

Archived Information

Building Public/Private Partnerships to Prepare Students for the Workforce

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Members of the commission, fellow panelists, and distinguished guests: Thank you very much for this opportunity to speak about the important subject of innovative public/private sector partnerships with higher education.

I would like to begin my remarks with some brief background information about the California State University system.

The California State University - Background

The California State University is the largest four-year university system in the country, with 23 campuses, approximately 405,000 students and 44,000 faculty and staff. The CSU's mission is to provide high-quality, affordable education to meet the ever-changing needs of the people of California. Since the system's creation in 1961, it has awarded about 2 million degrees. We currently award approximately 84,000 degrees each year.

The CSU plays a critical role in preparing outstanding candidates for the job market. Our graduates help drive California's aerospace, healthcare, entertainment, information technology, biomedical, international trade, education, and multimedia industries. The CSU confers 65 percent of California's bachelor's degrees in business, 52 percent of its bachelor's degrees in agricultural business and agricultural engineering, and 45 percent of its bachelor's degrees in computer and electronic engineering. The CSU also educates the professionals needed to keep the state running. It provides bachelor's degrees to teachers and education staff (87 percent), criminal justice workers (89 percent), social workers (87 percent) and public administrators (82 percent). Altogether, about half the bachelor's degrees and a third of the master's degrees awarded each year in California are from the CSU.

One key feature of the CSU is its affordable fees. For 2005/06, the CSU's systemwide fee for full-time undergraduate students is \$2,520. With campus fees added in, the CSU's total fees average \$3,164, which is the lowest among any of the CSU's comparison public institutions nationwide. We try to keep our costs down – and in fact Governor Schwarzenegger has proposed to buy out this year's fee increase – yet many of our students continue to have great financial need. Approximately half of our students receive financial aid.

The CSU prides itself on its ability to provide college access to students across California's increasingly diverse population. The CSU provides more than half of all undergraduate degrees granted to the state's Latino, African American and Native American students. Additionally, CSU students are not necessarily the traditional 18- to 22-year-olds. A recent survey of CSU students found that:

- The average undergraduate age is 24.
- About 85 percent are commuters.
- Only 56 percent are dependent on parents.
- Nearly two in five have dependents.
- Four out of five have jobs, and 36 percent work full time.
- About one in five students is in the first generation in their family to attend college.
- 40 percent come from households where English is not the main language spoken.

Additionally, our students are closely connected and committed to the communities in which they live. More than 185,000 CSU students participate in community service annually, donating nearly 30 million hours, the minimum wage equivalent of \$200 million.

Why Public/Private Partnerships?

I have believed for a long time that public-private partnerships are vital for higher education. In fact, I've worked with several commission members on projects relating to public-private partnerships. Additionally, I've been active with the National Business-Higher Education Forum since my time in Florida and we have developed a number of education/workforce initiatives here at the CSU.

Whenever I introduce the topic of public/private partnerships in higher education, I feel that it is helpful to begin with this key point: In today's economy, higher education is more important than ever. According to the Census Bureau, a college graduate's lifetime earnings (\$2.1 million) are almost double that of a high school graduate. But a higher degree is more than just a ticket to a better job. It can improve the economic situation of both individuals and their communities. That's why it is in everyone's interest – communities, businesses, and educators – to help students succeed in school and pursue the highest degree they can. In fact, we cannot state this fact strongly enough: The future success of our country's economy is inextricably linked with the educational attainment of our students.

Given this conviction, the CSU recently sought to measure its impact – economic and otherwise – on California's businesses and communities. A comprehensive study of the CSU and its campuses found that CSU-related expenditures create \$13.6 billion in economic activity, support 207,000 jobs and generate \$760 million in state taxes in a year. The report also found that the state of California reaps a four-fold benefit from every dollar it invests in the CSU.

This study further cemented our belief that the CSU's work is tightly bound to that of our local communities and economy. Essentially, we see ourselves as bridge-builders – building continuity across the spectrum from education, to the economy and workforce, to the community.

Partnerships Focusing on K-12

A good place to start this discussion is at the very beginning of the education-workforce continuum, in the public schools. Given that the public schools are the source of nearly all CSU students, the CSU spends a great deal of time doing bridge-building with our state's K-12 partners. Specifically, we have been reaching out to middle and high schools to try to help more students prepare for and get ready to succeed in college.

