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# Higher Education and Economic Issues in Oregon: A Current Picture

City Club of Portland (Portland, Or.)

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## HIGHER EDUCATION AND ECONOMIC ISSUES IN OREGON: A CURRENT PICTURE

"OREGON WILL COMMIT ITSELF TO PROVIDE THE BEST EDUCATED AND TRAINED WORK FORCE OF ANY IN THE UNITED STATES BY THE YEAR 2000, AND A WORK FORCE COMPETITIVE WITH ANY COUNTRY IN THE WORLD BY THE YEAR 2010."

— From "Oregon Shines: An Economic Strategy For the Pacific Century", Oregon Economic Development Department, 5/89

"NO OREGONIAN PREPARED FOR COLLEGE OR UNIVERSITY SHOULD BE DENIED ACCESS FOR LACK OF RESOURCES."

— Barbara Roberts, candidate for Oregon governor, *The Oregonian*, 7/20/90

*An Information Report\* Authored and Published by the City Club of Portland  
April 1994*

***Abstract:***

**This information report seeks to identify recent trends in Oregon public higher education, public perception of higher education, and state policymakers' emphasis on higher education which have the potential to impact the state's economic future. In the context of a changing economy, projections of Oregon employers' needs for college-educated workers, the demand for higher education by a rapidly increasing state population, escalating costs to students, and the changing student body composition in state funded colleges and universities are examined.**

\* In contrast to research study reports produced by the City Club of Portland, the information report presents information of current interest or importance to the public without recommendations or conclusions.

**Introduction:**

Oregon's political leadership is nearly unanimous in supporting the concept that a well-educated work force translates to a stronger state economy. The ability to fund higher education, however, may be jeopardized by a funding shortage caused principally by Oregon's property tax limitation measure.

At a time when the state's population is growing rapidly, Oregon's state system of higher education is enrolling fewer students, and the tuition levels necessary to finance the system stress the resources of many prospective students and their families. Ironically, Oregon's pre-college education reform initiative is expected to produce 18-year-olds with higher level academic skills and more thirst for challenging work than ever before.

In the past few years, when state policy has focused on jobs and skill training, we have thought primarily about K-12 education and community colleges. This report looks at the Oregon system of higher education in light of its contributions and potential contributions to the state's work force. While private colleges play an important role in educating Oregonians, the focus of this report is the public universities in Oregon. Further, in contrast to the geographic scope of a comprehensive report produced by the Governor's Commission on Higher Education in the Portland Metropolitan Area (1990), the scope of this report is statewide.

***Higher Education and Economic Development in the U.S.: Historical Context***

Higher education policy and America's economic health have been intertwined throughout the nation's history. In 1818 the Rockfish Gap Commission of Virginia issued a report defining the purpose of education in the new state university. Thomas Jefferson, a member of the commission, exerted a hand in the mission statement: "To expound the principles and structure of government...To harmonize and promote the interests of agriculture, manufactures, and commerce...To develop the reasoning faculties of our youth...To enlighten them with mathematical and physical sciences...And generally to form them to habits of reflection and correct action."

In 1862 the Morrill Act, in establishing the system of land grant universities, was said to have as its purpose "To educate the sons and daughters of farmers and mechanics." Instituted in a time when our economy was mostly agrarian, this act was part of the dynamic that drove U.S. agriculture to be the most productive in the world. The public service mission of these land grant universities included not only educating students but also transferring the results of university research to practitioners who could use the discoveries. It was "technology transfer" on an unprecedented scale.

The G.I. Bill after World War II fueled an enormous economic engine that led the U.S. to become the most productive economy in the world. With the benefits available to 40 percent of males between the ages of 20 and 24, an entire generation of men was affected by an expansion of educational opportunities and thus job prospects.

The democratization of higher education formed the basis for the rise of wealth based on ability and education, rather than family name or the ability to pay for the education. In each of the above-cited cases of expanding educational opportunity for American citizens, government provided the fuel.

