 credits or 60 to get your 2-year degree, and double that to get your 4-year degree.

We worked with the General Assembly and actually made a statute that said that, "Other than national accrediting requirements, programs should be limited to 60 and 120," and we are now working through that with the 2 years and 4 years. Because while pathways are one problem, the issue is that curriculum committees will say, "An extra course here, an extra course there is good." And pretty soon, you have 12 extra credits which did not exist 5 years ago or 10 years ago.

I think we will see the results. Some States have enacted that. I think it is going to be important. It will force us to all come together to say, "What can we do to compact this into a 2-year window or a 4-year window?" Credit creep is what we are working against.

The CHAIRMAN. Any other observations on that at all?

There is another touchy subject that comes up a lot. How much of student aid is for lifestyle rather than for really needing the money to pay tuition for basic room and board? How much of that is borrowed for having a certain higher lifestyle? I hear a lot about this.

Mr. LEATH. I guess I would say the short answer is: too much, because really, none of it should be used that way. We have had issues where students have used it for car payments, and for spring break to keep up with their friends, for weddings, other things.

We have made great strides with financial literacy, where there is a day of reckoning that comes when you use it for these types of things, and you should not be borrowing. You should be living within your means on these. I do not know that it is as bad as some of the spectacular stories we hear, but it is real, it is there, and we need to drive it down.

The CHAIRMAN. Yes, Dr. Twigg.

Ms. TWIGG. One of the programs that we have been working with recently is a nationwide program in developmental math. As you know, this is a big problem because of the sheer numbers of stu-

dents that have to take some kind of remedial course, developmental course.

Many of the institutions that we are working with have analyzed students who are receiving F's in development lab and have found that they are receiving F's in every class that they have enrolled in strictly for financial aid purposes.

My impression is, in other words, they never go to class; to any class.

The CHAIRMAN. I have heard this. I do not know. How prevalent is it?

Ms. TWIGG. I have heard, because we focus on the first year of college and the developmental area, I have heard it from numerous institutions. And institutions just do not think to track it, but they were trying to understand why they were not having success in the redesign, and I think that is something that should be looked at quite seriously to find out how extensive the practice is.

If you think 85 percent of students in a class were in these circumstances—particularly during this economy, and this case was in rural areas of the country where they had no intention of being students—I think it is worth looking into.

The CHAIRMAN. I have heard this. Do you have something on that, Mr. Snyder? Because I have heard this, but I just do not know. Is this just bits and pieces, or is this something that is happening more and more? I do not know.

Mr. SNYDER. We do not have good data on what the split is. Clearly, there are going to be lifestyle students.

Let us say this: community college is predominantly in a location where not all of our students are poor. But if you are poor and you are not a scholar, you are in the community college. I think that is clear.

There is still, if you look at the default rates even in yesterday's "*Wall Street Journal*," 9 out of 10 people are trying to pay back their loan, which probably is a good sign. So it is not prevalent.

Colleges, I think, can do something, and we are trying to do that by tracking 10-day attendance and short-term attendance on people who are not showing up, to withdraw them from school. That is one of the techniques we are using because we worry about defaults.

Lowering the cost of attendance that we calculate, which actually puts a cap on how much they can borrow. And we actually did that for Ivy Tech, that we lowered the cost of attendance, which actually reduced their borrowing capacity. Because we said to ourselves, "If Pell pays for everything, then we do not want them to use that," although poor students may need it for transportation and everything else, it digs a hole they cannot get out of.

But the default rate of 10 percent across the board says a lot of people are trying to get that money back.

Mr. HELLER. Senator, I think that there are certainly stories out there about students who are using Federal aid to subsidize lifestyle rather than their cost of going to college. But I think the reality is with literally millions of Pell grant recipients, millions of other students receiving student loans, I would be cautious about trying to implement any changes in policy based on the stories.

I think that when you go out and talk to Pell grant recipients, what you find, in fact, is that most of them are highly dependent

upon that assistance, and they are not using it for spring break, they are not using it for a car unless it is a car they need to be able to get to their classes. I would just be cautious about not over-reacting to the stories that are out there in the media.

The CHAIRMAN. Are there any other things that anybody wants to put on the record here or say that I have not asked, or anyone has not asked a question, or delved into that you wish to add anything to the testimony?

This has been a great panel and great information. We thank you very much for your leadership in this area.

It is, I guess the underlying question I always have, Dr. Twigg, in terms of the course redesigns and everything else is just, what is our role? What is the Federal Government's role in promoting this?

Like, for example, what Dr. Leath is doing at Iowa State in terms of having that financial counseling. I think every school ought to have that, every college, but I do not know if we should be doing that; hopefully, schools would pick it up, what Dr. Murdaugh is doing at the community colleges down there, all of you.

But what I want to find out is, what is our proper role? What should we be doing from the Federal Government? I am not asking you to solve that right now.

Ms. TWIGG. I cannot solve the entire problem, but I could make a suggestion. The Federal Government offers lots of competitive grant programs through the Department of Education, through NSF, through the Department of Labor. Yet, very few of these programs focus on the productivity problem in higher education, the very thing that we are all saying is one of the major problems that we face as a country. They focus strictly on improvement of curriculum.

