



Oregon  
University  
System

**Continuing the Investment in Oregonians for Our Future:  
Oregon University System 2009-2011 Operating Budget Request**

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For consideration by the  
Oregon State Board of Higher Education

July 11, 2008

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## Doing the Math: Getting More Students In and Through College

**Oregon is facing an educational attainment crisis.** It can be summarized through a straightforward equation:

As economic prosperity is predicated on higher levels of educational attainment in a greater proportion of the state population who fulfill the workforce needs of diverse industries and businesses,

**And given** the largest growth in Oregon’s youth population is among the most economically challenged and underserved populations with the lowest levels of high school completion and college-going rates...and Oregon’s older adults (age 45-54), set to retire in the coming years, are currently more educated than our younger adults (25 to 34)...and Oregon is predicted to have the 4<sup>th</sup> largest percentage of elderly in the United States by 2025,<sup>1</sup> **then,**

**This equals** an increasing Oregon population of lower educated, lower skilled workers, unable to support the diverse needs of business and industry in the state, and the growing needs of an increasing population of older Oregonian. In other words, we don’t have “replacement parts” for our current skilled workforce.

### Supporting this equation further are the following facts:

- Oregon-based companies are faced with having to import skilled labor from other states and countries or relocate to other states, and out-of-state companies are choosing not to locate in Oregon due to lack of numbers and diversity of a skilled and highly educated work force;
- Oregon’s traditional natural resources industries, such as timber and fishing, have diminished in size and scope—reducing the numbers of Oregonians employed and their positive economic impact on rural and urban areas in Oregon;
- Twenty years ago the State paid two-thirds of the cost of higher education and students paid the other one-third; today, students pay two-thirds of the cost and the State pays only one-third. Without a rebalancing of this ratio, the very students we need to fulfill Oregon’s workforce needs will face a cost barrier that many will not be able to overcome. Oregon loses, with fewer highly skilled citizens who can ensure a nimble workforce and viable state economy.
- A declining economy in Oregon will be unable to support a growing percentage of the population who have greater social service needs *with* a lower population of contributors

**“Oregon’s performance in educating its young population could limit the state’s access to a competitive workforce and weaken its economy over time.”**

From: *Measuring UP 2006*, Oregon Report Card, The National Center for Public Policy and Higher Education

<sup>1</sup> Sources: (1) Portland State University, Population Research Center; (2) Oregon Office of Economic Analysis, population forecast April 2004; (3) U.S. Census Bureau, Population Division, *Population Paper Listing #47*.

to state General Fund resources (those with higher educational levels and thus higher income); and

- A state that cannot sustain, attract or retain business and industry; cannot sustain its own population; and cannot support quality PK-20 education systems and programs in its state is not economically viable. Like a dying lake, without the “nutrients” and combination of optimal factors to thrive, Oregon will lose its ability to sustain its human and natural resources that have made it successful in the past without a deliberate intervention.

An equation works well to describe a situation in which a state does not adequately support the educational attainment of its citizens because it is a straight line cause and effect scenario. Similarly, this type of cause and effect situation can be remedied by applying the opposite and positive inputs that can turn this negative equation into a positive one.

Simply put, in order **to keep up with the needs of Oregon’s knowledge economy and the borderless, global economy in which we compete, the state must increase educational attainment rates for populations that we have not reached before or have not reached with the effectiveness and focused determination required.** Beyond these reasons, there is also the looming issue of inequity in the types of students who are prepared for, enroll in, and succeed at our colleges and universities.

### **Determining Oregon’s Future through an Educated Citizenry – Finding and Filling the Gaps**

A recent report<sup>2</sup> by the Brookings Institution and sponsored by the Pew Charitable Trusts predicts that, nationally, the ever widening gaps in higher education between low- and upper-income citizens and between whites and “minorities” will lead to even fewer opportunities for the poorest individuals. In other words, economic mobility will be even lower in the future than it is now. Thus, it is **imperative for Oregon to intentionally direct specific resources to improve opportunity for postsecondary education for much greater numbers of underserved students across the state.**

**Income does matter when it comes to both enrollment in college and completion to a degree.** Students attending schools with the highest poverty levels are attending college at declining rates and were less likely to attend college in 2002 than in 1999.<sup>3</sup> In 1998, only 20 (9 percent) of Oregon high schools had Free or Reduced Lunch Program participation levels at 50 percent or higher. In 2002, there were 34 high schools (15 percent) at the 50 percent or greater level. **Oregon is leaving behind many of its students who have the ability to succeed in college and contribute to their communities and to the state.** Whether for equity or economy, we must do better.

Although Oregon has made gains with increases in the Oregon Opportunity Grant in the last two biennia, affordability is still a barrier for low- and moderate-income families in attending

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<sup>2</sup> Source: “Getting Ahead or Losing Ground: Mobility in America.” Brookings Institution, 2008.

<sup>3</sup> Sources: Oregon Department of Education; Oregon Student Assistance Commission; Oregon University System Entering Freshman Profiles 1998-2001.

postsecondary education. In 1992, the percent of income (average of all income levels) needed to cover college expenses, minus financial aid, was 25 percent at Oregon's public 4-year universities; by 2006, this had increased to an average of 36 percent of family income needed to cover college costs.<sup>4</sup>

A CLOSER LOOK AT FAMILY ABILITY TO PAY IN OREGON	Average family income	Community colleges		Public 4-year colleges/universities		Private 4-year colleges/universities	
		Net college cost*	Percent of income needed to pay net college cost	Net college cost*	Percent of income needed to pay net college cost	Net college cost*	Percent of income needed to pay net college cost
<b>Income groups used to calculate 2006 family ability to pay</b>							
20% of the population with the lowest income	\$11,720	\$8,361	71%	\$9,774	83%	\$22,991	196%
20% of the population with lower-middle income	\$27,000	\$8,972	33%	\$10,685	40%	\$22,799	84%
20% of the population with middle income	\$44,000	\$9,496	22%	\$11,731	27%	\$22,448	51%
20% of the population with upper-middle income	\$68,924	\$9,649	14%	\$11,950	17%	\$22,428	33%
20% of the population with the highest income	\$112,600	\$9,679	9%	\$12,019	11%	\$22,923	20%
<b>40% of the population with the lowest income</b>	<b>\$19,360</b>	<b>\$8,667</b>	<b>45%</b>	<b>\$10,230</b>	<b>53%</b>	<b>\$22,895</b>	<b>118%</b>

\*Net college cost equals tuition, room, and board, minus financial aid.

Graph and Source: *Measuring Up 2006*; State of Oregon report; The National Center for Public Policy and Higher Education

## Barriers for Rural Students and Students of Color

Often it is suggested that **there are two Oregons**: the rural areas and the valley/urban areas of the state. This holds true as well for educational attainment in Oregon. **In 2005, only 16 percent of Oregonians in rural counties had a bachelor's degree or greater, compared to over 30 percent of Oregonians in metropolitan or near-metropolitan areas (state overall is 27 percent)**. The situation in Oregon's rural areas has gained national attention, as well as the attention of Senator Gordon Smith, who has included a bill—The College and University Rural Education Act—in the House's version for the reauthorization of the Higher Education Act. If approved, this funding would align postsecondary training with careers that are “relevant to the regional economy, and that target a specific job market need.”

Bruce Weber, professor of Rural Studies at Oregon State University, noted to the Board of Higher Education Committee on Student Preparation and Completion that rural student preparation is affected by attending small schools in low-population density areas isolated from large population centers. Per capita income in Oregon's rural areas is lower than the urban and valley regions of the state, with that gap widening significantly from the mid-to-late 1970s to 2004.<sup>5</sup> As a corollary to this, unemployment tends to be higher in rural areas as well, with fewer opportunities for students with a college degree to return to once they finish college. Rick Dalton, CEO of College for Every Student, recently said in an article in the *Albany Times Union*, **“Rural families often feel threatened when their children want to go off to college – because**

<sup>4</sup> Source: *Measuring Up 2006*, Oregon Report Card, The National Center for Public Policy and Higher Education.

<sup>5</sup> Source: Bureau of Economic Analysis, Regional Economic Information System, courtesy of Bruce Weber, Oregon State University.

**when they go, they may be leaving for good.** Families don't pass the dream along to their children. And the children don't pick it up on their own."

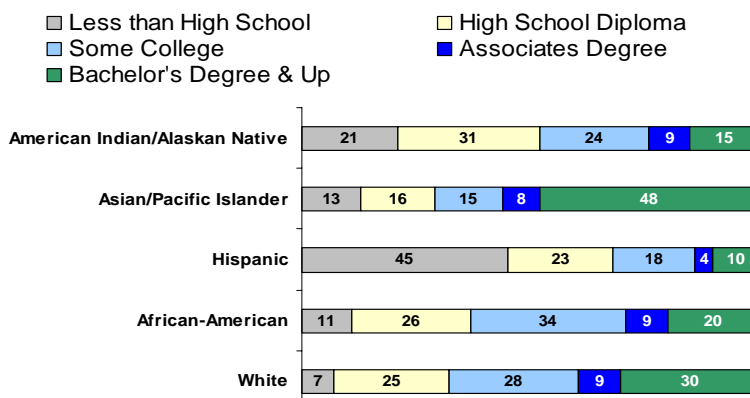
Weber also noted that rural student participation in postsecondary education is likely conditioned by low family income, perceived lack of opportunities and support at universities, and a feeling that they may join a campus environment with which they have no familiarity.

**Disparities exist as well among Oregonians from different racial and ethnic backgrounds.**

The disparities in educational attainment rates by race make it very clear that Oregon needs to do a better job at providing equal opportunities to all

students to have a chance to attend and complete postsecondary education. Most critical to address is the growing Hispanic/Latino population in Oregon, which has the lowest freshman participate rate and the African American and American Indian students who graduate from college in much lower numbers than their Asian and White counterparts. Ironically, these most at-risk populations are also the only ones whose high school age populations will be increasing in the next decade and beyond. A recent Oregon Business Council Report noted, "Ensuring an adequate education for the state's new immigrant population – whether adults or children, whether from other states or countries – will be a key to Oregon's future economic prosperity."<sup>6</sup>

**Disparities in Oregon educational attainment by race/ethnicity**



Sources: *Adding It Up: State Challenges for Increasing College Access & Success*, report, National Ctr. for Higher Ed Mgmt. Systems and Jobs for the Future, Fall 2007; NCHEMS, calculated using data from U.S. Census.

These demographic trends present **a real crisis for Oregon in meeting current and future workforce demands.** With nearly 80 percent of high wage jobs requiring a bachelor's degree or higher by 2014 to be competitive,<sup>7</sup> Oregon cannot meet these needs given the current trajectory unless we begin immediately to address this situation through significant funding. In the state's most populous county, Multnomah, a new report released in March 2008<sup>8</sup> states that the County is expected to lose fully half of its work force to retirement in the next dozen years. County Chairman Ted Wheeler recently noted at a public event about this report that, "The hard reality is... **we're losing two employees for every one that we can bring in.**"

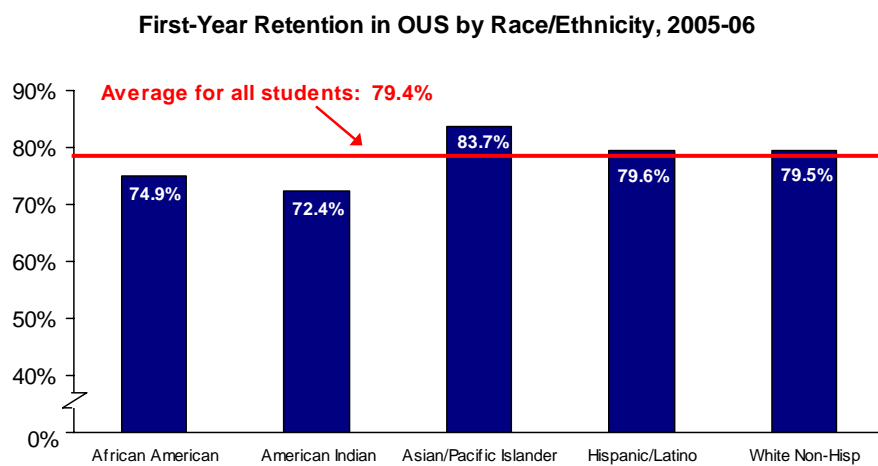
<sup>6</sup> Source: Oregon Education Roundtable, "Raising the Bar for PreK-20 Education in Oregon: 6 White Papers," page 2-8.

<sup>7</sup> Source: Oregon Employment Department.

<sup>8</sup> Source: "Everyone Matters: A Practical Guide to Building a Community for All Ages." Multnomah County Task Force on Vital Aging, March 2008.

## True Access = Persistence to a Degree

Getting students better prepared to succeed in college through a variety of academic enrichment and other pre-college programs is the first step in the college success trajectory for students. Step two is getting students to enroll and begin at a postsecondary institution. And the very important third step is ensuring that students are able to persist in their studies and stay in college until degree attainment. For first-generation and underserved students, the first year in college can be a difficult adjustment on several fronts, from academic preparation to cultural adjustment issues to financial difficulties and other reasons. As shown on the chart, it is clear that average retention rates vary by race/ethnicity. This reflects not only the level of academic preparation but also campus climate issues faced by these students and the need for targeted support services and outreach programs that ensure a welcoming, supportive academic, social, and community environment.



The research is clear: **if we can keep a student in college through their first year, their chance of getting a degree rises dramatically.** If we can keep them in two years, there is an even greater chance for degree attainment.

Within OUS, the research shows that students who complete their first year

at a university, on average, have a 71.4 percent chance of getting a degree; this rises to 81.5 percent for those who persisted at least two years. These percentages compare to 59.7 percent for students overall.<sup>9</sup> In other words, if we can retain first-generation and underserved students once they are enrolled through specific, targeted programs that address the most common reasons they drop out of school, then we can dramatically increase the graduation rate of our Oregon students. This makes sense from a fiscally responsible standpoint, in terms of gaining a return on the state's investment in these students and in gaining greater equity for students who are much more likely to drop out.

Although the entering freshman six-year graduation rate has risen from the 1987 cohort of students to the 2001 cohort — from 48.8 percent to 59.7 percent — it has remained relatively stagnant in recent years and is **showing some disturbing trends for Oregon freshmen.** The graduation rate of Oregon residents made the smallest gain, from 60.5 percent to 60.6 percent, since the entering class of 1995. Resident students make up over 70 percent of the entering freshman cohort.

<sup>9</sup> Source: OUS Institutional Research, 2001-02 First-Time Freshman Cohort; includes students transferring within OUS after initial enrollment.