***Oregon's Stated Goals for Higher Education***

In contrast to the attention Oregon leaders and policy-makers have recently given K-12 education (largely through passage and implementation of Oregon's school reform act, and through the state's strategic plan document, *Oregon Bench-*

marks), less public attention has been focused on higher education as a contributor to Oregon’s current and future work force or quality of life. Of continuing debate is whether the purpose of public higher education is to prepare a student for life or for a work life.

Other than those goals stated by higher education itself, there exists little in public documents that overtly assumes the interaction of Oregon higher education with the broader goals of the state. As an illustration, using the 1993 *Oregon Benchmarks*, there are three quantifiable benchmarks out of 270 total benchmarks directly related to higher education. These are all in the category “High School to Post Secondary Educational Attainment”:

- Percentage of Oregon 25-year olds with a bachelor’s degree — Benchmark #41
- Percentage of Oregon adults who have completed a baccalaureate degree — Benchmark #46 (further subdivided by ethnic group)
- Percentage of Oregon adults who have completed a post-baccalaureate degree — Benchmark #47 (further subdivided by ethnic group)

There are other benchmarks related to per capita income growth and the balance of trade in professional services that infer involvement by higher education at some point in the value chain. In the above benchmarks, however, the contribution of *Oregon* higher education is not necessarily assumed, as other institutions of higher education outside Oregon can and do provide Oregon adults with bachelor’s and post baccalaureate degrees.

***Needs and Values Related to Oregon Higher Education***

Little data exist to clarify how Oregonians view higher education or to assess the value they place on the state’s publicly funded colleges and universities. As a reflection of that, higher education has not received significant attention at the state policy-making level.

However, a recent survey conducted by the Oregon Business Council (OBC) called “Oregon Values and Beliefs” found Oregonians in the metro area (Clackamas, Multnomah, and Washington counties) valuing higher education as a government service equally with community colleges, but quite a distance below primary and secondary education. A very similar comparison emerges when the survey asks metro-area citizens to choose community values: having a “local college or university” ranks below having a “community committed to quality education” (see Fig 1 below).

**Figure 1 — Oregon Business Council Survey Reflecting Importance of Government Services and Community Values**

<i>Government Services</i>	<b>Ranking (1-100)</b>
Primary /Secondary Education	84
Employment and Training	80
Community Colleges	54
Higher Education	54
<i>Community Values</i>	<b>Ranking (1-100)</b>
Community committed to quality education	87
Local employment opportunities	80
Local college/university	59
Healthy business environment	56

Clackamas-Multnomah-Washington Counties  
Source: Oregon Values and Beliefs Summary Report, 1993

These survey results recall OBC President Bill Wyatt’s comment to the Club last year that “Oregonians think of K-12 education when they hear the word ‘education,’” together with the survey results themselves, bring into question how much thought the survey respondents give to Oregon higher education.

In the OBC survey, responses related to employment opportunities and learning new skills ranked nearly as high as those related to elementary and secondary education. Whether Oregonians draw a connection between availability of quality higher education and availability of quality employment opportunities is not addressed directly by the OBC survey. What does emerge from the Oregon Values and Beliefs survey is that higher education as a state service is not of high concern among most Oregonians.

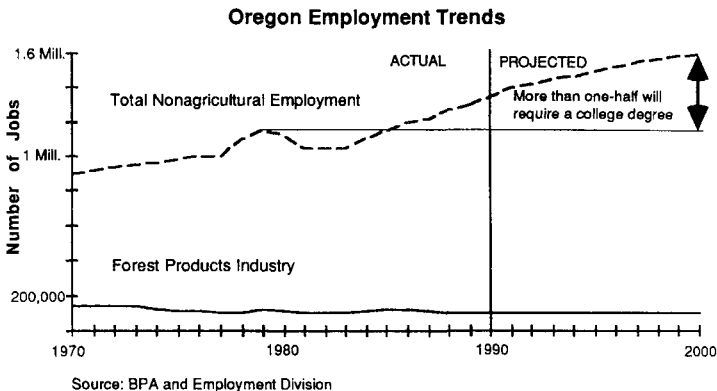
### Higher Education and Economic Development in Oregon

