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KEEPING COLLEGE WITHIN REACH: IMPROVING ACCESS AND AFFORDABILITY THROUGH INNOVATIVE PARTNERSHIPS

HEARING

BEFORE THE

SUBCOMMITTEE ON HIGHER EDUCATION AND WORKFORCE TRAINING

COMMITTEE ON EDUCATION AND THE WORKFORCE

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

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C O N T E N T S

	Page
Hearing held on September 18, 2013	1
Statement of Members:	
Foxx, Hon. Virginia, Chairwoman, Subcommittee on Higher Education and Workforce Training	1
Prepared statement of	3
Hinojosa, Hon. Rubén, ranking minority member, Subcommittee on Higher Education and Workforce Training	4
Prepared statement of	6
Statement of Witnesses:	
Baraniuk, Dr. Rich, professor, Rice University, Founder Connexions	18
Prepared statement of	20
Docking, Jeffrey R., Ph.D., president, Adrian College	8
Prepared statement of	10
Isbell, Dr. Charles, Georgia Institute of Technology	25
Prepared statement of	26
Singer, Paula, chief executive officer, Global Products and Services, Laureate Education, Inc.	13
Prepared statement of	14
Additional Submissions:	
Brooks, Hon. Susan W., a Representative in Congress from the State of Indiana, questions submitted for the record to Dr. Docking	50
Mrs. Foxx:	
Miyares, Javier, president, University of Maryland University College, prepared statement of	45
Questions submitted for the record to:	
Dr. Baraniuk	49
Dr. Docking	49
Dr. Isbell	52
Ms. Singer	54
Kline, Hon. John, Chairman, Committee on Education and the Workforce, questions submitted for the record to:	
Dr. Docking	50
Dr. Isbell	52
Ms. Singer	54
Response to questions submitted for the record from:	
Dr. Baraniuk	49
Dr. Docking	50
Dr. Isbell	52
Ms. Singer	54

KEEPING COLLEGE WITHIN REACH: IMPROVING ACCESS AND AFFORDABILITY THROUGH INNOVATIVE PARTNERSHIPS

Wednesday, September 18, 2013
U.S. House of Representatives
Subcommittee on Higher Education and Workforce Training
Committee on Education and the Workforce
Washington, DC

The subcommittee met, pursuant to call, at 10:01 a.m., in Room 2175, Rayburn House Office Building, Hon. Virginia Foxx [chairwoman of the subcommittee] presiding.

Present: Representatives Foxx, Walberg, Guthrie, Heck, Brooks, Messer, Hinojosa, Tierney, Bishop, Bonamici, and Holt.

Also present: Representatives Kline and Miller.

Staff present: Katherine Bathgate, Deputy Press Secretary; Heather Couri, Deputy Director of Education and Human Services Policy; Amy Raaf Jones, Education Policy Counsel and Senior Advisor; Brian Melnyk, Professional Staff Member; Krisann Pearce, General Counsel; Emily Slack, Legislative Assistant; Alex Sollberger, Communications Director; Alissa Strawcutter, Deputy Clerk; Aaron Albright, Minority Communications Director for Labor; Tylease Alli, Minority Clerk/Intern and Fellow Coordinator; Kelly Broughan, Minority Education Policy Associate; Jody Calemine, Minority Staff Director; Eamonn Collins, Minority Fellow, Education; Jamie Fasteau, Minority Director of Education Policy; Scott Groginsky, Minority Education Policy Advisor; Eunice Ikene, Minority Staff Assistant; Brian Levin, Minority Deputy Press Secretary/New Media Coordinator; Megan O'Reilly, Minority General Counsel; Rich Williams, Minority Education Policy Advisor; and Michael Zola, Minority Deputy Staff Director.

Chairwoman FOXX. A quorum being present, the subcommittee will come to order.

Good morning, and welcome. Ranking Member Hinojosa will be here shortly, but we have permission to continue with the hearing and honor people's time who are here.

I want to take a moment to offer our condolences and prayers to all whose lives were shaken by the tragedy earlier this week in Washington's Navy Yard. The victims and survivors, as well as their families, remain in our thoughts.

I also want to extend our appreciation to the first responders, metro police officers, and our own Capitol Police who worked diligently then, as they do now, to keep our capital city safe.

I also want to acknowledge the flooding in Colorado. I know that Congressman Polis was not available to be at the Rules Committee meeting yesterday. He is on our larger committee, and he is there in Colorado. So I want to thank everyone who has been involved with helping our fellow Americans as they face these various challenges.

Returning to today's subcommittee business, I would like to thank our panel of witnesses for joining us today to discuss the ways postsecondary institutions are utilizing innovative partnerships to improve higher education access and affordability.

With thousands of colleges, top-ranked research universities, and specialized degree programs, America is home to the greatest higher education system in the world.

Our diverse institutions not only cater to the unique needs of students from around the globe, but also drive our nation's economic competitiveness by preparing graduates for the 21st century workforce.

However, our higher education system is not without its challenges. College costs continue to rise at an unprecedented rate, compelling institutions to explore more creative ways to rein in tuition.

Changing student demographics heighten the demand for more flexible degree programs and course schedules. And evolving technologies mean institutions must constantly modernize program offerings to ensure graduates have the skills necessary to thrive in today's workforce.

Recognizing these new dynamics, a growing number of institutions are forming creative partnerships with private sector entities to help reduce costs, strengthen degree programs, and enrich coursework to meet the needs of a changing student body.

With the development of Massive Open Online Courses, or MOOCs, institutions are exploring exciting new ways to deliver high quality education opportunities to students all over the world.

These online platforms are revolutionizing instructional delivery, and providing thousands of students access to free educational resources at the click of a button.

Coursera, edX, and Udacity are just a few of the MOOC providers helping universities build online learning environments where students can access and complete high quality courses in their own time.

Georgia Tech is working to take online education a step further, announcing in May plans to work with AT&T and Udacity to offer the first fully online master's program for computer science. Students will be able to earn their degrees completely online and at a fraction of the cost of traditional programs, possibly even less than $7,000.

While some institutions are exploring ways to improve higher education access and affordability through partnerships with online providers, others are forming partnerships with other nearby colleges and universities to offer students in-demand degree programs at a more affordable price.

To expand degree options for students without raising tuition, administrators at Indiana's Grace College partnered with two local institutions to develop a program that allows Grace College stu-

dents to take advantage of the popular nursing and engineering programs offered at the other schools.

Another great example of innovative partnerships can be found at Emmanuel College, a small liberal arts school in the heart of the Longwood Medical Center in Boston.

In 2001 the school leased an unused piece of land to pharmaceutical giant Merck & Company, forging a partnership that launched a wealth of biomedical graduate programs and specialized summer internship opportunities for Emmanuel students. Enrollment has since tripled, and Emmanuel has regained a competitive edge in the higher education system.

It is creative partnerships like these that will help ensure our higher education system remains the best in the world. As policymakers, we have a responsibility to ensure such innovation can continue.

By lifting burdensome regulations and simplifying the current complex statutory framework, more institutions will have the opportunity to innovate and meet the challenging needs of our students and economy.

Earlier this year, we took a step in the right direction by approving the Supporting Academic Freedom through Regulatory Relief Act, legislation to eliminate three regulations that threaten to stifle innovation at postsecondary schools.

I hope we can work together through the upcoming reauthorization of the Higher Education Act to continue these efforts to limit federal overreach and preserve flexibility in our modern higher education system.

Once again, I would like to thank our witnesses for joining us today. I would now like to recognize my colleague, Mr. Rubin Hinojosa, senior Democrat member of the subcommittee for his opening remarks.

[The statement of Chairwoman Foxx follows:]

Prepared Statement of Hon. Virginia Foxx, Chairwoman, Subcommittee on Higher Education and Workforce Training

Good morning, and welcome. Before we begin, I want to take a moment to offer our condolences and prayers to all whose lives were shaken by the tragedy earlier this week in Washington's Navy Yard. The victims and survivors, as well as their families, will remain in our thoughts. I also want to extend our appreciation to the first responders, metro police officers, and our own Capitol police who worked diligently then, as they do now, to keep our capital city safe. Thank you.

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However, our higher education system is not without its challenges. College costs continue to rise at an unprecedented rate, compelling institutions to explore more creative ways to rein in tuition. Changing student demographics heighten the demand for more flexible degree programs and course schedules. And evolving technologies mean institutions must constantly modernize program offerings to ensure graduates have the skills necessary to thrive in today's workforce.

Recognizing these new dynamics, a growing number of institutions are forming creative partnerships with private sector entities to help reduce costs, strengthen degree programs, and enrich coursework to better meet the needs of a changing student body.

With the development of Massive Open Online Courses, or MOOCs, institutions are exploring exciting new ways to deliver high quality education opportunities to students all over the world. These online platforms are revolutionizing instructional delivery, and providing thousands of students access to free educational resources at the click of a button. Coursera, edX, and Udacity are just a few of the MOOC providers helping universities build online learning environments where students can access and complete high quality courses in their own time.

Georgia Tech is working to take online education a step further, announcing in May plans to work with AT&T and Udacity to offer the first fully online master's program for computer science. Students will be able to earn their degree completely online and at a fraction of the cost of traditional programs, possibly even less than $7,000.

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Earlier this year, we took a step in the right direction by approving the Supporting Academic Freedom through Regulatory Relief Act, legislation to eliminate three regulations that threaten to stifle innovation at postsecondary schools. I hope we can work together through the upcoming reauthorization of the Higher Education Act to continue these efforts to limit federal overreach and preserve flexibility in our modern higher education system.

Once again, I'd like to thank our witnesses for joining us today. I would now like to recognize my colleague, Mr. Rubén Hinojosa, the senior Democrat member of the subcommittee, for his opening remarks.

Mr. HINOJOSA. Thank you, Madam Chair.

Before we begin, I want to express my sympathies to the families who lost their loved ones during yesterday's tragic shootings in the Navy Yard. My thoughts and prayers are with them.

Today's hearing will explore how our system of higher education can improve accessibility and affordability of quality higher ed through innovative partnerships.

I would like to welcome our distinguished panelists. I want to say that at this time I also want to recognize our witness from my home state of Texas, Rich Baraniuk, a professor at Rice University which is one of our best universities in the state of Texas. And I want to say that he is a professor at this great school who is also a leader in the open education movement.

Welcome to our hearing, Mr. Baraniuk.

As ranking member of the subcommittee, I strongly support innovative partnerships that work to make high quality, higher education more affordable and accessible for all students, particularly for low income and moderate income students.

It seems to me that partnerships that serve the best interests of students and taxpayers should be expanded and supported while

partnerships that increase college costs of our students and families should be discouraged.

Today, we will hear about some innovative partnerships that show promise and can help address the issue of college accessibility and affordability. I am particularly interested in learning more about OpenStax College, a free and open library of college textbooks which integrates with the venture philanthropists and for-profit course material companies to reduce college costs by what they estimate, $250 per class.

In many states, college students spend more on textbooks than on tuition. Innovative partnerships like OpenStax College can help reduce the high cost of teaching materials and eliminate barriers to college access and student access.

Once built out to scale, the OpenStax initiative is projected to save 1.2 million students an amount over $120 million a year in course materials many are currently funding through student loan debt.

In my view, Congress must incentivize high-quality, low-cost innovative partnerships that make college more accessible, more affordable, and improve retention and student success. Congress can also do more to promote college employer partnerships.

In a September 12 op-ed, Secretary of Commerce, Penny Pritzker and Secretary of Labor, Thomas Perez highlighted successful partnerships between community colleges and employers that align skills training programs with workforce needs in growing sectors of our economy. As you know, more than half of new jobs created in the next 10 years will be middle skills jobs requiring more than a high school diploma.

At the same time, a number of concerns have been raised over partnerships that have increased the cost of college while providing financial benefits to some institutions.

A recent ABC news investigation found multimillion dollar exclusive financial agreements between the big banks and college campuses linking debit cards to student IDs that could subject students to numerous hidden charges.

It is equally disturbing that public universities are increasingly outsourcing their student housing to private contractors to cut their costs. Rooms at privately-financed dormitories can cost students $1,000 more per semester than other dorms.

Finally, while massive open online courses may end up providing greater access to higher quality and affordable education in the future, they are still largely untested.

Some colleges have not learned the lessons of the past and are pursuing inappropriate partnerships that increase the overall costs of college for students and families.

These innovative attempts to profit off of students are inappropriate and should be discouraged.

Finally, I thank our witnesses for their insights and recommendations. The reauthorization of Higher Education Act is an opportunity for Congress and our federal government to do more to promote innovation and improve accessibility, affordability, and student success in higher education.

And with that, I yield back.

[The statement of Mr. Hinojosa follows:]

Prepared Statement of Hon. Rubén Hinojosa, Ranking Member, Subcommittee on Higher Education and Workforce Training

Thank you, Chairwoman Foxx. Before we begin, I want to express my sympathies to the families who lost their loved ones during yesterday's tragic shootings in the Navy yard. My thoughts and prayers are with them. Today's hearing will explore how our system of higher education can improve accessibility and affordability of quality higher education through innovative partnerships.

I would like to welcome our distinguished panel of witnesses. At this time, I also want to recognize our witness from my home state of Texas, Rick Baraniuk (BARE-uh-nik), a professor at Rice University who is also leader in the open education movement. Welcome to our hearing Mr. Baraniuk!

As Ranking member of this subcommittee, I strongly support innovative partnerships that work to make high quality higher education more affordable and accessible for all students, particularly for low-income and moderate-income student. It seems to me that partnerships that serve the best interests of students and taxpayers should be expanded and supported, while partnerships that increase college costs to students and families should be discouraged.

Today, we will hear about some innovative partnerships that show promise and can help address the issue of college accessibility and affordability. I am particularly interested in learning more about OpenStax College, a free and open library of college textbooks, which integrates with venture philanthropists and for-profit course material companies to reduce college costs by up to $250 per class.

In many states, college students spend more on textbooks than on tuition. Innovative partnerships like OpenStax College can help reduce the high cost of teaching materials and eliminate barriers to college access and student success. Once built out to scale, the OpenStax initiative is projected to save 1.2 million students over $120 million a year in course materials many are currently funding through student loan debt.

In my view, Congress must incentivize high quality, low-cost innovative partnerships that make college more accessible, more affordable, and improve retention and student success.

Congress can also do more to promote college-employer partnerships. In a September 12th op-ed, Secretary of Commerce Penny Pritzker and Secretary of Labor Thomas Perez highlighted successful partnerships between community colleges and employers that align skills training programs with workforce needs in growing sectors of the economy. As you know, more than half of new jobs created in the next ten years will be "middle-skills" jobs, requiring more than a high school diploma.

At the same time, a number of concerns have been raised over partnerships that have increased the cost of college while providing financial benefits to some institutions. A recent NBC news investigation found multi-million dollar exclusive financial agreements between big banks and college campuses linking debt cards to student IDs that could subject students to numerous hidden charges.

It is equally disturbing that public universities are increasingly outsourcing their student housing to private contractors to cut costs. Rooms in privately financed dormitories can cost students $1,000 more per semester than other dorms.

Finally, while Massive Open Online Courses (MOOCs) may end up providing greater access to high quality and affordable education in the future, they are still largely untested. Some colleges have not learned the lessons of the past and are pursuing inappropriate partnerships that increase the overall costs of college for students and families. These 'innovative' attempts to profit off of students are inappropriate and should be discouraged.

In closing, I thank our witnesses for their insights and recommendations. The reauthorization of the Higher Education Act (HEA) is an opportunity for Congress and the federal government to do more to promote innovation and improve accessibility, affordability and student success in higher education. Thank you.

Chairwoman FOXX. Thank you, Mr. Hinojosa.

Pursuant to Rule 7-C, all subcommittee members will be permitted to submit written statements to be included in the permanent hearing record. Without objection, the hearing record will remain open for 14 days to allow statements, questions for the record, and other extraneous material referenced during the hearing to be submitted in the official hearing record.

It is now my pleasure to introduce our distinguished panel of witnesses; however, I will turn to Mr. Walberg to introduce our first witness.

Mr. WALBERG. Thank you, Madam Chairwoman.

It is a privilege to do this introduction. I have really looked forward to this hearing today for a number of reasons. To hear creativity, hear people thinking outside of the box.

I am looking forward to the full panel. I think it is a wonderful hearing that you have chosen to have to highlight what can and is being done in higher education.

But to introduce my good friend, and I guess would say a motivator of me, a person who doesn't know the meaning of no or can't, but is willing to push the envelope to the point of even getting coaches and professors to work together producing academic excellence and increased enrollment.

Dr. Jeffrey Docking is the 17th president of Adrian College. I might add, our colleague, Mike Rogers' alma mater. Before coming to the college, he earned a doctorate in social ethics from Boston University, a master of divinity degree from Garrett Evangelical Theological Seminary, and a bachelor's degree from Michigan State University. After providing leadership for Pennsylvania's Washington and Jefferson College, he became president of Adrian College in July 2005.

Through his innovative means he transformed the college from a struggling institution of 840 students with a budget of $28 million and more than doubled the enrollment to nearly 1,700 and a budget of more than $62 million.

He raised the academic profile of incoming students in nearly every benchmark category and that continues to this very day. Dr. Docking is a leader in higher education circles, having served as chairman of the ACE Fellows Program board, the premier leadership development program in the United States.

He currently serves as chairman of the executive committee for the Association of Independent Colleges and Universities of Michigan and the Michigan College Foundation.

It is a privilege to know his efforts. Even this morning, in the Detroit Free Press, an article talked about Adrian College providing resources to pay off student loan debt for their graduates who are without jobs that meet those needs; unique and innovative. He truly exemplifies the statement, "build it and they will come."

And it is a privilege to introduce him as well as his partner in academic excellence and commitment to those goals, his wife, Beth.

Thank you for being here today.

Chairwoman FOXX. Thank you very much, Mr. Walberg. I will continue with the introductions.

