MINUTES OF THE
REGULAR MEETING OF THE
OREGON STATE BOARD OF HIGHER EDUCATION

May 16, 1997

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OREGON STATE BOARD OF HIGHER EDUCATION
MINUTES OF REGULAR MEETING
ROOMS 327/328/329, SMITH MEMORIAL CENTER
PORTLAND STATE UNIVERSITY

ROLL CALL
The meeting of the State Board of Higher Education was called to
order at 9:30 a.m. by President Aschkenasy.

On roll call, the following answered present:

Ms. Diane Christopher  Dr. Jim Whittaker
Mr. Tom Imeson  Mr. Jim Willis
Ms. Gail McAllister  Ms. Phyllis Wustenberg
Mr. Les Swanson  Mr. John Wykoff
Ms. Katie Van Patten  Dr. Herb Aschkenasy

MINUTES APPROVED
The Board dispensed with the reading of the minutes of the April 18,
1997, regular meeting of the Board. Mr. Imeson moved and Mr. Willis
seconded the motion to approve the minutes as submitted. The
following voted in favor: Directors Christopher, Imeson, McAllister,
Swanson, Van Patten, Whittaker, Willis, Wustenberg, Wykoff, and
Aschkenasy. Those voting no: none.

PRESIDENT'S REPORT
President Aschkenasy reminded the Board that a luncheon honoring
PSU President Ramaley would be held immediately following the
Board meeting.

J. Ramaley Honored

Board Renewal
Dr. Aschkenasy indicated that the main topic of discussion at the
Board Renewal in July would be systems and how to improve them.
The scheduled session would extend through the morning of
Saturday, July 19. President Aschkenasy also encouraged the
institution presidents to "move more briskly on their own mission
statements. The relevance of this to the Renewal should be obvious.
If we have several we can consider together, that would be good."

Academic Year Fee Book
President Aschkenasy noted that the Academic Year Fee Book has
some fee increases. This has attracted the attention of some
legislators, who have expressed concern that this is another way of
increasing students costs. Dr. Aschkenasy stated that when a fee is
a continuation of an earlier commitment, the price of which has
increased (e.g., health care premium), then an increase is appro-
priate. However, it is the intent of the Board and legislature to put a
cap on fee increases as much as possible. The Fee Book is scheduled to be presented to the Board for action in June. "Give this some thought," said Dr. Aschkenasy. "This is a 'heads up' to the presidents of the institutions that the likelihood is that we'll be fairly negative about increases."

Dr. Aschkenasy invited Mr. Marc Nisenfeld, president of Local 089 of the Oregon Public Employees Union (OPEU), to address the Board.

Mr. Nisenfeld distributed copies of the 1996 OPEU/OSSHE Joint Vision Statement for negotiations. He raised three points that OPEU wanted to stress to the Board: (1) the selective salary adjustments on a regional basis is unacceptable; (2) OPEU questions OSSHE's commitment to the Joint Vision Statement and their vigor in seeking additional salary funding from the legislature; and (3) OPEU has requested the intervention of a state mediator for the current negotiations.

President Aschkenasy objected to the statement that the State System is not putting forth adequate effort to secure more funding from the legislature for salary increases. "In fact, given recent history, we've done quite well," said Dr. Aschkenasy.

Chancellor Cox announced that he would forego his Chancellor's report so that students and a community member could address the Board. However, he wanted to provide a context for their remarks.

"In 1990-91, a complaint was filed with the U.S. Department of Justice, Office for Civil Rights, alleging that the Board of Higher Education's UMAS [Underrepresented Minority Achievement Scholarship] Program violated Title VI of the 1964 Civil Rights Act. As a result, the Office for Civil Rights has reviewed the UMAS Program to determine if it is consistent with guidelines issued by the U.S. Department of Education for such scholarships. We have been engaged in negotiations with representatives from the Department of Justice to try to bring this to a satisfactory resolution for both parties."

Chancellor Cox indicated that staff are negotiating a resolution with the Office for Civil Rights that preserves the Board's commitment to maintaining a racially and ethnically diverse student population. Those negotiations are nearing completion and, soon thereafter, staff will begin working with campus representatives to make sure the program is consistent with the requirements of Title VI.
Dr. Cox stated, "We can assure students, particularly those students who are current UMASP recipients or who have been designated to receive UMASP awards beginning in the 1997-98 year, that their awards will not be changed."

The Chancellor indicated that he had met with a group of concerned students on May 15 and had invited them to make some remarks to the Board.