Oregon’s resource-based economy has been supported by researchers at Oregon State University, the state’s land grant university. The growth of the state was tied to its agricultural and timber products output, and OSU historically has been a major partner with Oregon’s food and timber products industries. Programs in agriculture, forestry, and oceanography have attracted top-notch faculty and significant research funding.

Oregon’s economy is evolving away from the need for unskilled labor and toward industries requiring advanced human skills and discoveries. In their remaining work force base, natural resources industries increasingly rely on highly-skilled workers, just as the new information technology industries do. As skill requirements for all industries become more sophisticated, two major questions arise. First, can institutions emphasizing support for natural resource-based industries prepare Oregonians for the emerging technologies integral to those industries? Secondly, do we have the capacity to prepare Oregonians for new jobs in new industries, so that they have the flexibility to adjust to future technologies and work place requirements?

In a spring 1990 article in the University of Oregon’s magazine *Old Oregon*, Economics professor Ed Whitelaw states that “once [we are] around the corner from the resource-based economies of our past, people, not trees are what we have to invest in”. According to the Oregon State Employment Division, non-agricultural employment is rising in the state (see Figure 2 below).

Figure 2 — Oregon Employment Trends 1970-2000



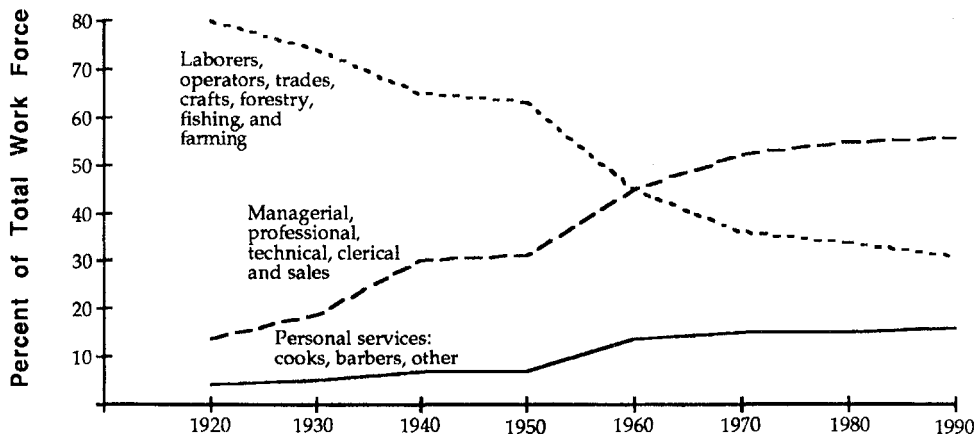
What kinds of jobs will be available in the next decade and beyond? As can be seen on the following page, there has been a steady decrease in demand for laborers, operators, trades, crafts, forestry, fishing, and farming personnel since the 1920s, with a slight lessening of the drop during World War II.

In contrast, the demand for managerial, professional, technical, clerical and sales personnel has been on the increase since the 1920s, with leveling off periods during World War II and during the 1980s. Executive, professional and technical positions demand highly educated workers, while the trend away from "blue collar" jobs limits the ability of high school (or community college) graduates to support their families at a "family wage" standard of living.

According to *Oregon Work Force 2000*, in Oregon the largest employment increases—60 percent of all increases—in the past decade occurred in the professional, sales, and executive categories. It is important to note that the percent of total work force represented by the two categories "white collar" and "blue collar" crossed in about 1960, so this changing nature of work is not a recent one—just recently recognized. White collar jobs, including sales, increasingly require or at least give preference to persons with a college degree.