Ms. Paula Singer is the president and CEO of Laureate Global Products and Services. In this capacity, she leads the company's international online network products and services, information technology and U.S. campus-based operations as well as several of Laureate's global programs.

Dr. Rich Baraniuk is the Victor E. Cameron professor of electrical and computer engineering at Rice University and founder of Connexions, one of the first initiatives to offer free open-source textbooks via the web.

Dr. Charles Lee Isbell serves as a professor and senior associate dean with College of Computing at the Georgia Institute of Technology. Prior to this role, he spent 4 years with AT&T Labs Research.

Before I recognize you to provide your testimony, let me briefly explain our lighting system. You will have 5 minutes to present your testimony. When you begin, the light in front of you will turn green. When 1 minute is left, the light will turn yellow. When your time has expired, the light will turn red.

At that point, I ask that you wrap up your remarks as best as you are able. After you have testified, members will each have 5 minutes to ask questions of the panel.

I now recognize Dr. Jeffrey Docking for 5 minutes.

STATEMENT OF DR. JEFFREY DOCKING, PRESIDENT, ADRIAN COLLEGE

Mr. DOCKING. Chairwoman Foxx, Chairman Kline, Ranking Members Hinojosa and Miller, and members of the subcommittee, I thank you for the opportunity to appear here today to discuss a unique business model that Adrian College created 8 years ago to reverse a downward spiral in enrollment, revenues, and academic quality of our students.

This entrepreneurial approach to saving our college ultimately gave us the revenues we need to create innovative partnerships with businesses and enhanced access to students throughout the Midwest.

Let me explain. In 2005, Adrian College dropped below 900 students and was saddled with a $1.3 million annual operating deficit. Three of our dorms were closed, our deferred maintenance bills reached several million dollars, and leaky roofs and dandelions were a constant sight on campus.

The academic quality of our students also suffered. We attracted only 1,100 applications in 2005 and rejected only 71 students. Essentially, it was open enrollment. Many freshmen were not prepared academically to attend a private liberal arts college, so they either failed out or quit before they graduated. Our retention rate was only 59 percent.

Our problems were compounded by our location in Southeast Michigan. Adrian College is located 60 miles southwest of Detroit, a city currently undergoing bankruptcy protection, and our major local manufacturing base is in automotive parts, a very troubled industry during those years.

The perfect storm descended upon families that wanted to send their children to college, especially a private college. People openly questioned whether Adrian would survive these circumstances, but Adrian did not close, it thrived.

During the past 8 years, our enrollment doubled to over 1,700 students and our annual budget increased from $28 million to over $64 million. Our retention rate stands at 85 percent and our freshman classes grew from 263 in 2005 to 665 last fall.

We built over $60 million in new facilities and started five new graduate programs, eight academic institutes—nearly doubled our endowment. Each year, we have given raises to our employees, hired additional workers, and expanded benefit coverage.

At Adrian, we like to joke that we skipped the Great Recession. How have we done this? How, under these circumstances, were we able to attract more students and make college more affordable to the families in our state?

We did it through a unique business plan that relies on strategic investments, measurable results, and accountability. This model, which I can discuss further during the question-and-answer period, responds to the needs of students in the job market in Michigan.

It requires us to listen closely and respond quickly to the voices of our employers and families, and it works very well, as you can see from the story I just recited.

When Adrian started to flourish, we looked for innovative partnerships with businesses that could advance the college's educational mission while cultivating talent needs for our business community.

Let me list very few here. In recent years, we allocated money for students to conduct micro research studies with local business leaders. Several students have worked with businesses who want to optimize social media and web content marketing to expand their operations.

Other examples include psychology students working with local doctors to gain a broader understanding of the placebo effect, students conducting research with businesses on potential hydrocarbon reserves in our area, and a student working with a startup apparel company to build a business plan.

In addition to micro research, we recently finished construction on three campus incubators that students can use to start businesses in our small town of 23,000 people. These incubators will not be limited to our students. If local residents want to use our incubators, they are certainly willing to do so and we are too at no charge.

My third example of innovative relationships occurred 2 months ago when 11 small college presidents in Michigan organized a 2-day retreat with major business leaders to discuss the talent gap, that gap between the skills business leaders say they need when they hire recent graduates and the skills these graduates actually bring to their new jobs.

Forty-five CEOs and high-profile executives from companies such as Dow Chemical, the Kellogg Corporation, Amway, and Stryker joined the presidents to exchange ideas on this important topic.

Finally, we restructured our entire internship office to place students in businesses that openly expressed a desire to hire new workers. Students are told that their internship is actually a 3-month interview. If the company likes them, they will be hired.

I could provide you with many more examples of how innovative partnerships with our local business community have helped our region, but in the interest of time, let me say that these partnerships give us the resources we need and the financial offerings we have to provide greater access to our students.

This emphasis on making education more affordable reached a climax at Adrian College late last week when we announced a new guarantee to all incoming freshmen. Beginning in the fall of 2014, all freshmen will be guaranteed a high-paying job of at least

$37,000 a year or part or all of their student loans will be paid for them.

I thank you for the opportunity to share what we have done at Adrian College. I look forward to your questions.

[The statement of Mr. docking follows:]

Prepared Statement of Jeffrey R. Docking, Ph.D., President, Adrian College

I am providing this testimony because I am worried. I am worried about the plight of small private liberal arts colleges in America. I am afraid many are going to run out of money, reach insolvency, fail the federal financial responsibility audit, close their doors, or be swallowed up by large state universities as satellite campuses over the next several years. If this happens, if small liberal arts colleges continue to struggle to the point of insolvency, we will lose one of the greatest educational assets this country has. Many of our national leaders graduated from private colleges and universities including over half of the U.S. House of Representatives. (219 of 435) Private colleges offer students a different type of education, an education where students can get tremendous amounts of personal attention and where faculty are committed to "teaching first." Many students who would fall through the cracks of large lecture halls at huge public institutions will lose the option to enroll in places where professors take attendance in class and will take the time to pull students aside after class if they are falling behind in their work. Many students need this type of environment in order to graduate. Without this option they simply will not earn a college degree.

Additionally, small communities in which these colleges are located will lose the largest economic engine they have to supply the prosperity, jobs, and cultural activities to the businesses surrounding the college. Many restaurants, bookstores, markets, and small retailers rely on college students and their guests to spend money in their establishments to stay afloat. The loss of a college not only hurts educational options for students, it severely impacts the surrounding community. The loss of students and their disposable incomes is compounded when the highly educated workforce that is required to teach and administer an institution is gone. These individuals and their families fill the K-12 buildings in a town as well as buy homes and attend cultural events. When a community loses such people, the effects that ripple throughout it are hard to calculate.

My anxiety is not without merit. During the past ten years more than 30 institutions shut their doors for the final time, terminated their faculty, and told their students to transfer to other schools. This list includes:

- Barat College (Lake Forest, IL)
- Beacon University (Columbus, GA)
- Bethany University (Scotts Valley, CA)
- Bradford College (Haverhill, MA)
- Cascade College (Portland, OR)
- Chester College (Chester, NH)
- College of Santa Fe (Santa Fe, NM)
- D-Q University (Davis, CA)
- Dana College (Blair, NE)
- Eastern Christian College (Bel Air, MD)
- Far North Bible College (Anchorage, AK)
- Kelsey-Jenney College (San Diego, CA)
- Lambuth University (Jackson, TN)
- Lon Morris College (Jacksonville, TX)
- Marycrest College (Davenport, IA)
- Marymount College (Tarrytown, NY)
- Mary Holmes College (West Point, MS)
- Mount Senario College (Ladysmith, WI)
- New College of California (San Francisco, CA)
- Notre Dame College (Manchester, NH)
- Pillsbury Baptist Bible College (Owatonna, MN)
- St. John's Seminary College (Camarillo, CA)
- Sheldon Jackson College (Sitka, AK)
- Southeastern University (Washington, D.C.)
- Summit Christian College (Fort Wayne, IN)
- Trinity College (Burlington, VT)
- Vennard College (University Park, IA)
- Wesley College (Florence, MS)

• William Tyndale College (Farmington Hills, MI)

These colleges had an average life span of 87-plus years. Some had been in operation over 150 years. Many seemed resilient and impenetrable. Several were established soon after our country was founded, and they survived wars, the Great Depression, plagues, and natural disasters. It seemed highly unlikely—if not impossible—that these wonderful schools would ever go out of business, but they did. And I believe that many others will over the next several years unless we adopt a new paradigm for attracting students, forge new partnerships with businesses and the non-profit community, and reimagine new ways to keep college accessible and affordable.

In 2005 Adrian College faced all of these realities, and we developed a revenue-building enrollment model that saved our institution. I am providing this testimony, in part, because I think that this model can work for other colleges and ultimately serve students and their families.

This is how the Plan Works:

College administrators must begin by turning to business principles that have served business owners well for years. It requires homework and answers to some simple questions that are foundational to a viable business plan.

The questions include:

What size is your college now?

1. What is your ideal college size?
2. What is your discount rate?
3. What is your ideal net tuition revenue?
4. How much revenue do you need to make from each student to realize your revenue goals?
5. What is your ideal freshman class size?
6. What is your ideal in-state/out-of-state ratio?
7. What is your campus capacity?

Then, each institution must review their historic data:

1. How many new students can you count on every year with your current recruitment efforts?
2. What is your annual retention rate?
3. Why do students leave your college early?

When you formulate the answers to the three questions:

1. What is your ideal college size?
2. What is your ideal tuition revenue?
3. What is your ideal freshman class size?

Then you have a goal, the number of students you need to bring to campus each year to keep your institution fully-funded.

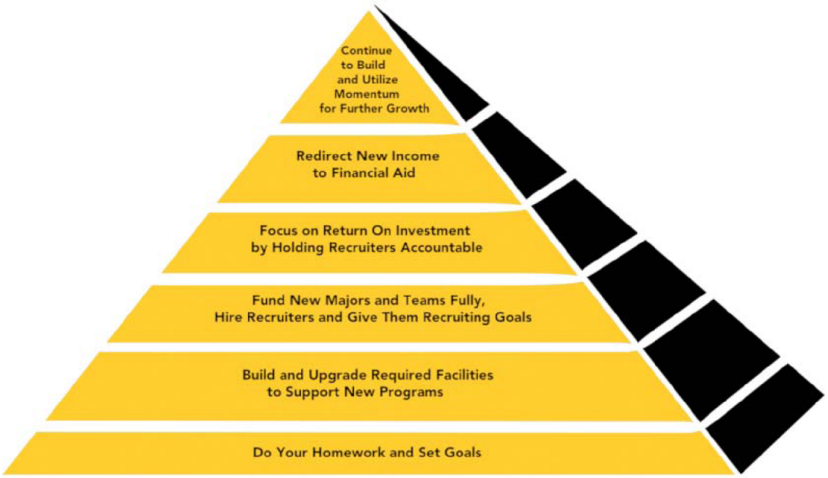
The next step is to look at the programs your school offers and ask:

1. How many students is each academic major, athletic team, and co-curricular activity bringing in now?
2. How many students should each major and activity be attracting?
3. Who is accountable for recruiting students for each activity?

After you have a firm grasp of the enrollment potential of current activities, then you begin to add programs. And I am going to emphasize that each program must have a recruiting goal associated with it, as well as a coach or staff member responsible for achieving that goal.

The Business Model to Sustainable Growth

Once you have listed your financial goals, decided on new programs, and assigned an individual to recruit for each activity then you can begin to follow six steps that will lead to financial health and indicate your success based on your return on investment. This is illustrated below:



You can easily break Admissions Growth into Six Simple Steps

A good example of how this works can be illustrated through the implementation of a marching band on our campus.

At Adrian College, we have enjoyed a long and storied history of excellence in music. Students could earn a Bachelor of Music in Performance or a Bachelor of Music in Education. They could also graduate with a B.A. in Music, Musical Theatre, or Arts Administration, and the program offered a music minor, as well. What Adrian College had before we implemented this model was all sorts of ways to get a music degree, but we did not have a marching band. We needed to leverage this opportunity to build our enrollment. I argued that many high school seniors love playing in the marching band—it's their peer group, it's a big part of their social lives, and it's an important part of their identity. If we offered a quality marching band opportunity, we would quickly get 100-plus students on campus who would not be here otherwise.

One recruiting advantage Adrian College uses is a result of our size. Most kids active in high school bands are never going to play in the marching band at large state universities. Bands at those schools are too competitive. But Adrian College has a "no cut" policy, so every student who wants to play is guaranteed a spot on the "team." A student who wants a good education and that experience of playing in the band on the field every home game is going to choose Adrian College.

MARCHING BAND RETURN ON INVESTMENT

Start-up costs (director's salary & first year budget)	Ideal roster size	No. of students recruited per year	Annual return on investment (4-year total)
$145,000	80	25	$359,600 ($1,438,400)

This simple example can be replicated time and time again with other athletic and academic programs. For example, we have experienced a major return on investment by starting lacrosse and a student symphony. We built a hockey rink on campus and attracted over 200 hockey players and figure skaters that would not have looked at us without an ice arena and these wonderful co-curricular activities. We are currently looking at new academic majors in graphic design and fashion merchandising to see if the ROI makes sense.

The point of this business model is to evaluate all new academic and athletic programs through the prism of an ROI to determine if it is worth the investment. In doing so colleges are forced to listen to student needs, respond to the market, and provide educational opportunities that people want. Ultimately the business plan will provide additional funds to direct to financial aid and scholarships that promote access and affordability.

Once a college or university stabilizes its finances it can begin to look for business relationships that can add additional value to the College and to the educational experience of all students. I have outlined several of these relationships in my oral

testimony; I could certainly add many more. New business relationships lead to partnerships that pull colleges outside their cloistered boundaries. They force colleges to pay closer attention to our changing economy and the skills employers want in their graduates. They introduce college officials to new industries and changes in our economy that require new majors and new curriculum in the classroom. The future of education in America will be dependent on these partnerships in order to ensure that education is relevant and affordable to the future students we welcome each fall.

Chairwoman FOXX. Thank you.

I now recognize Ms. Singer for 5 minutes.

STATEMENT OF PAULA R. SINGER, PRESIDENT AND CHIEF EXECUTIVE OFFICER, LAUREATE GLOBAL PRODUCTS AND SERVICES

Ms. SINGER. Good morning. I am Paula Singer, and I appreciate the opportunity to speak today on behalf of Laureate Education. We are a network of 72 institutions located in 30 countries serving almost 800,000 students.

Each of our institutions is unique in its mission and holds the highest accreditation available within its country. Laureate's institutions and our partner institutions share a common commitment to making quality higher education accessible and affordable.

With today's increasingly complex and demanding educational environment, an increasing number of traditional institutions could face financial challenges and decline in relevance.

Innovative partnerships and collaborations provide three benefits; efficiency and cost savings for both an institution and its students, access to capital, and speed to market.

In regards to cost, building new support services, a new program development platform, or online infrastructure is a major undertaking. At many institutions, the faculty or administration has little or no prior experience in these areas.

Starting from scratch can be inefficient, costly to the student, and risky to the institution's reputation. Partnerships can help eliminate these risks.

Second, we cannot overstate the importance right now of private capital when governments are increasingly limited in the resources that they can provide. Partnerships can help fill these gaps.

Finally, speed is increasingly essential; speed to market with the latest educational technology, access to data, and the ability to use that data in a more efficient manner with demonstrated outcomes for our students.

In this evolving higher education environment, no institution should be standing still, and all of us -institutions, governments, accreditors, and the providers of capital—should be working together to turn these types of opportunities into reality for students.

Alignment of the missions between the collaborating parties is critical to realizing these three benefits. Some examples: internationally, over a decade ago, Laureate provided the University of Liverpool the ability to be an innovator in international online education. Today, thousands of students from 180 countries have access to a UK accredited education formerly unavailable to them.

Laureate's recent initiative with top-ranked Monash University in South Africa will advance our joint mission to provide access to a greater number of underserved students in sub-Saharan Africa.

In the U.S., Laureate worked with Johns Hopkins University and Teach for America to deliver an online master's degree in education. This program allowed Hopkins to quickly reach TFA instructors around the country without the need to divert its own capital, successfully realizing an important goal for all three parties.

In Santa Fe, New Mexico, the state and local governments initiated a partnership with Laureate to provide the resources necessary to keep the oldest chartered college in the state open and to ensure options for its students.

How regulators adapt and respond to these types of innovative models will determine whether or not other institutions are able to meet the rapidly changing needs of their students and remain competitive.

We believe one of the most important partnerships in the U.S. is the regulatory triad, which we support. Successful partnerships are built with a good dose of trust and transparency, and the role of each triad member needs to be clarified and strengthened to allow for both.

Each third of the triad should rely more heavily on the review and evaluation done by the other two-thirds. With reauthorization now due, we are hopeful that the Congress will examine ways to encourage these types of innovations, but only while ensuring institutional integrity and accountability to students.

We need to encourage innovation through regulation. Uncertain, inconsistent, and inequitable regulation slows innovation down right when we need speed. Instead, we strongly support a regulatory structure based on demonstrated outcomes applicable to all institutions.

Regulators in other countries face similar challenges in higher education, and we are watching them adapt. The U.S. needs to adapt too. This is critically important to the competitiveness and success of our students and our country.

Thank you very much.

[The statement of Ms. Singer follows:]

Prepared Statement of Paula Singer, Chief Executive Officer, Global Products and Services, Laureate Education, Inc.

Chairwoman Foxx, Ranking Member Hinojosa, and subcommittee members, on behalf of Laureate Education (Laureate), I appreciate the invitation to appear before the subcommittee on the important topic of "Keeping College Within Reach: Improving Access and Affordability through Innovative Partnerships." I am Paula Singer, Chief Executive Officer of Laureate's Division on Global Products and Services. I have served in a number of senior leadership roles since joining Laureate and its predecessor company, Sylvan, in 1993. The Global Products and Services division, which I lead, includes Laureate's portfolio of international online institutions and offerings, including our flagship U.S. institution Walden University and those provided through partnerships. I also oversee all campus-based institutions in our international network that educate in the fields of hospitality, art, architecture, and design. Finally, my division also includes all U.S. partnership initiatives and our network products and services group, which offers higher education best practices to institutions throughout our network.