Ms. Celina Brito and Ms. Eleza Faison, both students, appeared before the Board and read a letter they submitted to the Chancellor that contained a list of questions and recommendations that centered around provision of support of and Board representation for students and faculty of color. (A copy of the letter is on file in the Board’s office.)

President Aschkenasy noted that the Governor appoints the Board, so the Board does not have control over its racial/ethnic make-up. However, Chancellor Cox reminded the students that there has been and continues to be diverse Board membership.

Chancellor Cox invited Mr. Morrie Jimenez, executive director of the Oregon Indian Coalition-Post Secondary Education and chair of the Oregon Council on Diversity in Education, to address the Board. Mr. Jimenez explained that his chief responsibility is to monitor the implementation of diversity components of the education reform bill, minority teacher act, and any pertinent legislation. He expressed support and endorsement of the concerns expressed by the students, and offered assistance in helping the Board fulfill its goals and objectives regarding their positive diversity efforts.

Recognition, D. Gilbert
Chancellor Cox congratulated EOU President Gilbert, who has been named as one of the faculty of the Institute for New Presidents, which is jointly sponsored by a number of national organizations.

IFS Report
Dr. Paul Simonds, president of the Interinstitutional Faculty Senate (IFS), reported that no IFS meetings have been held since the last Board meeting. "Our activities have been primarily to encourage faculty to contact their own legislators with the message to support the higher education budget." Dr. Simonds thanked the Board and staff for their work with the legislature to date. In addition, he extended best wishes to PSU President Ramaley as she moves to Vermont, and thanked her for all her hard work at PSU.
The Board has general powers to assign missions and roles for the institutions under its jurisdiction. The Oregon Revised Statute states that:

...the State Board of Higher Education, for each institution, division and department under its control, shall: supervise the general course of instruction therein, and the research, extension, educational and other activities thereof. [ORS 351.070(2)(a)]

SOU has been involved in campus-wide planning that included a review of the mission previously approved by the Board. The proposed mission and vision statement follows:

Southern Oregon University’s primary mission is to provide a full range of excellent and thorough instruction in the liberal arts and sciences complemented by selected professional and graduate programs. The campus combines many of the best features of both the private and public college: small-enrollment classes; teachers who know and work directly with their students; and a faculty and staff fully committed to education, both in and beyond the classroom, on and off campus. Southern Oregon University is designated as a center of excellence in the fine and performing arts.

The University principally serves students from Southern Oregon, but increasingly attracts them from the West and Northwest. It brings students of all ages together in traditional undergraduate programs, education for the professions, graduate education, and lifelong-learning programs. Through the University’s core curriculum, students share in a common intellectual enterprise, mastering specific information and applying critical-thinking skills they have learned in the community and international settings. Students are encouraged to engage in significant undergraduate research. They also become technologically literate, learn to communicate clearly and effectively, and explore ethical issues and define social and personal values.
Six elements are central to this mission:

1. A supportive and responsive faculty and staff committed to student learning, undergraduate research, community service, and teaching informed by scholarship;

2. A rigorous curriculum and co-curricular activities that will prepare students to lead constructive and civically responsible lives, be successful in a global society, and continue to learn throughout their lifetimes;

3. Diversity of students, faculty, and staff;

4. A natural and cultural environment which enhances the University's programs and provides a greater variety of opportunities for its students;

5. A commitment to service, distance learning, and to full and appropriate partnerships with the community and region; and

6. An attractive, well-equipped, and secure campus.

**Board Discussion**

President Aschkenasy stated that he would like, as much as possible, to separate the presentation of items from the decision about the items. He indicated that he has discussed postponing Board action regarding the SOU mission statement with Dr. Reno. In addition, he noted that the proposed mission statement differs from that presented in the Board docket; the first line was deleted. Chancellor Cox indicated that the Board seeks greater focus to achieve greater differentiation among the institutions.

President Aschkenasy asked what SOU does that would attract nonregional students. President Reno responded that there are many attractions. Sometimes it's a specific program such as theater or environmental sciences. Beyond programs, there are a cluster of characteristics (e.g., strong student-faculty interactions, practica and internships, amenities of Ashland).

Ms. Christopher noted that diversity is part of the mission and asked what progress SOU has made in this arena and projected next steps.
Dr. Reno responded that it's in the mission statement because it is an important value at SOU. However, he admitted that SOU needs to continue to make progress in this area. Some programs to address diversity include a summer academy program for talented and gifted young people in grades five through eight. Another effort is a week-long program for Native American children, the goal of which is to bring the students to campus and help shape their educational aspirations. "If the success rate in that program, which is targeted to that minority group, tracks with the success of our academy program over the last 15 years, that's a very good investment of effort," stated Dr. Reno.