Were some of these agencies to include the cost question, as well as the curricular question such as the things that we have been doing, lots and lots of creative ideas would come forward. But as long as these problems are always strictly for innovation, strictly for curricular changes, they kind of come and go. They do not tend to stabilize in any way.

That is one thing I would certainly encourage the Government to do, because it is a creative, positive way of encouraging people to learn more and come up with new kinds of ideas. And I think there are many, many millions of dollars being spent in current programs that could be redirected and formulated a little bit more specific to address the cost issue as well.

The CHAIRMAN. I invite any of you, if you have thoughts on this later on, to get it to this committee and let us know your suggestions, your thoughts on this, on how we can effect some of these changes a little bit more.

Unless anyone has anything else, I was going to point out, "Think of it this way. K through 12 education is mandatory in States. Corrections facilities are mandatory," I never thought about that one. If the judge says you have got to go to jail, you have got to go. Medicaid, as Senator Alexander brought up, is not. It is matching money. No State has to do Medicaid. They do not have

to, but if they want the matching money, they have to do certain things.

It is only in higher education that has paying customers. When State legislatures look at that, well, as someone said, that is the only thing you can go to that has a big pot of money where you can get somebody else to pay for it, and that is really a problem we have got to address on this. But I just thought that was a curious way of looking at it.

Again, I thank everyone. The topic is of particular importance to this committee and especially the other subcommittee I chair within the Appropriations Committee. So I am grateful for this, and I invite you to continue to give us the benefit of your insight on this.

We will leave the record open for 10 days, until August the 2d.

The CHAIRMAN. I thank all of my colleagues on both sides of the aisle for their hard work on this and for a collaborative approach on this issue.

The hearing of the HELP committee is now adjourned.

[Additional material follows.]

## ADDITIONAL MATERIAL

## RESPONSE TO QUESTIONS OF SENATOR ENZI BY DONALD E. HELLER

*Question 1.* In your written testimony, you describe how Michigan State responded to a decrease in State appropriations. Please discuss other examples of how public institutions are successfully responding to decreased State appropriations? What steps are these schools taking to control student costs and maintain their commitment to academic quality?

Answer 1. I have not researched systematically how public institutions have responded to decreasing appropriations, but have had some firsthand experience and am generally knowledgeable about trends in this area. Many large universities have engaged in focused efforts to find ways to reduce costs, as well as increase non-tuition revenue, in response to cuts in appropriations (or slower increases) during the current recession. Some of the strategies universities have pursued include:

- Reducing utility costs through installation of energy-efficient devices and practices;
- Having employees pay more of their health insurance costs;
- Academic program review, consolidation, and closure;
- Outsourcing of administrative services to lower cost providers;
- Centralizing of purchasing services and negotiating bulk volume pricing agreements with suppliers; and
- Increasing class sizes and reducing non-tenured faculty positions.

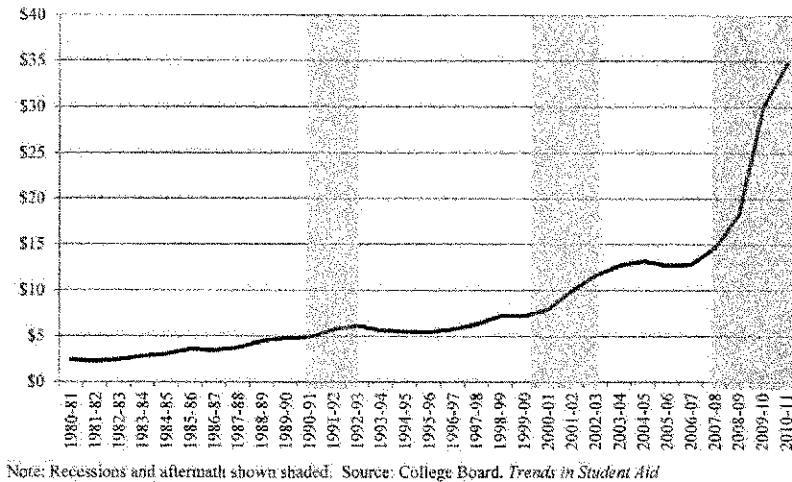
While at Penn State, I served on a committee formed by then-president Graham Spanier, and chaired by provost (and now president) Rodney Erickson, that was charged with identifying ways to cut the university's expense budget by \$10 million per year. We accomplished this goal, which became critical in light of the Commonwealth of Pennsylvania's decision to cut the appropriation to Penn State by 19.5 percent in fiscal year 2012. You can see more about this committee at <http://live.psu.edu/story/54733> and <http://live.psu.edu/story/58380>.

*Question 2.* You discuss the importance of the Pell grant program in your testimony. As you are aware, Congress has struggled to maintain the maximum Pell grant award in recent years and has had to enact a series of short-term fixes, which have often come at the expense of low- and middle-income students. The program is again facing a \$6 billion funding gap in fiscal year 2014. What advice do you have for us as we begin to look at ways to close this gap? Specifically, what types of long-term reforms should we be considering in order to prevent future funding gaps?