This change in the occupational mix has a direct impact on the educational system, particularly higher education. It is also important to note that the change in occupational demand is not directly related to the shift from natural resource-based industry to manufacturing and services. Virtually all industries are experiencing this occupational demand shift, due to automation, internationalization, and changes in business practice.

Figure 3 — Oregon Employment Trends by Grouped Occupational Category, 1920-90



Source: Bureau of the Census

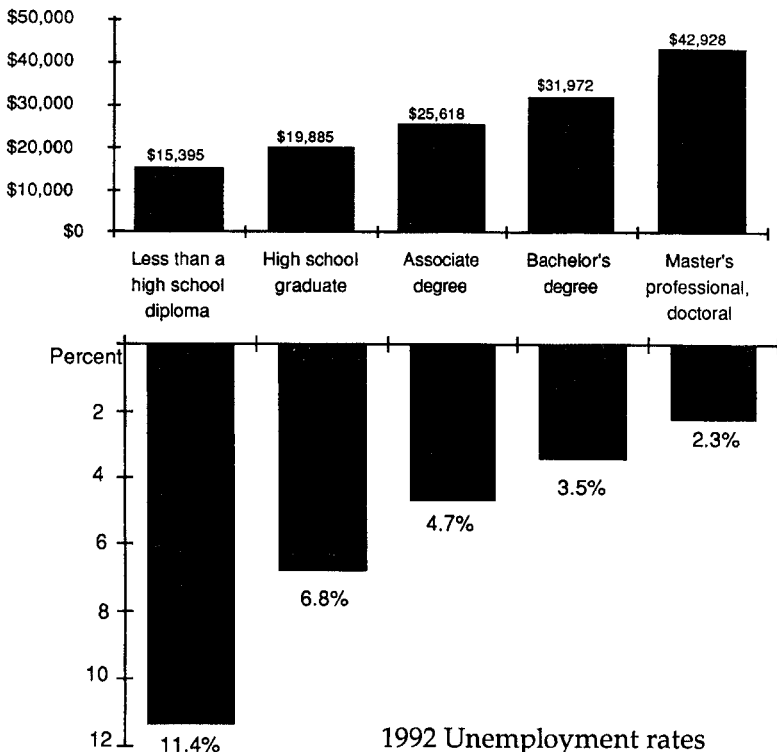
The document *Work Force 2000: Oregon Work Force at Risk* predicts increases in employment in the 1990s as follows:

Occupation	% Change	New Jobs
Professional & Managerial	23%	60,000
Technical	24%	12,000
Sales and Clerical	18%	65,000
Service	25%	48,000
Operators, Laborers, etc.	6%	21,000

The document *Oregon Shines* and the recent *Portland Target Industries* report each list industries that the state and the city of Portland feel will be important to their respective economies in the coming decade. Efforts are currently underway to recruit and retain companies that fit these profiles. A common feature of the key industries at both the city and state levels is the need for a major portion of the work force to have post-secondary education. The need for increased educational opportunities and the need for college/university trained personnel was listed as key to these industries' labor requirements. As is happening across the U.S. economy, Portland's Target Industries and Oregon's Key Industries are constantly upgrading their skill requirements.

Earning levels and the nature of unemployment are also related to levels of post-secondary education. The below chart shows the relationship:

**Figure 4 — Earnings and Unemployment Rates by Education Level, 1992**  
**1992 Earnings**



Source: Bureau of Labor Statistics

From the perspective of the state's budget, these trends indicate increased revenue. More income per person means more taxes collected, and the lower the unemployment rate, the less money is spent on unemployment and its attendant problems. Since the numbers of highly educated workers are expected to increase rapidly in Oregon in the next decade, all other things being equal, state coffers should benefit.

Using the same data contained in Figure 4, if decreasing numbers of Oregonians are receiving higher education, their resulting employment status and corresponding income levels will also affect the state's revenue picture, but in a negative way.