While a possible explanation of this trend is the economic downturn that began in 2001 when recent graduates started college, it remains cause for concern. Improving this trend must be a focus of efforts to improve the ability of our institutions and of our state to get more students into college and keep them there through graduation. **Without such a renewed effort, and one that truly increases the capacity of our institutions to effectively address retention, the concern for graduating our residents will grow.** This will impact Oregon's ability to train a skilled, highly educated workforce, to retain and attract businesses and industry in all parts of the state, and to ensure a strong, supportive, and innovative state economy that is nimble enough to survive and thrive through all types of economic cycles.

Now is the time to continue to make the investments needed to fulfill the future dreams of Oregon's citizens by supporting and sustaining a vibrant public system of higher education. Now is the time for Oregon to demonstrate its creativity and flex its competitive muscles for the direct benefit of current and future Oregonians.

### Graduate Education, Research, and the Critical Role of Faculty

Knowledge creation through graduate education and research is vital for a knowledge-based economy. While few discussions of *educational attainment* mention these elements as important drivers, a robust research enterprise, including advanced degree programs, also energizes undergraduate teaching and learning:

- A strong research enterprise attracts and retains a strong faculty which, in turn, develops new discoveries that often provide economic returns to the university and the state;
- A strong faculty inspires and excites quality learning in students;
- Focused inquiry and research, when incorporated into the college curriculum, build a deeper understanding of the subject and a curiosity for learning through hypothesis development and experimentation;
- A university education that embraces research and inquiry should raise the expectations of high school and middle school students to engage in rigorous math and science curricula.

Both as a provider of direct economic benefits through research commercialization and in its contributions to learning, the university research enterprise is a critical part of the overall OUS mission. The Board's long-range plan proposes four action steps to implement its strategic priority related to research:

1. Attract and retain excellent internationally recognized faculty, particularly in targeted areas of existing excellence such as Biomedical Research and Neurosciences, Sustainability and Natural Resources, and Nanoscience and Microtechnologies.
2. Sustain existing signature research funding (ONAMI) while developing new signature research centers in the areas of Biomedical Research (building on current work in pharmaceutical testing) and Sustainability (especially in the areas of innovative and sustainable materials, clean energy, and green buildings).

3. In partnership with the Oregon Innovation Council (Oregon InC), align targets for research funding growth and research productivity with the needs of Oregon companies and industry clusters.
4. Establish at every OUS university an expectation of student engagement in research at both the undergraduate and graduate levels.

One programmatic area that will give Oregon a strong competitive edge is Sustainability. Oregon's universities have excellent Sustainability-focused faculty and research programs, including those in green chemistry, green buildings and architecture, transportation, renewable energy, and sustainable agriculture and forestry, among others. As university instructional programs are brought into greater focus around the theme of Sustainability, OUS will have strength in all quarters to make Oregon a national and international center for sustainable industry, business, workforce preparation, policy development, and innovation.

Successful knowledge creation that brings benefits to Oregon depends on strong doctoral programs and high quality faculty. Oregon already reaps benefits from having university faculty that are among the most productive researchers in the U.S., ranking 6<sup>th</sup> in federal R&D per faculty.<sup>10</sup> Yet this strength is fragile because the elements that form its foundation – strong doctoral programs and the ability to recruit and retain high quality faculty – have been weakened by diminished resources. For example, while the number of doctoral degrees in the U.S. grew by more than 10 percent during the last ten years, the number in OUS *declined* by 1 percent, although we are seeing improvement in the most recent year.

The key to high performance in knowledge creation through research and graduate education is a strong faculty. However, faculty salaries in OUS continue to rank near the bottom nationally, ranging from 79 percent to 87 percent of peer institution averages. Even considering total compensation, the OUS range is from 89 percent to 96 percent of the peer averages. Perennially low faculty salaries have made it difficult for OUS universities to compete for the best faculty, a problem that will be exacerbated as more faculty retire or leave for better paying jobs elsewhere. While recent legislative appropriations for faculty salaries are a first step in moving OUS upward, it will require time and significant resources to bring Oregon to the national average.

Both faculty productivity and student learning are affected by the ratio of students to full-time faculty. This measure is a surrogate for average class sizes, class availability, advising, outreach to community colleges and high schools, curriculum development and alignment, and other aspects of instructional quality and access, including students' time-to-degree. It is also an indicator of faculty engagement and morale, and their research and service productivity. Lower student-faculty ratios mean that faculty can provide a better classroom learning environment, more intellectually engaging assignments for students, more opportunities for student research, more time outside the classroom for advising and mentoring students, and ultimately, enhanced student completion and success. OUS student-faculty ratios reached a high of nearly 28:1 a few years ago, improving to 25:1 currently.

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<sup>10</sup> National Science Foundation, R&D expenditures per FTE faculty at public universities and colleges by state and source of funds: FY 2005.

That ratio is still considerably higher than the 21:1 current average of OUS peers. The Board's target ratio is 22:1.

With a strong foundation of quality faculty and productive graduate programs, Oregon will be able to compete with the top states and countries in advancing knowledge through research and innovation. **Strengthening our ability to attract and retain highly productive faculty to assure Oregon's competitive position in the knowledge economy is a priority for OUS.**

## **OUS Budget Request for 2009-2011**

The State Board of Higher Education takes its responsibilities seriously and is committed to the future welfare of Oregon and all of its citizens.

Once again, OUS is seeking three basic items in its 2009-2011 operating budget request:

1. State support adequate to fund the OUS base budget in order to rebuild quality levels, enhance access via affordable tuition, fund a growing enrollment, better maintain facilities and place the OUS on a more stable and sustainable funding base;
2. Policy package funding needed to engage the other educational sectors, business/industry and other partners to create educational opportunities around a common goal of student-success, efficient delivery and support systems for postsecondary education, and to enhance Oregon's quality of life and economic vitality; and
3. Legislative relief to manage OUS revenues and expenses in a more responsible manner and to create an environment needed to encourage knowledge creation and research related to the state's and the nation's most pressing needs.

## **Main Policy Package: Enhance Quality and Maintain Affordability and Access**

The first priority for OUS is to continue seeking a more stable and sustainable base budget that will allow the system to enhance quality, access, and affordability, in order to increase the number and diversity of highly educated and skilled Oregonians to meet economic, workforce, and citizenship needs. One principle upon which this base is founded is that tuition should not increase faster than students' ability to pay, so the increases in tuition rates in this proposal are restricted to the expected growth in Oregon's median family income in each year of the upcoming biennium (3.6 percent per year).

To accomplish the objectives of this proposal to enhance quality, access and affordability, OUS is seeking a base state General Fund budget of \$1.05 billion (an increase of \$154.3 million above 2007-2009 levels). This funding, combined with an estimated \$143.8 million in Other Funds Limited revenues (primarily tuition revenues), would provide OUS with \$298.1 million in added revenues (see Appendix A for funding details). In 2006-07, Oregon ranked 46<sup>th</sup> in the U.S. in state funding per student in postsecondary education. To meet the national average level of

funding per student FTE, Oregon's public universities would need an additional investment of more than \$300 million (in 2007-08 dollars) each year.

These additional revenues will be used to stabilize and enhance the existing higher education system, continue to rebuild quality in educational delivery and outcomes, and continue shifting more of the financial burden for higher education funding away from students and back to the State by:

- **Funding the essential operating budget level of OUS** - \$65.3 million, including \$42.3 million of state General Fund.
- **Funding debt service on previously approved capital projects** - \$23.6 million of state General Fund and \$8.3 million of Lottery funds.
- **Funding facilities maintenance** at a level to stop the growth of the deferred maintenance backlog. Currently, OUS receives approximately \$25 million per year (\$50 million per biennium) for capital repairs and facilities maintenance. However, our facilities need maintenance funding of \$45 million per year (\$90 million per biennium) to avoid adding to our deferred maintenance backlogs, leading to an incremental request of \$40 million from the state General Fund for this item for 2009-2011.
- **Enhancing faculty salaries** to retain and attract top faculty for teaching and research and to remain competitive with other universities around the nation. The second biennial installment in a ten-year effort to bring OUS faculty salaries to national market standards will require \$21.2 million of state General Fund money. This supplemental funding is in addition to the regular compensation funding usually provided by the Legislature and is intended to allow OUS institutions to make progress on faculty salaries in relationship to their peers.
- **Adding more faculty to reduce student-faculty ratios.** This will ensure that adequate numbers of faculty and courses are available to serve a growing enrollment and enable students to graduate on time, saving the state and the students money and time, and addressing institutional capacity. The amount sought for this element of the base funding package is \$22.4 million, an amount that would be sufficient to reduce the student-to-faculty ratio toward meeting the Board's target of a ratio of 22:1 (the current average of OUS peers is 21:1).
- **Funding current and projected enrollment growth.** Current projections indicate that OUS should expect to serve another 7,320 headcount students (5,856 annual FTE) in 2009-2011 (see appendix B for enrollment history and projections). To provide OUS with the same level of resources to serve these new students as it receives from the state for those currently enrolled and to fund the remaining students who are currently unfunded, will require \$33.1 million in General Fund and will generate \$51.7 million in tuition in 2009-2011.

## **Return on this Investment: Improved Outcomes and Better Educational Alignment**

This proposed level of funding will allow OUS to take the second step toward advancing the Board's goals of improved educational attainment and opportunity for Oregonians, provision of high quality learning leading to student success, creation of new knowledge and innovation through research, and securing economic and civic benefits for Oregon and its communities.

Key to improved educational attainment and student success outcomes is more effective alignment among Oregon's K-12, community college, and public university sectors. To that end, the requested level of funding will permit OUS to contribute broadly to the PK-20 instructional mission, from student preparation to new avenues for college participation and strategies for successful completion. In addition, this level of funding will support significant gains in critical areas of graduate education and research, and will improve the competitiveness of Oregon's institutions in attracting and retaining the faculty needed to carry out the teaching and research missions of OUS. Specifically, the proposed funding will provide for significant returns in the following areas:

- Enhanced recruitment and retention of exceptional faculty who will increase research and service activities for the direct benefit of Oregon's businesses and citizenry;
- Increased number of students served and degrees conferred;
- Improved maintenance of the state's physical facilities and significant assets that have served education needs of Oregonians and ensure that these assets will continue to be available for future generations of Oregon students; and
- Integrated and synergistic system of educational entities equipped to serve the changing demographics of Oregon and its citizenry and to meet the changing nature of our increasingly global economy and society.

## **Other Policy Packages to Create Greater Synergies**

At its June 2008 meeting, the Board deliberated numerous policy option packages for possible inclusion in the OUS budget request. OUS and its partners are seeking \$82.9 million of state funds for the following policy option packages (see attached Appendix C for a complete description of these policy packages):

- Enhancing student preparation, participation, and completion of postsecondary education, including more effective services to students with disabilities. (\$15.5 million)
- Increased graduate education to increase the competitiveness of OUS universities to attract advanced degree seeking students. This is the first step of a multi-biennial strategy that will lead to higher numbers of masters and doctoral degrees being conferred in the future. The amount requested represents funding for planning during the first year of the biennium with implementation of new strategies to occur in the second year of the biennium. (\$5 million)
- Enhanced strategic research partnerships via intercampus and interdisciplinary collaborations and centers associated with supporting Oregon's competitiveness in

addressing state/national research priorities. This includes support of an OUS Sustainability Research Initiative (natural resources, climate change, water resources, and transportation) and seeking designation as a National Center on Sustainability Research for Oregon. (\$5.025 million)

- Serving the needs of the Portland area through:
  - a. The creation of a PSU University Center at Portland Community College. This Center will broaden access and create options for both transfer and career-technical education and increased bachelor degree attainment for PCC students, with a focus on underserved students. (\$1.6 million)
  - b. The creation of an Urban Rural Connected Center in order to change the paradigm of disconnection between urban and rural communities from one of division to connection and to apply this knowledge to statewide problems. (\$1.4 million)
- Investments in Statewide Public Services as follows:
  - a. Extension Service's Response to Loss of Federal Funding. Funding will help replace federal support lost by counties in Oregon and enable continued and consolidated services through the Oregon Open Campus, Community and Business Development, and A Front Door in Every County programs. (\$5.8 million)
  - b. Forest Research Lab - Implementation of this package would substantially increase the capacity of the FRL and OSU College of Forestry in key areas vital to the economic, social, and environmental health of Oregon. Implementation of the program would be instrumental in stimulating and sustaining Oregon's natural resource based economy, improving livability across urban and rural Oregon, and adding economic vitality to communities while simultaneously improving the environment. (\$900,000)
  - c. Agricultural Experiment Station - Funding will (1) expand research and extension programs to establish a sustainable bio-based industry in Oregon that meets the state's sustainability goals while simultaneously addressing unintended consequences; (2) help address these emerging market opportunities, and the unintended exposure to toxics and the related health impacts, requiring targeted investment in research and outreach that leverages and enhances existing biological, toxicological, and applied technology (including honey bee research) expertise and will be in cooperation with the Linus Pauling Institute at OSU; (3) create an Oregon Sustainable Agriculture and Food Systems Research, Education and Outreach Center to allow this expertise to be tapped in a targeted, coordinated, systematic response tailored to these emerging needs; (4) enhance innovation and productivity in the food industry by connecting firms with new technologies and the intellectual and research talent at the University and its Experiment Stations; (5) address critical water resource research and outreach needs related to storage, use, and management; (6) leverage faculty expertise to address questions related to ecosystem services and help ensure that Oregon will be strongly positioned to be a leader in this new and rapidly developing area of economic investment; and (7) address critical information deficits and help avoid

potentially catastrophic collapse of near-shore fisheries and associated economies and ecosystems. (\$8.3 million)

- Increasing the competitiveness of Eastern Oregon University and Southern Oregon University by limiting their tuition increases through added General Fund support. (\$4 million) (Note: WOU is excluded due to its Tuition Promise program and OIT is excluded due to its program mix.)
- Funding the OUS Optional Retirement Program in the same manner in which PERS is funded. In 1995, OUS obtained Legislative authority to establish a unique Optional Retirement Program (ORP) for faculty so long as this program used the same contributions rate as PERS. The sale of pension obligation bonds in 2001-2003 added a debt service component to all PERS rates that was again matched by the ORP; however, while PERS rates were fully funded by the State, the ORP rates were not. This funding would fund the ORP on the same basis that PERS is funded. (\$7.5 million)
- Engineering & Technology Industry Council (ETIC). This package will make investments in engineering and technology programs to produce graduates and innovations that provide competitive advantage to Oregon's industries. During its eleven-year history, ETIC has created a results-oriented model for investing in education and research with a track record to match. The proposed investments in research and teaching faculty and facilities complemented by pre-college outreach programs will enhance Oregon's ability to innovate in all industries by providing:
  - a. Highly educated work-ready graduates that can immediately help their employers create new products and services as well as enhance existing ones.
  - b. New technologies that can be put to use by both high-tech and low-tech companies.
  - c. New businesses based on new ideas and the people that create them—leading to new industries that diversify Oregon's economy. (\$39.7 million)
- Improved technology for Regional Universities to improve student services and efficiency. This funding would allow the Fifth Site to implement Banner Financial Aid and document imaging for all Regional Universities. (\$1.4 million)
- Oregon Metals funding to expand an existing program, the Oregon Metals Initiative (OMI), to create increased collaboration between Oregon University System research faculty and the manufacturing cluster. This longstanding successful program provides incentives for collaboration between Oregon companies and university researchers by matching industry grants that qualify under the program with state dollars. For the 2007-2009 biennium, the Oregon InC provided increased funding via the Oregon Economic and Community Development Department (OECDD) budget in the form of \$850,000 in lottery funds. The proposed funding provides this increased funding level in the OUS budget rather than requiring inter-agency transfers during the biennium. (\$850,000)
- Retaining investment earnings on student tuition and other funds. This policy package is related to the Legislative Concept to retain investment earnings on student tuition, auxiliary

and other sources that is currently retained in the General Fund. OUS would reduce its General Fund support from the State in favor of retaining these investment earnings. (\$14.1 million)

Funding these policy option packages will allow OUS to respond to the opportunities that present themselves each year and will provide capital to invest in the following initiatives:

- Providing increased outreach and services to increase student participation and completion of college;
- Providing support for graduate students and research activities to support state workforce needs and to enhance Oregon's competitive position in the global economy;
- Creating university centers around Portland to increase access and participation in historically underserved areas;
- Helping to bridge the urban/rural gap by creating a center to identify the inter-dependencies of these two regions;
- Providing enhanced support for Oregon's counties, agricultural industry, extension, and forest research;
- Allowing certain regional universities to increase affordability and access across the state and enhance competitiveness through reduced student tuition;
- Funding for OUS' optional retirement program on the same basis as PERS;
- Capitalizing on Oregon's competitive advantages (e.g., nano-science/technology, sustainability, urban planning, transportation, manufacturing, neuroscience, biomedical research, and metals industries).