Answer 2. As I am sure the members of the Senate HELP Committee are aware, funding for the Pell grant program is highly sensitive to two factors: (1) the number of students eligible for the awards; and (2) the number of eligible students who choose to enroll in college. Both of these categories tend to increase during a recession, the first because students and families have less income and are more likely to fall within the Pell grant means-testing rules, and the second because fewer job opportunities during a recession means that many more people—particularly adults—will tend to enroll in college to retool their skills and prepare themselves for new careers.

Figure 1 shows funding for the Pell grant program (in current dollars) since 1980. In the recessions of the early 1990s and 2000s, there is a very clear pattern of higher rates of funding for Pell due to student demand during the recession, with a lag of a year or two as students stay in school to try to complete degrees, followed by a flattening out or even decrease in funding until the next recession. We are currently in the midst of the same pattern in the current recession, though the slope of the increase is much greater, due largely to the magnitude of the recession rather than any increases in the maximum Pell award.





Note: Recessions and aftermath shown shaded. Source: College Board. *Trends in Student Aid*

Figure 1: Funding for Pell Grant program in current dollars, 1980-1981 to 2010-2011.

We do not know whether the period after the current recession will result in a decline in the demand for Pell grants, but past experience indicates that this will likely occur. Thus, I would caution the committee against implementing any major structural changes to Pell to address the current problem until we see what the post-recession demand for Pell looks like.

Having said this, there are two steps the committee could consider to ensure that funding for the Pell grant program is aligned with national priorities.

- Since the hearing, the committee has issued its report on the for-profit sector of higher education, and the report raises a number of serious concerns about this sector. Chief among them is the issue of high dropout and low completion rates of students in these institutions. The for-profit sector is the fastest-growing recipient of Pell grants. Since bottoming out at 12.2 percent of all Pell grant dollars (following the reforms of the 1992 reauthorization of the Higher Education Act), the for-profit sector has seen its share grow steadily to 25.2 percent in 2009-10, the most recent data available. And this sector enrolled only 9 percent of undergraduates nationwide in 2009-10.

- The Department of Education has implemented a series of regulations, known as the Gainful Employment regulations, which would sanction vocationally oriented programs that fail to provide students with adequate post-completion employment and ability to repay their student loans. While these regulations apply to all types of institutions, most of the programs are located at the types of for-profit institutions described in the HELP Committee investigative report. I would encourage the committee to support the Department's ability to implement and enforce these regulations in order to weed out from title IV eligibility those programs that are clearly not meeting the needs of students and national priorities.

- In order to help meet the Nation's goal of increasing post-secondary attainment rates, the Pell program could prioritize funding to those students willing and able to enroll in a full course load, which is generally approximately 15 credit hours per semester in order to stay on track to graduate with an associate degree in 2 years or baccalaureate degree in 4 years. The committee could consider funding a demonstration program to give a significantly higher Pell award—say 150 percent of the normal maximum—to students enrolling at a full course load level, and then monitor the success of the program in promoting timely graduation.

RESPONSE TO QUESTIONS OF SENATOR ENZI AND SENATOR BENNET BY STEVEN LEATH

SENATOR ENZI

*Question 1.* During our hearing on college costs in February, it was mentioned that compliance with Federal regulations imposes tremendous costs on institutions, and that many current regulations are outdated or unnecessary. In May, the Presi-

dent instructed all Federal agencies to review and eliminate outdated requirements and unjustified costs. How are Federal regulations affecting your institution's costs? In what ways has the Department of Education responded to the President's order to eliminate unjustified costs?

Answer 1. Colleges and universities are among the most heavily regulated entities in America—as educational institutions, research institutions, employers, charitable organizations, and Internet service providers, among others. With the exception of the Consumer Product Safety Commission, every other Federal agency regulates some aspect of higher education. The Higher Education Opportunity Act of 2008 alone added over 100 new regulations and a 2011 congressionally mandated study found that 90 percent of senior campus leaders reported the implementation and administration of those regulations were burdensome.

While many of the regulations are necessary and appropriate, they have significant costs associated with them. As far back as the late 1990s, Stanford President Gerhard Casper reported that his university was spending 7 cents of every tuition dollar on compliance with government regulations. At a time when we are striving to reduce the cost of higher education, in most instances, Federal regulations are unfunded mandates that increase the operating costs of colleges and universities.

ISU has not undertaken a cost analysis for Federal regulations across the various functions and operations of the institution nor with respect to research and research administration per se. Still, several suggestions for streamlining regulatory oversight in ways that maintain accountability but eliminate unjustified costs come readily to mind. Below are several recommendations ISU made to OMB earlier this year in response to the Advanced Notice of Proposed Guidance from the Federal Register, Vol. 77, No 39, February 28, 2012.