I would like to provide the subcommittee with more information about Laureate and its global presence in higher education. The Laureate International Universities network includes 72 institutions located in 30 countries, serving almost 800,000 stu-

dents, approximately 600,000 of whom live in one of the 8 Latin American countries in which we are located. Each of our institutions is unique in its offerings and missions, and holds the highest accreditation available within their country.

Although we operate under a corporate structure, we are a network of institutions that act in essence as partners with a common commitment to making quality higher education accessible and affordable in the regions, countries, and localities in which each institution is located. Laureate provides institutions in our network, as well as the institutions with which we "partner," with resources and best practices to provide students the desired level of support services, program offerings, and modern modalities of teaching.

Laureate, previously operating as Sylvan, began its work in higher education in 1997 with acquisition of a company called Canter Associates. With Canter, we focused on the professional development and higher education of teachers in the classroom through agreements with more than 30 institutions of higher education around the U.S. Our additions of Universidad de Europea (UE) in Spain and Walden University extended our commitment in this area. Since then, we have become the largest global network of institutions providing access to a quality higher education to the rising middle class around the world. We continue our commitment to individuals who most need access, whether it is through fully owned institutions, or through strategic alliances with the types of institutions and organizations, like those I describe below.

Given this experience, I am particularly appreciative of the opportunity to speak about the impact of innovation on access and affordability on institutions and their students, and the importance of a regulatory structure that understands this connection. It is a topic of immense importance to the future of higher education in the U.S. and around the world. I will focus in particular on the use of constructive, careful and effective partnerships and other collaborative efforts[1] with those institutions that seek or need private capital, and/or services and resources in order to expand their access and academic offerings to students. In our case, this also includes the ability to provide institutions a global footprint—i.e., we provide institutions and their students access to other campuses throughout the globe, without the cost and effort of building their own facilities. Paramount to the success of these endeavors is the fostering of an individual institution's existing mission and quality.

What Do These Strategic Alliances Provide an Institution?

In today's global education marketplace, without the ability to innovate quickly, we believe an increasing number of traditional institutions could face financial challenges and a decline in relevance. Innovation occurs in many ways. Collaborative projects, like partnerships, are just one example. They can be helpful by providing efficiency and cost savings for both an institution and its students, access to capital, and speed to market. I will briefly speak on each of these.

First, regarding cost. Responding to the changing demographic and needs of students can be expensive, particularly if the institution has no prior experience in offering a certain service, program, or modality for teaching. Building new support services, a new program development platform, or online infrastructure is a major undertaking, and at many institutions, the faculty or administration has little or no prior experience in these areas. Reinventing the wheel or starting from scratch can be inefficient, costly, and risky to the institution's reputation. One way institutions can solve these problems is by turning to others with the expertise and demonstrated best practices to assist the institution.

Ultimately, this also results in cost-savings to the student who otherwise might have these costs passed down to them in higher tuition.

Second, we cannot overstate the importance right now of private capital in education. States and the federal government are increasingly limited in the resources they can provide, and again, we certainly want to protect the students from further increases in tuition. Private capital from sources with deep understanding and experience in higher education can be critically important to all types of institutions—from the small community college to private nonprofit college or large state system.

Finally, speed is increasingly essential: I am talking about speed to market with the latest in educational technology, access to data, and ability to educate in a more efficient manner with demonstrated outcomes for our students, including the growing segment of working professionals. Adapting quickly will be critically important to the success of all institutions and to satisfying the needs of our students and our

[1] The use of the terms partnership or partner is not meant to focus solely on the legal construct of a relationship. Instead, this testimony is intended to recognize the importance of the full continuum of possible relationships—from articulation agreements and other contractual arrangements to different forms of partnerships and affiliations.

country's economic demands. Speed in innovation is also important to maintaining our institutions' ability to compete in a global marketplace where institutions and students in other countries are increasingly able to leap-frog over our own. With the knowledge and best practices that an institution's "partner" provides, the institution can accelerate what would otherwise be a lengthy build-out process.

In this evolving higher education environment, no institution should be standing still and all of us—all types of institutions, government, accrediting agencies, and the providers of private capital—should be working together—in partnership or otherwise—to turn these types of opportunities into reality for students. We need to be able to move as quickly and efficiently as possible, while at the same time being careful that we don't jeopardize the student's academic experience.

Laureate's Experience with Partnerships and Collaborative Relationships

With 72 institutions in 30 countries, Laureate's network of institutions operates on a global scale, and Laureate has also had the additional opportunity to work directly with many institutions outside its network, regulators, governments, organizations, and foundations around the globe. Over 15 years or so, we have learned that partnerships and other endeavors like them are much more than just an infusion of new capital. When entering into a partnership or some other contractual relationship, it is essential that each partner fully understands, supports, and respects the mission under which the institution serves its students and the vision and purpose of the arrangement. In our experience, the partners or parties we choose to support are those that want to take the good education they already provide and leverage it—often either through the introduction of online education or new global locations or experiences or the provision of new services or program offerings to their students.

These collaborative projects often include multiple types of entities. This conversation should not be just about vendor-institution relationships nor should the conversation be about one-to-one relationships between two institutions. In many cases, local government, foundations, or other sources of private capital are important participants to a strategic alliance and to the successful innovation of an institution. In each of our strategic alliances, our goals and those of the institutions or organizations with whom we engage are perfectly aligned in mission.

Let me provide some examples.

Arrangements Between Laureate and Other Institutions

University of Liverpool

For over a decade, Laureate has had an innovative and impactful partnership with the UK's University of Liverpool. Liverpool is a highly selective member of the UK's elite Russell Group of research-led universities. It is ranked in the top 1% of world universities, according to the QS World University Rankings for 2013.

Laureate is Liverpool's partner in delivering a suite of online master's and doctoral degree programs. There are now approximately 10,000 students from more than 180 countries studying in these programs. Liverpool retains full control of academic and admission standards and for their student outcomes.

In addition, this partnership led to the creation of a third institution in China, Xi'an Jiaotong Liverpool University (XJTLU), founded in 2006. XJTLU is the result of a joint venture between four entities: University of Liverpool, Laureate, a top-ranked public university, and a regional private sector company in China. It was the first institution of its type to be licensed by the PRC Government. It has in excess of 7,500 students today and continues to grow rapidly. It is widely acknowledged as the most successful Sino-Foreign provider in China today.

Monash University

Laureate's most recent initiative with Monash South Africa (MSA) represents our entry into sub-Saharan Africa and an opportunity to provide greater access to students in that region. MSA is already a leading institution in Johannesburg with 4,000 students. It is operated by Monash University, one of Australia's top universities and is also ranked in the top one percent of the world's universities by the 2012—13 Times Higher Education World University Rankings.

Collaboration between Laureate, Other Institutions, and Other Third Parties

At Laureate, we have found that including other non-educational third parties in our partnerships also provides an opportunity to align social missions and goals.

Laureate and the International Finance Corporation

Laureate and the International Finance Corporation (IFC), which is part of the World Bank, have partnered for a number of years to provide capital to universities in Latin America. This year, the IFC made an additional investment in Laureate

in order for us to work together to expand access to quality higher education in Sub-Saharan Africa. This relationship provides the IFC an educational organization with which to work and provides us additional capital so that both organizations, together, can meet the same goals.

Laureate, Johns Hopkins, and Teach for America

In the U.S., Laureate began a three-way partnership this past fall with The John Hopkins University and Teach for America (TFA) to deliver an innovative online master's in education degree program. Under the partnership, Teach for America teachers enroll in a customized Hopkins degree program, where the curriculum is based on Teach for America principles and pedagogy. Previously, Johns Hopkins offered just a traditional ground-based master's program for TFA teachers who were based in Baltimore, but the online delivery format provided by Laureate allows Hopkins to reach TFA instructors around the country. This program is ideally suited for TFA teachers who were excellent undergraduate students and now want a master's degree from a top-ranked institution but may lack access to one in the rural or urban school district in which they teach.

Public-Private Initiatives Between Laureate and Government

Morocco and Saudi Arabia

Our projects in Morocco and Saudi Arabia demonstrate how private sector higher education organizations can work together with government, financing bodies, and industrial groups to create new education models and meet employment demands within country.

The Université Internationale de Casablanca (UIC) is the result of a joint effort between Laureate, the Moroccan government, and the Société Maroc Emirats Arabes Unis de Développement (SOMED). It is the first private university in Morocco and in Casablanca and serves a region that has a large demand for highly skilled workers. A new state-of-the-art campus is being built there that will be able to accommodate more than 12,000 students. We expect students enrolled at UIC to benefit from being part of our network, and likewise, expect it will provide opportunities to some of our already-existing students to study abroad in Morocco.

In Saudi Arabia, we currently have a number of institutions created through partnership with the government there, industrial groups, and employers. One example is The Higher Institute for Water and Power Technologies (HIWPT), founded in 2011, as a public-private initiative launched by the government of Saudi Arabia to meet the increasing demand for Saudi nationals in the power and water industry.

Laureate operates the institution through a joint venture with Obeikan Research and Development, one of the largest industrial groups in Saudi Arabia.

New Mexico: Santa Fe University of Art & Design

We have entered into arrangements with government in the United States as well. The roots of Santa Fe University of Art & Design (SFUAD) grow directly from New Mexico's oldest chartered college, St.

Michael's College, which was founded in 1859 and granted a charter for higher education in 1874. In the 2000s, SFUAD (formerly the College of Santa Fe) was struggling to remain viable. In September 2009, the college's doors remained opened thanks to a private-public partnership between Laureate Education, the state of New Mexico, and the City of Santa Fe. This partnership was initiated by the state and local government officials who saw the need to maintain higher education options in their state and were not afraid to be innovative in their approach.

The Importance of Partnership Between the U.S. Regulatory Triad and with Institutions

How regulators adapt and respond to existing and new forms of innovation in higher education will determine whether institutions are able to meet the rapidly changing needs of students in the U.S. and to remain competitive worldwide. With reauthorization of the Higher Education Act now due, we are hopeful that Congress will examine ways to allow for more innovation whether through collaborative relationships or otherwise, while continuing to maintain the diversity in our higher education system and to ensure a good return on investment for students.

Of course, one of the most important partnerships in the U.S. higher education system is the regulatory triad between accreditors and the federal and state governments. I know that this committee has discussed the triad in other hearings and that it is the subject of a Senate HEA reauthorization hearing tomorrow. Successful partnerships are built with a good dose of trust and transparency and the regulatory construct is a partnership that needs to be clarified and strengthened to allow for both. The triad should be strengthened to remove unnecessary duplication and

instead, each third of the triad should rely more heavily on the review and evaluation done by the other two-thirds.

The role of accreditors is critical to the success of any partnership or other contractual arrangement in which an institution enters. The accreditors' current focus on protecting institutional mission and quality is not only appropriate—it is necessary. With our own institutions and with our partner institutions, we have found our goals and interest in continuous improvement and demonstrated results to be consistent with those of our accreditors. Any changes to the accreditation during HEA reauthorization need to ensure accreditors have the right tools to understand and approve appropriate private investment and to allow accreditors to distinguish proposals by existing and established institutions or models.

In their new book, Frederick Hess and Michael Horn speak of the relationship between regulation and the ability private enterprise has to bring innovative power to education. They write that in the regulatory environment "transparency, appropriate regulation, sensible policy, and good information on results and performance are * * * all crucial elements to a healthy marketplace." They continue by noting that policy-makers review private enterprise mostly in terms of good versus evil.

I believe the existing federal regulatory framework that regulates in part on tax status will become increasingly arbitrary, irrelevant and difficult to apply as the student marketplace demands the types of innovation and partnerships described above. We strongly support the growing interest of federal policy-makers and others to create a regulatory structure that is based on outcomes and demonstrations of academic quality and financial responsibility across all of higher education. We believe this model would be much more conducive to innovation than our current construct.

In addition, during reauthorization, Congress should consider how to adapt the manner by which regulators examine and interpret an institution's financial capacity and responsibility in order not to impede new innovative models, like partnerships. There should be regulatory provisions that allow and encourage regulators to recognize demonstrated and existing experience and quality in the marketplace, such that they may better distinguish institutions during eligibility and other decision-making. As higher education becomes even more complex, "one-size-fits all" regulatory practices and decision-making will not work.

We agree with concerns raised regarding the Department's use of the current financial composite score formula and that this area needs some restructuring, while, of course, continuing to prioritize the protection of federal funds and students. The current construct has unintended consequences in some situations because the regulations largely rely on institutional structure as a gauge, rather than on outcomes. I know that during the new gainful employment proceedings, the Department will continue to consider new program approval processes. While we understand and share the department's interest in preventing the introduction of poor performing or unnecessary programs, we believe that the Department needs to weigh that concern carefully against the possibility that layering on new, duplicative regulation may result in the stunting of the innovation and growth that we're seeking to promote at this hearing today.

Regulators in other countries face similar changes in higher education, and we are watching them adapt. It would be unfortunate if other countries continue to adapt in education at a more rapid pace than the U.S. It is essential that all of our regulators in the triad have the right tools, level of understanding, and ability to adapt and accept new innovative models as they arise. This is critically important to the competitiveness and success of the students we all serve.

Conclusion

I would like to thank the Chairwoman, the Ranking Member, and the subcommittee for giving me the opportunity to testify. I look forward to continuing to work with both Congress and the Administration on higher education reform.

Chairwoman FOXX. Thank you very much.

Dr. Baraniuk, I now recognize you for 5 minutes.

STATEMENT OF DR. RICH BARANIUK, PROFESSOR, RICE UNIVERSITY, FOUNDER CONNEXIONS

Mr. BARANIUK. Thank you, Chairwoman Foxx, Ranking Member Hinojosa, and members of the committee. I appreciate the opportunity to be here today to speak with you about a new approach

we are developing at Rice University to lower the costs of textbooks for college students.

As you know, the high and rapidly rising cost of textbooks is a significant barrier to enrollment, persistence, and success for millions of post-secondary students.

Since 1978, textbook costs have risen more than three times the average increase of all goods and services in the consumer price index. Indeed, the $300 textbook is near at hand and at some locales, California community colleges for example, the average cost of textbooks now exceeds the cost of tuition.

No wonder that a recent survey found that 70 percent of college students forgo buying texts even though 78 percent of those students believe that they will perform worse in their course because of it.

Recently, new alternatives have arisen to address this crisis of access. One example is massive open online courses or MOOCs that we are going to hear about this morning. Today, I am going to speak about another approach, one that is already saving U.S. college students millions of dollars.

OpenStax College is a new nonprofit publisher based at Rice University that is harnessing 14 years of experience and expertise in open education to develop a library of 25 free, high-quality textbooks for the highest impact college courses. By high-impact, we mean those courses that combined high enrollment with high textbooks costs.

OpenStax College textbooks are professionally authored and are of the same quality as those from traditional publishers. Our books are available for free 100 percent of the time in all of the standard digital formats including web, PDF, and e-book formats. The books are also available for very low cost in print for those who prefer a hard copy.

OpenStax College published its first five books starting in June 2012, College Physics, Introduction to Sociology, Anatomy and Physiology, and two biology textbooks. Six more texts will publish in the next 18 months.

We have been pleasantly surprised with the reaction from students, educators, and administrators. In just over 1 year, 325 institutions nationwide have adopted our texts. This represents 50,000 students who are saving money at community colleges, 4-year colleges, and research universities. Examples include the University of Texas, Pan American and North Carolina A&T University, both who have adopted our physics textbook.

In addition to formal adoptions our texts have been downloaded more than 250,000 times and have been used on the web by over 2 million unique learners.

We estimate that using our texts over the past year students have saved in excess of $4.6 million which already exceeds the cost of developing the first five titles.

In order to add value and sustain our free books, OpenStax College has fostered an ecosystem of for-profit and nonprofit partners who drive adoption and provide a way to return a revenue stream to sustain our nonprofit long-term. Current partners include John Wiley & Sons, Sapling Learning, WebAssign, and the University of Michigan among others.

OpenStax College is also exploring partners with MOOC providers to reduce barriers to student learning in such settings. One example is the Coursera Introductory Biology MOOC that UC Irvine is recommending our biology text.

The cost of authoring, marketing, and maintaining the OpenStax College text has been underwritten by Rice University and several philanthropic foundations including the Hewlett, Gates, Arnold, Twenty Million Minds, Maxfield, Kazanjian, and Lowenstein Foundations.

We employ a unique venture philanthropic funding model where we pay back the investment of our foundation partners in student savings. With free open textbooks, the return on investment can be dramatic.

Assuming we reach a very conservative 10 percent market share with our 25-book library, we estimate that we will save 1.2 million students over $120 million every year. Over a decade, that is $1.2 billion in student savings, which is about 50 times the initial investment in developing the textbooks.

In closing, one could say that the textbook was the answer to the educational challenges of the 19th century but it is the bottleneck of the 21st century. New models for learning materials like OpenStax College not only have the capability to yield massive student savings but also provide a clear path toward the revolutionary advance in the nation's and the world's standard of education at all levels.

Thank you very much for your time today, and I am happy to answer any questions that you might have.

[The statement of Mr. Baraniuk follows:]

Prepared Statement of Dr. Rich Baraniuk, Professor, Rice University, Founder Connexions

Summary

In 1911, Andrew Carnegie joined a movement to make knowledge more accessible by institutionalizing the free public library as a resource for lifelong learning for millions of people. One hundred years later, technological advances have fueled a new disruption, with ramifications now not only for access and efficiency, but also for efficacy. Since 1999, Rice University has offered free educational resources via Connexions, a powerful e-textbook authoring and distribution platform. Within the next two years, Rice's OpenStax College will complete a library of 25 free, high-quality, on-line textbooks for the highest impact college courses. All of the books will be available for free in Connexions and on the OpenStax College website. At scale, OpenStax College will save an estimated 1.2 million students approximately $120 million each year.