### **Statutory Changes to Create Opportunities**

Statutory changes are needed in the following areas to increase revenue opportunities available to the system, reduce the ongoing costs of maintaining the System, and create the type of environment needed to stimulate maximum resourcefulness and output of our faculty and System:

1. Retention of investment earnings on all funds earned by or entrusted to OUS – to be offset by reduction in General Funds as noted above.
2. Delegation of authority from Board to Chancellor or Presidents – placeholder at this time to allow Governance workgroup time to analyze issues.
3. Dental clinic exemption for student health centers – exempts OUS from statutory requirements of operating licensed dental clinics.
4. Authority to permit OUS institutions to sell excess energy produced from sustainable sources.
5. Relief from Department of Justice oversight over intellectual property development and dissemination.

6. Changes in the capital budgeting process for projects that are wholly funded by non-State sources; e.g., gifts or grants.
7. Authority to process payroll deductions for charitable donations as approved by the Chancellor.
8. Incidental fees – change name to student activity fees to better define their intended purpose and significance.
9. Campus security – placeholder at this time pending the Governor’s Task Force on Campus Safety report.

The 2009-2011 budget request represents a significant increase in state funding. The reason for this is clear to the Board of Higher Education and the public University System which serve as stewards and advocates for the welfare of the state: these resources are vital for the future of the state and all Oregonians.

### **Other Agencies’ Policy Packages for Board Endorsement**

In addition, the Board will be asked to endorse budget packages being requested by partner agencies. These include:

1. The Shared Responsibility Model, developed by the Board’s Access and Affordability Working Group, but being requested in the budget of the Oregon Student Assistance Commission;
2. Those portions of the efforts for student retention and success, the healthcare initiative, and data systems being sought in the budgets of the Oregon Department of Community Colleges and Workforce Development and the Oregon Department of Education.;
3. Items that may be sought in September by the Oregon InC either directly or through the budget of the Oregon Economic and Community Development Department; and,
4. Oregon Health and Science University request for funding to educate additional medical students, also know as ORMED.

Further, a subcommittee of the Joint Boards of Education, including some members of the State Board of Higher Education, will work through October to integrate the budgets of the various education enterprise agencies (Oregon Department of Education, Oregon Department of Community Colleges and Workforce Development, Oregon Workforce Investment Board, Oregon Student Assistance Commission, and the Oregon University System).

Taken together, these proposals, along with those advanced by the State Board of Higher Education, provide a sound, strategic plan for both the investment needed to ensure a vibrant economy and society for Oregonians and the integrated framework and approach to service

embodied in the Governor's proposal for a closely linked education enterprise for Oregon and Oregonians.

### **Mandatory Ten Percent Reduction Plan**

In addition to submitting the budget request as outlined above, OUS is required by state law to submit a 10 percent reduction plan. As stated above, the System is already underfunded compared to other states and failure to secure additional funding may precipitate tuition increasing at rates greater than the increase in Median Family Income, restrict enrollment, and/or force structural changes within the System, including a number of cuts across all programs, severely limiting access to higher education, and limiting the services received by Oregonians. If a 10 percent reduction were imposed, the Board would consider the items in Appendix D as well as other significant actions.

### **Staff Recommendation to the Board**

Staff recommends that the Board approve the 2009-2011 OUS Biennial Operating Budget request, including Policy Packages reflecting the Board's budget priorities, Essential Budget Level funding requirements, and 10 percent reduction options. The Vice Chancellor for Finance and Administration is given authority to make funding adjustments if revisions in the estimates for the Essential Budget Level, revenue projections, or student enrollment information are necessary.

**(Board action required.)**

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## Appendix A - Page 1

## Summary Comparison of proposed EBL vs LAB - Preliminary Estimates

(Amounts in millions)

	<u>LAB 2007-09</u>	<u>Adjustments(2)</u>	<u>LAB 2007-09</u> <u>Adjusted</u>	<u>EBL 2009-11</u>	<u>Increase</u>	<u>% Incr/ (Decr)</u>
<b><u>GENERAL FUND</u></b>						
E&G	\$ 692.7	\$ 18.2	\$ 710.9	\$ 748.5	\$ 37.6	5.3%
AES	60.0	2.3	62.3	64.6	2.3	3.7%
ES	43.4	1.7	45.1	47.3	2.2	4.9%
FRL	6.6	0.2	6.8	7.0	0.2	2.9%
GF - excludes debt/capital	\$ 802.7	\$ 22.4	\$ 825.1	\$ 867.4	\$ 42.3	5.1%
Debt Service	\$ 39.4	\$ -	\$ 39.4	\$ 63.0	\$ 23.6	59.9%
Capital Construction	28.3	-	28.3	-	(28.3)	-100.0%
Total - GF	\$ 870.4	\$ 22.4	\$ 892.8	\$ 930.4	\$ 37.6	4.2%
<b><u>OTHER FUNDS LIMITED</u></b>						
E&G	\$ 1,142.0 (1)	\$ 52.1	\$ 1,194.1	\$ 1,233.0	\$ 38.9	3.3%
AES	14.2	0.2	14.4	10.8	(3.6)	-25.0%
ES	24.6	1.0	25.6	20.6	(5.0)	-19.5%
FRL	8.7	0.4	9.1	1.5	(7.6)	-83.5%
Total - OFL	\$ 1,189.5	\$ 53.7	\$ 1,243.2	\$ 1,265.9	\$ 22.7	1.8%
<b><u>LOTTERY FUNDS - LIMITED</u></b>						
Athletics & Scholarships	\$ 12.7	\$ -	\$ 12.7	\$ 13.0	\$ 0.3	2.4%
Debt Service	13.3	-	13.3	21.6	8.3	62.4%
Total - Lottery	\$ 26.0	\$ -	\$ 26.0	\$ 34.6	\$ 8.6	33.1%
<b><u>OTHER FUNDS NON-LIMITED</u></b>						
	\$ 2,228.0	\$ -	\$ 2,228.0	\$ 2,294.1	\$ 66.1	3.0%
Total - All Funds	\$ 4,313.9	\$ 76.1	\$ 4,390.0	\$ 4,525.0	\$ 135.0	3.1%

(1) Includes adjustment for 07-09 COPS projects.

(2) Adjustment includes 07-09 compensation packages.

(3) Eliminate one time project funding.

(4) Calculation includes \$4.8 mill. phase out for the sunset of the forest product harvest tax.

(5) EBL reduction related to lower federal and county revenues and one time costs.

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Appendix A - Page 2

Itemization of Budget Request by Fund Type - Preliminary Estimates

(Amounts in millions)

<u>Budget Request</u>	<u>General Fund</u>	<u>Other Funds Limited</u>	<u>Lottery Funds</u>	<u>Total Limited</u>	<u>Non-Limited Other Funds</u>	<u>Total</u>
<b>Total Adjusted LAB (2007-2009)</b>	<b>\$ 892.8</b>	<b>\$ 1,243.2</b>	<b>\$ 26.0</b>	<b>\$ 2,162.0</b>	<b>\$ 2,228.0</b>	<b>\$ 4,390.0</b>
Essential Budget Level Adjustments (E&G)	37.6	38.9	-	76.5	29.2	105.7
Essential Budget Level Adjustments (SWPS and Other)	4.7	(16.2)	0.3	(11.2)	10.0	(1.2)
Debt Service	23.6	-	8.3	31.9	26.9	58.8
Capital Repair/Construction	(28.3)	-	-	(28.3)	-	(28.3)
Essential Budget Level (2009-2011)	<u>\$ 930.4</u>	<u>\$ 1,265.9</u>	<u>\$ 34.6</u>	<u>\$ 2,230.9</u>	<u>\$ 2,294.1</u>	<u>\$ 4,525.0</u>
Main Policy Package						
Capital Repair Funding	\$ 40.0	\$ -	\$ -	\$ 40.0	\$ -	\$ 40.0
Additional Faculty Salary Funding	21.2	-	-	21.2	-	21.2
Reduce Student Faculty Ratios	22.4	-	-	22.4	-	22.4
Enrollment Growth	<u>\$ 33.1</u>	<u>\$ 51.7</u>	<u>\$ -</u>	<u>84.8</u>	<u>-</u>	<u>84.8</u>
<b>Total Base Budget Request</b>	<b>\$ 1,047.1</b>	<b>\$ 1,317.6</b>	<b>\$ 34.6</b>	<b>\$ 2,399.3</b>	<b>\$ 2,294.1</b>	<b>\$ 4,693.4</b>
Other Policy Packages						
Student Success	\$ 15.5	\$ -	\$ -	\$ 15.5	\$ -	\$ 15.5
Graduate Education (\$5M annual with FY11 start)	5.0	-	-	5.0	-	5.0
Research and Sustainability	7.0	-	-	7.0	-	7.0
PSU/PCC, Urban Rural Connected & Leadership	3.4	-	-	3.4	-	3.4
Statewide Public Services	15.0	-	-	15.0	-	15.0
Enhanced Teacher Education	2.0	-	-	2.0	-	2.0
Regional University Tuition Buy-Down	4.0	-	-	4.0	-	4.0
ORP Funding	7.5	-	-	7.5	-	7.5
ETIC	39.7	-	-	39.7	-	39.7
Technology for Regional Universities	1.4	-	-	1.4	-	1.4
Oregon Metals/OMI	0.9	-	-	0.9	-	0.9
Interest Earnings	(14.1)	-	-	(14.1)	-	(14.1)
Forest Product Harvest Tax	-	5.6	-	5.6	-	5.6
<b>Total Other Policy Packages</b>	<b>\$ 87.3</b>	<b>\$ 5.6</b>	<b>\$ -</b>	<b>\$ 92.9</b>	<b>\$ -</b>	<b>\$ 92.9</b>
<b>Total Request (excludes new capital items)</b>	<b>\$ 241.6</b>	<b>\$ 80.0</b>	<b>\$ 8.6</b>	<b>\$ 330.2</b>	<b>\$ 66.1</b>	<b>\$ 396.3</b>
<b>Total Requested Budget for 2009-2011</b>	<b><u>\$ 1,134.4</u></b>	<b><u>\$ 1,323.2</u></b>	<b><u>\$ 34.6</u></b>	<b><u>\$ 2,492.2</u></b>	<b><u>\$ 2,294.1</u></b>	<b><u>\$ 4,786.3</u></b>
% Increase	27.1%	6.4%	33.1%	15.3%	3.0%	9.0%
2007-2009 Fund Split (GF & OFL)	41.8%	58.2%				
2009-2011 Fund Split as Proposed (GF & OFL)	46.2%	53.8%				

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**Appendix A - Page 3**

**Analysis of OFL Required to fund Proposed 2009-11 Budget - Preliminary Estimates**

(\$ in millions)

	<u>FY 08</u>	<u>FY 09</u>	<u>2007-09</u>	<u>FY 10</u>	<u>FY 11</u>	<u>2009-11</u>	<u>Increase</u>
<b>Education &amp; General</b>							
Estimated Tuition & Fees (net of Fee Remissions)	\$ 490.0	\$ 524.4	\$ 1,014.4	\$ 524.4	\$ 524.4	\$ 1,048.8	
Other Revenue	91.4	93.5	184.9	94.9	96.3	191.2	
Total OFL Revenue	\$ 581.4	\$ 617.9	\$ 1,199.3	\$ 619.3	\$ 620.7	\$ 1,240.0	\$ 40.7
Projected change in Median Family Income (MFI)				3.6%	3.6%		
Projected Portland CPI change				2.5%	2.5%		
Projected FTE enrollment (June 08)		74,257		76,331	78,039		
Estimated Tuition & Fees Revenue Increase							
2009-10 Increase @ 3.6% MFI				\$ 20.5	\$ 20.5	\$ 41.0	
2010-11 Increase @ 3.6% MFI					21.2	21.2	
				\$ 20.5	\$ 41.7	\$ 62.2	
Less: 8% fee remissions						(5.0)	
					\$	57.2	57.2
Enrollment Growth @ net tuition in effect when growth occurs						51.7	51.7
Inflation on Other Revenue @ PDX CPI						4.7	4.7
Total Incremental E&G OFL revenue							\$ 154.4
<b>Adjustments:</b>							
SWPS OFL Revenue Change							(10.6)
Total OFL Increase							\$ 143.8
Amount Committed to Prospective OFL Compensation Funding (see note)							(63.8)
Net Amount to Fund EBL and Policy Packages							\$ 80.0

Note: Based on 3.5% salary increase plus 9% PEBB increase per year.