In addition, President Reno explained that SOU has developed a series of grant proposals for external funding to help establish relationships with historically African American institutions and other institutions with large minority populations that would lead to faculty and staff exchanges. SOU is examining a partnership relationship with the University of California, Santa Barbara, which has a very good program in Native American studies. "We have a minor in Native American studies and already we're talking about having our students regularly visit UCSB with an idea of looking toward graduate study while, at the same time, trying to get UCSB faculty and graduate students to spend time (a term or a year) on our campus to teach and encourage students," said Dr. Reno. He listed several other efforts to increase and sustain diversity on the SOU campus.

(No Board action required)

B.S. IN HEALTH SCIENCES, OIT

Introduction

Oregon Institute of Technology (OIT) requests authorization to offer the B.S. in Health Sciences. The Board reviewed a preproposal for this program at its February 16, 1996, meeting. This proposed health sciences program will (1) provide a basic science curriculum for students seeking entry-level positions in biomedical and biotechnology laboratories; (2) strengthen the quality of programs currently offered by OIT in the allied health sciences; (3) support the development of several related programs in the allied health sciences; and (4) provide a preparatory course of study for medical school and health-related professional and graduate programs. Although other OSSHE institutions offer programs generally described as "pre-medical," no other program fits the profile of this proposed program, which will prepare students for health-related careers through a
unique sequence of courses, seminars, and a senior capstone experience. Current resources at OIT are sufficient to begin implementing this program.

Staff Analysis

1. Relationship to Mission

As the only public institute of technology in Oregon, OIT has historically been instrumental in providing degree programs in technical areas, including health technologies and nursing. In addition, OIT is recognized as a national leader in medical imaging technology and dental hygiene, has the only baccalaureate program in the nation in vascular imaging technology, and offers one of the few diagnostic sonography degrees in the country. In operating these programs, OIT manages a clinical externship program involving more that 65 hospitals and clinical sites in 19 states. The proposed health sciences degree program would extend OIT’s mission to include preparation at the undergraduate level for entry into a number of other medical career paths.

2. Evidence of Need

The need for this proposed program is evident by identifying institutional needs as well as student opportunities. With the implementation of this proposed program, OIT seeks to broaden its upper division offerings in chemistry, microbiology, and anatomy and physiology, all of which are necessary to prepare students for health careers. OIT would, thus, have the ability to retain students who would otherwise be seeking to transfer to another institution to complete their preparation for post-baccalaureate health career programs. Additionally, OIT could retain other students who leave OIT’s dental hygiene or medical imaging programs (and who may otherwise choose to leave campus programs) by offering them other health-related alternatives.

While the primary outcomes anticipated for graduates of the proposed health sciences program are entry into appropriate graduate and professional schools for health careers requiring advanced degrees, opportunities also exist for students who choose to seek employment at the B.S. degree level. For example, with the proliferation of biotechnology firms located in
California and the Pacific Northwest, it is likely that opportunities in these companies would exist. According to industry representatives, the curriculum of the proposed program would provide suitable training for entry-level positions in their companies, and the training would be superior to that of most bachelor's degree graduates (biology or chemistry majors) competing for similar positions.

Further, data presented in the *Occupational Outlook Handbook* (1996/WWW version) suggest that individuals trained at the bachelor's degree level in this field are likely to find jobs as health technologists and technicians. One example of a position in this category is "medical record technician"; job prospects for individuals in this field should be very good, with employment demand growing much faster than average through the year 2005. This is due to the large rise in the number of medical tests, treatments, and procedures, and because medical records will be increasingly scrutinized by third-party payers, courts, and consumers.

3. **Quality of the Proposed Program**

The proposed program will be of high quality. All of the OIT faculty have experience teaching health science-related subjects, including anatomy and physiology, microbiology, biochemistry, laboratory technology, and immunology. Additional adjunct medical faculty are available from the Merle West Medical Center, several of whom currently teach for OIT. Thus, the high-quality programs offered by OIT in the allied health sciences will extend to this proposed program. Current OIT faculty are well regarded in their respective discipline. For example, the institution has a national reputation in areas related to medical imaging technology. Further, the placement rate for OIT graduates has typically been exceptional, with students highly trained in their technical area as well as in the verbal and written communication skills expected by employers.