- Universities are recipients of Federal funds from multiple Federal agencies and as so-called subrecipients through multiple prime recipients of Federal funds. It is inefficient for each of these funders to conduct independent activities to evaluate whether a particular University has adequate controls in place to ensure compliance with Federal requirements. Duplicative efforts by multiple Federal agencies and multiple prime recipients have resulted in inefficiencies and waste at the Federal level, the prime recipient level, and the subrecipient level. As Universities are typically both prime recipients and subrecipients, and therefore responsible for both monitoring and being monitored, the resulting unproductive burden is high. In response to the President's call to review and eliminate outdated and unjustified costs, there should be an increased emphasis on the role of the cognizant agency for audit and elimination of the requirements that lead each agency and each prime awardee to engage in practically identical activities related to assessing financial compliance at each recipient/subrecipient university. The Federal Audit Clearinghouse, or another centralized system, should be capable of the collection and retrieval of sufficient information for an agency or prime recipient to determine the compliance status of an entity subject to A-133, and to determine whether that entity's cognizant audit agency has issued any necessary management decisions. This would allow university responsibilities as the prime recipients to be properly focused on performance-based monitoring of all subrecipients and financial monitoring of subrecipients not subject to A-133.

- It also would be valuable to eliminate the Cost Accounting Standards and Disclosure Statement (DS-2)—Section C.10–C.14 of OMB Circular A-21 and Appendices A and B from OMB Circular A-21—as applied to university recipients of Federal grant support. The Cost Accounting Standards and Disclosure Statement is appropriate for private, for-profit companies that receive Federal contracts, as most private companies do not provide public access to their internal accounting and other policies. A process for disclosure of such practices seems appropriate in that context. However, university policies and procedures are already documented in institutional systems and are readily available to the Federal Government for inspection or review. Many policies and procedures are publicly available on Web sites. Given the transparency of university policies and procedures, the Cost Accounting Standards applicable to OMB Circular A-21, as well as the requirement to prepare a Disclosure Statement, are unnecessary and burdensome. Consequently, Iowa State University recommends the elimination of Section C.10–C.14 and Appendices A and B from OMB Circular A-21.

As noted, ISU has not undertaken a cost analysis of Federal regulations across functions, so it is difficult to address the Department of Education's actions in this regard (a web search reveals the following report from the Department on an internal assessment of the effectiveness, benefits, and costs of regulations: [http://www.whitehouse.gov/sites/default/files/microsites/21centgov/ed1-retrospective\\_review\\_plan\\_report\\_052012.pdf](http://www.whitehouse.gov/sites/default/files/microsites/21centgov/ed1-retrospective_review_plan_report_052012.pdf)).

A federally funded study of the number and scope of all Federal regulations and reporting requirements with which colleges and universities must comply that includes an estimate of compliance costs and that makes recommendations for consolidating, streamlining, and eliminating redundant and burdensome regulations would be a valuable contribution to our mandate to constrain the rising cost of providing a college education.

*Question 2.* In your testimony, you discuss your efforts to provide better financial literacy for your students. I have long been an advocate for urging greater financial literacy. Would you provide us more detail on the specifics of what Iowa State is doing, as well as describe how successful these efforts have been?

*Answer 2.* Iowa State University has undertaken several initiatives over the past several years to help students manage and reduce their indebtedness. These initiatives continue to have a positive impact, as illustrated by the table below that shows average indebtedness for students who graduate with debt, and the percentage who graduate with debt since 2006–7. Both figures are gradually declining.

Reporting Year	Analysis Year	Total Number of Undergraduates	Percent Indebted	Average Indebtedness
2006–07 .....	05–06 Final .....	20,440 .....	69.0 .....	\$32,130
2007–08 .....	06–07 Final .....	21,004 .....	70.4 .....	\$31,501
2008–09 .....	07–08 Final .....	21,607 .....	71.1 .....	\$31,616
2009–10 .....	08–09 Final .....	22,521 .....	71.2 .....	\$30,411
2010–11 .....	09–10 Final .....	23,104 .....	68.6 .....	\$30,062
2011–12 .....	10–11 Final .....	24,343 .....	68.5 .....	\$29,455

Following are brief descriptions of the various initiatives by the university designed to help students manage their finances and decrease their indebtedness:

1. The Office of Student Financial Aid is introducing a Student Financial Resource Center concept to be more proactive in working with students. New, more visible and accessible space is being converted to this function in the main student services area of Beardshear Hall, with completion expected by Sept. 1, 2012. Also, we now require all financial aid counselors to incorporate budgeting, debt management, and financial counseling into every counseling session. And beginning in the spring of 2013, a “Live Like a Student” educational effort will be launched focusing on issues of budgeting, using financial aid to meet educational costs, timely bill payment, student loans, credit cards, identity protection, and financial planning beyond college.

2. Beginning this summer, all Financial Aid Award notices have been modified to provide more complete information, including present indebtedness and repayment information. Early indications are that students have canceled or reduced loans at a greater rate; however, more complete analysis will be done this fall. Also, award notices now include Payment Plan brochures to encourage payment plans as opposed to borrowing; language has been modified to emphasize that loans are optional. This fall, we will require active confirmation of loans for all borrowers annually.

3. We now require Entrance and Exit Loan Counseling for all student loan borrowers. All students receiving Federal loans must complete one-time entrance counseling as a condition of receiving funds. Likewise, counseling is required prior to certification of private loans. Students may choose between on-line and in-person interviews, depending on date of application, amount to be borrowed, and if the loan is new or renewed.