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**Appendix B - Page 1**  
**Fall End-of-Term Headcount: 1995 to 2022**

		EOU	OIT	OSU	Casc.	PSU	SOU	UO	WOU	System	annual growth	growth since 2006	growth since 1999
<b>Actual</b>	<b>1995</b>	2,467	2,444	14,609	-	17,366	5,165	17,771	4,243	64,065			
	<b>1996</b>	2,494	2,340	14,159	-	17,923	5,254	18,002	4,378	64,550	0.8%		
	<b>1997</b>	2,555	2,483	14,758	-	18,199	5,443	17,875	4,566	65,879	2.1%		
	<b>1998</b>	2,576	2,700	15,375	-	18,256	5,549	17,524	4,607	66,587	1.1%		
	<b>1999</b>	2,743	2,830	16,226	-	19,322	5,823	17,559	4,620	69,123	3.8%		
	<b>2000</b>	2,904	2,874	16,885	-	20,153	5,536	17,977	4,824	71,153	2.9%		2.9%
	<b>2001</b>	3,059	3,115	18,100	250	21,046	5,472	19,180	4,999	75,221	5.7%		8.8%
	<b>2002</b>	3,449	3,163	18,835	395	22,947	5,530	20,170	5,108	79,597	5.8%		15.2%
	<b>2003</b>	3,328	3,246	19,104	376	24,193	5,510	20,059	5,001	80,817	1.5%		16.9%
	<b>2004</b>	3,394	3,426	19,213	440	24,222	5,195	20,407	4,800	81,097	0.3%		17.3%
	<b>2005</b>	3,602	3,381	19,319	491	25,146	4,972	20,488	4,971	82,370	1.6%		19.2%
	<b>2006</b>	3,436	3,172	19,429	500	25,483	5,005	20,445	4,999	82,469	0.1%		19.3%
	<b>2007</b>	3,448	3,327	19,772	497	26,113	4,838	20,673	5,302	83,970	1.8%	1.8%	21.5%
<b>Projected</b>	<b>2008</b>	3,581	3,449	20,029	520	27,119	4,886	21,554	5,553	86,692	3.2%	5.1%	25.4%
	<b>2009</b>	3,681	3,614	20,570	525	27,913	4,957	22,158	5,854	89,272	3.0%	8.2%	29.1%
	<b>2010</b>	3,769	3,791	20,939	534	28,570	5,026	22,608	6,194	91,432	2.4%	10.9%	32.3%
	2 Yr % Change	5.2%	9.9%	4.5%	2.7%	5.4%	2.9%	4.9%	11.5%	5.5%			
	<b>2011</b>	3,800	3,868	21,136	541	28,776	5,052	22,788	6,324	92,286	0.9%	11.9%	33.5%
	<b>2012</b>	3,783	3,866	21,122	545	28,627	5,034	22,652	6,331	91,959	-0.4%	11.5%	33.0%
	<b>2013</b>	3,762	3,844	21,056	550	28,484	5,025	22,480	6,299	91,502	-0.5%	11.0%	32.4%
	<b>2014</b>	3,788	3,859	21,140	565	28,706	5,079	22,524	6,313	91,974	0.5%	11.5%	33.1%
	<b>2015</b>	3,828	3,881	21,294	583	29,019	5,154	22,681	6,341	92,780	0.9%	12.5%	34.2%
	<b>2016</b>	3,843	3,877	21,382	596	29,132	5,199	22,780	6,335	93,144	0.4%	12.9%	34.8%
	<b>2017</b>	3,910	3,925	21,687	619	29,646	5,314	23,114	6,405	94,619	1.6%	14.7%	36.9%
	<b>2018</b>	3,990	3,983	22,079	644	30,254	5,448	23,542	6,496	96,436	1.9%	16.9%	39.5%
<b>2019</b>	4,071	4,043	22,500	670	30,866	5,585	24,001	6,592	98,327	2.0%	19.2%	42.2%	
<b>2020</b>	4,112	4,063	22,777	689	31,160	5,670	24,302	6,632	99,405	1.1%	20.5%	43.8%	
<b>2021</b>	4,149	4,081	23,021	708	31,442	5,751	24,558	6,665	100,373	2.1%	21.7%	45.2%	
<b>2022</b>	4,222	4,133	23,393	736	32,013	5,882	24,951	6,746	102,075	5.8%	23.8%	47.7%	

Source: OUS Institutional Research enrollment forecast June 17, 2008.

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Annual FTE Summary: 1995-96 to 2022-23

											one-year growth	two-year growth	five-year growth									
											EOU	OIT	OSU	Casc.	PSU	SOU	UO	WOU	System			
1995-96	Actual FTE	1,926	1,897	13,676	-	12,224	3,946	17,440	3,731	54,840												
1996-97		1,945	1,826	13,635	-	12,639	4,191	17,598	3,840	55,673	1.5%											
1997-98		2,042	1,975	14,147	-	12,807	4,413	17,625	3,943	56,952	2.3%	3.9%										
1998-99		2,025	2,087	14,767	-	13,276	4,475	17,228	3,897	57,755	1.4%	3.7%										
1999-00		2,155	2,143	15,780	-	14,027	4,646	17,182	4,096	60,029	3.9%	5.4%										
2000-01		2,322	2,231	16,477	-	14,865	4,542	17,839	4,234	62,510	4.1%	8.2%	14.0%									
2001-02		2,495	2,427	17,572	133	15,972	4,647	19,284	4,526	67,056	7.3%	11.7%	20.4%									
2002-03		2,640	2,463	18,435	172	17,491	4,648	20,334	4,497	70,681	5.4%	13.1%	24.1%									
2003-04		2,565	2,499	18,470	229	17,965	4,659	20,481	4,417	71,284	0.9%	6.3%	23.4%									
2004-05		2,558	2,486	18,488	260	18,204	4,418	20,862	4,277	71,554	0.4%	1.2%	19.2%									
2005-06		2,609	2,377	18,549	274	18,719	4,249	20,695	4,202	71,672	0.5%	0.5%	14.7%									
2006-07	2,460	2,319	18,581	293	18,927	4,174	20,421	4,152	71,328	-0.5%	-0.3%	6.4%										
2007-08	Estimated	2,449	2,347	18,667	317	19,227	4,184	20,390	4,375	71,956	0.9%	0.4%	1.8%									
2008-09	Projected FTE	2,520	2,429	18,902	330	20,016	4,241	21,198	4,621	74,257	3.2%	4.1%	4.2%									
2009-10		2,599	2,549	19,338	337	20,612	4,286	21,765	4,846	76,331	2.8%	6.1%	6.7%									
2010-11		2,651	2,678	19,674	341	21,068	4,340	22,170	5,117	78,039	2.2%	5.1%	8.9%									
2 Yr % Change		5.2%	10.2%	4.1%	3.5%	5.3%	2.4%	4.6%	10.7%	5.1%												
2011-12		2,676	2,747	19,865	346	21,265	4,363	22,368	5,249	78,880	1.1%	3.3%	10.6%									
2012-13	2,667	2,757	19,873	348	21,192	4,349	22,252	5,273	78,712	-0.2%	0.9%	9.4%										
2013-14	2,653	2,744	19,821	352	21,094	4,341	22,090	5,255	78,351	-0.5%	-0.7%	5.5%										
2014-15	2,669	2,750	19,884	361	21,233	4,387	22,113	5,263	78,659	0.4%	-0.1%	3.0%										
2015-16	2,696	2,763	20,011	371	21,451	4,450	22,248	5,281	79,271	0.8%	1.2%	1.6%										
2016-17	2,708	2,763	20,094	380	21,547	4,489	22,346	5,278	79,604	0.4%	1.2%	0.9%										
2017-18	2,753	2,792	20,366	394	21,902	4,587	22,662	5,331	80,786	1.5%	1.9%	2.6%										
2018-19	2,808	2,831	20,718	410	22,339	4,702	23,066	5,403	82,277	1.8%	3.4%	5.0%										
2019-20	2,865	2,873	21,106	426	22,789	4,820	23,509	5,481	83,869	1.9%	3.8%	6.6%										
2020-21	2,896	2,892	21,378	439	23,030	4,895	23,817	5,519	84,865	1.2%	3.1%	7.1%										
2021-22	2,922	2,906	21,616	451	23,245	4,966	24,079	5,550	85,735	1.0%	2.2%	7.7%										
2022-23	2,973	2,940	21,957	468	23,648	5,077	24,454	5,614	87,131	1.6%	2.7%	7.9%										

Source: OUS Institutional Research enrollment forecast June 17, 2008.

## Appendix C

### 2009-2011 Policy Packages

#### I. Student Success Initiative

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Title: Increase numbers of first-generation, rural, disabled, and underserved students entering and completing postsecondary education through expansion of pre-college academic preparation and in-college retention and support programs.

**Total 2009-2011 Budget Request: \$15,500,000**

#### Background and Summary

The Student Success Policy Package describes how the State of Oregon, through the Oregon University System and its many education and other partners, can (1) significantly and quickly increase the number of students entering postsecondary education; (2) improve their academic preparation for college and thus increase their ability to persist and complete a degree; and (3) increase the capacity of Oregon public institutions of higher education to support students' success.

Each component of this comprehensive package addresses the barriers and offers best practices leading to student success in a focused and deliberative manner. If adopted in full, this approach will enable Oregon to make significant progress in increasing its educational attainment rate among the most underserved populations in the state, meeting the knowledge and skill requirements of the current and future economy, and ensuring growth and community success in every corner of the state. As seen in studies completed by the OUS<sup>11</sup> — after controlling for disparities in high school GPA and SAT scores — there is no statistically significant difference in the odds of college graduation of African American, Asian/Pacific Islander, Hispanic/Latino, and White freshmen. In other words, through high expectations of all students, the availability of pre-college preparation programs, and in-college support, all Oregon students can enter and succeed in postsecondary education, gaining the skills and degrees they need to contribute to their families and communities.

Besides having comprehensive and connected elements in this package, it is also predicated on a **close partnership between the Oregon University System, the Oregon Department of Community Colleges and Workforce Development, the Oregon Department of Education, and other partners**, including the business community, foundations, and community-based organizations in the state. The Board and the Committee which have developed this proposal believe it to be imperative that all education sectors work in close cooperation to address these serious issues, both for efficacy as well as to expend state resources in the most expedient manner. Allocation of funds for OUS, community college, and community-based programs would be done through a competitive grant application and allocation process.

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<sup>11</sup> OUS Institutional Research, "Looking Back Along the Long and Winding Road," 2003

## Description and Outcomes

### A. Increase Capacity of College Preparation for Underserved Students

- (i) Outcomes: Funding of this proposal will **increase capacity and reach, and replicate existing or create new pre-college academic enrichment, college outreach, and college preparatory programs** for underserved Oregon students, including in- and out-of-school time and summer bridge programs that help students transition from one school-level to the next (middle to high school, high school to college) by being academically and otherwise prepared to succeed in college. A subset of this component is second biennium funding for the **Rural Access Initiative** and \$800,000 is included for this. [\$5,950,000]

Examples of programs could include but not be limited to middle/high school-based, campus-based, and community-based academic enrichment programs, as well as programs offering advanced credits as a strategy to increase the number of underserved students who enroll in postsecondary education in the initial year following high school graduation. Program offerings will be culturally appropriate and link career aspirations to students' educational learning plans in middle and high school.

- (ii) Outcomes: Funding will **help students envision and achieve a route to college success** by launching college planning, preparation, and aspiration programs for Oregon students. The primary goal of this proposal is to increase college-going aspirations and expectations and understanding of college admissions, college financing, and educational career paths for underserved populations. The program will include a central web access portal and social marketing techniques; emphasize parent, family, school, and community engagement; be segmented to reach multiple audiences; and utilize regional-specific strategies, including multilingual approaches and dissemination through the web portal, as well as working with existing GEAR UP, ASPIRE, TRIO, and other campus-based and school-based program and organizational infrastructures.

The proposal also includes support of the Oregon Student Assistance Commission in their efforts to gain full funding of the Oregon Opportunity Grant (OOG) program and assistance in informing Oregon students and families about the OOG through outreach and advertising efforts. [\$1,200,000]

- (iii) Outcomes: Funding will **expand middle/high school visitation and outreach programs** through a partnership/team program approach by OUS universities and community colleges which broaden opportunities and enhance resources that share college planning information with middle and high school students and their families; and **expand capacity of organized visits to campuses by middle and high school students and parents** with special programming directed at increasing college aspirations, awareness, acculturation, preparation, culturally appropriate presentations, and college-going rates. [\$450,000]

- (iv) Outcomes: **Disabilities funding** to cover mandatory campus costs for academic accommodation of disabled students. Currently, campuses are not fully funded for the diverse learning and accommodation needs of students, including special equipment, academic tutoring and assistance, facilities accommodation, and other costs. [\$2,500,000]
- (v) Outcomes: Funding will **build and support the technology necessary to facilitate alignment of Oregon's PreK-20 educational sectors** (PreK-12, community colleges, and OUS) to assist students in transitioning seamlessly and successfully, providing accurate and timely communications of academic planning information, and analysis of student participation and performance across education sectors.

Programming would include 1) completion of the Integrated Data Transfer System (IDTS), begun in 2005, a statewide infrastructure for the electronic submission of high school transcripts from K-12 to higher education; 2) support Phase III of the ATLAS internet interface, allowing students and advisors to efficiently evaluate course credits and degree requirements online, facilitating transfer between community colleges and universities; and (3) completion of the cross-sector student data warehouse. The IDTS funding would provide universal access of the system to all Oregon high schools, improve formats to simplify the transfer and import of data, expand connection of the transcript submission to college admission course approvals, and support high school counselor and administrative training in the use of the system. The ATLAS Phase III would include enhancements to allow OUS to partner with community colleges, who plan to implement ATLAS in 2009-2011, to ensure effective and efficient statewide expansion and would fund training on the system regionally for advisors from all OUS and community college campuses. The cross-sector student data warehouse, built on initial pilot testing in 2007-2009, will provide the information and analytic infrastructure to evaluate student participation and performance across education sectors. [\$1,500,000]

- (vi) Outcomes: Funding will support college faculty participation in **statewide work on assessment of K-12 students** related to new high school diploma and essential skills standards to ensure that these reflect expectations for college work. [\$100,000]

## **B. Expand Capacity of Retention Programs to Increase Student Success and Degrees**

- (i) Outcomes: Funding will increase capacity and create culturally-inclusive programming and approaches in campus support services with the goal of **increasing retention for students most at-risk of leaving college before graduation**, including first-generation, rural students, students of color, parenting students, and students with disabilities. Programming will include targeted academic and student services support such as tutoring and mentoring, curriculum coordination, living and learning communities, development of academic plans, study and research skills, campus-savvy skills such as communicating with professors, self-advocacy, support of

academic department roles with these students, including faculty training, and one-on-one support and counseling.