In short, Oregon’s economy has moved into a period that demands more and higher levels of education to satisfy the requirements of the new jobs. Having explored the “demand” aspects of Oregon higher education from the perspective of work force needs, the student access side of the demand equation will now be examined.

**Who Will Fill Tomorrow’s Jobs in Oregon?**

It is important to consider the various sources of college graduates to fill Oregon’s new jobs. One source is those who are moving into the state having already attained college degrees. As can be seen from the following table, the educational level of citizens who did not live in Oregon five years ago is considerably higher than those who have lived here five years or more.

**Figure 5 — Educational Attainment Levels of Oregon’s New Residents, 1980-90**

	Lived in Oregon 5 years ago	Did not live in in Oregon 5 years ago
Less than high school education	13%	7%
College graduate	15%	28%
Work in high tech industry	2%	5%

Source: 1992 Oregon Population Survey

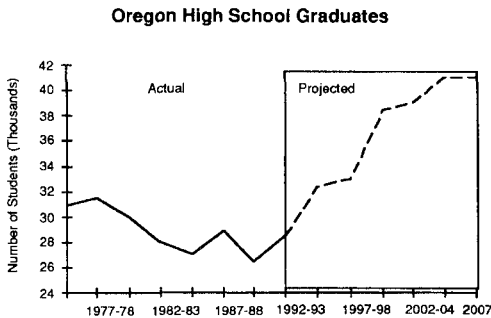
To this point, Oregon employers—especially those in high tech industries as seen above—have been relying heavily on being able to import already-educated workers from other states or countries for those new jobs requiring college degrees. The next section will explore whether we have the quantity of raw material (i.e., numbers of college-ready students) in Oregon to help supply the increasing demand for such workers.

**Access to Oregon Higher Education — Past and Future**

Since the Oregon State Employment Division predicts that more than half of the new jobs to be created in the 1990s (projected at approximately 200,000) will require college degrees, there exists a projected demand for at least 100,000 new college graduates to take those jobs during this decade.

This projected demand for college graduates could be expected to be met in large part by new graduates of Oregon higher education institutions. How many graduates are Oregon public and private high schools producing and how many will they produce in the next decade to feed Oregon colleges and universities? As the chart below shows, by 1995 Oregon schools will be producing a record number of high school graduates, and the projected trend moves upward very rapidly from there:

**Figure 6 — Oregon Public and Private High School Graduates, 1977-2008**



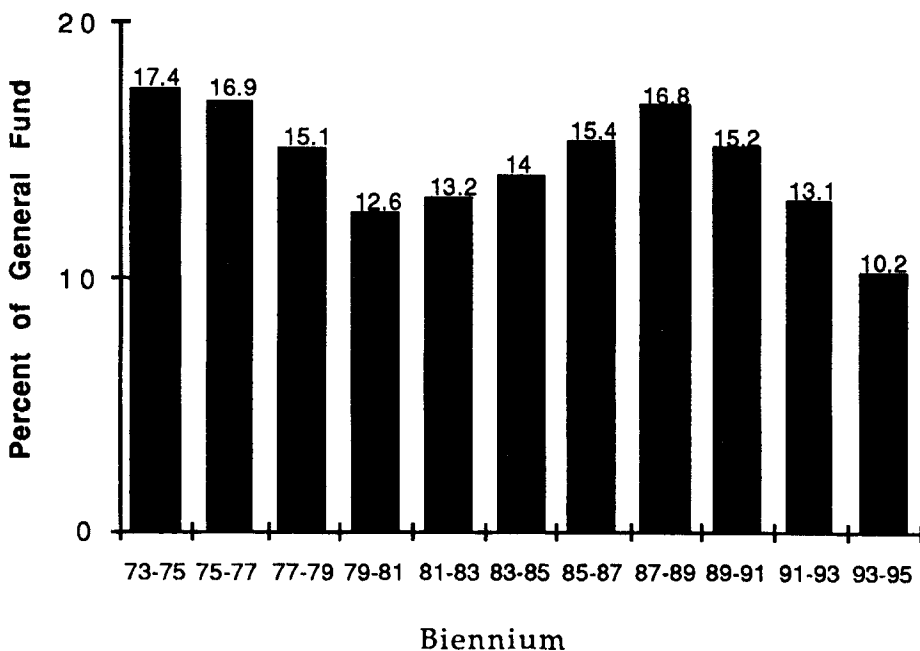
Source: OSSHE Institutional Research Services