4. We are encouraging utilization of the U.S. Department of Education financial literacy module. E-mails have been sent to all financial aid recipients instructing them on how to access and use the module. The Office of Financial Aid will track the borrowing of individuals who access the module vs. those who do not to determine impact. The office is considering offering a scholarship to encourage use of the module.

5. Student Financial Aid staff now receive comprehensive training on financial literacy issues, and staff are encouraged to seek financial planning certification.

6. The Office of Student Financial Aid has expanded research on topics related to student indebtedness, including: indebtedness by college, major, gender, ethnicity; student awareness of indebtedness; and analysis of student loan defaulters. Future topics include: analysis of students’ ability to repay student loans; analysis of student loan indebtedness statements and students’ decisions regarding borrowing; and analysis of student financial literacy education and indebtedness.

SENATOR BENNET

*Question 1.* You mentioned that Iowa State University is one of the land-grant universities created under the Morrill Act. I'm especially proud of Colorado's land grant school—Colorado State University. CSU is a leader in agricultural research, and their work helps keep our \$40 billion agriculture sector competitive. What unique funding challenges are land-grant universities facing today? How can we help ensure that these institutions are accessible and that their vital mission—including agricultural research—continues to be carried out?

Answer 1. 2012 is the 150th anniversary of the Morrill Act and the establishment of U.S. Department of Agriculture, which began the long-term Federal-State partnership with land-grant universities. Since the signing of the Morrill Act, the Federal Government and States have shared responsibility to support access to higher education and to solve problems facing agriculture and society.

Thanks to the partnership between government and the land-grant system, the United States has the premier research enterprise in food and agricultural sciences. Agricultural research touches on Americans' lives every day, through their food, water, energy, environment, clothing, and fuel, and via a multitude of consumer products. And public investment in agricultural research has an incredible payoff to society: the annualized marginal real rate of return to public agricultural research is about 50 percent, according to an Iowa State University economist who has researched this topic for decades.<sup>1</sup>

Ominously, this same Iowa State economist warns that with fewer Federal and State investments in agricultural research since the mid-1990s, forecasts show a dramatic slowdown in U.S. agricultural productivity in the near future. A clear challenge is a Federal budget that, year after year, reflects a crisis in Federal support for agricultural research, even as tight State budgets across much of the country simultaneously diminish support for land-grant agricultural research.

Perhaps the biggest funding challenge lies in the fact that new advances in science and technology build on earlier research. The research and development needed to develop new technologies for farmers, consumers, and others frequently has a long gestation period. The results of a lack of investment today may not be apparent for years, but eventually the well will dry up and our Nation will fall behind. Long periods of low investments in basic R&D cannot quickly or easily be reversed.

Strong public investment in both competitively funded programs and capacity building funding is needed to ensure the historic partnership that connects the Federal Government and land-grant universities in each State continues to answer society's needs of the future. Now is a perfect time to recommit to the principles forged back 150 years ago.

RESPONSE TO QUESTIONS OF SENATOR ENZI AND SENATOR BENNET BY JIM MURDAUGH

SENATOR ENZI

*Question 1.* During our hearing on college costs in February, it was mentioned that compliance with Federal regulations imposes tremendous costs on institutions, and that many current regulations are outdated or unnecessary. In May, the President instructed all Federal agencies to review and eliminate outdated requirements and unjustified costs. How are Federal regulations affecting your institution's costs? In what ways has the Department of Education responded to the President's order to eliminate unjustified costs?

Answer 1. In the last several years we have not experienced a decrease in regulations for Federal title IV financial aid. Actually the administrative burden has grown substantially and the complexity of administering Federal aid has become increasingly expansive and complex. The following are some specific ideas.

FEDERAL PELL GRANT

Among the regulations which are outdated are the options provided by the Department for determining eligibility for Federal Pell grant. Currently, and this process has existed for years, a school must either determine a student's eligibility by the end of the first regular drop/add period for a term, commonly referred to as a "freeze point" or they must change the student's enrollment status every time a stu-

<sup>1</sup> Huffman, W.E., & Evenson, R.E. (2006a). Do formula or competitive grant funds have greater impact on State agricultural productivity? *American Journal of Agricultural Economics* 88, 783–98.

dent adds or withdraws from a course. This process was established when most post-secondary institutions delivered education either in a semester or quarter format without mini-terms, except for possibly summer.

In the last decade the delivery of education has become more flexible, primarily to serve the needs of students, and now many colleges offer semesters that have abbreviated terms within them with multiple start dates. If an institution chooses the first option, which is to use a freeze date at the start of the term, then they cannot offer Pell to students who choose to register after that point. This is a disservice particularly to non-traditional students who at the community college level often need our help the most. Should we choose the option to increase and decrease Federal Pell grant throughout the term, we will leave many students with an obligation to the college, potentially preventing their ability to register in future terms. A better solution would be to freeze the tuition when the student registers. Should they register for future terms, we recommend that we only increase the Federal Pell grant if they have continued enrollment in their prior classes. If they have not, pay them at the current enrollment status, which should include any funds they have received before that date.