Examples of program components for helping to retain, develop and graduate students from underserved communities could include increasing the academic performance of students during their first year of college, and in academic core areas throughout college, especially “barrier courses”; enable successful transition into college for first-generation, diverse, and other students; enhance goal and career directedness; identify and respond to physical and other place-bound challenges; build knowledge and skills relative to financial management and college costs; support students in meeting the demands of college and bridge the gap between academic preparation and skills needed to succeed; build leadership and problem-solving skills; and help students reach their full potential so they can succeed and graduate. [\$3,300,000]

- (ii) Funding will support **pathways programs that increase the number of skilled bachelor’s degree holders** through development of applied bachelor’s degree programs in high growth, high demand areas, particularly in rural areas and areas in economic downturn. This would be accomplished through development or enhancement of “pathways” programs which support transfer of community college students to OUS institutions to complete 4-year degree programs. Such programs could include allied healthcare fields, technology, engineering, and other local and regional high demand fields that enable graduates to work in underserved communities within Oregon.

These programs would provide a clear completion path for students who start their postsecondary education in a technical program at a community college through articulation and coordination of a bachelor’s technical degree in high demand fields in Oregon communities in need of economic stimulation and workforce development and enrichment. These communities would also benefit from retention of local students staying in the area to work and support community and regional economic development. [\$500,000]

In addition, OUS is seeking support to create pathways for more first-generation and heritage language speakers through support of the Oregon Language Roadmap program, which produces culturally and linguistically competent citizens to meet state and community needs. This effort would accelerate bachelor’s degree programs for second language speakers who are first-generation students and who will be able to contribute through their degree attainment and their second language skills in areas in high need of bilingual practitioners such as education, social services, and healthcare fields. [No funding allocation for this component is being requested.]

### **Performance Indicators**

OUS proposes to use performance measures of participation and completion rates for select student populations. These will include: (1) students from rural high schools, (2) students of

color, and (3) students from high schools with a high proportion of free- and reduced lunch program participation (an indicator of financial need).

All funded programs for pre-college preparation and in-college retention will also require specific outcome indicators of program success, relevant to program content and goals.

## **II. Graduate Education**

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**Title:** Increase numbers of graduate students entering and completing advanced degrees at OUS institutions, in order to meet in-state workforce needs and competitiveness of OUS to attract advanced degree students.

**Total 2009-2011 Budget Request: \$5,000,000 (targeted to second year of biennium; half of full need for biennium)**

### **Background and Summary**

Oregon's prosperity depends on a highly skilled workforce capable of leading innovation and driving the economy. Oregon competes in a global society, where research and innovation are essential to economic and social progress. Graduate education provides a proven and most cost-effective method of educating and training a citizenry that is able to address society's complex and broad range of problems. Increasing the number of workers in Oregon with advanced degrees will have a lasting effect on the economy.

However, Oregon's ability to compete globally, from a solid foundation of strong graduate programs and advanced degree production, has been eroded over the past decade or more by diminished state resources. While the number of doctoral degrees in the U.S. grew by more than 10 percent during the last ten years, the number in OUS *declined* by 1 percent, although we are seeing some improvement in the most recent year. These trends and the urgent need to address them drive this proposal.

In 1996, the then Oregon State System of Higher Education (OSSHE) commissioned the Report of the Task Force on Graduate/Professional Education and Research<sup>12</sup> that asserted, "Virtually every aspect of contemporary technological society is affected by graduate education and research (p. i)." The report further stated that graduate education "...makes broad contributions to the state of Oregon and its citizens by training its teachers and other professionals; by enhancing income of degree recipients, the tax base, and society; and by creating new knowledge through research which can improve the state's economy and can be used to address important social problems" (p.16).

A recent national report<sup>13</sup> pointed to the critical role of graduate education in the generation of new knowledge that has led to scientific, technical, and social advances which, when translated

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<sup>12</sup> Byrne, John V. (Oct. 1996). *Report of the Task Force on Graduate/Professional Education and Research*. Oregon State System of Higher Education, Office of Academic Affairs, Eugene, OR.

<sup>13</sup> *Graduate Education, The Backbone of American Competitiveness and Innovation* (April 2007). Council of Graduate Schools, Washington, D.C.

into products and processes, directly impact both our prosperity and our security. The report states, “Graduate education, a vital part of the U.S. educational system, must be strengthened as part of a national strategy on innovation and competitiveness. The work of graduate students contributes directly to our sustained economic growth and prosperity. Graduate students conduct groundbreaking research in universities, national laboratories, and private industry” (p. 1). Oregon’s universities must be able to attract the most talented graduate students within an increasingly competitive environment both domestically and globally.

### **Description and Outcomes**

The proposed investment in graduate education will facilitate the recruitment and support of additional doctoral students by making OUS universities more competitive in the academic marketplace, thereby increasing the potential pool of people with advanced skills in Oregon’s workforce. An investment in graduate education over several biennia will help OUS to reverse the declining trends in graduate enrollment over the past decade, enabling enrollment in OUS to grow at a rate that is at least commensurate with that of the rest of the nation.

Investment in graduate education is a complementary and important component of investment in faculty, research, and undergraduate education. It will have a significant impact on the higher education System in Oregon, as it will:

- Tie graduate education to research and economic development;
- Advance workforce preparation;
- Increase retention of faculty;
- Increase recruitment and retention of women graduate students and diversity of the graduate population; and
- Impact the quality of undergraduate education.

#### **A. Competitive Salaries at Increased Stipend Levels**

OUS institutions are losing students to whom admission offers have been extended because other universities have made more attractive financial offers. Salaries for graduate students are short in two areas: compensation and stipend levels. To make OUS institutions competitive with top universities nationwide, stipends offered to students need to be raised to a minimum of \$15,000 per year for a 0.49 FTE appointment, with a concomitant annual salary base of about \$30,000. An estimated \$3.0 million is needed at OUS’ research universities—Oregon State University, Portland State University, and the University of Oregon—to increase stipend levels to a competitive half-time appointment.

#### **B. First Step Toward Eliminating Fees**

An additional factor that further contributes to lack of competitive offers is that graduate assistants on teaching or research appointments are expected to pay fees that, on average, represent approximately 10 percent of the tuition paid by graduate students. This is a significant impediment to attracting graduate students.

### **C. Targeted Fellowships**

A fellowship fund to recruit new graduate students in targeted areas will strengthen the link between graduate education and economic and workforce development. These targeted programs will be aligned with the signature research areas of ONAMI (the Oregon on Nanoscience and Microtechnologies Institute), OTRADI (the Oregon Translational Research and Drug Development Institute), and BEST (Built Environment and Sustainable Technologies Institute) and the State Board's focus to increase graduates and impact in areas of critical need, such as the STEM disciplines and Education. Additionally, there are opportunities in the social sciences, humanities, and the arts to develop intellectual leadership and entrepreneurial initiatives that support our commitments to global, cross-cultural competitiveness; support Oregon's important creative services sector; build excellence in communications; and advance social innovation and justice.

### **D. Diversity Enhancement**

Increasing the diversity of the student population is an important element of OUS' strategic directions and part of each OUS university's mission. Fellowships to recruit graduate students with a diverse set of experiences and backgrounds will not only increase the diversity of OUS' graduate student population, but also enable us to develop a pipeline for future faculty members for OUS.

### **Performance Indicators**

The two key performance measures that will be used to track the impact of this investment are the number of additional doctoral students that will be enrolled and supported and, over a 6-year period, the number of additional doctoral degrees awarded from this 2009-2011 investment. The investment will facilitate the recruitment of an additional 125 students during 2009-2011, leading to an additional 100 doctoral degrees by 2015-2017 (assuming that, at minimum, the level of support requested here is maintained over the 2011-2013 and 2013-2015 biennia).

## **III. Research and Sustainability [REVISED]**

**Title:** Maintain and build Oregon's competitiveness for federal research funding and enhance its broader impacts and societal benefits through strategic partnerships, shared infrastructure and computational resources; and support development of a national sustainability center and inter-university collaborations.

**Total 2009-2011 Budget Request: \$7,000,000**

### **Background and Summary**

At the core of our national innovation matrix, including academic, industry, government, and non-profit R&D organizations, as well as individual entrepreneurs, is our system of higher education and research. America's major research universities serve as key drivers of innovation because they emphasize the integration of world-class research with education. With strong

federal government support of the research enterprise, these institutions have made the U.S. the leading incubator of innovators and innovation.

America's research universities generate both human and intellectual capital, the twin engines of innovation and economic growth. By conducting research that serves science and the public good, by educating the next generation of leaders, and by producing the ideas that advance civilization, these institutions are the foundation for continuing American leadership in the 21<sup>st</sup> Century global economy.

Universities perform 54 percent of the nation's basic research aimed at increasing fundamental knowledge. New products and applications in the knowledge-based economy of the 21<sup>st</sup> Century would be impossible without basic research breakthroughs. The average annual rate of return to society from academic research has recently been estimated to be between 28 to 40 percent. Our nation's commerce, security, and culture are critically dependent on the advances that have been catalyzed by university research.

One of the most compelling metrics for Oregon's research excellence is its current ranking of sixth among all public university systems nationally in federal dollars awarded per faculty member. ***The primary objective of this proposal is to maintain and build Oregon's competitiveness for federal research funding and to enhance its broader impacts and societal benefits.*** This will be achieved through a combination of strategic initiatives and associated partnerships that will enhance Oregon's research infrastructure and attract additional investments from non-state sources.

The second component of this proposal is to ***leverage Portland's "green" reputation to build a national center for sustainability research*** in Portland that will include triple bottom line analysis (environmental, economic, and social sustainability) to create a nexus for the next wave of business opportunities and a new way of life. This new center will feature faculty from numerous institutions working together via the BioEconomy and Sustainable Technologies Institute (BEST) with many public and private collaborators on projects, including but not limited to, green energy, sustainable transportation systems, green buildings, native landscaping, food industry practices, recycling and waste reduction, and storm water management. Working closely, these collaborators will develop capacity in multidisciplinary research, instruction, inclusive discussion, operational practices, and green collar company incubation to create and model a more sustainable way of life for all Oregonians and position Oregon as a world leader in this regard.

## **Description and Outcomes**

### **A. Enhancing Research in the OUS**

- (i) **Competitiveness through Strategic Partnerships** through intercampus and interdisciplinary collaborations and centers associated with State/National priorities. [\$4,000,000]

This proposal would advance inter-campus and interdisciplinary research collaborations related to sustainability to attract and leverage additional investments from non-state sources and further economic development. The Oregon Business Plan recognizes that sustainability is Oregon's greatest competitive advantage and opportunity. The Academic Excellence and Economic Development Working Group recognized this and the Board of Higher Education has taken the lead on developing a sustainability initiative within the Oregon University System (OUS).

Since 2001, the Oregon Legislature and Congress have created three new multi-institutional interdisciplinary research institutes focused on natural resources and sustainability within the Oregon University System: the Institute for Natural Resources (INR) (<http://inr.oregonstate.edu>); the Oregon Transportation Research and Education Consortium (OTREC) ([www.otrec.us](http://www.otrec.us)); and the Oregon Climate Change Research Institute (OCCRI). In addition, OSU created the Institute for Water and Watersheds (IWW; [water.oregonstate.edu](http://water.oregonstate.edu)) to coordinate and facilitate water activities at OSU. These four efforts can and should be aligned and integrated across OUS in order to provide the institutional framework and foundation for interdisciplinary research needed to put Oregon at the forefront of sustainable solutions to the great natural resource, environmental, and energy problems we face: climate change, water, bio-diversity conservation, and the integrated systems approaches needed to make the transition to a sustainable future.

These four institutes address the fundamental underlying Earth systems science, data integration and access, and systems analysis thinking needed to support the invention of sustainable development technologies by the existing Bio-Economy and Sustainable Technology Center. They focus on the fundamental threats to human well-being: climate change, water, bio-diversity conservation, and the integrated systems approaches needed to make the transition to a sustainable future. All four institutes are committed to research addressed to solving major public problems and developing new, long-term strategies for sustainability.

Today, these four institutes all receive some support from the state, individual campuses, or the federal government; however, they are all too small to afford the full-time administrative staff support they need for office management, grants and contracts administration, information technology and web services, and communications and outreach. They also lack common space and communication services needed to facilitate interdisciplinary communications and collaborations across colleges and campuses. Opportunities to leverage available federal funds are limited by lack of state matching funds and lack of state seed money limits opportunities for young faculty to develop new interdisciplinary approaches to sustainability. Data management services and new methods of data integration and access are essential to provide critical information and technical assistance to researchers, public agencies and the general public.

This proposal would fund: (1) shared administrative support services for all four of these OUS-level collaborative research partnerships; (2) research seed funds and

development of research roadmaps to leverage additional federal, state and private funds for new multi-institutional collaborations; (3) data management and access, including an integrated natural resources digital library, a climate change clearinghouse, and a biodiversity database; and (4) technical assistance to federal, state, and local government and Oregonians. This proposal will: (1) leverage additional non-state funds; (2) catalyze new faculty teams and support them as they seek new funding; (3) attract and hire high quality staff and improve communications and outreach; (4) enhance communication and collaboration between researchers across OUS in furtherance of positioning and branding OUS in sustainability and natural resources; and (5) develop needed statewide indicators of sustainability.

The overarching benefit and value of this proposal is positioning Oregon to be at the international forefront in addressing the sustainability challenges of the 21<sup>st</sup> Century by accelerating basic research on climate change and water, making critical data about sustainability and natural resources available to policy makers and citizens and providing technical assistance needed to transform the way we live. More specifically, the proposal will: (1) leverage additional non-state funds; (2) catalyze new faculty teams and support them as they seek new funding; (3) attract and hire high quality staff and improve communications and outreach; (4) enhance communication and collaboration between researchers across OUS in furtherance of positioning and branding OUS in sustainability and natural resources; and (5) develop needed statewide indicators of sustainability.

**(ii) Research Infrastructure: Develop shared facilities and associated matching grants programs that foster research excellence [\$1,750,000]**

**Major Equipment Matching Grants Program**

There are many factors which must be addressed to attract and retain the outstanding faculty that are the hub of the OUS research enterprise. One of the key factors is research infrastructure, including the major equipment needed to create these facilities. One of these areas, mass spectrometry/proteomics, is addressed in the following section as a model for interinstitutional collaboration in shared facilities. Other examples that rise to this level, in terms of instrument sophistication and cost, are high-resolution nuclear magnetic resonance spectroscopy (HRNMR), X-ray crystallography (XRC), electron microscopy (EM), and various tools for high resolution physical and chemical characterization of surfaces and nanostructures. These instruments at the cutting edge require investments greater than \$1 million and match from several sources including university, private foundation, and federal. Adding a general pool of state funds to the match would greatly increase OUS leverage and competitiveness for federal dollars. These facilities are critical to various scientific and engineering programs which are probing structures and systems at the molecular level.