The access crisis

We tend to believe that all students have the opportunity to earn a college degree through hard work in high school and college. But because of record-high financial barriers, hard work is often not enough.

The high—and rapidly rising—cost of traditional textbooks is a significant barrier to enrollment, persistence and success for millions of post-secondary students (see Figure 1). According to the GAO, first-time, full-time college students spent an average of $886 at two-year public colleges on books and supplies in 2003-2004, the equivalent of 72% of their tuition and fees. In some locales (California community colleges, for example), the cost of textbooks now exceeds the cost of tuition. No wonder a recent survey [R] found that 70% of college students forgo buying texts, even though 78% of those students believe they will perform worse in the course. The survey also found that 24% of students take fewer credit hours due to the cost of textbooks. Considering that 29% of community college students have an income under $20,000, textbook costs can be a significant barrier to enrollment, persistence, and performance.

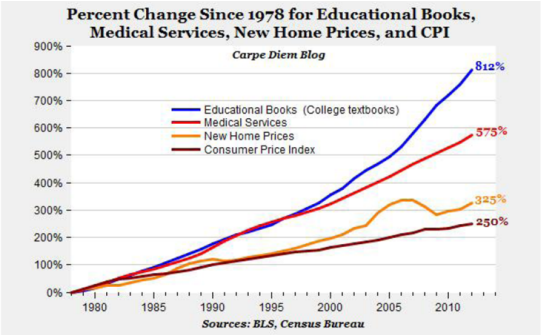


Figure 1: Percent changes for the three Consumer Price Index (CPI) series "Educational Books and Supplies," "Medical Services," and "All Items" and the median price for new homes from the Census Bureau. Since 1978 textbook costs have risen more than *three times* the average increase for all goods and services [P].

Openstax College

Since 1999, Rice University has been developing new ways and means of addressing the access crisis, starting with the Connexions open education platform (cnx.org, more information below). OpenStax College (see openstaxcollege.org) is harnessing this experience and expertise to build a library of twenty-five free, high-quality textbooks for the highest impact college courses (that combine high enrollments with high textbook costs); see Table 1. In contrast to current textbook prices that in some subjects are approaching $300, this library of titles will be available for free to all students 100% of the time.

Table 1: Top 25 college courses based on U.S. annual enrollment.

Psychology
Economics
US History
Introduction to Sociology
College Algebra
Chemistry
American Government
Intermediate Algebra
Basic Math
Elementary Algebra
Pre-calculus (Algebra & Trigonometry)
Introduction to Spanish
Management
Calculus
Non-Majors Biology
Astronomy
Accounting
Introduction to Business
College Physics
Biology
Statistics
Microbiology
Physics-Calculus Based
Finite Mathematics
Anatomy and Physiology

OpenStax College textbooks are professionally authored and of the same quality as a traditional publisher's textbook. Packaging high-quality, turn-key educational content in a form familiar to faculty is critical to its widespread adoption. In OpenStax College, both the textbooks and the accompanying ancillaries (solutions manual, image libraries, lecture slides, test bank) are available in widely accepted digital formats, including free webview, PDF, and e-book formats and low-cost print.

OpenStax College published its first five open textbooks starting in June 2012 (see Figure 2). These texts, featuring professionally developed, peer-reviewed content under the guidance of prestigious editorial boards, have been met with positive media reaction [M]. As of September 2013, adoptions have increased to over 335 institutions representing 50,000 students at community colleges, four-year colleges, and research universities. In addition to formal adoptions, the texts have been

downloaded from the OpenStax College website more than 250,000 times and used on the web by over 2 million unique learners. Together, formal and informal adoptions have already saved students in excess of $4.6 million, which exceeds the cost of developing the texts. Six more textbooks will publish over the next 18 months (see Figure 2).

Figure 2: Phase 1 and Phase 2 OpenStax College titles with publication dates.

OpenStax College has fostered an ecosystem of for-profit and non-profit partners (companies providing computer-based homework sets, for example) that both help drive adoption and provide a way to return revenue to sustain the initiative long term. Current partners include Apple, John Wiley and Sons, Sapling Learning, WebAssign, Expert TA, Veritas Tutors, SimBio and the University of Michigan.

OpenStax College is exploring partnerships with Massively Open Online Course (MOOC) providers such as edX and Coursera to reduce barriers to student learning in online settings. One example is the Coursera Introductory Biology MOOC from UC Irvine [I]. (Beware that the term "open" in MOOC denotes "open enrollment" and not necessarily that the learning resources are open licensed or even free. Indeed, some MOOCs require or suggest that students purchase an expensive traditional textbook as part of the course.)

The cost of authoring, marketing, and maintaining the OpenStax College textbooks has been underwritten by Rice University and by grants from philanthropic foundations, including the William and Flora Hewlett Foundation, the Bill and Melinda Gates Foundation, the Laura and John Arnold Foundation, the Twenty Millions Minds Foundation, the Maxfield Foundation, the Calvin Kazanjian Foundation, the Leon Lowenstein Foundation. In return for the foundations' venture philanthropic investment, OpenStax College aims to make returns in terms of student savings. The return on investment can be dramatic. With even modest market penetration, free, high-quality textbooks can produce benefits many times the value of an equivalent sum invested in scholarships. A one-time investment to create a textbook produces student savings year after year; a scholarship must be funded annually. More specifically, assuming just a 10% market share, the 25-title OpenStax College library will save 1.2 million students over $120 million every year.

The open road ahead

We live in an increasingly connected world, yet our educational systems cling to the disconnected past. Moving forward, OpenStax College will enable not only student savings but also new mechanisms to democratize education by interconnecting ideas, learners, and instructors in new kinds of constructs that replace traditional textbooks, courses, and certifications. More generally, the open education movement has real potential to realize the dream of providing not only universal access to all of world's knowledge but also all the tools required to acquire it. The result will be a revolutionary advance in the nation's and world's standard of education at all levels. And the "perfect storm" resulting from the combination of the global financial downturn and powerful new communication and information technologies means the future will likely arrive much sooner than we think. Clearly the education world is in for a turbulent, yet fruitful next decade.

APPENDIX: OPEN TEXTBOOKS AND CONNEXIONS

The textbook was the answer to the educational challenges of the 19th century, but it is the bottleneck of the 21st century. The textbook of today remains static, linear in organization, time-consuming to develop, soon out-of-date, and expensive. Moreover, a textbook provides only "off the rack" learning that doesn't cater to the background, interests, and goals of individual students. Communication and information technologies give us a golden opportunity to reinvent the textbook.

Open Educational Resources (OER) include text, images, audio, video, interactive simulations, problems and answers, and games that are free to use and re-use in new ways by anyone around the world. The key elements of OER are:

• open copyright licenses like the Creative Commons licenses (creativecommons.org) that turn educational materials into living objects that can be continuously developed, remixed, and maintained by a worldwide community of authors and editors; and

• information technologies like the Internet and Web, which enable easy digital content re-organization and virtually free content distribution.

The OER approach to textbooks provides several key opportunities, including:

• bringing people back into the educational equation. Those who have been "shut out" of the traditional publishing world, like talented K-12 teachers, community college instructors, and scientists and engineers in industry can add tremendous diversity and depth to the educational experience.

• reducing the high cost of teaching materials. In many US states, college students now spend more on textbooks than tuition.

• reducing the time lag between producing learning materials and getting them into students' hands. Many books are already out-of-date by the time they are printed. This is particularly problematic in fast-moving areas of engineering, science, and medicine.

• enabling re-use, re-contextualization, and customization such as translation and localization of course materials into myriad different languages and cultures. This is critical if we are to reach the entire world's population, where clearly "one size does not fit all" for education.

Several OER projects are already attracting millions of users per month. Some, like MIT OpenCourseWare (ocw.mit.edu) are top-down-organized institutional repositories that showcase their institutions' curricula. Others, like Wikipedia (wikipedia.org), are grassroots organized and encourage contributions from all comers.

In 1999, Rice University founded Connexions (cnx.org) with three primary goals: to convey the interconnected nature of knowledge across disciplines, courses, and curricula; to move away from a solitary authoring, publishing, and learning process to one based on connecting people into open, global learning communities that share knowledge; and to support personalized learning (more on this below). Over the last fourteen years, Connexions has grown into one of the largest and most used OER platforms; each month millions of users access over 22000 educational "building blocks" and 1300 e-textbooks (September 2013). In addition to web and e-book outputs, a sophisticated print-on-demand system enables the production of inexpensive paper books for those who prefer or need them at a fraction of the cost of conventional publisher books. Contributions come from authors worldwide in over 40 languages, including Spanish, Chinese, Vietnamese, and Afrikaans. Siyaula (cnx.org/lenses/siyavula) is developing a complete K-12 curriculum for South Africa. Vietnam is using Connexions as a faculty development tool (voer.edu.vn). Professional societies like the IEEE are advancing their global educational outreach and inreach through content development and peer review (ieeecnx.org).

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Chairwoman FOXX. Thank you very much.

Dr. Isbell, you are recognized for 5 minutes.

STATEMENT OF DR. CHARLES LEE ISBELL, JR., PROFESSOR AND SENIOR ASSOCIATE DEAN, COLLEGE OF COMPUTING, GEORGIA INSTITUTE OF TECHNOLOGY

Mr. ISBELL. Madam Chair, Ranking Member, distinguished members of the subcommittee and of this panel, thank you for the opportunity to appear here today.

As requested by the subcommittee, my testimony today will explain the origin and intent of Georgia Tech's new online Master of Science in Computer Science degree. I would like to convey why we have chosen this particular path and to place the degree in the context of the wider landscape of higher education.

Georgia Tech has a decades-long tradition of delivering high-value educational opportunities to students at all points of the demographic spectrum.

For many years, Georgia Tech's professional education unit has led our efforts to reach out to nontraditional students through distance learning and other specialized programs.

Two years ago we created the Center for 21st-Century Universities to serve as a living laboratory for new pedagogical practices, particularly those focused on technology.

It is in that context that earlier this spring Georgia Tech made its boldest move to date in online education with the announcement of a Master's of Science in Computer Science delivered through the new MOOC-based platform, or OMSCS.

Offered in collaboration with Udacity and AT&T, the OMSCS is the first attempt by any accredited university to deliver a full degree program completely through the massive online format and at an estimated cost of less than $7,000 for the entire degree for most students.

The question I get asked often is why are we doing this. Put simply, we are doing it because we can and because we should. So why should we? Rising student costs for higher education threaten enrollments at a growing number of institutions.

Structural shifts in the economy have simultaneously created a sizable population of un-or underemployed workers in need of affordable education and training. At the same time, there has been a growing demand for a larger technological workforce. Part of our mission at Georgia Tech is to create such a workforce.

So how is it that we can manage to do this? Fundamentally, technology has made feasible and affordable the delivery of elite quality education, not only through the proliferation and penetration of broadband internet, but through affordable and portable recording technology, through collaboration tools that allow teams of experts necessary to create and support these courses to work across large distances, and through online social networking that allows students themselves to self-organize.

The facts together allow us to lower overhead and to take advantage of scales to offer not only a higher-quality degree, but an affordable one.

Even with this new technology, the OMSCS would not be happening right now without the critical support and collaboration of Georgia Tech's partners in Udacity and AT&T. AT&T's technical workforce represents a key constituency for this degree, and AT&T

has provided critical startup funding with an unrestricted gift to Georgia Tech.

Udacity meanwhile brings more than a mature delivery platform. Its approach to course development and leadership in massive online education made it the right fit at the right time to help support our MOOC-based degree.

Our top concern is, and will always remain, degree program quality. If we cannot offer a Master's in Computer Science whose rigor is as good as that of Georgia Tech's on-campus program, we simply will not continue to offer the degree.

To that end, we will start relatively small to test the additional infrastructure that the OMSCS requires and then ramp up as we understand how to scale while maintaining the quality that our students deserve.

Ultimately, we hope that this approach will allow us to reach a much broader set of students, particularly nontraditional ones who are unable to invest the time to attend the 2-to 3-year program on campus.

Eventually, we hope to support multiple credentialing paths offering professional certificates and other course credit so the students have a range of options that fit their needs.

Those are the goals that we have set for ourselves. Accomplishing these goals requires a tremendous level of coordination among dozens of professionals in Atlanta and Palo Alto, where Udacity is based.

It requires a public university located in the southeast finding ways to work smoothly with a private company on the West Coast negotiating time zones, state and federal regulations, accreditation considerations, faculty and staff schedules, production capacities, and any number of other activities with everyone pointed in the same direction for a program launch in January of 2014.

In conclusion, let me add that Georgia Tech does not believe that MOOCs are a silver bullet for all the challenges that face higher education. We are in a period of innovation, it is true. We are also in a period of examination.

We envision a future where MOOCs and other yet-to-be-found innovations will complement traditional education at all levels from high school to college to graduate school and beyond.

Such a world will offer a much richer and more practical menu of educational choices for people of all ages, which we believe will result in a better educated and more productive society.

On behalf of the Georgia Institute of Technology, I thank you very much for your time and attention today, and I look forward to our discussion and to working with you to help achieve our common educational goals.

Thank you, Madam Chair.

[The statement of Mr. Isbell follows:]

Prepared Statement of Dr. Charles Isbell, Georgia Institute of Technology

Madam Chair, Ranking Member Hinojosa, and distinguished members of this panel, my name is Dr. Charles Isbell and I am the Senior Associate Dean for the College of Computing at Georgia Tech. Thank you for the opportunity to appear before this Subcommittee to discuss how Georgia Tech is improving access and affordability through innovative partnerships.

As requested by the Subcommittee, my testimony today will:

1. Describe Georgia Tech's experience and impact in the use of technology to advance the quality of higher education
2. Explain the origin, intent, structure and implementation of Georgia Tech's new Online Master of Science in Computer Science (OMS CS) degree
3. Contextualize the OMS CS degree within the broader landscape of higher education innovation and technological disruption

Madam Chair, as you and your fellow Subcommittee members well know, the combination of rising cost pressures in higher education and exciting new technologies is sparking some thrilling examples of innovation in this sector. Structural shifts in the economy—such as an increased emphasis on nontraditional students and lifelong learning paths—have brought to the forefront the need to adapt our educational system to new norms.

You might have read this past Sunday in the Washington Post that the "traditional" student now comprises only about a third of current college enrollments. The rest are a mix of older students, working students, students with families to support, students without formal high school degrees, and others whose educational needs historically have been under-addressed.

Georgia Tech has a decades-long tradition of delivering high-value educational opportunities to students at all points of the demographic spectrum. Last year Georgia Tech Professional Education enrolled more than 30,000 students across a curriculum that includes everything from K-12 outreach programs to online and professional master's degrees, including a new program to help transition veterans into the workforce. Professional Education delivers individual courses on everything from high school calculus to foreign languages, civil engineering to signal processing, web development to Six Sigma—and many more subjects in between. In 2012, Professional Education's reach extended to 82 sites in 67 cities, spanning 23 states and seven countries.

Professional Education partners with NASA to operate the agency's Electronic Professional Development Network (ePDN), offering both NASA-specific certificate programs and free online professional development programs for K-12 teachers in several STEM fields. Nearly 1,500 students took advantage of ePDN opportunities in fiscal 2012.

It is in that spirit that over the past two years, Georgia Tech has invested significantly in the promise of "massive-online" education. In 2011 we created the Center for 21st Century Universities, or C21U, led by one of country's foremost thought leaders in higher ed innovation (and former dean of our College of Computing), Rich DeMillo. C21U's role is to serve as living laboratory for new pedagogical practices, particularly those related to technology.

The center spearheaded Georgia Tech's early and highly successful entry into the world of massive open online courses (MOOCs) through our 2012 partnership with online education provider Coursera. As part of the second cohort of elite universities working with Coursera, Georgia Tech is responsible for some 20 course offerings that together have drawn more than 450,000 students in just 14 months. One of 77 institutions working with Coursera, Georgia Tech accounts for more than 10 percent of the company's overall enrollment.

With funding provided by the Gates Foundation, Georgia Tech has produced three Coursera courses that push the boundaries of the format, bringing MOOCs into the liberal arts and lab sciences. These courses—First-Year English Composition, Introductory Physics (with lab) and Introduction to Psychology as a Science—have attracted some 48,000 enrollments. And one of Coursera's most popular courses is taught by a Georgia Tech Computing professor, Tucker Balch. More than 100,000 students have enrolled in Professor Balch's Computational Investing course over three offerings, the most recent of which began three weeks ago.

Earlier this spring, Georgia Tech made its boldest move to date in online education with the announcement of an online Master of Science in Computer Science delivered through a MOOC-based platform (OMS CS), offered in collaboration with Udacity and AT&T. First conceived in Fall 2012 by Georgia Tech College of Computing Dean Zvi Galil and Udacity founder Sebastian Thrun, OMS CS is the first attempt by any accredited university in the world to deliver a full degree program completely through the massive-online format—and at an estimated cost of less than $7,000 for most students. Announced in May, OMS CS is set to launch in January 2014 with its first cohort of fully qualified, degree-seeking graduate students.

While OMS CS represents an opportunity to dramatically expand access, through both cost and delivery method, to an elite-quality education for students around the world, it also comes at no small risk to Georgia Tech. For every believer in the potential of massive-online education, there is an equally confident skeptic who maintains that this format could undermine the foundation of higher education and cheapen its value to students. OMS CS was supported by three-quarters of College

of Computing faculty and approved at every level of the University System of Georgia; however, we acknowledge there are skeptics even on our own campus. Finally, given the level of media coverage OMS CS has received in just four months, failure would occur on a large, brightly lit stage.

So why are we doing this? Put simply, we are doing it because we can and because we should.

Why should we? Rising student costs for higher education threaten enrollments at a growing number of institutions. Structural shifts in the economy have simultaneously created a sizable population of un- or underemployed workers in need of affordable education and training together with a strong demand for a larger technological workforce.