#### THE FEDERAL METHODOLOGY FORMULA AND THE EXPECTED FAMILY CONTRIBUTION

While some may see simplification as the answer to the FAFSA, if we continue to remove key data elements from the form, more post-secondary institutions will likely move to fee-paid forms, thus eliminating the free process. Many items that have been eliminated are key to determining if a family has resources to help with the cost of education. One such item is the value of the family home. Another is the use of business loss to zeroed out income. While these may seem minor, we believe the cost to the programs by the elimination of these data elements is substantial.

The USDE should consider changing the term Expected Family Contribution to the Student Aid Index. The current formula produces unrealistic numbers that most families simply cannot afford to pay. Calling the formula Expected Family Contribution only serves to cause concerns for families. The term Student Aid Index (SAI) would allow institutions to explain that based on the information received we could cover the cost of education minus the determined index. While not solving all of the issues faced in the financial aid office, it would be easier to explain to students.

#### RETURN TO TITLE IV

Return to Title IV has always presented problems for students. Failure on the part of the USDE to provide provisions for students with exigent circumstances has presented problems for students since its inception. Now with the revised and expanded directives on how to treat students taking mini-terms the ability to accurately and fairly administer the Federal Return to Title IV policy has virtually been eliminated and the impact on students financially is burdensome. By requiring us to perform Return to title IV calculations on students who do not enter the second mini-term is unnecessary if the student completed 6 credit hours in the prior term. This expansion of the program will only create financial burdens for students who need the funds the most.

#### VERIFICATION

While verification has always been complicated, the move to student specific verification is going to be confusing and cumbersome for students. While the current system may annoy some students, it is fair and equitable as all students are treated equally. By requiring different documents based on USDE specified demographics, you are creating confusion for both students and schools and dramatically increasing overhead to run the Federal programs.

This year the USDE decided that schools could no longer accept IRS 1040 forms. They did so without fully consulting with the IRS. This is a major expansion of regulation and a source of confusion for parents and students. What the USDE did not realize is that the IRS will only issue one Tax Transcript every 30 days. Many parents used the one transcript they received before finding out an additional transcript was needed. Or, in the case where multiple students are in school, the parents mailed the transcript for one student not realizing they needed one for the other student.

Now students with identity theft are faced with the fact they cannot complete their financial aid files because the USDE has failed to provide guidance on what schools need to do to help students in this situation. Interim guidance allowed institutions to accept IRS 1040 forms, but that guidance expired in the middle of July.

The expansion and change of regulations without consulting schools and the IRS has created a situation where some students may have to postpone their education.

#### DEFAULT RATES

The increased pressure by the USDE on schools with high default rates and the move to a 3-year Cohort Default Rate (CDR) has put financial aid programs at institutions who are open admission and who serve students who are increasingly unprepared for College at risk of losing their eligibility to participate in title IV programs. This has been done while the USDE continues to modify and expand the servicing options and schools and students are often unaware of who holds the student's loans for processing. While the USDE has continued to determine an institution's ability to participate in the Federal loan programs solely on CDR, they fail to account for the type of student an institution serves and the effort used by the institution to keep default rates low. Regulations concerning default rates should be rewritten and simplified, while becoming inclusive of additional information impacting an institution's default rate.

#### LOANS

Currently students can borrow the aggregate loan limit while at a community college. Efforts to dissuade students are more often than not unsuccessful. Here is an area where the USDE could allow institutions to set maximum loan limits both on the year and at the aggregate limit. In addition, there is rationale for limiting the amount a student can borrow to their enrollment status, much like we do the Federal Pell grant program.

#### SENATOR BENNET

*Question 1.* You mentioned that Tallahassee Community College has an excellent placement record for its graduates. This suggests that TCC is doing something right and businesses are recognizing the value of a TCC degree. How have you worked with private industry and others to ensure that TCC is responsive to today's economic needs and employment demands?

*Answer 1.* Tallahassee Community College values its mission in the Community, as a partner and a leader, in providing a prepared workforce. TCC has developed a strategic integration plan within the community to assure the best possible relationships for meeting community needs and providing opportunities for graduates to obtain employment. The following are some specific examples.

#### INVOLVEMENT OF LEADERSHIP AND MIDDLE MANAGEMENT IN COMMUNITY DECISIONMAKING

TCC assures that its senior leadership and other key employees are actively involved in the community. Our Board of Trustees consists of members who represent the local business, civic, and educational sectors. Our president is a voting member of the Economic Development Council (EDC); in addition the TCC president has served as president of the EDC and has led a number of EDC projects.

TCC leadership members are involved in EDC planning activities including active membership on the Regional Roundtables (Aviation and Aerospace; Renewable Energy and Environment; Manufacturing; Health; Information Technology; Research and Engineering; and Transportation and Logistics). We sit as a voting member of the Leon County Research and Development Authority, the Apalachee Regional Planning Council, the Workforce Investment Board, and the advisory committee of the Small Business Development Center housed at Florida Agriculture and Mechanical University (FAMU) in Tallahassee.