### **Biotechnology- Oregon Proteomics and Mass Spectrometry Consortium**

Mass spectrometry is the most sensitive, accurate, and versatile technology for solving key problems affecting the environment, biotechnology, nanotechnology law enforcement, pharmaceuticals, industrial production, and is indispensable for modern medical, biological, and agricultural research in ways that were unimaginable a decade ago. Continuing advances in instrumentation together with progress in genomic sequencing and bioinformatics have propelled mass spectrometry to the forefront of research in molecular and cellular biology and medicine. However, the technology is expensive, requires technical sophistication and expertise to develop, and is rapidly evolving.

This application proposes to build the infrastructure for mass spectrometry as a model for interinstitutional collaboration within the OUS System, allowing its universities to remain competitive for major research grants as well as to help with recruitment of new faculty. The investment in this technology will further help support the needs for growing technology companies within the state by providing access to a rich diversity of instruments that would cost several million dollars to purchase and operate independently.

### **Information Technology-Shared Computational Resources for Research**

The Oregon Health & Sciences University (OHSU) and OUS propose a shared computational resource for research purposes within the State of Oregon. This resource would deliver both high performance computational ability and large data storage capacity to researchers in Oregon. The proposed computing center would provide access to a diverse set of leading-edge computational and data storage tools and solutions, including the experience required to utilize these services.

Objectives for the center include the following:

- Deploy and support hardware and software solutions for scientific computing;
- Partner with researchers across the state to develop grant proposals and cooperative projects;
- Contribute to the discovery process by utilizing state of the art technology; and
- Promote effective use of computing resources through consultation and training.

The need for computing cycles is growing exponentially throughout the research community. This statewide resource would provide much needed computational capacity in support of researchers enhancing the research and education programs within the state and fostering efforts that drive Oregon's economic growth. The primary benefit of a shared resource approach is the ability to provide state of the art technologies and services in the most cost effective manner. This resource would cultivate multi-disciplinary collaboration across multiple research departments.

**(iii) OUS Research Council- Undergraduate Research Leadership Awards [\$250,000]**

The Oregon Undergraduate Research Leadership Awards (OURLA) will provide funding for resident undergraduates to conduct research on topics of state and national priority in any public or private 4-year college or University in Oregon that offers a bachelor's degree in science, technology, engineering, or mathematics. Initial funding will be used to support research initiatives, such as those described earlier in sustainability (renewable energy, climate change, transportation, and water resources), biotechnology, and/or information technology. State investments in research partnerships and infrastructure are expected to result in preparation of an advanced workforce for the knowledge economy. To fuel workforce development, these investments must be linked to those undergraduate educational programs that provide a flow of the State's most capable resident undergraduates into graduate programs of the Oregon University System that perform collaborative, strategically-targeted research on sustainability, biotechnology, and/or information technology.

The undergraduate years are the bridge between high school and the student's longer-term career. Funding exciting, engaging research experiences for undergraduates, combined with their identification as potential leaders, is expected to attract students of exceptional academic ability into those OUS graduate training programs that are strategically positioned to make Oregon a research leader for the nation and the world.

**B. National Center on Sustainability [\$1,000,000]**

Building on Portland's and Oregon's green reputations, a legacy started by former Governors McCall and Straub more than forty years ago, OUS recommends the creation of a national center for sustainability research such that Oregon becomes internationally recognized for research and development in this important sector. This includes areas such as excellence in student learning, innovative research, and community engagement that simultaneously help Portland and Oregon achieve economic vitality, environmental health, strong families, and communities and stakeholder involvement in the process. Importantly, it also will include the foundation of the nexus for the next wave of business innovation and a new way of life for all.

Investment is needed to add faculty and to fund other initiatives to more fully develop core multidisciplinary research competencies in key sustainability areas related to pressing real world problems. Areas of focus include the following: intelligent transportation systems, integrated water resource management, sustainable urban design and community development, sustainable business processes and practices, green science and technology development, environmental law, sustainable public policy development and management, social equity, and green collar company incubation. This investment includes a base level of support needed to fund the basic infrastructure this center will need to sustain its operations and supplemental funding targeted to specific research initiatives.

A “first step” in this initiative is to create an inventory of related initiatives currently underway and develop a gap analysis to identify new initiatives. Projects involving green energy, sustainable transportation systems, green buildings, native landscaping, food industry practices, recycling and waste reduction, and storm water management are just a few examples of areas where higher education can demonstrate sustainable practices. Working closely with many public and private collaborators, we recommend developing capacity in multidisciplinary research, instruction, inclusive discussion, and operational practices to create and model a more sustainable way of life for all Oregonians.

Portland has the sustainable development base, green building inventory, and reputation to jump start this initiative by building photovoltaic solar power arrays, wind power capabilities, and other sustainable energy systems in as many college and university facilities as is feasible. This initiative is consistent with Governor Kulongoski’s direction that state agencies use 100 percent renewable energy by 2010. OIT’s Klamath Falls campus is using its available geothermal resources to take the necessary steps to become the nation’s first “net zero” campus in America as part of this national center on sustainability. These initiatives, along with the inventory of other sustainable practices noted above, can serve as demonstration projects that can both educate the public as to their benefits and provide living laboratories that faculty and students can work within and study. Further, this “green” initiative can be used as leverage by the Oregon Economic and Community Development Department (OECD), City of Portland, Portland Development Commission (PDC), and other economic development entities in the metropolitan area to recruit more green businesses to Portland.

### **Performance Indicators**

Specific performance measures for the four OUS-wide research and sustainability interdisciplinary research institutes will need to be developed; however, this proposal supports and aligns with the following existing performance indicators for:

- Sponsored research funding from grants and contracts;
- Philanthropy and private support of OUS research;
- Research dollars per faculty;
- Customer service;
- New collaborative research partnerships across OUS schools;
- Cost savings compared to stand-alone institutes;
- Successful retention of federal funding currently dependent upon this technology;
- Successful recruitment of new faculty;
- Award of new patents from discoveries and publications;
- Continued employment of students trained in the OUS nationally in leading companies and universities;
- International recognition of Oregon as a leader in sustainability;
- Successful retention of approximately \$8 million in federal funding currently dependent upon proteomics technology;
- Increased funding of up to \$30 million in future proposals dependent upon proteomics capabilities;

- Successful recruitment of new faculty who need access to this technology (with the potential savings of millions of dollars in individual setup costs);
- Award of new patents from discoveries and publications;
- International recognition of Oregon as a leader in this key technology; and
- Student-generated research data used in publications and/or funding requests to external agencies; all scientific meeting presentations and/or scientific publications on which the student is a co-author; and/or notice of student applications to OUS graduate programs in any of the strategic areas above.

#### **IV. Portland Higher Education Initiative**

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**Title:** Increase access to postsecondary education in the Portland-Metro area, while also creating new linkages and collaborations with rural Oregon.

**Total 2009-2011 Budget Request: \$3,400,000**

##### **Background and Summary**

The future of Greater Portland and of Oregon is linked to education above all else. The Portland metropolitan area is the population center, the principal hub of economic activity, and the cultural leader of our state. Portland's success in achieving its potential depends upon the availability of smart, creative, and knowledgeable citizens with the ability to understand a domestic and international environment; this in turn requires a quality education system with opportunities available to all. A comprehensive educational system generates ideas, enhances the region's capacity to innovate and sustain economic vitality, guides urban growth, assures quality environmental conditions, and promotes cultural vitality.

This package will strengthen educational capacity, delivery, and effectiveness in the Portland Metro region, increasing student access, degree attainment, collaborative research, and connections with the rest of the state that are beneficial to students. Strengthen business, local government, and community engagement in higher education. These groups must provide advice, advocacy, and financial assistance where possible to create a sustainable comprehensive higher education system in Portland.

##### **Description and Outcomes**

###### **A. University Center at Portland Community College with PSU [\$1,600,000]**

Greater Portland is a very large and diverse geographic area with a growing population and increasing demands for higher education programs and services. As we seek to accommodate 700,000 more residents to Greater Portland in the next 20 years and increase the number of postsecondary degrees, it is not realistic to assume that all these students can be accommodated by a few entities in a single or small number of locations. We must find a means of delivering higher education services at convenient locations throughout the metropolitan region in a systematic and sustainable manner. In addition, we must find better

ways of ensuring that the efforts of community colleges and universities are more closely aligned to serve the diverse educational needs of Portland. These entities must work together to align applications, systems, and curricula to better serve the needs of today's lifelong learners.

Many of today's students simultaneously interact with both community colleges and universities, despite the numerous obstacles they encounter in the process. To be successful in meeting the educational needs of Portland, these systems must be streamlined and more closely coordinated around students needs. PSU, working with its partners in OUS, must take the lead in forging a more meaningful relationship with community colleges.

Four-year degrees must be affordable, convenient, and accessible to people living and working throughout the greater Portland area. In the late 18<sup>th</sup> century, Thomas Jefferson said that higher education must be within a day's horseback ride of all Americans. In Portland in the 21<sup>st</sup> century, our goal should be to make higher education available within a 20 minute Tri-Met ride of all Portland metropolitan residents. To accomplish this, we recommend making high-demand four-year degree programs available at community college campuses and centers, eventually throughout Portland, but starting at Portland Community College (PCC) and Clackamas Community College.

To be successful, these university centers must have four components:

1. Sufficient student demand in specific program areas to form financially viable student cohorts;
2. Adequate numbers of qualified faculty available in the locations where there is student demand;
3. Adequate faculties and other ancillary support functions necessary to serve the student and faculty needs in these locations at the appropriate times of day; and
4. A financial model that provides sufficient financial rewards and incentives to all parties who collaborate in delivering these programs, yet allow the programs to be priced reasonably so as to not thwart demand.

This Center would broaden access and create options for both transfer and career-technical education and increase bachelor's degree attainment for PCC students, with a focus on underserved students. It will create coordinated programs and services focused on student success that are integrated throughout all educational sectors: K-12, community colleges, and public and private institutions of higher education. This initiative will be led by PSU and PCC and will include coordinated outreach to involve students and faculty in middle- and high-schools working with postsecondary institutions in a more systematic manner to enhance access, affordability, and opportunities for all current and future students, with particular attention focused on historically under-represented populations, from every part of the metropolitan area.

#### **B. The Urban Rural Connected [\$1,400,000]**

Another component of this package is the **Urban Rural Connected** initiative. The goal of UR Connected is to change the paradigm of how we think about urban and rural communities, from a sense of division to a true connectedness, and to apply and share our

experience in doing so broadly throughout Oregon and the nation. One of the UR Connected partners, the National Policy Consensus Center at Portland State University and its national Board, can provide a national platform for discussion of Oregon's experience in connecting urban and rural communities. Universities are ideally suited to provide research, outreach, service, forums for civic engagement, and facilitation of on-the-ground projects to help communities address the challenges of the future. The proposal for UR Connected will capitalize and build on a strong foundation for connecting rural and urban Oregon that already exists in several OUS institutions and programs.

Urban Rural Connected will identify, strengthen, and leverage connections between urban and rural economies, environment, and communities. Oregon's revenue sharing system means that the performance of one part of the state's economy affects the others. Since communities across Oregon share many of the same challenges and opportunities, it's vital to find common interests and to strengthen and support common bonds. As a whole, a vital Oregon means urban and rural communities that benefit from connections with each other's economies, social attributes, and environmental health. The Urban/Rural Connections Network will coordinate and enhance existing research and service taking place around the state. The outcomes of the network will be better connections between our urban and rural communities, coupled with data and research that identifies new environmental, social, and economic opportunities to connect Oregon communities.

### **Performance Indicators**

Indicators that will be used to measure success against goals for this policy package include:

1. Number of community college transfers to PSU from PCC and CCC;
2. Number of bachelor's degrees;
3. Time to degree for graduates;
4. Satisfaction of graduates with quality of their education; and
5. Collaborations/partnerships initiated between urban and rural Oregon through Urban Rural Connected

### **C. Leadership Fellows [New section of Portland Higher Education Initiative] [\$400,000]**

Identify and educate talented emergent leaders of color serving communities of color through nonprofit organizations.

Leadership Fellows Program and NEW Leadership™ Oregon are two leadership programs housed at PSU with a statewide focus. The Fellows program serves talented leaders of color within nonprofits. NEW Leadership™ Oregon targets women who have an interest in leadership. Combined, these two programs create a pipeline and help support women and minorities in leadership positions in the state of Oregon.

The Leadership Fellows Program identifies and educates talented emergent leaders of color serving communities of color through nonprofit organizations. Community-based nonprofit organizations provide safety net programming and offer opportunities for families and

children seeking better lives in Oregon's urban and rural communities. With demographic shifts and increases in our state's Latino/a-Hispanic and refugee populations, the work of nonprofit organizations addressing the needs and concerns of both longtime and newer residents is critical. Professional development and leadership education that brings diverse emergent leaders together to learn, grow, mentor, and be mentored, is at the heart of this program. Through a nomination, application, and selection process, a cohort of talented emergent leaders is invited to the program. They spend one week in a summer residential immersion program and return to donated sites in the community, the following academic year, for six to eight daylong training sessions. They also engage in a two day January retreat designed to build professional relationships and collaborate in the creation, design, and delivery of a community service project. Cross cohort, racial and ethnic, mentoring opportunities are integral to this work.

By helping to identify and develop Oregon's next generation of community leaders, the Fellows Program assists organizations that serve needy clients, but with limited budgets for professional development. It is these same organizations that are essential to maintaining the fabric of our communities (running shelters, after school educational programs, youth mentoring opportunities, refugee absorption and services, and anti-gang programming for example). Their success is essential to the broader community and it was community leaders that first approached the INPM in 1998 to develop and deliver this program.

### **Performance indicators**

To date, the Leadership Fellows Program (the only one of its kind in the nation) has served 160 Fellows who have worked for, over nine years, more than 80 nonprofit or public sector agencies. Successful leadership training often results in movement to new and more challenging positions, but despite movement to other nonprofit organizations or public agencies documented in the Fellows database and through listserv communications, our research of the first six cohorts indicates that over 80 percent of the program's alumni remain in Oregon. In addition to program satisfaction and improvement instruments developed by Dr. the evaluation team in the program's early years, with initial support from the W. K. Kellogg, David and Lucile Packard, and Northwest Health Foundations, Fellows have begun to work with the Institute for Nonprofit Management on various impact analyses, including a network analysis forthcoming in the journal *Nonprofit Management and Leadership*. This analyses shows the cross-racial and cross-cultural relationships being established by these rising leaders and their ongoing and developing work with majority leaders throughout the community.