Based on history, how many of these graduates can be expected to enter Oregon public higher education? According to the Oregon State System of Higher Education (OSSHE), 20 percent of Oregon high school graduates appeared as freshmen at OSSHE institutions annually throughout the 1980s. However, for the 1993-94 academic year, that figure has fallen to 16 percent, and is projected to fall to 12 percent by the end of the century. To summarize, while the number of high school graduates is increasing rapidly in Oregon, the percentage of those graduates entering state-funded higher education is on the decline.

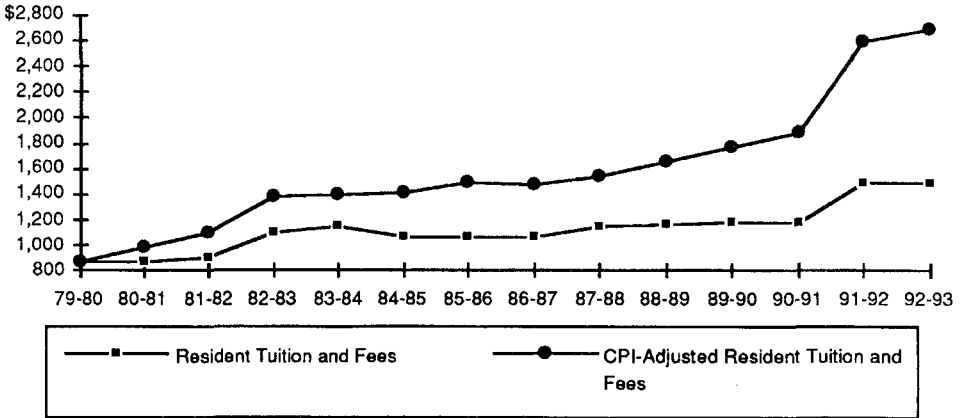
Further increasing the competition for OSSHE's freshman slots, fully 25 percent of new students each year are adults returning to college or starting for the first time. The numbers of non-traditional age students enrolling each year can't be projected as easily as those of new high school graduates, but these numbers of adult students do put additional pressure on the system. Barring significant change in tax structure, spending priorities or the capacity of private colleges, some level of dissonance is likely to occur between the demand for higher education and the ability of the Oregon State System of Higher Education to provide it.

Why is access to Oregon public higher education more difficult at the same time as demand for it is increasing at such a rapid pace? Two reasons have been discussed by the Oregon State System of Higher Education: 1) the state has less funding overall to give to higher education than it has in the past (see Figure 7 below), and thus; 2) individual students are experiencing tuition increases to make up for the lack of state investment (see Figure 8 on the next page).

Figure 7 — OSSHE's Percent of Oregon General Fund, 1973-95



**Figure 8 — Oregon Resident Undergraduate Tuition and Fee Rates, 1979-93**  
**Resident Undergraduate Tuition and Fee Rates**