Academic rigor is assured within the proposed curriculum. For example, the math and science prerequisites for the program meet or exceed the published entry requirements of allied health programs for entrance to medical and dental schools, and into related graduate programs. Students exiting the program will be qualified to enter health programs in a variety of disciplines and to apply for graduate and professional school programs. Oregon
Health Sciences University (OHSU) has been consulted in the process of developing the proposed program's curriculum.

OIT academic programs feature practica, projects, and other “hands-on” experiences to supplement the theoretical aspects of the discipline learned in the classroom — and this proposed program is no exception. Seminars will include interaction with practitioners from a variety of medical fields. All students enrolled in the proposed program will complete a capstone experience in their senior year; examples of possible senior projects include the following:

- Study of rural community health needs, working with the Area Health Education Center (AHEC) and OHSU.
- Study of nursing education in relation to nursing practice, working with the statewide nursing program.
- Comparison of several medical imaging modalities in the effective diagnosis and management of diseases.

4. Adequacy of Resources to Offer the Program

No new state resources are needed to offer the proposed program. Funding for the program will take place through a combination of internal reallocations and fundraising through external sources. Current OIT faculty and adjunct instructors are at a level sufficient to begin program implementation; no new faculty would be required for the first two years. In academic year 1999-2000 (the third year of implementation), two FTE faculty at the assistant professor level would be required additions to the program. One of these faculty members would teach courses related to public health and epidemiology; the other would teach in the areas of health psychology and growth and development. It is anticipated that these positions can be funded with internal reallocations made possible by faculty retirements as well as revenue generated from the first two years of the program’s existence. External funding will be sought in support of this proposed and related programs in the Klamath Falls community.

With regard to reference sources, many of the basic materials are already available on campus. However, additional videotapes, CD-ROMs, books, and journals will be needed in public health and
medical administration topics. Expenditures in the medical areas will be increased approximately ten percent above current levels; the acquisition of needed materials will be accomplished with an internal reallocation of funds. Additional equipment and supplies are needed for organic chemistry and the upper division course in microbiology. The funds for these materials will be also be provided for through an internal reallocation.

Program Review

The proposed program has been reviewed positively by all appropriate institutional committees and the Academic Council.

Staff Recommendation to the Board

Staff recommended that the Board authorize Oregon Institute of Technology to establish a program leading to the B.S. in Health Sciences effective fall term 1997, with a follow-up review of the program to be conducted by the State System Office of Academic Affairs in the 2002-03 academic year.

Board Discussion and Action

OIT Provost Dow reviewed the program proposal. Chancellor Cox emphasized that OIT is working to meet some regional needs, particularly for those 400 to 500 students who are not degree seeking or would have to leave because OIT's offerings have not been comprehensive enough. This is not an alteration of OIT's mission, but it is providing OIT with a little broader base. Dr. Dow added that it also enhances OIT's existing programs in health technology and the collaborative nursing program.

Ms. Wustenberg moved and Mr. Willis seconded the motion to approve the staff recommendation. The following voted in favor: Directors Christopher, Imeson, McAllister, Swanson, Van Patten, Whittaker, Willis, Wustenberg, Wykoff, and Aschkenasy. Those voting no: none.

PH.D. IN RADIATION HEALTH PHYSICS, OSU

Introduction

Oregon State University (OSU) requests authorization to offer the Ph.D. in Radiation Health Physics (also known as “radiation protection” or “health physics”). The Board reviewed a preproposal for
this program at its May 17, 1996, meeting. This field of study focuses on the protection of humans and their environment from the harmful effects of radiation. Examples of areas in which health physicists are involved are: environmental monitoring; radiation and radioactive materials from nuclear facilities; radioactive material transportation; radiation detection instrumentation; emergency planning; risk assessment; and public information. The program will be administered by OSU's Department of Nuclear Engineering in the College of Engineering (which already administers the current B.S. and M.S. programs in radiation health physics). This proposed program is wholly consistent with the land-grant mission of OSU and would be the only program of its kind in the Pacific Northwest. No new resources are needed to implement the program.

Staff Analysis

1. Relationship to Mission

The proposed program is directly related to OSU's land-grant mission and the institution's emphasis on providing high-quality programs in agricultural, science, and engineering fields. The field of health physics is interdisciplinary — spanning the areas of biology, chemistry, environmental sciences, physics, medicine, engineering, law, and sociology. The implementation of this Ph.D. degree program will improve the scope of OSU's educational offerings by building on the already strong and recognized bachelor's and master's radiation health physics degrees offered in the College of Engineering.