According to the Bureau of Labor Statistics, the unemployment rate for technology professionals nationwide stands at about three and a half percent—roughly half the overall rate. Over the past decade, employment in the IT sector has increased by 37 percent, and during the recent recession, the Bureau estimates that the technology industry lost only 1 percent of its workforce.

These factors present an opportunity to apply Georgia Tech's official motto: Progress and Service. OMS CS addresses both parts of this motto. As the first in the world to try this approach, Georgia Tech intends to put real force behind the advancement of higher education through technology. And the program's ultra-low cost, combined with its availability to students anywhere in the world through the Internet, promises to expand the global population of trained computing professionals.

How can we? Technology has made feasible and affordable the delivery of elite-quality education, not only through the proliferation and penetration of the broadband internet, but through affordable and portable recording technology; through collaboration tools that allow the teams of experts necessary to create these courses to work across large distances; and through online social-networking that allows students themselves facility to self-organize across distance.

In the Institute's view, a Master's degree in computer science also represents a natural first pilot in massive-online degrees. The Master's degree is often a professional degree that emphasizes learning through rigorous and structured coursework, as opposed to the rigorous but highly unstructured research experiences of the doctoral student. Master's students are often older and have the maturity and discipline to self-motivate, traits that are critical to student success in a MOOC environment. Finally, computing as a field is amenable to the MOOC format, as much of its related coursework can be evaluated using objective, large-scale processes.

Of course, OMS CS would not be happening right now without the critical support and collaboration of Georgia Tech's partners in Udacity and AT&T. An unrestricted $2 million gift from AT&T provided critical startup funding, and the company continues to play a central role in the program's development. A senior AT&T human resources executive chairs the OMS CS advisory board, and AT&T will propose course projects for OMS CS students—subject to the approval of Georgia Tech faculty—and strengthen its own workforce with OMS CS graduates. By supporting this program both financially and through its continued participation, AT&T has strongly demonstrated a forward-thinking commitment to improving education through innovation.

Udacity, meanwhile, is much more than a delivery vehicle for OMS CS. Its approach to course development and leadership in massive-online education made it the right fit to help support our MOOC-based degree. Founder Sebastian Thrun taught one of the world's first MOOCs, in artificial intelligence, as a Professor of Computer Science at Stanford University. At Udacity he has created a focused, highly interactive approach to MOOC education, with course segments that continually reinforce learning through micro-quizzes and other exercises built into the course content itself. These innovations have led to significantly higher retention and academic performance rates when compared to other MOOC offerings.

In spite of the anticipated quality of OMS CS courses, both Georgia Tech and Udacity acknowledge that the program will not succeed without achieving a scale far beyond that of a traditional program. Udacity-style MOOC development is resource-intensive in terms of both dollars and personnel time, and OMS CS course content will be supplemented by a human infrastructure much larger than those supporting campus classes.

Program price is both the engine and outcome of necessary scale. The expected price of $6,600—which is actually higher than many students will pay, because overall cost depends on the time students take to complete the degree—is critical to attracting sufficient numbers of students to cover the high initial fixed costs, and sustainable program scale also will enable OMS CS to remain at an attractively low price to students.

We have identified a critical educational need in society, found two brave and committed collaborators, and sketched out a compelling vision for how OMS CS will function at full scale. So how do we get started? At Georgia Tech, the College of Computing and Professional Education are taking the lead in marshaling forces from across campus to build the infrastructure necessary to support a program like this. We are working with dedicated colleagues, who are devoting significant time to OMS on top of their existing responsibilities, in units such as admissions, financial aid, the bursar's office, information technology, identity management, accounting and finance, communications, assessment, compliance and many others.

As for the curriculum, a half-dozen faculty from the College of Computing are working with Udacity developers and instructional designers to create the first OMS CS courses for January's launch. We anticipate offering five courses at launch:

- Advanced Operating Systems
- Computer Networking
- Software Development
- Machine Learning
- Artificial Intelligence for Robotics

We anticipate that approximately 100 students will be admitted into each course, though our enrollment plans are made difficult by the fact that we cannot fully anticipate the number of qualified students who will apply. This program has no comparable offering in the educational marketplace against which to gauge demand. As stated previously, our estimates for long-term demand are driven not just by current CS enrollments around the world, but by our belief that a low-cost, accessible degree will significantly expand the global pool of prospective students.

Assuming demand scales as anticipated, we will start small to test the additional infrastructure OMS CS requires, then ramp up gradually over a three-year implementation period. This implementation will involve not only the full Master of Science degree program but also additional credentialing options that will accommodate a range of student preferences. Not every student wants or needs a full-fledged graduate degree—offering professional certificates and transferable credit for individual courses gives students a range of options while distributing the financial risk across multiple program tracks.

As we venture into this brave new world of massive-online education, our top concern is and will remain degree program quality. If we cannot offer a Master's in computer science whose rigor equals that of Georgia Tech's on-campus program, we will not continue to offer the degree. Further, our metrics for quality will not simply apply to course content—students must receive adequate support for success. They must be provided application, registration and payment procedures that function smoothly and enable them to focus their attention on academics. They must have access to trained, knowledgeable staff and teaching assistants who can help them navigate both the intricacies of computer science and the technology being used to teach it.

Those are the goals we have set for ourselves. Accomplishing those goals requires a tremendous level of coordination among dozens of professionals in Atlanta and Palo Alto, Calif., where Udacity is based. It requires a public university on the East Coast finding ways to work smoothly with a private company on the West Coast, negotiating time zones, state and federal regulations, accreditation considerations, faculty and staff schedules, production capacities and innumerable other activities—everyone pointed in the same direction, toward program launch on Jan. 15, 2014.

As I mentioned earlier, Georgia Tech believes there are very specific reasons why a Master's degree in computer science will succeed in the massive-online format, and we further believe that this mode of delivery will have an important role in a diverse, technologically enhanced future for higher education.

Having said that, we do not believe that MOOCs are a "silver bullet" for the challenges that face higher education. Georgia Tech built its international reputation on the acreage of its physical campuses in Atlanta and around the world, and we do not believe online degrees can easily replace the residential experience. We envision a future where MOOCs and other, yet-to-be-found innovations will complement traditional education at all levels, enabling high school graduates to enter college better prepared, college students to maximize the value of the time they spend on campus, and career professionals to continually update their skills and qualifications with high-quality, accessible content. Such a world will offer a much richer and more practical menu of educational choices for people of all ages, which we believe will result in a better trained and more productive society.

In conclusion, let me add that one of MOOCs' most important contributions to education is that they have engendered necessary conversations among all the constituencies of higher education. What does it mean to teach? What are the critical

components of learning? How can we leverage technology to bring quality, effective education to the greatest number of people possible?

We have been exploring these questions at Georgia Tech for a long time. And I for one feel privileged to be part of one our most daring efforts yet in search of answers. On behalf of the Georgia Institute of Technology, I thank you very much for your time and attention today, and I look forward to working with you to help achieve our common educational goals in service of this great nation.

Thank you, Madam Chair. This concludes my testimony.

ONLINE RESOURCES

Georgia Institute of Technology: *www.gatech.edu*
Georgia Tech College of Computing: *www.cc.gatech.edu*
Georgia Tech Professional Education: *www.pe.gatech.edu*
Udacity: *www.udacity.com*
AT&T Dynamic Solutions for Education: *http://www.corp.att.com/edu/*
Online Master of Science in Computer Science: *www.omscs.gatech.edu*
Charles Isbell: Georgia Institute of Technology
Sept. 18, 2013, hearing: "Keeping College Within Reach: Improving Access and Affordability Through Innovative Partnerships"
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Chairwoman FOXX. Thank you, Dr. Isbell.

Thanks to all of you for your very informative testimony. I will be inviting each member of the subcommittee to ask questions of you and I am going to begin with myself, and we will have 5 minutes. The clock will be working in the same way, so I would ask that you pay attention to that.

Ms. Singer, how does the regulatory structure in the United States slowdown implementation of innovative partnerships? How is that a detriment to schools trying to implement these types of arrangements in a rapidly-evolving higher education landscape? And in your written testimony, you allude to the fact that our competition from other countries is a real problem.

So if you would talk a little bit more about that in answering the question, I would appreciate it.

Ms. SINGER. Certainly. I would say that our experience has been not that regulation is really prohibiting a partnership, it is just not helping it.

What is happening with these kinds of partnerships that we are involved with is that they are very complex and I have to tell you, sometimes I feel very sorry for both the department and accreditors and state officials who are trying to understand them.

They are complex. They want to do the right thing by the student, and so what is really happening is we kind of get slowed down. There isn't the knowledge of how to handle some of these.

I think we are at a stage where, while people really want to help and do the innovation, there is not enough education about them. So I think an openness to this, perhaps even some staff that might know a little bit more about complicated partnerships or at least resources to do that.

I would also encourage demonstration projects. I know that when we were first starting online, the demonstration projects were excellent in terms of us really experimenting in finding out how online could be helpful in a way that was responsible.

So I think while there is not big barriers, there is just not the encouragement of it and the complexity is what is slowing us down. Demonstration projects would help a bit too.

Worldwide, we are seeing lots of different innovation that is happening, and I think part of the advantage that some other countries have over us about things is that they are not set in a particular way.

Yes, we have the best higher education system in the world and it is still valued that way, but they are fast coming on board, watching what we do, and leapfrogging because they are not wedded to certain bureaucratic ways of doing things or certain investments that they have made. Those are the things we have observed.

Chairwoman FOXX. Thank you very much.

Dr. Isbell, what did you have to do to get programmatic approval from your accreditor? Is there anything you have to do differently compared to a traditional program at Georgia Tech to comply with federal law or regulations, and did this impede the college mission?

Mr. ISBELL. At this point, the answer is we haven't had to do much very different. The biggest problem that we have had in working with our accreditor is the ambiguity in the rules.

We had a very long, hour-long conversation with people from SACS, which is the accreditor for the southeastern region of the United States, to work with us on what exactly it is that we meant by this degree and whether we were actually going to be able to go forward with it without having a full visit.

Georgia Tech is up for reaffirmation of its accreditation in the next year, and they promised to come and to look very carefully at what we are doing.

I think the good news is that everyone is on the same page and that we are all trying to do the right thing together. They want to do what is best for the students. We want to do what is best for the students.

The difficulty arises in the complexity of our relationships and that it isn't very clear what it means in today's society for someone to own a platform or for someone to own the curriculum in the education.

Chairwoman FOXX. Thank you both very much.

Dr. Docking, we have just about a minute, but if you could very quickly explain how you restructured your administrative offices and what businesses you have entered into agreements with, and what types of jobs are students getting as a result, and are those jobs reflective of the local economy.

Mr. DOCKING. Yes, Chairwoman Foxx. Essentially, what we did administratively was we layered a business model on top of a higher education institution by asking two very simple questions—how much does it cost to run this institution and how many students do we need to have at this institution to make it work?

That number came back at 1,400 students. So we then put several strategic investments in place in which we knew how much each investment was going to bring in in terms of students. So even something like a student symphony—if you have a recruiter who has responsibilities for the symphony, you can then hold them accountable.

The relationships that we have gotten in with have to support our local community in Southeast Michigan because most of our kids are from Michigan—about 80 percent. They would like to stay in Michigan, and so they need to be ready for the Michigan workforce.

Chairwoman FOXX. Thank you very much. My time has expired.

Mr. Hinojosa, I recognize you for 5 minutes.

Mr. HINOJOSA. Thank you.

I want to commend each one of you because I hear lots of panelists at congressional hearings that we have had and each and every one of you have really stimulated my mind as to how exciting it would be to have you just spend 1 month with each member of this education committee so that we could learn from you and be able to kick forward these new ideas that you all are presenting.

I would like to start my first question to someone from my State of Texas, Rich Baraniuk.

Can you elaborate on the number of ways in which the open educational resources approach to textbooks can benefit students and reduce college costs?

Mr. BARANIUK. I think that—thank you very much for the question. There are a number of ways that open educational resources are benefiting students right now.

The first is the fact that the resources are free, which means that some of the most at-risk students in America have access to resources in order to study, to be able to advance their learning outcomes, to be able to actually work on their homework at night or at their job when they are taking classes. So the first is access.

The second really critical item behind open educational resources is the fact that they can be customized to the local context of the individual institution.

So a faculty member can customize so that his or her class has the perfect textbook, if you will, that reaches their students, their context, their background, so that they can optimize their learning outcomes.

So this combination of free access and also openness that allows the materials to be customized by faculty is a very powerful combination.

Mr. HINOJOSA. Let me put a face on this question. I had an intern this summer by the name of Maria. She comes from my congressional district from a family of four children and she is at Rice University getting a masters and doctoral degree at the same time. Can she use your textbooks and be able to get all the credits that Rice will give so that she can get her degrees?

Mr. BARANIUK. So that the key thing is that we are—OpenStax College is a publishing initiative and so we aim to lower the cost on the learning material side of the equation.

Of course the total cost of the student attending college includes other costs like tuition, fees, et cetera, but there is ample evidence that in many locales the cost of the textbooks is a very significant percentage of the total cost. So we aim to reduce that part down to zero.

Mr. HINOJOSA. Thank you.

Ms. Singer, I read your material, and it is really exciting to be able to say that you are serving 800,000 students. Tell me. How do

graduation rates for online programs developed jointly by Laureate and universities typically compare to the universities' traditional on-campus programs?

Ms. SINGER. Our retention rates compare very favorably. We started very carefully when we went into online, and we worked mostly at the graduate level. We don't think that online is a panacea and we don't think online should be used for every student.

So we work very much at—36 percent of our students who are at the doctoral level, and online is just fabulous for them in terms of their research. So we have very, very competitive retention rates and very strong cohort default rates. So I feel that the programs do both the quality end of it——

Mr. HINOJOSA. Your answer is music to my ears because we are trying to increase the numbers of Latinos and Latinas doing masters and doctoral programs, and looking at your material, it seems to me that it would really work with us.

So tell me. Can we use some of the federal monies that are available like Pell Grants and other scholarships for these Latinos and Latinas to take advantage of what you just said?

Ms. SINGER. Yes, absolutely. For the undergraduate programs that we offer and actually—one of our institutions is National Hispanic University in San Jose, California, and of course, we have such a strong connection with Latin America——

Mr. HINOJOSA. Why not the masters and doctoral programs?

Ms. SINGER. Because they are focused on the undergraduate programs. They have access to all of the loans.

Mr. HINOJOSA. Do you plan to add the masters and doctoral programs?

Ms. SINGER. I think if we are targeting—I mean, that is a big concern as a nation, being sure we reach this fast-growing population. I think we should make those kinds of things available.

Mr. HINOJOSA. Thank you.

Chairwoman FOXX. Thank you.

Dr. Heck, you are recognized for 5 minutes.

Mr. HECK. Thank you, Madam Chair.

And thank you all for being here and for the presentations this morning.

Dr. Docking, it is kind of amazing, the renaissance I guess, that Adrian went through from 2005 to 2013, and a lot of the strategic investments that were made to make that happen. Can you tell me, what was the trajectory of the tuition and fees at the college during that time period?

Mr. DOCKING. We have raised tuition and fees around 4 or 5 percent. However, I should also add that our financial aid has gone up on an even higher trajectory. So we have put in more in financial aid than we have charged students.

Mr. HECK. And I was interested in the meeting that was had by the CEOs and the small college presidents to identify the talent gap. I think that is something that is critical. A lot that this committee has looked at is making sure that we are investing resources to prepare future students for the jobs that will be as opposed to the jobs that were.

What did you do, or what did that group of college presidents do with that information once they identified the talent gap?

Mr. DOCKING. Well, what the CEOs—let me start with what they said they needed. What they said they needed were problem solvers, people that are critical thinkers, people that can work in teams. And the thing that really distinguishes our type of institution from so many others is our size, which makes us very nimble.

So we took that back. Our academic affairs vice presidents looked at it, have already worked with professors to work it into the curriculum and to do the types of things that we need to do to prepare students for what these CEOs said they wanted.

Mr. HECK. And so, did that go back and change the actual curriculums or was it in some of the delivery models? What was done——

Mr. DOCKING. Well, both. Both the curriculum and the delivery model. Again, you can do things so quickly in a school with 1,700 students that it really only takes a couple of meetings and those changes can be made.

And so yes, all of that was done. How we deliver it, even the types of experiential education opportunities the kids get. We are very, very big on sending kids off-campus and giving them an opportunity to do rather than simply just learn in the classroom.

Mr. HECK. Thank you.

Ms. Singer, in your written testimony you expressed some concern that with a regulatory framework that somewhat is based in part on tax status, and also you reference the regulatory triad and the speed to market. How do you link those things together?

I know it is very important, as was discussed by Dr. Docking, about being able to react to changes in the academic environment, to be able to have a speed to market. How does the regulatory framework, specifically perhaps the framework relating the part related to tax status or the regulatory triad, impede or facilitate your ability to have speed to market?

Ms. SINGER. Yes, thanks for the question.

I think when we look at the triad, the facilitation can happen if—I am talking about trust and transparency. It is interesting. That is what is good about partnerships to begin with. That is what you have to have.

And so I think what happens for us is that sometimes there is ambiguity. Ambiguity in the regulation is probably more of an issue. Uncertainty, more of an issue because then you hesitate.

Should we be doing this? Is it okay? Is it not okay? It is complicated. Are we going to be able to move? And then that hesitation stops us from moving forward in a way that might find new innovative ideas and implement right away on that.

And I think your comment about tax status, you know, being in my position in my company, there is a lot of conversation about tax status. Honestly, I have been an educator all my life. I have only been in education. I am a reading specialist, a Montessori teacher.

When I look at what I really think the criteria should be is that I think the tax status is not the right criteria. The right criteria is: are we getting quality outcomes for our students? Are they measurable? Can you really show that? And are we being good stewards of the taxpayers' dollars?