Our Dean of Healthcare serves on the Nursing Research Council of the local hospital. The Dean of Technology and Professional Programs serves on the community technology organization, TalTech (Tallahassee Technology).

A number of TCC's employees regularly participate in Chamber of Commerce activities.

TCC's president is also a member of the region's economic development group, Florida's Great Northwest, as well as the Florida Chamber of Commerce and we have a strong relationship with Enterprise Florida and Workforce Florida, Inc. (the administrative entity of Federal workforce funds).

TCC also provides resources, partnerships, and support to local businesses by hosting events in campus facilities at little or no cost, partnering on developing and implementing State and Federal grants, and providing grant training. As a result of these interactions, TCC is viewed as a critical partner in recruiting new business

and industry to the region and in insuring a qualified talent supply to those businesses and industries.

#### ALIGNMENT OF CURRICULUM WITH BUSINESS AND INDUSTRY NEEDS

TCC has 20 advisory boards made up of over 150 local business and industry members. The boards meet at least twice annually. Membership is updated annually to assure relevancy. We rely on members to provide us information about workforce skills and abilities needed in specific degrees, and they advise us on hiring needs and trends in their professions.

TCC has strong, positive relationships with clinical and internship sites. We get feedback from individuals who work with our students regarding curriculum and student readiness for the workforce.

TCC has a highly successful internship program that places students in local businesses for a semester and students must receive training prior to entering the internship to assure they have workplace skills such as good communication, collaboration, attendance and other values. Many programs require or encourage students to volunteer in the community, another valuable connection with local employers.

In addition, students participate in local business events such as the region's Technology Expo, a Sportsability event that celebrates athletes with disabilities, health fairs, professional organizations, and the like. Business leaders are regularly invited to speak in TCC classes and at professional club meetings.

Over 90 percent of TCC's adjunct faculty in the Associate in Science and certificate programs work in the local community. These faculty offer valuable experiences and advice to students about the current work place.

#### SUPPORT FOR STUDENT JOB PLACEMENT

TCC reorganized its placement services in 2010, developing a more robust and locally responsive career center that addresses both student and business needs. The Career Center offers a diverse array of services related to career planning, preparation and placement including:

1. Computerized Career Assessment
2. Professional Development Workshops
3. Internships (in-major)
4. Part-Time & Full-Time Job Opportunities through **FutureLink**
5. Professional Networking
6. Resume/Cover Letter Assistance

The Center hosts job fairs every fall and spring semester and this fall will add a specialized job fair for allied health students and employers. Over 30 (maximum capacity) businesses participated in the most recent fair. In addition, TCC engages with over 330 businesses that provide internship opportunities for students. Career Center staff are actively engaged in local business organizations as well as the local chamber of commerce and economic development council.

Thank you, again, for the opportunity to contribute to this important discussion.

#### RESPONSE TO QUESTIONS OF SENATOR ENZI BY THOMAS SNYDER

*Question 1.* During our hearing on college costs in February, it was mentioned that compliance with Federal regulations imposes tremendous costs on institutions, and that many current regulations are outdated or unnecessary. In May, the President instructed all Federal agencies to review and eliminate outdated requirements and unjustified costs. How are Federal regulations affecting your institution's costs? In what ways has the Department of Education responded to the President's order to eliminate unjustified costs?

*Answer 1.* Federal regulations certainly play a role in the cost of our operation of Federal student aid programs as well as how we maintain qualification for title IV student aid purposes. The recent regulations relating to Gainful Employment, State Authorization and definition of a credit hour contained provisions which require us to set up new systems to track and report data. All of this takes resources away from other activities in which the Ivy Tech has to engage. While we maintain that strong accountability provisions are necessary to protect Federal taxpayer investments in our students' education, portions of these regulations will be difficult for Ivy Tech and other institutions of higher education to implement. On this front, RAMC wrote Representative Fox, the Chair of the Higher Education Subcommittee in the House of Representatives, supporting her legislation to suspend the State authorization and credit hour regulations.

Cost to both students and colleges are also increased by requirements set by accreditors and others for students to accrue more credits to reach graduation with

little, if any, career or job performance benefit for the student. Indiana recently took steps to combat this by restricting credit requirements to 60 for an associate's degree and 120 for a bachelor's degree except where certification and other requirements for specialized programs demand more. This has ensured that students do not have to pay for credits that may require them to take another semester to satisfy.

On the issue of the Department of Education's efforts to respond to the President's order to eliminate unjustified costs, I am not aware of what action the Department may have taken in this area.

*Question 2.* As you are aware, the Department of Education issued a Dear Colleague letter, which explained provisions of its recently updated incentive compensation regulation. The letter explained that third party entities are prohibited from serving institutions in need of assistance if the third party entity is affiliated with another institution. Furthermore, this is true even if that entity has no direct relationship to the institution. How will the department's guidance impact Ivy Tech?

*Answer 2.* Ivy Tech has been seeking to work with third parties on recruitment and other services. We believe third parties can provide insight into the enrollment and other student-focused functions of our institution in a cost-effective manner.