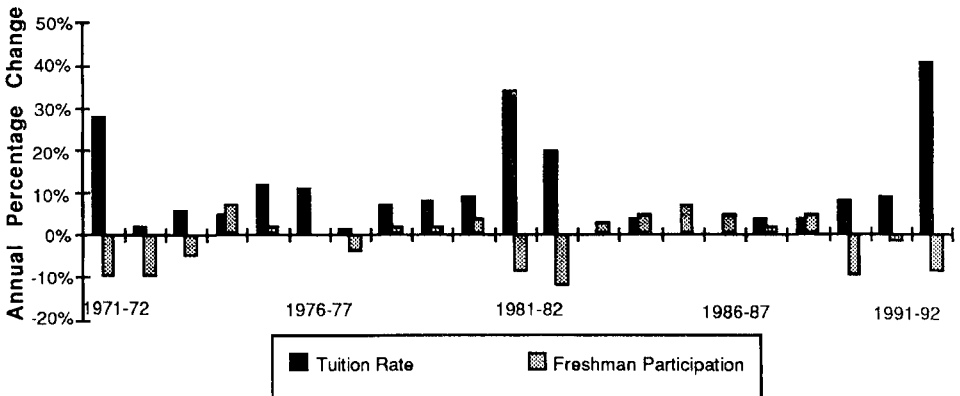


Source: Oregon State System of Higher Education

Enrollment data for OSSHE in 1993-94 shows a decrease of enrollment in fall 1993 of Oregon residents (minus 1766 from Fall 1992) but an increase in enrollment of out of state students from 1992 (plus 1014). Through tuition hikes totalling over 50 percent since 1989, Oregon students are being effectively replaced by students from out of state in our public colleges and universities.

As historical data show, tuition and fees can only be increased so much until the cost begins to inhibit participation, as Figure 9 below shows.

**Figure 9 — Impact of OSSHE Tuition Increases on Freshman Participation, 1971-92**  
**Impact of Tuition Increases on Freshman Participation**



Source: Oregon State System of Higher Education

Students sometimes respond to sharp increases by comparing tuition and fees of Oregon public higher education to that of surrounding states. Compared to the University of Oregon's undergraduate resident 1993-94 tuition of \$2916, the University of Washington's 1993-94 tuition is \$2532, the University of Idaho's current tuition is \$1426, and the University of Alaska's current tuition is \$1854 annually.

Other responses to increasing public tuition may be to investigate private colleges, to enter community college first in order to transfer later, or to give up on college altogether.

### *Issues Needing Public Attention*

Given the above-described increase in demand for college-educated workers over the next decade in Oregon, and the decrease in numbers of Oregon students enrolling in state-supported higher education, the following observations can be made:

- In recent years higher education has not appeared to be a major focus of Oregon's policy makers, as it has not been incorporated significantly into the state's long-range goals.
- The impact of Measure 5 on state revenue is causing tuition to rise quickly, potentially pricing many Oregonians out of higher education opportunities. As enrollments of non-Oregonians have risen in the OSSHE system, enrollments of Oregonians have been falling.
- As the nature of American industry changes, more and more jobs require baccalaureate and advanced degrees. Without completion of higher education, Oregon citizens may be less well-compensated than those holding the bulk of new jobs created.
- People who have moved to Oregon recently have higher levels of educational attainment than those who have lived here five or more years. In fact many of the high-paying new jobs are going to these newcomers, who have often been recruited from outside Oregon.

Given the population growth which is projected for Oregon and the funding choices facing the Oregon populace in the next decade, more understanding of the relationship between higher education and the economy is needed. A number of questions remain unanswered:

- What are the consequences of an increased number of Oregonians who are prepared for college or university, but are denied access because of lack of resources?
- What is higher education's role in helping Oregon achieve its Benchmark goal of increased per capita income?
  - ◆ Is Oregon in danger, as Dave Frohnmayer stated in his recent speech to the City Club, of educating "the best skilled unemployed blue collar work force in the country" through our education reform effort, if access to higher education continues to be limited for Oregon citizens?
  - ◆ Will Oregon become a two-tiered economy, the bottom tier of which is mostly composed of long-term Oregonians?
  - ◆ How does this issue impact the quality of economic growth expected to occur in the region?

Respectfully submitted,

The Education Standing Committee, Subcommittee on Higher Education Jim Hiltsenteger, Morgan Pope, Cassie Smith, and Dianna Smiley, Chair  
April 1994

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