I think those are the things that ought to be the marks that we use and we ought to use them across all universities and not have

advantages and disadvantages from one or the other. All students, no matter where they go to school, need to have the same kind of quality assurance.

Mr. HECK. Thank you. And lastly again, Ms. Singer, I am aware that Laureate has a potential pending partnership with the Thunderbird School of Global Management, a state that borders mine. Can you tell us about the need for that partnership and how you expect it to benefit students?

Ms. SINGER. Yes, that partnership, while we intend to have that partnership go through, I must tell you that it has not passed all of the accreditation approvals yet, but I think it is an interesting story.

Just very quickly a beautiful, fabulous school, great faculty in the MBA world, international, did well for a long time. The environment has changed.

There are many wonderful international business schools all over the United States. Lots of competition even from around the world. They didn't change that model quickly enough, found themselves struggling a bit financially, and not able, more importantly, to push forward their mission.

They did an RFP process, I think, which is very interesting. The board went out and said, we need to change, we need to get help. They had quite a lot of activity around that.

We were chosen because of the strategic and financial support that we could give, but the strategic piece was most important. Our international footprint allows them to fulfill their mission very quickly.

Mr. HECK. Great, thank you.

Thank you, Madam Chair. I yield back.

Chairwoman FOXX. Thank you.

Mr. Holt, you are recognized for 5 minutes.

Mr. HOLT. Thank you, Madam Chair.

I thank the witnesses. Very interesting. We see quite obviously enormous changes taking place, and they will have to because it seems the current system is not sustainable. But I have to ask whether the proposals that you make or the examples you give are sustainable either.

Let me start with you, Mr. Baraniuk. I certainly see advantages to this. What is your goal for market penetration? It looks like what you describe, saving a million students $100 million a year, that is taking $100 million out of the publishing business, I suppose.

What is the long-term prospect for this if this becomes dominant in providing textbooks?

Mr. BARANIUK. That is an excellent question. So to answer the first part of the question, our goal is to first of all underpromise and overperform, so we have a very conservative goal of trying to achieve 10 percent market penetration in each of the 25 subject areas that our books are targeting. As I mentioned in my remarks, this will save about 1.2 million students approximately $120 million per year.

As far as sustaining our particular initiative, we feel that if we can achieve this kind of market penetration then the ecosystem of partners that we are building will be able to create a sustaining

revenue stream that will come back to the projects so that we can keep the books up to date, relevant, correct and give them a life that can last many, many decades. So that is the sustainability question.

I think the larger issue you bring up is where is the publishing industry going, and I think that this is a very interesting and deep question. I think that many of the players in the publishing industry are moving from a content-based type model to a technology type model.

And I think that initiatives like OpenStax College, because we are open source, because we are willing to partner with publishers and technology companies, there is a role for them to play in this new world.

Mr. HOLT. Okay, thank you.

Dr. Isbell, now Georgia Tech has this one computer science graduate program. Are there others following soon? I read in the Chronicle of Higher Education that the university's curriculum committee said that they have received no written proposal for any new graduate degree, I think including this one. Is that right?

Mr. ISBELL. That is not correct. What happened——

Mr. HOLT. That is not correct?

Mr. ISBELL. It is not correct.

Mr. HOLT. So where does the University plan to go?

Mr. ISBELL. So two parts to this. One is the University is—first, in terms of governance, the degree program went through all of the normal processes through the faculty—there was a faculty vote where 75 percent voted for it inside of our college. We presented it to the institute committee and we took it up to our Board of Regents and it went through without a problem.

The institute is watching very closely as are we all. This is a pilot. We plan to move forward very quickly over the next year or two and to scale it up as much as feasible given our quality goals, and I believe that once we have done that, we will expect to see other at least masters level programs follow suit.

Mr. HOLT. So is this a small perturbation on the system—to use an engineering term—that isn't going to make a big dent in college, in university costs in the long run or, if it is going to make a big dent in university costs in the long run, how is it sustained?

Mr. ISBELL. The answer to both of those are the same. The answer is scale. A lot of the costs that we deal with, both in this program and in general at a university, are fixed costs. So depending upon how you sign those costs, building one of these courses on a MOOC platform costs anywhere between $200,000 and $300,000.

That is a lot of money if you are talking about 40 students. But it is not a lot of money if you are able to reuse the material again and again and serve thousands upon thousands of students.

So at our current projections for our costs, if we can keep 2,000 or 3,000 students, maybe 4,000 students in the program overall, we will more than break even.

That is how we are going to make the sustainability. It all boils down to scale so that as you bring in more people, it overcomes the large fixed costs, the initial investment that you have to make in the program.

Mr. HOLT. Well, I thank the witnesses. Very interesting, I think, attractive prospects.

Chairwoman FOXX. Thank you, Mr. Holt.

Mr. Bishop, you are recognized for 5 minutes.

Mr. BISHOP. Thank you very much, Madam Chair.

And I want to thank the panel. This has been really a very interesting and helpful discussion. I thank you very much.

Dr. Isbell, let me just start with you. I just want to be clear on something. We hear a lot about how the regional accrediting process is often an inhibiting force in terms of program development and program innovation.

And if I understood you correctly, the program that you have described is the first master's degree program in the country that will be offered exclusively on a MOOC platform. Is that correct?

Mr. ISBELL. That is correct.

Mr. BISHOP. And you were able to in effect, gain the concurrence of your accreditor by virtue of an hour-long conversation and then I would assume some other conversations. Is that right?

Mr. ISBELL. That is correct.

Mr. BISHOP. So it is fair to assume that the accreditor was cooperative and helpful as opposed to inhibiting?

Mr. ISBELL. Absolutely.

Mr. BISHOP. Okay. Thank you. And congratulations to you. Really. It is very impressive.

I want to go to Dr. Docking. I used to work at an institution similar to one—we had perhaps more dandelions than you had, more leaky roofs, but I am deeply impressed with what you were able to do, and I have a lot of questions about how you were able to do it. But when you met with the CEOs, you and the other 11 college presidents, did you discuss at all the possibilities or the promise of cooperative education?

I know you have an internship program which differs somewhat from cooperative education. One of the things I have been talking about and thinking about for a long, long time, is the utility of cooperative education both in terms of preparing students for meaningful careers, helping businesses basically try on employees so they can determine whether they have what they need, and also the affordability aspect of earning while a student is enrolled as an undergraduate.

Is that a model that you think might work for you or that might work for some of your sister colleges?

Mr. DOCKING. I think it is a model that can work with us on some level. We have been around since 1859, so people are pretty steeped in tradition at these small private liberal arts colleges, but the whole idea of cooperating with the business community is key for us, and I will just give you a couple of good examples.

We have something called externships where we tell the kids during their first year in school, you don't want to study for 4 years and then get out of here and realize I don't like what I am doing. I have an accounting degree and I don't like being an accountant.

So we tell them, go away with an accountant for a day, see what they do. If you want 2 days, we will let you off from class, but at least experience it and see if you have a passion for this. That has

worked very well by helping students understand very early on this is what I want to do.

Obviously, the internship model that I described in which we say we really want to find internship sites with companies that say, "We want to hire." So it can turn into a 3 month or 1 semester interview rather than an hour in a CEO's office.

In terms of broader cooperative educational efforts, as I mentioned earlier, we have a lot of experiential learning opportunities in which our professors get out into the business community and work with folks, but they do that on a very class-individual basis and we haven't mandated it across the college.

Mr. BISHOP. You made several references to the strategic investments that you made to begin the turnaround. Where did you get the seed money for those strategic investments? Was it internal reallocation of resources? Were you able to get a lead gift? How did you pull that off?

Mr. DOCKING. Yes, I needed $30 million in 2005. I went and raised $15 million, and I borrowed $15 million from the banks.

Mr. BISHOP. Okay. Next question. Your tuition has gone up, your financial aid expenditures have gone up as well. What is your student discount rate?

Mr. DOCKING. 52 percent.

Mr. BISHOP. And that is across all 4 years or just for freshman?

Mr. DOCKING. It is across all 4 years.

Mr. BISHOP. Okay, but you have been able to make that work in terms of the volume that you have developed as a result of that discount rate?

Mr. DOCKING. That is correct. We have been able to make it work.

Mr. BISHOP. Okay. But I take from that that you have a population that is very dependent on student aid.

Mr. DOCKING. We do; 98 percent of our students need financial aid.

Mr. BISHOP. Have you been able to assess what impact ongoing sequestration will have on your campus-based programs and on Pell?

Mr. DOCKING. I have not been able to assess that. At these small schools, we don't have a big staff to do that, and so we had not looked at that closely, but that would be a problem.

Obviously, we are very appreciative of the support that you all have given to student aid programs to our types of schools. That is key to us to continue to provide greater education.

Mr. BISHOP. Real quick, I am about to run out of time.

If campus-based goes down or Pell goes down, does that mean that your discount rate goes up or your enrollment goes down or some combination thereof?

Mr. DOCKING. It would be devastating. Our discount rate would go up some but we would certainly lose a lot of students.

Mr. BISHOP. Okay. Thank you very much and congratulations.

Mr. DOCKING. Thank you.

Chairwoman FOXX. Thank you.

Mr. Walberg, you are recognized for 5 minutes.

Mr. WALBERG. Thank you, Madam Chairman.

Mr. Isbell, interesting program; exciting to think about the potential. Could this model that you are working in now in the sciences—could it work with liberal arts, humanities to make it be cost-effective as well as the quality that would be there?

Mr. ISBELL. Sir, I will defer to my liberal arts colleagues for an answer for that, but we believe that for a lot of the sort of courses that are out there, the answer is probably yes.

There are people who are exploring options like this mostly at the undergraduate level, and at the master's level we have been targeting with this or the sorts of courses that are well-understood and can manage where we can disseminate information to thousands of people at once.

We do have people who work on more liberal arts sort of courses even in the College of Computing, and they are currently exploring ways to take all of this work.

Publishing is actually a big issue here. What does it mean to provide readings to people possibly all over the world without violating copyright? There are a lot of technical details that have to be worked out, but in principle, it is possible.

Mr. WALBERG. The present pricing structure that you have, could you go in a little more detail on that? To hear that a master's total cost is $7000 for the student, you have the basic cost worked out. Go into a little more detail of how your pricing structure operates.

Mr. ISBELL. We did something very simple. We sat down—it was a very difficult exercise, but it was fairly straightforward—we sat down and we tried to capture all of the costs. It turns out the bulk of the costs again are fixed costs.

What does it mean to produce one of these courses? We worked out how much it would cost us in order to do this. If we assumed that we had a steady-state in the low thousands, how would we be able to break even, and then we priced it accordingly.

We started out with the goal of try to do something under $10,000, expecting that we might be able to get as low as $4,000, and we ended up roughly where we are at about $6,600. So we tried to account for all of our costs, put a little bit of a buffer in there, and then priced accordingly.

Mr. WALBERG. Great, thank you.

Dr. Docking, how real is the threat to small liberal arts colleges of closing, and what is the key facilitator of the closing?

Mr. DOCKING. Yes, I think I just read recently that 70 to 75 percent of small liberal arts colleges either have flat or falling revenues right now.

I did a study recently at the college that showed about 30 colleges that closed over the last 10 years, small liberal arts colleges, and it would really be devastating I think to the landscape of higher education in America if these were not available as an option to young people. It is a very real concern.

Mr. WALBERG. I had the opportunity to watch the turnaround take place and innovation that went on there, risks that were taken, roadblocks that were in the way. Talk a little bit more about the first steps in taking that simple strategy of what does it cost to run the program, how do we get to the enrollment to achieve that.

Mr. DOCKING. Yes, well, as I mentioned earlier, efficiency at these small liberal arts colleges is absolutely key. I only have 93 professors, a small staff, and it is an environment in which you have to pay attention to every single penny.

So when we knew we had to get to 1,400 students, we said, well, how many are we going to get just by being here on the map? And it only came up to about 600. So we knew we had a lot of growth.

And we put people in charge of specific programs much like a salesperson with a sales quota and they needed to meet that number and if they couldn't meet that number, then it wasn't going to work out at the college.

What we learned about it was that people like that accountability. Whether it is a hockey coach looking to fill a hockey team or someone filling numbers for a marching band or even thinking about doing it in something like health care management in which we started a new major in health care management because our area needs this but we have——

Mr. WALBERG. Was it just numbers? Were there other factors that you mandated in that process?

Mr. DOCKING. Were there numbers for other faculty did you say?

Mr. WALBERG. Well no, was it just numbers like a hockey coach? He needed to find more players.

Mr. DOCKING. No, obviously there were academic standards that the young people had to meet, and they had to be good students, but he needed to bring in numbers of good quality kids that could do the academic work and play hockey.

Mr. WALBERG. Federal barriers in the process? What federal barriers would you list quickly here in the final seconds?

Mr. DOCKING. Well, the financial responsibility standards is the one that is the most difficult for us right now. I don't know if it is a one-size-fits-all view, but it really takes a lot of time and does not reflect the economic strength of an institution. That is the problem right now. It really should be looked at.

Mr. WALBERG. So as we move ahead with reauthorization, financial standards account——

Mr. DOCKING. 100 percent. Of 160 schools like Adrian last year, about that did not pass and it is crazy. These are good strong schools. They have been around longer than most of the banks.

Mr. WALBERG. Thank you.

I yield back.

Chairwoman FOXX. Thank you.

Ms. Bonamici, you are recognized for 5 minutes.

Ms. BONAMICI. Thank you very much, Madam Chairwoman.

This has been a fascinating discussion. I have really appreciated it, and I want to follow up for a moment if I may, Dr. Docking, on your comment about the talent gap in bringing together colleges and business leaders.

We have had a lot of success in that area in the district I represent. Portland Community College, for example, has a renewable energy system program where students can learn to be renewable energy technicians.

And interestingly, at Chemeketa Community College we have a viticulture program where students can study the wine business,

vineyard management, and winemaking, which is a big part of the economy there. So those partnerships have been very successful.

I want to follow up on your internship program that you mentioned. Our goal and purpose of this hearing today is talking about improving access and affordability through innovative partnerships.

Access is an issue with internships that often raises equity issues because low income students often have to take a paid job, can't take an internship, which is often times unpaid.

So how do you address those challenges of low income students? And I want to mention that I am working on the Opportunities for Success Act to try to deal with that equity issue and make unpaid internships more available for low income students. So paid internships or how do you address that issue?

Mr. DOCKING. Sure. First of all, let me say that over 900 of our students are on Pell. So we are a very working-class college, almost 10 percent students of color. So it is very important that they make money in their internships. So we almost look exclusively at paid internships.

The second thing that I wanted to mention that was pointed out, this talent gap program that we went to, is that the business leaders that were there said the two things that they find most helpful in students is A, that they have an internship so that they know what they are getting into and B, that they do a sort of senior project in which everything comes together in a capstone and the kids can synthesize all of the information they received over 4 years.

I found the business community to be very, very open to both sharing those ideas, and then once they get to know us, working with our kids to give them paid internships. It is something that they are very, very happy to participate in.

Ms. BONAMICI. Thank you so much, and obviously it helps them a lot when they graduate to have that experience.

So I want to talk about the MOOCs. So, like many people across the country, I'm really interested in the potential of these massive online courses, but to me, the jury is still out. I am still a little wary about their widespread adoption before we really talk about the consequences, positive and negative.

So what I've found is that out there, in the real world, in the business world, and in society that qualities like the ability to work as a team member, communication, relationship building skills, those are all developed throughout a student's time in school. Growing in these areas continues of course in post-secondary education and they are very important to success in the world.

So though MOOCs have potential, especially with older nontraditional students, and I know, Dr. Isbell, you mentioned that. Can we talk a little bit about whether they neglect this in-person development and those skills that students need to really go on and be successful?

I think we will start with Dr. Isbell. What are your thoughts on that because that type of teamwork, communication and relationship building doesn't happen with online learning? Or maybe you think it does.

Mr. ISBELL. So this is one of the reasons why we started with a master's degree, so that we were mainly focused on people who were already professionals, who were already in an environment where they had built a lot of those skills.

So our expectation—you will have to ask me in a couple years how it worked out—but our expectation is that many of these people will be from places like AT&T, places like GE, where they actually have a cohort locally where they can work on projects together as they continue their education. So we think at that level, it is going to be a big win.

At the lower level, at undergraduate, it is very unclear how we would be able to leverage that sort of thing alone. Our current belief is that at least at Georgia Tech we are going to try to use things like MOOCs to complement the undergraduate education. Certainly not to replace it.

Ms. BONAMICI. Thank you.

Anyone else care to comment?

Ms. SINGER. If I might, I think the MOOCs—you have to—one thing about MOOCs is that right now, a little different than what you are doing, is that they are mostly about courses and what I understand that you are working on are degree programs and a degree is much more than the sum of its parts as you are indicating.

So I think really careful design of a degree program whether at the undergraduate level or at the graduate level, starting with the employer outcomes that are necessary, and really what happens with online and with MOOCs is that you can actually just design the scaffolding and the way that you want those students to go through to assure success.

But the other thing about an online environment is you have to build the support structure around it. We talked about retention rates and so forth. It is about the support structure. It is about the conductivity that happens, but I will disagree about one thing.

The collaboration that can happen online particularly around the world—and it is not just online—I think sometimes we have a misnomer there, even MOOCs, it is more than that. It is about using educational technology to connect people. That is how business is working now. We are working across countries and across borders.

Ms. BONAMICI. Exactly. Well, thank you so much. My time has expired.

I yield back. Thank you, Madam Chairwoman.

Chairwoman FOXX. Thank you.

Mr. Tierney, you are recognized for 5 minutes.

Mr. TIERNEY. Thank you very much.

Mr. Baraniuk, I am curious to talk a little bit about the savings that can be there for students with regard to textbooks being online, for those resource materials.

How are we going to expand that out from where you are now, 25, and get to a larger number? What barriers are there to doing that, and what policy implications might there be for us in trying to make that happen?