The NLO model has a four-year record of success, measured by the advances of our 120 alumnae into leadership pipelines. NLO also uses an extensive assessment tool that allows us to document trends, respond to needs, and prove results. National expert, Dr. Sherril Gelmon of PSU, specifically designed the evaluation instrument and continues to assist NLO in developing measurement of outcomes. NLO is effective because of program success, fundraising achievement, and strong community support. As a result, we are ready to grow, and expand our program as part of a Center for Women's Politics and Policy at Portland State University. The Center will encompass academic and research and is currently going through the approval process at Portland State's Hatfield School of Government.

## **V. Statewide Public Services**

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**Title:** Continue and expand powerful enabling partnerships with natural resource industries, environmental and natural resource agencies, and a broad coalition of stakeholders to enhance Oregon's economy and environment.

**Total 2009-2011 Budget Request: \$15,000,000**

### **Background and Summary**

OUS' statewide public service units—the Oregon Agricultural Experiment Station based at Oregon State University (OSU), the OSU Extension Service, and the OSU Forest Research Laboratory—are positioned to continue and expand powerful enabling partnerships with natural resource industries, environmental and natural resource agencies, and a broad coalition of stakeholders to enhance Oregon's economy and environment.

Agriculture alone is a \$17.6 billion-a-year industry, with a total economic footprint of \$25.8 billion in sales and more than 214,000 jobs. While agriculture—increasingly referred to as food, fuel, and fiber systems—does not boom as much as other industries, neither does it bust during recessions, thus providing diversity and stable support for the Oregon economy in good and bad times. Oregon's 40,000 plus farms, occupying 28 percent of Oregon's land base, also play a critical role in providing ecosystem services—e.g., water quality, wildlife habitat, carbon management. These private agricultural lands, private forests, and the adjoining 50 percent of Oregon consisting of public forest and rangelands are increasingly being looked to as a source of renewable energy and as a means to reduce the state's carbon footprint.

Forest-related activities in Oregon generate \$13 billion in total economic output annually, directly provide more than 85,000 living wage jobs, and indirectly provide another 70,000 jobs, accounting for 11 percent of Oregon's economy. The forest sector produces sustainable, renewable, and environmentally beneficial resources fundamental to Oregonian's quality of life – wood and paper products, wood-based materials and chemicals, water quality, fish and wildlife habitats, outdoor recreation, and vital ecosystem services such as climate moderation. The sector, however, is increasingly challenged by global competition, by rising land values for non-forest uses, and rapid climate change. The FRL proposes continued or new expansion of its research in six strategically targeted areas that we believe are vitally important to Oregon's environmental, economic, and social future.

OSU's Extension Services help Oregonians build their future by improving access to relevant information for decision making in local communities. This includes enhancing the application of natural resource research from the Oregon Agricultural Experiment Station, Forest Research Laboratory, and Sea Grant Program; and strengthening local economies while contributing to healthy youth and families; and importantly, covering losses from federal county timber payments.

### **Description and Outcomes**

**A. Agricultural Experiment Station [\$8,300,000]**

Funding for the Agriculture Experiment Station will (1) expand research and extension programs to establish a sustainable bio-based industry in Oregon that meets the state's sustainability goals while simultaneously addressing unintended consequences; (2) help address these emerging market opportunities, and the unintended exposure to toxics and the related health impacts, requiring targeted investment in research and outreach that leverages and enhances existing biological, toxicological, and applied technology expertise and will be in cooperation with the Linus Pauling Institute at OSU; (3) create an Oregon Sustainable Agriculture and Food Systems Research, Education and Outreach Center to allow this expertise to be tapped in a targeted, coordinated, systematic response tailored to these emerging needs; (4) enhance innovation and productivity in the food industry by connecting firms with new technologies and the intellectual and research talent at the University and its Experiment Stations; (5) address critical water resource research and outreach needs related to storage, use, and management; (6) leverage faculty expertise to address questions related to ecosystem services and help ensure that Oregon will be strongly positioned to be a leader in this new and rapidly developing area of economic investment; and (7) address critical information deficits and help avoid potentially catastrophic collapse of near-shore fisheries and associated economies and ecosystems

**B. Forest Research Lab [\$900,000]**

Implementation of the Forest Research Lab proposal would substantially increase the capacity of the FRL and OSU College of Forestry in key areas vital to the economic, social and environmental health of Oregon. Implementation of the program would be instrumental in stimulating and sustaining Oregon's natural resource based economy, improving livability across urban and rural Oregon, and adding economic vitality to communities while simultaneously improving the environment. Funding will support continued or new expansion of its research in six strategically targeted areas vitally important to Oregon's environmental, economic, and social future: The Center for Intensive Planted-forest Silviculture; Watersheds Research Cooperative; Oregon Wood Innovation Center; Forest Health and Renewable Bio-based Energy; Forests and Climate (ForClim): Managing Forests and Using Forest Products to Mitigate and Adapt to Rapid Climate Change; Urban Forestry for Livable Cities.

**C. Extension Service [\$5,800,000]**

Funding for Extension Service will help Oregonians build their future by improving access to relevant information for decision making in local communities; enhancing the application of natural resource research from the Oregon Agricultural Experiment Station, Forest Research Laboratory and Sea Grant Program; and strengthening local economies while contributing to healthy youth and families. Outcomes include increased profits and sustainability within the agricultural sector of Oregon's economy; enhanced development of sustainable food systems; enhanced environmental stewardship and conservation; increased provision of ecosystem services; and enhanced community vitality. Program components include: (1) **Access for all Oregonians**: urban and rural interdependence; Innovative education combining online and

residential learning; enhanced relationships to county government, community colleges and local partners through the concept of “OSU Open Campus”; increased college participation for rural high school students; Social learning opportunities; (2) **Secure and Sustainable Communities**: economic performance and entrepreneurial development; sustainable local food systems from farmer to consumer; family security through crisis communication and disaster recovery; emergency preparedness; (3) **Natural Resources and Climate**: energy use and efficiency; climate change and adaptation strategies; Invasive species; managing water quality and quantity; and (4) **Human Health and Performance**: disease prevention through nutrition and food choices; healthy lifestyles; aging without disability; hunger and obesity.

Funding for this proposal includes replacement of federal support lost by counties in Oregon and enables continued and consolidated services through the Oregon Open Campus, Community and Business Development, and “A Front Door in Every County” programs.

### **Performance Indicators**

Performance Indicators for the Statewide Public Services include increases in:

- production of sustainable bio-based feedstocks;
- development of sustainable, second-generation biorefineries;
- sales of bio-based, health-promoting products;
- health of vulnerable populations in response to reduced exposure to toxics;
- sales of sustainable food products; agricultural water storage capacity;
- agricultural water use efficiency; food processing productivity and innovation rates;
- the size and viability of ecosystem services markets and industries in Oregon;
- options for management tools (e.g., fishery management, zoning policies, etc.) to prevent further declines in near-shore ecosystems and related economies;
- output and wage income in the forestry sector;
- ensuring water quality and a livable environment; and
- beneficial educational opportunities for Oregon’s children.

## **VI. Regional Tuition Buy Down**

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**Title:** Increasing the competitiveness of Eastern Oregon University and Southern Oregon University by limiting their tuition increases through added General Fund support

**Total 2009-2011 Budget Request: \$4,000,000**

### **Background and Summary**

This investment will allow Eastern Oregon University and Southern Oregon University to freeze their undergraduate, resident tuition at 2008-09 levels, thereby making these institutions more accessible, affordable and competitive. Increased General Fund in an amount equivalent to freezing tuition at 2008-09 levels will substitute for increased tuition income, thereby making these campuses more attractive to prospective students. Increasing student enrollment helps to stabilize the universities' budgets, allows these campuses to attain economies of scale where needed, and makes these institutions more financially sustainable. This will also help these institutions to increase the enrollment of students from rural households, thereby achieving another OUS goal.

### **Performance Indicators**

Indicators that will be used to measure success against goals for this policy package include:

1. Cost of tuition and fees at EOU and SOU compared to peers;
2. Number of students enrolled at these institutions; and
3. Number of students enrolled from rural areas.

## **VII. Optional Retirement Program (ORP) Funding**

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**Title:** Funding the OUS Optional Retirement Program in the same manner in which PERS is funded.

**Total 2009-2011 Budget Request: \$7,500,000**

### **Background and Summary**

In 1995, OUS sought and obtained a statutory change to offer an Optional Retirement Program (ORP) for its unclassified employees as many of these employees come to OUS after working in other states with pre-existing retirement accounts. This statutory change required that employees who elected into this ORP have a retirement contribution equivalent to that offered to employees enrolled in the Public Employees Retirement System (PERS). After the sale of the Pension Obligation Bonds (POB) in 2001-02, PERS employers were required to pay an assessment on all retirement contributions to cover the annual POB debt service. For PERS employees, this assessment was added to the regular PERS contribution and this amount was funded by the state through the annual Essential Budget Level (EBL) cost calculations. Because the 1995 statute was written in such a way that ORP members were to receive the same contribution as PERS members, OUS was obligated to match the contribution paid to PERS members. Thus, OUS has

been adding approximately 6 percent to each members account due to the POB annual debt service, yet this was not funded by the state through the EBL calculation process for ORP members. Therefore, OUS is now requesting that its ORP employees be treated equitably through the EBL process each year. OUS filed an exception request to the EBL process which was denied by the Department of Administrative Services. At the time of notification of this denial, OUS was informed that it should request this funding via the policy package process.

### **Performance Indicators**

Indicators that will be used to measure success against goals for this policy package include:

1. Equal funding treatment for PERS and ORP members each biennium.

### **VIII. Engineering and Technology Industry Council (ETIC)**

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**Title:** Make investments in engineering and technology programs to produce graduates and innovations that provide competitive advantage to Oregon's industries.

**Total 2009-2011 Budget Request: \$39,700,000**  
**(Forecasted Private Support for 2009-2011 Biennium: \$47,100,000)**

#### **Background and Summary**

During its eleven-year history, ETIC has created a results-oriented model for investing in education and research, with a track record to match. The proposed investments in research and teaching faculty and facilities complemented by pre-college outreach programs will enhance Oregon's ability to innovate in all industries by providing:

- a. Highly educated work-ready graduates that can immediately help their employers create new products and services as well as enhance existing ones.
- b. New technologies that can be put to use by both high-tech and low-tech companies.
- c. New businesses based on new ideas and the people that create them—leading to new industries that diversify Oregon's economy.

ETIC's proposed state investments for the next biennium, combined with private investments, will more than double the number of degrees produced each year and increase the amount of externally funded research by a factor of four from 1999 (the ETIC baseline year) and 2020.

Oregon's engineering and technology education and research programs through ETIC are strategic assets for Oregon's economy and its residents by providing unique programs of the highest quality that meet the needs of Oregon's industry clusters; attracting resources to Oregon from throughout the world; doubling the number of bachelors, masters, and PhDs receiving a globally competitive engineering education; and performing innovative research that gives existing and new businesses a competitive advantages in the global economy.

**Description and Outcomes**

Based on the needs of existing and emerging Oregon clusters, ETIC’s strategy to grow our engineering and technology programs produces graduates and innovations that provide competitive advantage to Oregon’s industries. Over the long term, ETIC is building a self-sustaining innovation engine that draws grants, donations, and other sources of underwriting to Oregon. In particular, ETIC plans to more than double the number of degrees produced each year and increase the amount of externally funded research by a factor of four between 1999 and 2020.

Expected Outcomes of the 2009-2011 investments include:

- Additional faculty and facilities needed to make additional progress toward goals;
- Enhancing the cooperation among academic programs and between these programs and industry;
- More than doubling number of work-ready graduates available to Oregon economic clusters by 2020;
- Four-fold increase in the amount of federally funded research serving as a source of innovation for Oregon’s clusters by 2020;
- Increasing the quality and diversity (ethnic, geographic, gender) of students graduating from these programs; and
- Increasing the global competitiveness of Oregon’s programs and thus Oregon’s economic clusters.

The ETIC Board uses the following criteria to review campus proposals:

<b>2X</b>	Contribution to doubling the number of work-ready technical graduates by 2013 vs. 1999	<b>Forecasted Results</b>	Metrics forecast indicates plan will contribute to ETIC 2X goal.
		<b>Educational Capacity &amp; Productivity</b>	Plan invests in increasing capacity and productivity to reach metrics forecast.
		<b>Outreach</b>	Plan for increasing number and diversity of students.
		<b>Retention</b>	Plan for increasing the proportion of students completing degree programs.
<b>5X</b>	Contribution to 5X increase in externally funded research in Oregon by 2020 vs. 1999.	<b>Forecasted Results</b>	Metrics forecast indicates plan will contribute to ETIC 5X goal.
		<b>Research Capacity &amp; Productivity</b>	Plan invests in increasing capacity and productivity to reach metrics forecast.
		<b>Collaboration</b>	Plan includes industry-academic, inter-department, inter-campus, regional.

		<b>Public-Private Partnership</b>	Mutually beneficial relationship with Oregon industry.
<b>Global competitive-ness</b>	Contribution to global competitiveness of Oregon industries	<b>National Ranking</b>	Will lead to higher national ranking.
		<b>Commercialization</b>	Produces patents, licenses, spin-offs.
		<b>Benefits Oregonians</b>	Provides opportunities. Helps keep and grow family-wage jobs.
		<b>Serves Oregon Clusters</b>	Source of talent and innovation for existing and new companies.
<b>Effectiveness</b>	Effectiveness of proposed investment	<b>Private Support Ratio</b>	Forecasted private support divided by requested state funds.
		<b>Expertise Leverage</b>	Plan leverages existing expertise.
		<b>Track Record</b>	Track record makes plan credible.
		<b>Internal Consistency</b>	Details of plan match stated goals and provide confidence that results can be achieved.
		<b>Return on Investment</b>	Strong results for Oregon including progress toward “2X” and “5X” goals vs. level of proposed investment.
		<b>Sustainability</b>	Increases in tuition, research revenues and other resources will cover the some or all of the cost of new faculty.