I am aware of this Dear Colleague letter and the restrictions that it places on servicing institutions if the third party is affiliated with another institution of higher education. From Ivy Tech's standpoint, we are looking for the best possible service provider to help us meet our goals. An affiliation with another institution of higher education should not be used as a means to disqualify institutions like Ivy Tech from contracting with such an entity when we believe this can best help meet our needs. If the concern of the Department is that the third party would provide some beneficial service to the affiliated institution of higher education, the Department should limit its ban on these services to such a situation. The bottom line is that the Department's Dear Colleague letter limits the ability of Ivy Tech to contract with the best third party to provide us the services that we need.

RESPONSE TO QUESTIONS OF SENATOR ENZI AND SENATOR BENNET BY CAROL A. TWIGG

SENATOR ENZI

*Question 1.* You appear to have had a great deal of success at schools that have implemented your coursework redesign model. At what type of institution are you seeing the greatest resistance to coursework redesign? How can we overcome these objections and encourage more institutions to adopt coursework redesign strategies?

*Answer 1.* I would say that, just as we have had success with all types of institutions, so too have we had resistance from all types of institutions. (We have not had a lot of success with elite privates—the Ivy League, for example—or small private colleges.)

SENATOR BENNET

*Question 1.* In your testimony, you mentioned that the National Center for Academic Transformation redesigned a popular introductory astronomy course at the University of Colorado to utilize undergraduate learning assistants rather than graduate teaching assistants. This change led to more successful student outcomes while also decreasing the costs of the course. The University of Colorado system has an enrollment of nearly 60,000 students across three campuses. What might a change like this mean for a large university system under tight fiscal constraints?

*Answer 1.* I can give you an idea of a calculation that we made with the help of the president of the National Center for Higher Education Management Systems (NCHEMS) back in 2003.

We can be fairly certain that the cost of instruction in higher education (and that would include the University of Colorado system) would be reduced by 17 percent annually if all institutions of higher education adopted our redesign methodology while, at the same time, quality of student learning would be improved. The overall cost of higher education would be reduced by 6 percent.

Here's how we derived that number:

- Studies have shown that 50 percent of community college enrollments and 35 percent of baccalaureate enrollments are in the top 25 courses.
- Fifty percent of all higher ed enrollment is at CCs and 50 percent is at 4-year institutions.
- Given the proportion of 2-year vs. 4-year colleges, about 42.5 percent of all higher education enrollments are in the top 25 courses.



Twenty-five percent (50 percent of 50 percent in CC) + 17.5 percent (35 percent of 50 percent in baccalaureate).

- The average cost reduction of the projects using our redesign methodology in the Pew Program in Course Redesign is 40 percent. (The savings rate would, in fact, be higher if we eliminated the redesign “dogs”—i.e., those who did not fully follow our methodology.)

- 40 percent of 42.5 percent = 17 percent.

It is difficult to pin down exactly the dollar value of that savings since estimates about the total amount of higher education expenditures and the E&G portion of those expenditures seem to vary, depending on the source. (If you have those numbers, of course, it's easy to attach a dollar figure.)

Here's one way of estimating. NCES says that total higher education expenditures are 2.3 percent of U.S. GDP, which was about \$10 trillion in 2002.

- If 2.3 percent of U.S. GDP is spent on higher ed, total higher ed expenditures = \$230 billion.

- If the portion devoted to instruction averages 35 percent, saving = \$80.5 billion.

- Seventeen percent of \$80.5 billion = \$13.7 billion per year.

- \$13.7 billion = 6 percent of the overall cost of higher education.

Whatever the right number, as Everett Dirksen once observed about the Federal budget, “A billion here, a billion there, and first thing you know you’re talking about real money.”

What would be the impact on higher education if all U.S. colleges and universities adopted NCAT's methods to redesign their top 25 courses? The cost of instruction would decrease by approximately 16 percent annually, and student learning and retention would improve.

Here's how that 16 percent cost reduction figure is derived:

- About 42.5 percent of all higher education enrollments in the United States are in the top 25 courses.

- The average cost reduction of the projects that used NCAT's redesign methodology is 37 percent.

- Thirty-seven percent of 42.5 percent = 16 percent.

Here's one way of estimating the dollar impact on all higher education spending:\*

Enrollment in the top 25 courses by sector in fall 2003 (IPEDS):

- 1,412,851 at 2-year publics 138,109 at 2-year privates.

- 722,478 at 4-year publics 542,982 at 4-year privates.

- 807,014 at public universities 175,005 at private universities.

Average cost of top 25 courses by sector in fiscal year 2003:

- \$5,792,689,100 at 2-year publics \$945,078,861 at 2-year privates.

- \$3,702,701,800 at 4-year publics \$4,644,670,594 at 4-year privates.

- \$8,271,896,063 at public universities \$2,993,983,829 at private universities.

- Total cost of top 25 courses = \$26,351,020,246 (sector enrollments times sector lower-division cost per FTE).

- Savings = \$9,749,877,491 per year (total cost of top 25 courses multiplied by 37 percent).

[Whereupon, at 11:49 a.m., the hearing was adjourned.]




---

\* Estimates vary on the total higher education expenditures.