Mr. BARANIUK. Thank you very much for the question. Very interesting.

So our plan is to start with an initial library as I mentioned of 25 textbooks. The reason why we selected these 25 books is because

they capture a very large percentage of the total college enrollment across community college, 4-year college, and even elite universities.

So we believe that by focusing initially on those 25 courses, we will be able to make the most impact and also be able to save the most students the most money.

That said, if the project is a success and we have good reason to think that it will be, we are very interested in looking at expanding into other domains and also expanding our collaborations both with other ecosystem providers like publishers, like computer-based homework providers, MOOC providers, et cetera.

I think that because the choice of the textbook in a class is primarily the choice of a faculty member or a college textbook committee, we feel that there are not necessarily many barriers in the way to having our books be adopted on a wide scale.

All that said, I think that the key issue that we face today or the key barrier that we face is just getting the word out about the project.

We find that when students—or when faculty, rather, find out about the project, they are usually ecstatic because they know that their students are at risk, and they would like to do anything they can in order to see that they can get access to high-quality educational materials.

Mr. TIERNEY. Thank you.

I want to talk a little bit—I am not sure who to direct this question to, so I open it to anybody, about the online potential for nontraditional students.

We have a number of institutions in Massachusetts that really have a lot of nontraditional students who need to be able to afford to go to school. They need to be able to have the flexibility timewise around the rest of their life, whether it is family or work or both of those, and they really need to have some credentialing because they stop in and out. They don't want to wait until they finish a 4-year completion program or even a two.

Sometimes you like to know that when you reach a certain level of accomplishment, there will be something there that you can take tangibly with you and it encourages you to come back and build on that.

How do we see online courses addressing those factors?

Ms. SINGER. I can take a first stab at that.

I think nontraditional students and that is a wide range of people. So it could be first time—it sounds to me like first-generation students coming in perhaps or the working professional, the working adult.

I think one of the comments that you made is they need to be able to get the credential and then go back to work and come back.

One of the things that is important about online, I think, is that it makes it more accessible because you can keep a job going if the degree has been created correctly so that you can actually keep your job, do your work at a pace that is appropriate for you.

But, I think the other thing that you are insinuating here that is important is that there is a way to design programs for students that they can get a certificate or be certified in a certain area, up their skill set, go back to work, come back, finish that degree.

So I do think the way we think about designing programs and being sure that courses can lead to certificates and can lead to those degree programs and then making them accessible in the home is very important. You have to put the right services around it.

Mr. TIERNEY. I was just going to say that. Their indications are that this population in particular has some experience in the online course but find that they need more support——

Ms. SINGER. They need much more support——

Mr. TIERNEY [continuing]. Individuals that they can contact——

Ms. SINGER. And that is why it is not always less expensive.

Mr. TIERNEY. That was my next point is how does that affect the price——

Ms. SINGER. The course design—I will just say to you, content is a commodity. Content is a commodity. So what is it that the institution of higher education is giving to it students? It is taking them from where they are, understanding what skills they need, giving them the support, the bridge support that they need around it so that they can be successful——

Mr. TIERNEY. So in the end, it may be more expensive to address that population with online——

Ms. SINGER. It could be if you have a group that really needs—you have got to be able to—it may be a little bit more expensive, but the value won't be there for the student if you allow them to enroll in a self-paced—and online is not all self-paced—I would tell you that those students need to be in a class, online class with a professor who knows how to work with students who might be struggling and the support structure needs to be in there. You will have a savings on the content end of it.

Mr. TIERNEY. Thank you.

Chairwoman FOXX. Thank you very much.

I want to thank the witnesses for their comments. This has been a very, very useful hearing today, and I want to thank you for taking your time to testify before the subcommittee today.

Mr. Hinojosa, do you have any closing remarks?

Mr. HINOJOSA. Yes, thank you.

I would like to thank our expert panelists for joining us today and for sharing their invaluable experience and expertise, and I have to say that from my perspective, this is one of the best congressional hearings that I have participated in, and we thank each and every one of you.

In fact, when this is over, I am going to come down there, and shake your hand. [Laughter.]

Ms. SINGER. Thank you.

Mr. HINOJOSA. As we move forward, on the HEA reauthorization, I look forward to working with you and all of our higher ed stakeholders to encourage innovative partnerships that really promote affordability and accessibility and college graduation success.

With that, I yield back.

Chairwoman FOXX. Thank you very much.

And again, I want to thank all of you for coming.

I always have a lot more questions than we have time to ask so these hearings could go a lot longer, but what I would like to say to you is we will be submitting some questions to you.

And the overriding question that I would like to ask you to respond to, in writing when you get an opportunity and the staff will handle this much more formally, is we are going to be dealing with the reauthorization of the Higher Education Act and I would like to hear from you what policy changes you would suggest to make public-private partnerships easier and more effective.

I think that is obviously at the heart of what we are hoping to get at by a hearing like this is how can we make them more effective.

I have mentioned before at these hearings that I have been around in higher education for a long time. I have heard some of the comments that have been either spoken or alluded to today for a long time and we sometimes—I sometimes feel we aren't getting much closer to them.

The issue of outcomes versus inputs. I have always felt that that should be where we should be looking. We haven't been able to move higher education very far in that direction in my opinion, but with the technology that we have and the ability to use that technology, it seems to me we should be moving much closer.

I think that we have all heard the old cliche that trying to change higher education is like trying to turn a battleship. It takes a long time to do it. Fortunately again, we have been delivered of a lot of opportunities, particularly through technology and with the interest of the private sector.

I believe higher education has been failing in many cases to produce the skills in people that the private sector needs, and so I am very happy to see the private sector pushing higher education to do more to meet the needs of the workplace, and that is obviously what higher education is for.

I say we should emphasize the fact that 4-year degrees, online degrees, whatever they are, they are focused on helping people get jobs.

I think there has not been enough recognition sometimes of that by the higher education community, which has in the past I think been pretty insulated and looking to itself for what it likes to do and not necessarily what needs to be done for the broader society, although there are wonderful exemptions to that.

So I thank you all again for being here today, for helping stimulate some very good conversations and new ways of thinking because that is important for us on this subcommittee and the larger committee too.

There being no further business, the subcommittee stands adjourned.

[An additional submission of Chairwoman Foxx follows:]

Prepared Statement of Javier Miyares, President, University of Maryland University College

I would like to thank Chairwoman Foxx and Ranking Member Hinojosa for inviting University of Maryland University College (UMUC) to submit testimony for the record of this important hearing on innovative partnerships in higher education.

Let me begin with a brief description of UMUC, its history and its current direction.

UMUC is a public university and is part of the University System of Maryland. With over 97,000 students stateside and internationally, it is the nation's largest public institution of higher education.

UMUC has a long and proud history of creative approaches to challenges in higher education. In fact, UMUC was created in 1947 to fulfill the educational needs of the people considered our first non-traditional students—the GIs returning from World War II. They were older, had jobs and families and did not seek the traditional college experience.

UMUC brought higher education to them—where they lived and worked—across Maryland and in the process became a trailblazer in distance education.

In 1949, UMUC was the first to answer the call from the Pentagon to send faculty overseas to teach active duty military personnel in Europe and Asia. The university has continued to serve the military and their families to this day. Over half our current students, about 55 thousand, represent active duty military, veterans, and their dependents.

UMUC also was one of the earliest adopters of the Internet as a course delivery platform, offering its first online course in 1994. Since that time the university has continued to innovate with course and curriculum design. Today, 85 percent of the courses UMUC offers are online and the remainder is delivered in a hybrid—or blended—format.

UMUC is focused on the goals of high quality, affordable education, addressing the needs of non-traditional students, harnessing technology, emphasizing prior learning and competency-based learning and shortening the time to graduation.

To help achieve these goals, the university has sought innovative, strategic partnerships.

UMUC's Innovative Partnerships

UMUC has entered into several types of partnerships to facilitate learning and reduce the time to a degree. These partnerships fall into three categories:

1. Partnering with companies and organizations that provide services such as learner analytics or specific training courses
2. Partnering with other higher education institutions
3. Partnering with companies that hire—or could hire—our graduates to consult on curriculum development and specific skills necessary for employees.

Learner Analytics Help Avoid Negative Outcomes and Promote Success

UMUC has partnered with Civitas Learning, a Texas-based company that builds predictive models of student behavior. As a result, UMUC can now reliably predict certain student outcomes allowing the university to take proactive steps to improve student performance and retention.

With 85 percent accuracy these models allow UMUC to predict, on the first day of an online class, who is likely to succeed and who might struggle. With these data, faculty and support staff can design interventions to help students overcome difficulties.

Data analysis indicates that students who sign up for an online class the day before it begins are much more likely to struggle and withdraw or fail than students who register four or more days ahead of the first day of class. To decrease the withdrawal and failure rate, UMUC now closes registration four days prior to the first day of class. Results indicate an increase of over 2% in successful course completion rates. This can result in hundreds of more successful students.

Civitas Learning and UMUC also determined that familiarity with the syllabus is a predictor of success. Students who access a course syllabus early and often are more likely to succeed in a class than those who do not.

Within Three Years, UMUC Will No Longer Require Hard Copy Text Books, Providing Significant Savings for Students

By partnering with several organizations, including non-profit Merlot.org, (Multimedia Educational Resources for Learning and Online Teaching), UMUC, through use of Open Education Resources, will move away from hardcopy textbooks, while eliminating the cost of other course materials. Digital resources, learning activities, and content will ultimately be available for students 24/7 online. By fall of 2014, 50% of course materials will be available online. UMUC plans to eliminate all costs for course materials in undergraduate programs by fall 2015, and in graduate programs by fall 2016.

Professional Development Classes Foster Ongoing Personal Advancement

Because UMUC seeks to serve the learning needs of all adult students, the university offers a wide variety of non-credit/professional development classes. The university partners with the firm EXTOL which has developed and structured courses that are particularly successful for adult learners. While these are non-credit courses, they can provide helpful professional credentials for participating students.

Partnering With Other Higher Education Institutions Expands Academic Reach

Through contracts with the Department of Defense, UMUC provides a range of degree programs to active duty military personnel in Europe. The DoD recently sought graduate and undergraduate degrees in social work. UMUC responded by partnering with Salisbury State University in Maryland to offer social work degrees to its overseas students.

Partnering with Community Colleges Saves Students Time and Money

UMUC has partnerships with 93 community colleges nationwide and is the only university that has partnered with all sixteen community colleges in Maryland. These partnerships ensure that students who have earned credits from 351 selected programs from any of the identified schools can automatically transfer those credits to UMUC. Too often, students take classes they assume will count toward their degree only to find that other schools will not accept those credits. By entering into these academic alliances, UMUC takes the guess work out of transferring. Students know before they take classes whether they will, in fact, transfer to UMUC.

UMUC's transfer agreements also promote associate degree completion, which has been shown to be an important milestone achievement in a student's education. With programmatic transfer agreements, pathways to completion are the focus at both the community college and UMUC.

UMUC Corporate Learning Solutions—Partnering with Businesses to Develop Workforce Ready Graduates and Retain Highly Skilled Employees

Through its Corporate Learning Solutions Department, UMUC partners with companies, associations, government agencies and local organizations to accomplish key goals:

a. Provide currently offered programs to employees in more direct and supported ways, and

b. When appropriate, develop certificate programs, programs to strengthen professionalism, tactical skills and leadership capabilities in line with the organization's specific strategic objectives. UMUC works with organizations to customize curricula to specific needs, so employees master the skills and competencies necessary for advancement and to become more highly productive. Two examples are outlined below:

Booz Allen Hamilton

The university has established a successful partnership with Booz Allen Hamilton, one of the nation's leading providers of cybersecurity talent and expertise. With the rapid rise in demand for skilled cybersecurity employees, UMUC partnered with Booz Allen to develop curricula and programs for three UMUC Graduate Certificates:

1. Foundations of Cybersecurity,
2. Cybersecurity Policy,
3. Cybersecurity Technology.

To date, more than 500 Booz Allen employees have taken courses. The goal is to help Booz Allen build a talented, "Best in Industry," cyber workforce.

Because the State of Maryland is considered the epicenter of cybersecurity activity, UMUC designated a senior academic administrator to serve as liaison to the cyber industry. This ensures that UMUC is offering cutting edge programs to an expanding workforce.

Baltimore Police Department

UMUC partnered with the Baltimore Police Department to develop a customized Leadership Program. By consulting with the department and understanding its unique challenges and constraints, UMUC designed a curriculum that fits the needs of both individuals and the department. Police Commissioner Frederick Bealefeld sought an education program that would also instill the desire to learn in his department. UMUC is proud of this partnership and the role it has played in making the Baltimore Police Department more effective.

For more information on these partnerships, visit, *http://www.umuc.edu/corporate/index.cfm*

In conclusion, I would like to compliment the subcommittee on the interest it has taken in exploring innovative strategies being pursued by universities like UMUC. If the higher education community as a whole is to meet the workforce demands of the 21st century, it must embrace change. UMUC is proud of its history of

proactive efforts to embrace as well as harness new technology to meet evolving workforce needs.

Thank you.

JAVIER MIYARES, *President,*
University of Maryland University College,
3501 University Boulevard East, Adelphi, Maryland 20783.

www.umuc.edu

CORPORATE LEARNING SOLUTIONS—EDUCATION ALLIANCE PARTNERS PARTIAL LIST

- American Council on the Teaching of Foreign Languages (ACTFL)
- American Chemical Society (ACS)
- AmerisourceBergen
- Armed Forces Communications & Electronics Association (AFCEA)
- Analytical Services & Materials (AS&M)
- Applied Integrated Technologies (AIT)
- ARINC
- ASM Research
- Association of United States Army (AUSA)
- AT&T
- Baltimore Police Department
- Boeing
- Booz Allen Hamilton
- CACI
- Calvert County Sheriff's Office
- CGI
- Connections Academy
- DC Office of Unified Communications
- DC Water
- Federal Labor Relations Authority (FLRA)
- Foundation for Advanced Education in the Sciences (FAES)
- G4S
- GEICO
- Global Network Services (GNS)
- Health & Human Services (HHS)
- InfraGard
- Jacobs Technology
- Jiffy Lube
- K12
- L-3 STRATIS
- Lockheed Martin
- Lunarline
- Luxottica
- ManTech
- MedStar Health
- National Center for Missing and Exploited Children (NCMEC)
- National Technical Honor Society (NTHS)
- NJVC
- Northrop Grumman
- Ongoing Operations
- Open System Sciences (OSS)
- Patricio Enterprises
- Precise Systems
- Prince William Chamber of Commerce
- Raytheon
- Ross Technologies (RTGX)
- SAIC
- Smithsonian Institution
- Social Security Administration
- StraighterLine
- TASC
- TerpSys
- TISTA
- UMBC Training Centers
- URS
- US Pharmacopeial Convention (USP)
- Washington Suburban Sanitary Commission (WSSC)

- Walgreens
- Yellow Ribbon Fund

[Questions submitted for the record and their responses follow:]

U.S. CONGRESS,
Washington, DC, October 29, 2013.

Dr. RICHARD G. BARANIUK, *Victor E. Cameron Professor,*
Electrical and Computer Engineering, Department of Electrical and Computer Engineering, Rice University, MS-380, 6100 Main Street, Houston, TX 77005.

DEAR DR. BARANIUK: Thank you for testifying before the Subcommittee on Higher Education and Workforce Training at the hearing entitled, "Keeping College Within Reach: Improving Access and Affordability through Innovative Partnerships," on Wednesday, September 18, 2013. I appreciate your participation.

I have enclosed an additional question for inclusion in the final hearing record. Please provide a written response no later than November 15, 2013. Responses should be sent to Brian Melnyk or Emily Slack of the committee staff who can be contacted at (202) 225-6558.

Thank you again for your important contribution to the work of the committee.

Sincerely,

VIRGINIA FOXX, *Chairwoman,*
Subcommittee on Higher Education and Workforce Training.

CHAIRWOMAN VIRGINIA FOXX (R–NC)

What policy changes would you recommend in the upcoming reauthorization of the Higher Education Act to make public/private partnerships easier and more effective?

Dr. Baraniuk's Response to Question Submitted for the Record

What policy changed would you recommend in the upcoming reauthorization of the Higher Education Act to make public/private partnerships easier and more effective?

Considerable funding has been allocated to the creation of open education resources (OER). However, efforts to grow the burgeoning ecosystem of OER, increase awareness of OER options, and increase local adaption of OER are not as mature. To address these needs and increase OER use, I recommend a two phased approach.

First, I recommend creating incentives for non-profit and for-profit developers to create resources and training programs that both facilitate learning and drive-down costs. These incentives should be available to programs that increase development and use of adaptive learning/technologies, create interactive learning objects, or facilitate training and deployment in classrooms. Such monetary incentives would help for-profits manage financial risks and allow non-profits to enhance offerings at greatly reduced cost.

Second, institutions and faculty should be encouraged (either monetarily or programmatically) to support local adoption and adaptations. Funds used to adapt OER provide much greater impact leverage than those used to build redundant content from scratch. However, institutional and faculty investments are required to make systemic changes that increase adoption. Some institutions recognize this hurdle and have responded with models that could be replicated across the country. For example, Tacoma Community College in Washington State has an OER group that works with faculty to increase awareness of OER and provide them adaptation grants. The University of Oklahoma's Center of Teaching Excellence promotes the use of OER and provides faculty with resources to locally adapt materials.

I believe that the next step in OER adoption will be the maturation of the OER marketplace. Incentivizing developers to train and institutions to adapt OER will help drive demand for additional high-quality OER and give Congress an opportunity to lower costs and barriers to education for students across the country.

U.S. CONGRESS,
Washington, DC, October 29, 2013.

Dr. Jeffrey R. Docking, *President,*
Adrian College, 2131 Heatherwood Drive, Adrian, MI 49221.