**Pre-college Investments in ETIC (Oregon Pre-engineering and Applied Science Initiative or OPAS)**

For ETIC to achieve its goal of doubling the number of engineering and technology degrees, Oregon needs a growing number of college freshmen motivated and prepared to pursue these degree programs. Unfortunately, interest in engineering and applied technology degree programs among college-bound high school students has been flat in engineering and has shown a significant decline in computer science over the last several years. The problem is due in part to a lack of exposure to these disciplines: of the 170,000 Oregon high school students in over 220 high schools, fewer than 5,200 students in only 33 high schools take even a half credit in engineering and technology courses. Similarly, fewer than 60 Oregon students took AP (advanced placement) computer science exams in 2007, about one-third the national average as a percentage of AP tests taken. With regard to gender and ethnicity, it is worth noting that only six of the students taking the AP computer science exams were women and, of the 57 students who reported ethnicity, all but one were white or Asian. This is consistent with other data indicating low rates of interest and participation in engineering and applied science in high school and college by women and non-Asian minorities.

ETIC recommends a six-year initiative to expand the pool of well-prepared high school students who choose to pursue engineering and applied science majors in college.

- **In-Class Offerings:** Engineering, computer science, and applied science courses should be offered much more broadly as a part of state-wide college preparatory programs. In-class programs have a high impact on students since they provide a content rich curriculum, significant contact hours, and teaching by trained educators.
- **Out-of-School Time Offerings (OST):** Investment in engineering and applied science which target in-depth experiences that provide the contact hours, mentoring, and hands-on engagement required to significantly impact student interest, academic engagement, and college plans.
- **Intensive internships for high school students and teachers.** Such programs have proven beneficial for students who have demonstrated high potential and preparation when these internship experiences are at the time they are preparing to make key post-secondary education decisions like choice of college and major. Teacher internships provide high leverage because every teacher that gains a better understanding of a technical field through an internship can impact hundreds of students by bringing new insights back to the classroom.
- **Team-based activities for younger students—fourth grade to ninth grade.** Social context is important to students' participation and engagement in engineering and applied science programs. OST programs, such as the Oregon Robotics Tournament and Outreach Program (ORTOP), engage teams of students in demanding and socially relevant technical challenges and bring groups of students together for culminating contests and events. Such programs have proven successful in engaging students in authentic learning experiences that influence academic and career choices. Expanding such opportunities statewide will require start-up funding and collaborations with schools to provide the necessary access to school facilities and provision of OST engineer coaching staff and engineering challenge kits.

### **Performance Indicators**

ETIC used two primary performance indicators to measure its success against goals:

1. Engineering and Computer Science degrees; and
2. Externally-funded engineering and technology research (internal ETIC indicator).

## **IX. Technology for Regionals**

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**Title:** Improved technology for Regional Universities to improve student services and efficiency.

**Total 2009-2011 Budget Request: \$1,400,000**

### **Background and Summary**

These investments will allow the OUS “Fifth Site” to purchase Banner financial aid and document imaging solutions for use by the regional universities (Eastern, Southern, and Western Oregon Universities and Oregon Institute of Technology) in awarding and disbursing financial aid to students and to image document to minimize record retrieval and storage costs. In addition, these systems will allow these campuses to effectively and efficiently deliver and manage financial aid programs and administrative services.

### **Performance Indicators**

Indicators that will be used to measure success against goals for this policy package include:

1. Number of students who receive financial aid;
2. Amount of financial aid disbursed;
3. Satisfaction with services rendered; and
4. Records retrieval and storage costs

## **X. Oregon Metals/Oregon Metals Initiative (OMI)**

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**Title:** Support for applied research projects conducted jointly by metals industry members and research facilities of the Oregon University System.

**Total 2009-2011 Budget Request: \$850,000**

### **Background and Summary**

OMI was established in 1990 as a mechanism to both support and enhance the competitive position and economic contribution of the Oregon metals industry. Industry members work with OUS research universities, currently Portland State University and Oregon State University, to develop industry relevant project proposals that can lead to new proprietary products, processes, jobs, and more efficient operations. The OMI Board of Directors reviews these proposals, based on their by-laws and selection guidelines, and manages allocation of research grants.

Oregon’s metal manufacturers have proven they have deep roots in Oregon and have weathered many changes in the economy while continuing to provide thousands of Oregonians family wage jobs. Industry members understand the need to remain competitive through innovation achieved through continued, high level applied research. OMI provides the industry with the ability to experiment and research ideas which can lead to new products or new processes which enhance their competitiveness in the global economy.

Additionally, OMI helps strengthen the infrastructure and research capacity of Oregon University System's research institutions. Industry engineers and scientists work directly with professors and students in university labs to conduct this research, thereby investing in the research capabilities of our universities. These increased capabilities can then be accessed by other Oregon industries providing increased innovation statewide. With state match support, industry has been able to undertake research that would not have been pursued at all or at this time. Industry members provide a direct one-to-one financial match to the research grant as well as expertise through their engineers and scientists. The industry match level is never less than the state contribution. The Board has considered allowing small businesses a one-time exception. The university provides the lab, technology, and faculty expertise. Additionally, the OMI Board of Directors is comprised of both industry members and research universities. OMI has fostered not only communication between academia and industry but also among industry members themselves as they participate in the program.

From 2002 to 2007, 18 industry members participated in OMI. Many of these companies had multiple projects over the past five years. OMI and the universities consistently communicate with industry members to ensure that they are aware of this unique opportunity.

### **Description and Outcomes**

OMI is requesting \$850,000 in state funds which will be matched on a one-to-one basis with industry funds. All funds go directly to the research universities with none being earmarked for OMI administrative costs. The OMI Board of Directors manages the funds and the OMI Executive Director implements the activities associated with the funds. Applied research projects developed in a collaborative process between industry members and OUS research universities will be funded with this investment.

Since 1990, industry members have provided a one-to-one match on state funding and are committed to continuing this program as long as the legislature provides funding. The program allows industry to conduct necessary research projects using the extensive resources of our research universities, some of which are unaffordable or unattainable by individual companies.

Through the Oregon InC support of PSU materials science program, OMI has been and will be able to broaden the scope, diversity, and quantity of projects. OMI allows industry to work with university labs, equipment, and faculty rather than conducting duplicative research in house. By providing access to the resources of the research universities, industry members can more efficiently allocate their limited resources to ensure continued employment and competitiveness.

### **Performance Indicators**

These projects help increase the metals industry global competitiveness. By protecting and enhancing industry market share, OMI research projects have a direct link to retaining and increasing jobs.

Due to the diversity of the individual projects and the research results, it is somewhat difficult to measure the overall OMI program's industry impact. However, we can show results on a project

by project basis. As one example, Boeing conducted a project with PSU to develop the tools and techniques for real time non-contact temperature measurement of the induction hardening process. These real time temperature measurements allowed the company to reduce their costs and production time which increases the value added to the economy and helps them maintain a competitive position in the world market.

OMI has two performance goals to measure performance against objectives in the current contract that the program shares with PSU. The first is to generate \$500,000 in industry match by July 2009. The program is well on its way to meeting this milestone. The second is to participate in the development of 10 new products or processes by July 2011. OMI projects often result in new processes or products and the OMI Board is confident the program will meet and likely surpass this milestone.

## **XI. Investment Earnings**

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**Title:** Allowing OUS to retain all investment earnings on student tuition and other funds and to pool its funds for investing by Treasury to increase the investment earnings on these funds.

**Total 2009-2011 Budget Request: (\$14,100,000)** [As was agreed with DAS and the Governor's Office, this is a request to reduce the OUS budget in the amount noted above in exchange for the ability to retain interest earnings on all "other funds," both limited and non-limited, generated by OUS.]

### **Background and Summary**

For many years, investment earnings on student tuition, certain auxiliary income and certain other OUS revenues accrued to the General Fund of the state and not to OUS. In 2007-2009, OUS requested a legislative concept to allow OUS to retain these investment earnings that was supported by the Governor in exchange for a dollar for dollar reduction of appropriated General Funds to offset the loss of these revenues to the state's General Fund. Although the Legislative Concept was not approved by the Legislature in 2007-2009, they did commission a study of the impact of such a change. This study, completed by LFO and Treasury in December 2007, confirmed that additional investment earnings could be generated, with little increase in risk to the state.

This policy package and accompanying Legislative Concept for statutory changes are being re-submitted in 2009-2011 and would again permit OUS and Treasury: 1) to have OUS retain all investment earnings from these investment of these funds; and 2) to pool its funds to allow stratified investment to maximize investment earnings available to OUS each biennium.

### **Performance Indicators**

Indicators that will be used to measure success against goals for this policy package include:

1. Actual investment earnings under new structure as compared to old structure.

## **XII. Enhanced Teacher Education Initiative [NEW]**

**Title:** Enhance Teacher Preparation by taking an inventory of current OUS College of Education partnerships with K-12 schools and determining best practices during pre-service teacher education and first year teacher mentoring.

**Total 2009-2011 Budget Request: \$2,000,000**

### **Background and Summary**

This initiative will enhance teacher preparation by taking an inventory of current OUS College of Education partnerships with K-12 schools and determining best practices during pre-service teacher education and first-year teacher mentoring. This information will inform the development, conduct, and assessment of pilot programs for pre-service and first-year teachers with the goals of maximizing student-learning and increasing retention of new teachers. Work with the Oregon Department of Education and Teacher Standards and Practices Commission will result in production of a data warehouse that will enable Colleges of Education to track easily their graduates. A survey of new teachers will be developed and administered that will inform both the support programs for new teachers and College of Education Teacher Preparation curriculum.

This initiative is based on the premise that more support is needed for first-year teachers; and that K-12 and College of Education faculty would mutually benefit from more interaction. The cost to Oregon school districts to hire teachers is over \$50 million, with \$22,000 to conduct a search for a new teacher; and 3,000 teachers are hired per year. A full 35 percent of teachers leave the profession within their first five years. Yet research indicates that close support for pre-service and first-year teachers can increase retention.

The Colleges of Education do not have ready access to the placement and persistence of their graduates and ODE and TSPC are interested in developing the necessary data warehouse. Existence of the data warehouse would allow implementation of graduate surveys that have proven useful in other states (Illinois) for evaluation and improvement of Teacher Preparation Programs.

### **Description and Outcomes**

This initiative will undertake the following efforts and achieve the following outcomes:

1. Partnership Inventory and Best Practice Determination
  - A. Inventory of current OUS College of Education partnerships with K-12 schools
  - B. “Preparing and Supporting Oregon Educators: An Oregon Summit on Best Practices and Partnerships”: determine best practices for pre-service teacher education and first-year teacher mentoring; initiate development of template and annual report of OUS College of Education partnerships with performance indicators; initiate development of Part 2 - Pilot programs for pre-service and first-year teachers

C. Create OUS Partnership Website: An inventory of College of Education faculty interests and research expertise

D. “Oregon Teacher Preparation and Support Partnerships” review of the 2009-10 year: preview of pilot programs to be funded under item #2

2. Pilot programs for pre-service and first year teachers

Goals: maximize student learning and increase retention of new teachers.

3. Produce data warehouse

Will enable Colleges of Education to easily track their graduates; working with Oregon Department of Education and Teacher Standards and Practices Commission.

4. New Teachers Survey

Complete data analysis by campus of retention and attrition of 1<sup>st</sup> and 2<sup>nd</sup> year teachers served by the Oregon Mentoring Initiative; to inform support programs for new teachers and College of Education Teacher Preparation curriculum:

A. Develop/Adapt from other states

B. Administer and analyze

**Performance Indicators**

- Summer 2010 and 2011 – template and annual report of OUS College of Education partnerships with performance indicators;
- Functional OUS partnership website;
- Results of surveys of 1<sup>st</sup> year teachers at the beginning and the end of their first year;
- Compare surveys of teachers in support programs and those not in program;
- Consistent survey elements – facilitate data aggregation; and
- Institution specific survey elements: address unique features of each College of Education.

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**Appendix D – Example of 10% Reduction Plans**

Activity or Program	Describe Reduction	Amount and Fund Type	Rank and Justification
(Which program or activity will not be undertaken)	(Describe the effects of this reduction. include positions and FTE in 2007-09)	Revenue Source	(Rank the activities or programs not undertaken in order of lowest cost for benefit obtained)
<p><b>1. Education and General – All Institutions</b></p> <p>Instruction</p> <p>Student and Administrative Support</p> <p>Instruction</p> <p>Student and Administrative Support</p>	<p>Eliminate 88 course sections and 67 FTE. Close satellite instructional facilities serving students in rural areas and reduce distance ed course development – \$1.45 million. Reduce temporary staffing of \$1.2 million. Eliminate faculty recruitment funds by \$250,000.</p> <p>Reduce Student Services and Administrative Support, cutting 87 FTE. Reduce career services; eliminate new campus based financial aid; close two buildings; reduce library acquisitions, supplies, and equipment. Reduce Community College Partnership funding, recruiting, mailings, and outreach services. Defer classroom upgrades.</p> <p>Eliminate 110 course sections per term and 85 FTE.</p> <p>Reduce student services and administrative support, cutting 90 FTE. Delay minor building renovations for research labs. Defer maintenance projects, only correcting major safety issues. Service reductions may jeopardize accreditation and faculty development.</p>	<p>GF \$14 M</p> <p>GF \$14 M</p> <p>GF \$16 M</p> <p>GF \$15 M</p>	<p>The listing of reductions and their effects reflects an equitable distribution of the budget reductions across OUS’ major programs. This approach comports with general principles underlying the Board of Higher Education’s Resource Allocation Model. It is also consistent with the Board’s goals to provide access, affordability, quality, and cost effectiveness for all of the state’s public universities and statewide public services.</p>

Activity or Program	Describe Reduction	Amount and Fund Type	Rank and Justification
(Which program or activity will not be undertaken)	(Describe the effects of this reduction. include positions and FTE in 2007-09)	Revenue Source	(Rank the activities or programs not undertaken in order of lowest cost for benefit obtained)
Instruction	Eliminate 100 course sections per term and 78 FTE.	GF \$16 M	
	<b>Total</b>	<b>GF \$75 M</b>	
Tuition and Fees	OUS equates a 10 percent reduction in OFL to the loss of approximately 8,800 FTE students who would be denied access.	OFL \$123 M	
<b>2. Agricultural Experiment Station</b>	Across the board reductions in all areas, including FTEs, would result in <b>significant decreases</b> in Statewide Public Services.	GF \$6 M	
<b>3. Extension Service</b>	Across the board cuts in all areas, including staffing levels, will: <ul style="list-style-type: none"> <li>• Result in loss of faculty having joint appointments among research, teaching, and Extension;</li> <li>• Jeopardize retention of some existing outside funding; Reduce ability to attract other outside funding; and</li> <li>• Negatively impact the Oregon economy.</li> </ul>	GF \$4.7 M	
<b>4. Forest Research Laboratory</b>	Across the board cuts in all areas, including FTEs, will significantly impact the FRL ability to provide public services.	GF \$0.7 M	

GF: General Fund

OFL: Other Funds Limited