When we say that 54 percent of the CSU's students are students of color, it may sound like a large number, but that's not necessarily the case when you look at the students who are in the pipeline. Right now, approximately two-thirds of our state's K-12 students are students of color. I believe that the future of higher education in this country depends on our ability to reach those students of color and students from traditionally underrepresented groups whom we have not yet reached.

One of the most important tools the CSU has developed to reach high school students is the Early Assessment Program, or EAP. We created this test program, along with the California Department of Education and the State Board of Education, to help 11th grade students to get a 'snapshot' of their mathematics and English/language arts proficiency.

The test incorporates the CSU's placement standards into the California Standards Tests for English and math. If the EAP test shows that that a student needs more work, they can use their time in 12th grade to brush up on the skills they need for college. We have also designed programs for teachers and students around these tests to help them make the most of the final high school years.

Although the EAP is voluntary, 150,000 students took the EAP test last year.

Last year, the CSU won an Edison International New Era Award for Excellence in Higher Education for the EAP. The award supports projects and initiatives that help prepare future college students to succeed in school and prepare them to be competitive to meet 21st century workforce expectations. The \$150,000 award will pay for nine of the CSU's regional teacher training sessions, where approximately 900 teachers will be prepared within the next two years to help students meet college-level math and English requirements.

Another important effort, in the area of outreach, is our "Steps to College" poster. When I first arrived in California, I was dismayed at the lack of college planning information available for middle and high school students. However, for the next wave of California's

students, many of whom are the first in their families to go to college, that planning information is critical.

The CSU has since created the popular “Steps to College” poster, which gives middle and high school students the steps they need to take to prepare and apply for college and financial aid. The poster, which has served as a model for similar publications at universities from Nevada to Pennsylvania, won a silver medal in the CASE Circle of Excellence International competition.

For the last six years, we have distributed copies of the poster in English and Spanish to middle and high schools throughout California. Last year, we partnered with Boeing to create additional English/Spanish versions of the poster and expand the distribution to local libraries and youth organizations. We also partnered with three Asian newspapers to print and distribute copies of the poster in Chinese, Korean, and Vietnamese.

CSU Outreach to Key Industries

The second major component of our partnership efforts is our work with leaders from key California industries. Following the release of our report about the CSU’s impact across California, we decided to hold a series of conversations with our state’s most influential industry leaders. We wanted to share the information that we learned about the CSU’s impact on these industries, and we wanted to hear more about what we could do to better prepare more students to work in the fields that are important to California.

Throughout the past year, we held sessions across the state with California’s leaders in key industries in which the CSU has a major impact. We began with the agriculture, tourism, entertainment, and engineering industries. The kinds of questions we asked included:

- How can we better prepare our students to enter into these fields?
- Do our programs offer the background and experience students need to succeed in the workplace?
- What kind of partnerships can we form with your businesses that will help us accomplish these goals?

These sessions turned out to be extremely productive for both sides. We have since formed task forces with each of these business and industry groups to follow up on their requests and strengthen our partnerships with them. A brief update on our work with each of those industries follows.

Agriculture

Agriculture, one of the largest and most widespread industries in California, is a critical part of the state's economy. The CSU is the state's leader in agricultural education, producing more than 52 percent of the state's graduates in agriculture-related majors (nearly 1,200 students per year). In specialized majors like food and nutrition studies, agricultural engineering, plant sciences, and horticultural services, the CSU produces more than 90 percent of the state's graduates.

The CSU is also a leader in applied research and industry partnerships that help further the agricultural knowledge base and are important components of workforce preparation. For example, the California State University Agricultural Research Initiative (CSU/ARI) is an applied agricultural and environmental research program that leverages public funding with university and industry capital and intellectual collateral through collaborative university/industry partnerships. CSU/ARI project themes include agricultural business, biodiversity, biotechnology, food science, natural resources, production, public policy, water, and irrigation technology.

CSU/ARI is a consortium of the California State University system's four colleges of agriculture – Fresno State, Cal Poly San Luis Obispo, Cal Poly Pomona, and CSU Chico – and we are working to expand the consortium to two additional campuses, CSU Monterey Bay, and Humboldt State. However, ARI funding extends far beyond this consortium and, depending on project merit, may be distributed to CSU faculty and researchers at any of the CSU's 23 campuses and their respective collaborating research scientists at other institutions. Governed by a board that includes both academic and industry leaders, the benefits of ARI applied research, such as improved methods or new technologies, are in the public domain, and directly and immediately available to producers and consumers across California and the nation.