DEAR DR. DOCKING: Thank you for testifying before the Subcommittee on Higher Education and Workforce Training at the hearing entitled, "Keeping College Within

Reach: Improving Access and Affordability through Innovative Partnerships," on Wednesday, September 18, 2013. I appreciate your participation.

Enclosed are additional questions submitted by members of the subcommittee after the hearing. Please provide written responses no later than November 15, 2013 for inclusion in the final hearing record. Responses should be sent to Brian Melnyk or Emily Slack of the committee staff who can be contacted at (202) 225-6558.

Thank you again for your important contribution to the work of the committee.

Sincerely,

VIRGINIA FOXX, *Chairwoman,*
Subcommittee on Higher Education and Workforce Training.

CHAIRMAN JOHN KLINE (R–MN)

Dr. Docking, what did Adrian College learn from participating in the talent gap retreat you discussed in your testimony? What new initiatives or partnerships did you implement as a result of the multi-college retreat?

CHAIRWOMAN VIRGINIA FOXX (R–NC)

What policy changes would you recommend in the upcoming reauthorization of the Higher Education Act to make public/private partnerships easier and more effective?

REPRESENTATIVE SUSAN BROOKS (R–IN)

You spoke about the Adrian College internship program and pa1tnerships that exist with businesses.

1. Could you please explain in detail how this program works?
2. Are students required to intern?
3. If so, how many semesters?
4. Are the intern programs credit earning?
5. If they are not credit earning, do students get paid?

Dr. Docking's Response to Questions Submitted for the Record

CHAIRMAN JOHN KLINE (R–MN)

Q: Dr. Docking, what did Adrian College learn from practicing in the talent group retreat you discussed in your testimony? What new initiatives or partnerships did you implement as a result of the multi-college retreat?

A: Roundtable discussions with Michigan Colleges Foundation (MCF) member campus presidents and leaders from signature Michigan corporations and organizations explored the topic of talent development, engagement and retention in Michigan. The format was designed to understand the employer data related to "skill gap" in new graduate career readiness and develop best practice solutions to address them.

Outcomes from the event include the strengthening of industry-campus relationships at MCF institutions, a greater understanding of what employers believe college graduates need to know and be able to do, and new approaches to improving career readiness. The specific strategies that resulted from conversations between the suppliers and consumers of young talent are currently being utilized to further MCF's work connecting students to internships, project work, and career opportunities, as well as millennial retention initiatives. Special emphasis was placed on the leadership role of smaller, independent colleges and universities in preparing students for career success.

The ideas generated to address perceived talent gaps and the underlying issues were classified based on the concept of alignment. The participants identified strategies to help better align college learning and experiences with the social, work, and personal skills graduates need for career and life success after graduation. Three categories were created:

1. Alignment of Educator and Employer Expectations (Includes efforts to more closely align curriculum with workforce demands, and initiatives to provide greater interaction between employer and college faculty for awareness building)
2. Alignment of Student Programming (Includes development of practical off-campus experiences to apply learning, increased industry exposure on campus, and enhanced student understanding of professional career skills and expectations)
3. Alignment of MCF Role and Resources (Includes MCF facilitated connections and project work related to career readiness and articulation of quality factors that differentiate MCF graduates in career performance)

An advisory committee was established to help facilitate the implementation of pilot projects, support MCF's follow-up activities, direct future roundtable topics and evaluate the outcomes.

CHAIRWOMAN VIRGINIA FOXX (R–NC)

Q: What policy changes would you recommend in the upcoming reauthorization of the Higher Education Act to make public-private partnerships easier and more effective?

A: Often, seed money for innovation can be the most challenging money to identify. For a small college that is thin on administrative staff, identifying all of the available resources is a prohibitive time expense.

It would be great if one of the responsibilities of the Department of Education, perhaps through FIPSE (The Fund for the Improvement of Postsecondary Education), was to serve as a type of clearinghouse for various federal programs. For example, I know the Department of Agriculture has some low-interest loans available for rural community development. Making these loans known to small colleges in rural communities might be an impetus for regional development. In many rural towns, colleges are the major economic resource in the community, and the largest employer.

REPRESENTATIVE SUSAN BROOKS (R–IN)

Q: You spoke about the Adrian College internship program and partnership that exist with businesses.

1. Explain how the program works?

The Institute for Career Planning coordinates the Adrian College Internship Program. The goal of the internship program is to provide all students with the opportunities to test their career interests and develop job-related skills through college-approved work experiences. Faculty sponsors guide students as they link theoretical knowledge with the practical learning gained in part-time or full-time internships.

Any Adrian student in good standing (minimum 2.00 cumulative GPA) is eligible for participation in the internship program following completion of 12 credit hours at Adrian College, provided the student is acceptable to the employer, obtains the approval of his/her advisor and secures a faculty sponsor for the internship.

Adrian College offers two types of internships. Exploratory internships, designated as course number 199 on the student's transcript, are part-time experiences open to second-semester freshman, sophomores, and upper class students with a credit limit of three hours per semester. Exploratory internships are designed to acquaint students with work in a particular setting, to bring them in contact with professionals in the field and, in more instances, to give them the opportunity to assume limited responsibilities in the career area being explored. Professional internships, designated as course number 399 on the student's transcript, are experiences for juniors and seniors in which they may utilize and enhance entry-level career skills.

Career Planning maintains a list of approved internship sites, though any student, faculty or staff member at the College may propose such a site. All proposed sites must be approved by the Internship Committee prior to a student beginning the internship. Students may pick up an internship packet at Career Planning or access it online and discuss the program with a Career Planning staff member.

Role of Internship Committee

This committee establishes procedures governing the internship program, reviews proposed sites, monitors the quality of the program and hears requests for variances from normal policy.

Role of Career Planning

The Institute is the central coordinating facility for all internships conducted through the College. In cooperation with the faculty Internship Committee, the Career Planning staff establishes, administers and publicizes procedures governing the program. Any questions regarding the internship program should be directed to this Institute.

Role of the Faculty Sponsor

The faculty sponsor is responsible for designing an academic component for the internship experience. This academic component should be above and beyond the normal work responsibilities the student assumes at the site, and will be outlined and agreed upon by the faculty sponsor and the intern prior to the start of the internship. The faculty sponsor insures compliance with established procedures, mon-

itors student performance during the internship, maintains contact with the on-site supervisor, assesses student progress and grades the experience.

2. Are students required to intern?

Some majors do require an internship within the department or as an optional course.

Required programs are:

- SCJ—Sociology and Criminal Justice (minimum of 2 credits)
- ESPE—Exercise Science: Health Management & Pre-Professional (3 credits)
- ART—Art Management (6 credits)
- PSCI—Political Science (1 credit hour)
- BAD—Business Administration, Sports Management (3 credit hours)

3. If so, how many semesters?

Students earn from one to six semester hours of credit during a single semester of an internship; the number of credit hours available for internships is designated by the Internship Committee. Students may complete internships as they wish, with a maximum of 15 hours of internship credit applying toward the baccalaureate degree, depending on approval by program of study.

4. Are the intern programs credit earning?

Yes, students can earn departmental credit for the internship (if not a department requirement, can earn departmental credit if approved by department chair). Students may also earn elective credits.

5. If they are not credit earning, do students get paid?

A student may receive salary or wages for internship services, depending on the employer's policy.

U.S. CONGRESS,
Washington, DC, October 29, 2013.

Dr. CHARLES LEE ISBELL, JR., *Professor and Senior Associate Dean,*
College of Computing Georgia Institute of Technology, 190 Imperial Way, Fayetteville, GA 30214.

DEAR DR. ISBELL: Thank you for testifying before the Subcommittee on Higher Education and Workforce Training at the hearing entitled, "Keeping College Within Reach: Improving Access and Affordability through Innovative Partnerships," on Wednesday, September 18, 2013. I appreciate your participation.

Enclosed are additional questions submitted by members of the subcommittee after the hearing. Please provide written responses no later than November 15, 2013 for inclusion in the final hearing record. Responses should be sent to Brian Melnyk or Emily Slack of the committee staff who can be contacted at (202) 225-6558.

Thank you again for your important contribution to the work of the committee.

Sincerely,

VIRGINIA FOXX, *Chairwoman,*
Subcommittee on Higher Education and Workforce Training.

CHAIRMAN JOHN KLINE (R–MN)

Dr. Isbell, how did Georgia Tech develop the coursework and curriculum for its new master's program? Is the program as rigorous as your on-campus master's degree programs?

CHAIRWOMAN VIRGINIA FOXX (R–NC)

What policy changes would you recommend in the upcoming reauthorization of the Higher Education Act to make public/private partnerships easier and more effective?

Dr. Isbell's Response to Questions Submitted for the Record

CONGRESSWOMAN FOXX: Thank you very much for your follow-up inquiry regarding my testimony to the Subcommittee on Sept. 18.

In response to your question—"What policy changes would you recommend in the upcoming reauthorization of the Higher Education Act to make public/private partnerships easier and more effective?"—the upcoming reauthorization should encourage the creation of regional and state agreements surrounding state authorization, such as the one being created through the State Authorization Network (SAN) (see: *http://wcet.wiche.edu/advance/state-authorization-network).* This would create

partnerships between institutions of higher education and state authorizing bodies to allow for online and MOOC providers to offer services across states and regions. The creation of the SAN would also represent a huge step towards reducing cost, complexity, and duplication of effort for institutions of higher education.

In response to Chairman Kline's question—"How did Georgia Tech develop the coursework and curriculum for its new master's program, and is the program as rigorous as your on-campus master's degree programs?"—the answers are that the curriculum is (somewhat) a work in progress but it is the College of Computing's position that our online Masters of Science in Computer Science (OMS CS) will be every bit as rigorous as our traditional programs or we will cease to offer the OMS degree. Please allow me to elaborate.

As you can certainly imagine, we've had an established curriculum for the on-campus MS CS degree for several decades, and it is our intent to transfer as much of this curriculum as possible to the OMS CS program, given certain limitations. The most conspicuous limitation is the lack of significant personal contact between OMS students and their instructors. This creates an inherent barrier to certain types of courses, particularly those in such areas of computing as human-computer interaction and learning sciences, which draw heavily on knowledge from the liberal arts. Courses in these areas tend to rely on a greater amount of group discussion to help students both learn new concepts and apply what they're learning to novel problems.

However we do not concede that this barrier is insurmountable. Online students are ingenious in devising ways to create virtual communities to support their studies, and indeed a small industry is springing up around this very issue. Further, given the recent technological advances that have made OMS possible in the first place, we believe it's highly possible if not probable that the near future will see additional innovation to facilitate small-group discussion in a massive-online setting. Will this mean that all computing courses will then be amenable to the MOOC format? Not necessarily, but the large majority should be.

As we've been working to launch OMS CS for the past several months, we've learned that perhaps the most significant barrier to creating a full curriculum for OMS CS is nothing revolutionary at all: logistics. We are a public university on the East Coast partnering with a private company on the West Coast to create course materials that are extremely resource-intensive, and the central "talent" behind these courses—namely, Georgia Tech faculty—have very busy schedules. Creating a Udacity MOOC has been compared to producing a short film, and as someone who is in the middle of producing one myself, I can attest that this is true. It takes a tremendous amount of logistical support to plan the courses (whose arrangement is completely different from their on-campus counterparts), write the material, film the instruction, create quizzes and course work, review the filming, etc.—and this is completely separate from the technical work to support Udacity's model of in-course testing and student engagement.

In short, it is a major commitment to produce a MOOC, and it will take time for the OMS curriculum to add enough course material to catch up to the on-campus version. On campus, we have 15 specializations for MS students; we are initially offering eight specializations for OMS students. Traditional MS CS students have a catalogue of some 90 courses (including electives) from which to choose; OMS students will start with five choices. All this to say that, in the end, time is the most significant barrier to Georgia Tech's ability to offer a 100% online curriculum that rivals its on-campus equivalent.

Which leads me to your question regarding rigor. Georgia Tech has stated publicly and repeatedly that quality is our No. 1 goal. If we cannot offer an online MS in computer science with the same rigor as our on-campus degree, we will cease to offer OMS CS, period. This covers not only difficulty of the coursework but also admissions standards, student honor code enforcement, integrity of testing and grading, and all other factors that contribute to a degree's rigor. In fact, at least regarding admissions standards, we feel the criteria are more rigorous for OMS students than for on-campus students, given that the former need to achieve B's or better in their first two OMS courses to remain enrolled. It is true that on-campus students must supply an adequate GRE score to be admitted, however we feel the "two B's" requirement for OMS students trumps the GRE in terms of difficulty.

I hope this additional testimony adequately addresses your questions. If you or any other members of the Subcommittee would like additional information or clarification regarding the OMS CS program, please do not hesitate to contact me or any other official at Georgia Tech.

U.S. CONGRESS,
Washington, DC, October 29, 2013.

MS. PAULA R. SINGER, *President & CEO,*
Laureate Global Products and Services 650 South Exeter Street, Baltimore, Maryland 21202.

DEAR MS. SINGER: Thank you for testifying before the Subcommittee on Higher Education and Workforce Training at the hearing entitled, "Keeping College Within Reach: Improving Access and Affordability through Innovative Partnerships, " on Wednesday, September 18, 2013. I appreciate your participation.

Enclosed are additional questions submitted by members of the subcommittee after the hearing. Please provide written responses no later than November 15, 2013 for inclusion in the final hearing record. Responses should be sent to Brian Melnyk or Emily Slack of the committee staff who can be contacted at (202) 225-6558.

Thank you again for your important contribution to the work of the committee.

Sincerely,

VIRGINIA FOXX, *Chairwoman,*
Subcommittee on Higher Education and Workforce Training.

CHAIRMAN JOHN KLINE (R–MN)

Ms. Singer, what are some key reasons institutions look to partner with a company like Laureate? What is holding institutions back from expanding their academic offerings and what can Laureate provide to these colleges and universities to help them overcome these obstacles?

CHAIRWOMAN VIRGINIA FOXX (R–NC)

What policy changes would you recommend in the upcoming reauthorization of the Higher Education Act to make public/private partnerships easier and more effective?

Ms. Singer's Response to Questions Submitted for the Record

DEAR CHAIRWOMAN FOXX: I appreciate your letter of October 29, 2013 requesting additional information on the subject of innovation and partnerships in higher education. I am pleased to provide the following responses. Please let me know if you or the Committee needs any additional information. We look forward to working with you during the Higher Education Act reauthorization process.

QUESTION FROM CHAIRMAN JOHN KLINE

What are some key reasons institutions look to partner with a company like Laureate? What is holding institutions back from expanding their academic offerings and what can Laureate provide these colleges and universities to help them overcome these obstacles?

Higher education is advancing very quickly at the same time demand for access grows and pressure to ensure timely completion increase. While this confluence provides opportunities to many institutions and their students, it also presents many institutions with a challenge. We believe the most significant hurdles are the cost to innovate, the lack of capital and human resources to do so, and the need for speed to innovate quickly in order to remain relevant in the student marketplace. Additionally, for more traditional institutions, adapting to more innovative modalities, methodologies or offerings requires the input and approval of tenured faculty, which can sometimes be difficult and cause delays. Companies like Laureate provide the ability to successfully meet many of these challenges. With our experience and resources, our institution partners are provided content, technology, student support services, and a system of accountability with access to outcomes data and results. Institutions, therefore, can implement innovation more quickly at a much lower price, without having to reinvent the wheel themselves. Many institutions are interested in Laureate in particular because of its long history of partnerships in higher education and its successful track record of operating its own institutions on ground, online and around the world.

As addressed in more detail below, current statutory and regulatory provisions in the Higher Education Act, as well as certain standard processes, also present hurdles and delay to innovation and partnerships.

QUESTION FROM CONGRESSWOMAN VIRGINIA FOXX

What policy changes would you recommend in the upcoming reauthorization of the Higher Education Act to make public/private partnerships easier and more effective?

First, as innovation continues, we believe the relevancy of tax status will become even more arbitrary and irrelevant in the regulation of higher education institutions. In order to meet the increased demand for access while maintaining quality and focusing on the employability of all students, all institutions, regardless of tax status, will need the benefit of increased private capital. With declining federal and state budgets, even public institutions will be unable to rely on government funding.

Similarly, we hope that in reauthorization, attention will be paid to the current regulations by which the Department examines and interprets an institution's financial capacity and responsibilities. Those rules create significant unintended consequences where institutions with demonstrated academic quality and return on investment for their students and the federal government are unfairly restricted in their ability to innovate or add new offerings. For example, the manner by which new program approval regulations are applied to certain institutions—and not others—is not fully transparent or consistent. The program approval regulations are also applied without any required timeframes by which the Department must make a determination. These restrictions definitely delay innovative new offerings. In this age of innovative models, including partnerships, regulators need better tools, understanding and flexibility to distinguish between institutions or models and to effectively apply regulations. With a focus on the right data, definitions and outcomes in HEA reauthorization, we believe the Department would be better able to promote innovation and accountability, while also ensuring financial responsibility to Title IV funds.

Finally, we support the current regulatory triad created by the Higher Education Act, but believe it needs strengthening during the next reauthorization. There is no doubt that with more innovative models in the marketplace, higher education is becoming more diverse and complex, making essential the need for more clarity in the role of each regulatory body and increased trust regarding those responsibilities. There have been several proposals and commentary written recently about accreditation. As I said during the hearing and in my testimony, we believe the assessment of academic quality and improvement in higher education should remain with accreditors. This evaluation is very important to ensuring that an innovative partnership and other types of innovation maintain or improve the quality of offerings to students and do not negatively impact an institution's quality. Review of academic outcomes and inputs, like instruction and student support services, are critically important. It is essential that the Higher Education Act provides accreditors with direction and guidance on the types of assessment and evaluation needed, while also ensuring they have the ability and mandate to demonstrate flexibility and timely efficiency in independent decision-making.

My colleagues and I at Laureate look forward to being a resource to you and the Committee during the reauthorization process and I appreciate the invitation to testify.

[Whereupon, at 11:25 a.m., the subcommittee was adjourned.]

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