Each year, the state of California provides \$4 million to ARI – funding that must be matched at least one-to-one with industry resources. Moreover, this past year, in the recently passed FY 2006 Agriculture appropriations bill (HR 2744), Congress earmarked \$1 million to the ARI program, and these new federal dollars will also be matched one-to-one by California industry.

Additionally, our Fresno State campus is home to the California Agricultural Technology Institute (CATI), a nonprofit educational institution dedicated to improving California's agriculture. CATI is made up of the Center for Agricultural Business, the Center for Irrigation Technology, the Center for Food Science and Nutrition Research, and the Viticulture and Enology Research Center.

In February 2005, the CSU hosted a forum at Fresno State with agricultural leaders from throughout California, with a focus on our role as a higher education leader in applied research and industry partnerships that help advance agricultural knowledge.

At the forum, agricultural industry leaders asked us for some curricular changes that our academic teams are responding to. We continue to work with an agricultural advisory panel that is helping us develop these changes and other new initiatives.

Entertainment

The CSU's campuses and its alumni have contributed significantly over the years to the continuing growth of the film/TV/entertainment industry in California. The CSU grants 88 percent of the radio and television broadcasting degrees in the state, 66 percent of the state's journalism and mass communications degrees, 59 percent of the visual and performing arts degrees, and 58 percent of the fine arts and arts studies degrees.

CSU campuses have also established partnerships that offer students opportunities and career paths in highly sought-after industries. For example, Cal State Northridge's Entertainment Industry Institute is an example of the close relationship between the CSU and the entertainment industry. The institute maintains ongoing contact with some 50 companies in the field and draws on the support and expertise of an advisory council comprised of prominent members of the entertainment industry. It also maintains a faculty advisor network of professors with scholarly and professional interests related to the entertainment industry.

Last April, we held a meeting at Cal State Los Angeles with leaders from across the entertainment industry who asked us to help them find and recruit more students from traditionally underrepresented backgrounds into the field. We have since held follow-up meetings with our campus deans who are responsible for arts and entertainment, and those deans continue to work with our industry contacts on meeting their needs.

In addition, the group's leadership has proposed to seek federal funding for a next-generation media project. Leveraging existing infrastructure, this innovative workforce and product development program in new digital media technologies and applications will link at least nine CSU system campuses with established strengths in these areas. These campuses will partner with industry and provide a testing ground for new technologies, and serve as an incubator of creative ideas in areas such as broadcast, cable and satellite television, music recording, digital cinema, network distribution, gaming applications, virtual product design/testing, and mobile media, including new transformative broadcast and journalistic practices.

Tourism

Tourism is a traditional mainstay of California's economy. The competitiveness of the state's tourism industry is based on California's natural beauty and amenities, and also on the quality of the service provided to visitors. The CSU is a leader in meeting the state's needs for professional workers in a variety of disciplines that are essential to a competitive tourism industry.

Systemwide, the CSU produces 76 percent of the state's total degrees in tourism and natural resources. This includes 100 percent of the state's degrees in such disciplines as natural resources management and policy; wildlife and land management; and parks, recreation and leisure studies.

The CSU offers many outstanding programs in hospitality, tourism and natural resources management. For instance, the Collins School of Hospitality Management at Cal Poly Pomona is consistently ranked among the top programs in North America. With more than 600 students pursuing a bachelor's degree in hotel and restaurant management, the Collins School is the largest, oldest and best-regarded hospitality program in California. More than 90 percent of each year's graduating class accepts management positions before graduation.

Last June, the CSU held a forum at the Collins School with tourism industry leaders. The industry leaders asked us for help in recruiting more students into this growing field. Our tourism deans have continued to meet with each other to identify methods to encourage more high school and community college students to consider tourism and hospitality careers through partnerships with industry organizations such as the California Restaurant Association and the California Hotel and Lodging Association.

Engineering

California is world-renowned for its computer and electronics engineering innovations, especially in Silicon Valley. The CSU awards more than half of the state's baccalaureate degrees in engineering, including a significant percentage of graduates to fill professional needs in California's critical information technology and electronics industries. In total, the CSU produces 40 percent of the state's computer and electronics graduates.

In addition to computer and electronics engineering graduates, the CSU also produces 41 percent of the state's information technology graduates, including more than 50 percent of the general computer and information sciences graduates. Other engineering disciplines and fields at the CSU include agriculture, architecture, aerospace, chemical, electrical, electronics, computer, biomedical, materials, metallurgical and manufacturing.

Last October, the CSU hosted a panel discussion at San Jose State with leaders from the engineering community. Those leaders spoke about declining graduation rates in science and engineering, and the need to recruit more students – especially women and minorities – into those fields. We pledged to help them on this effort, and our campus engineering deans are working collaboratively toward this goal.

In each of the above-mentioned sessions with leaders from California's key industries, we heard many similar requests. These leaders told us that they were looking for graduates who have:

- A well-rounded education that includes critical thinking, communication, and organizational skills.
- The ability to work in teams.
- A willingness to accept change – because these fields evolve rapidly.
- Strong technology skills.
- The ability to communicate in written and spoken presentations.
- Skills in more than one language.
- An awareness of globalization and the larger world.
- A willingness to start by doing ‘grunt work.’

Additional Partnerships - CSUPERB

Aside from the event-specific partnerships with key industries, the CSU is also involved in several innovative public-private partnerships in other areas.

For example, the CSU system runs the California State University Program for Education and Research in Biotechnology (CSUPERB), which fosters California’s economic competitiveness by training the scientific and bio-manufacturing workforce, catalyzing technology transfer and facilitating the acquisition of state-of-the-art biotechnology resources. CSUPERB is comprised of faculty, staff, administrators, and corporate officers and serves as the official liaison between the CSU and industry, government, the Congressional Biotechnology Caucus, and the public arena in all biotechnological matters.

After consulting with biotechnology business leaders throughout the state, CSUPERB has developed an initiative to create three regional biotechnology workforce-training centers in California to address the need for innovative applied training of this vital industry’s specialized workforce. The training facilities concept encompasses the full range of academic institutions – vocational educational secondary schools, community colleges, 4-year colleges and universities – working alongside the biotechnology industry and drawing on the resources of stakeholder organizations.

This program will facilitate training and placement of highly skilled individuals – from entry-level technical and support staff through career scientists – both in the biotechnology industry and in the homeland security first responder community. Achieving this goal requires the creation of training programs, laboratories, and applied research settings that:

- Have laboratory and process facilities for short courses, workshops, and skills-training modules covering cutting-edge concepts and techniques;
- Train not only specialized students at varying educational levels, but also serve the professional developmental needs of incumbent, dislocated or displaced workers wanting to advance within or change careers into the biotechnology sector;
- Provide a mechanism for establishing a broad spectrum of applied research training collaborations between academic laboratories and biotechnology companies;
- Facilitate internship arrangements for trainees at all levels of career advancement.

This proposal is supported by California’s leading biotechnology industry organizations: BayBio; the Southern California Biomedical Council; BIOCOM; and the California Healthcare Institute. The CSU and its partners are currently seeking federal funding to get this initiative underway.

Community Partnerships

Additionally, over the past year, we have held town hall meetings with African-American, Hispanic, and Vietnamese communities to discuss how we can better reach out to and serve students in those communities. We are continuing to meet with working groups from these and other traditionally underrepresented communities to improve our efforts to reach those students.

For example, we are working with the churches in the Los Angeles Basin that serve large African-American congregations in an effort to increase the pool of African-American students, particularly male, to be eligible to attend a four-year university. Later this month we are holding “Super Sunday” at West Angeles Cathedral and other churches in the Los Angeles area to provide information for students and their families about college. We have also partnered with the Tomas Rivera Policy Institute and Sallie Mae on a large grant to support “Kids to College,” aimed at helping sixth graders in underserved communities learn what it takes to get to college.

Recommendations

As a result of these efforts, we have compiled some suggestions for this commission to consider. Future commission efforts might include:

- A federal program to help fund model industry/education partnerships;
- An increased federal emphasis on applied research that trains postsecondary students for the workforce;

- Additional study on how to improve the senior year of high school to better prepare students for higher education and the workforce.

Summary

All of these partnerships – and many, many others at our campuses – do more than simply enrich our existing programs. They serve as launching pads from which we are able to create new initiatives and ideas, and they allow us to identify and meet the ever-changing needs of our state’s vital industries. The end result is better preparation of students who are ready to enter the working world, filled with current and relevant knowledge that will allow them to “hit the ground running” in their chosen fields. It is these graduates who will form the basis for our future workforce, and our nation’s future economic success.

Thank you again to all of the panel members for taking the time to hear about the California State University system and its public/private partnerships. I will be glad to hear your suggestions for how we can better work with you, and I will be happy to answer any of your questions.