2. Evidence of Need

OSU's request for this program is based on capacity as well as need. With baccalaureate and master's programs of long standing, student interest in a Ph.D. program has been very strong and the core courses needed for this program are already being offered. During the past six years, there has been a steady expansion in student enrollment, research activities, and departmental faculty in the radiation health physics area. There are currently 25 students enrolled in the B.S. degree program and 12 in the M.S. program; seven of these M.S. students indicate that they are awaiting approval of the proposed Ph.D. program. Eventual enrollment in this program is anticipated to be five to ten students, with two to four graduating each year.
No Ph.D. programs in radiation health physics exist in Oregon or the Pacific Northwest. Only two of the 18 institutions granting Ph.D. degrees in this field are located west of the Mississippi River (the closest program is at Colorado State University). Regional need is high for individuals trained at the Ph.D. level given the major nuclear sites in the states of Washington, California, Idaho, Nevada, New Mexico, and Colorado. Many academic institutions (e.g., Colorado State University, Georgia State University, University of Washington, etc.), federal and state agencies (U.S. Air Force, Army, Navy; U.S. Department of Energy, Oregon Department of Energy, U.S. Environmental Protection Agency, National Aeronautical and Space Administration, etc.), as well as private sector employers (General Electric Co., Westinghouse Electric Corporation, Bechtel Hanford, Inc., etc.) now hire master’s-level graduates. There is a demand for more Ph.D.’s in this area. Many of these employers have expressed interest in potential OSU doctoral graduates in radiation health physics. Data taken from the Health Physics Society Newsletter from the period of February 1995 to February 1997 indicate 25 known openings (16 academic, 4 in government, 5 in industry). OSU would be at a geographic advantage in recruiting top students, linking with potential employers for the program’s graduates, and for involvement in research into environmental restoration, waste management, and health and safety issues.

3. Quality of the Proposed Program

The proposed program builds on a 34-year history of the baccalaureate and master’s degree programs in radiation health physics at OSU and is a logical extension of the institution’s activities and aspirations in this field. The master’s degree was first approved by the Board in 1963 when the program was known as “radiation biology.” Undergraduate coursework in the field evolved in the 1980s in OSU’s Department of General Science and, in 1991, this activity was elevated to a full bachelor’s degree program — which by then was housed in the Department of Nuclear Engineering. In 1966, the general science Ph.D. program started offering an area of concentration in radiological biology (although this option was discontinued in 1983). With the exception of some 600-level course offerings, all courses for this program are already being offered. Several areas of concentration, currently offered for the master’s degree, will be immediately available for Ph.D. students. These concentration
areas include nuclear medicine, emergency response planning, radiation shielding, radioactive material transport, radiation detection and instrumentation, as well as several others. The nine-member Oregon State University Department of Nuclear Engineering and Radiation Center Advisory Board (an external panel comprised of members from the public and private sectors) has recommended the addition of this Ph.D. program, deeming it "appropriate and necessary."

Given the above considerations, the faculty of radiation health physics in OSU's Department of Nuclear Engineering is well-equipped to now offer this program. Research interests and activity in the department are at levels sufficient to support graduate student training for the Ph.D. The external review team (see below) indicated that "the present faculty of the nuclear engineering department is outstanding." Indeed, two of the faculty members in the department (Jack F. Higginbotham and Kathryn A. Higley) have received the coveted Elda E. Anderson Award from the national Health Physics Society. This award is for outstanding research and service to the profession and OSU is the only institution in the nation to have two award winners on its faculty.

4. Adequacy of Resources to Offer the Program

All requisite resources to successfully offer this program are now in place. The faculty currently involved in the B.S. and M.S. programs will be responsible for the proposed Ph.D. program. All core courses in the proposed curriculum (with the exception of the 600-level offerings) are currently being offered. OSU's Radiation Center, with its Triga reactor and supporting laboratories, is a facility fully and appropriately equipped to support a radiation health physics Ph.D. program. This proposed new program is an efficient utilization of existing resources; no new resources are needed to establish or maintain this program.

Program Review

The proposed program has been reviewed positively by all appropriate institutional committees, the Academic Council, and by an on-site external review team. The external review was conducted on February 21, 1997, by Wesley Bolch (University of Florida), Wayne Lei (Portland General Electric Company), and Nicholas Tsoulfanidis
(University of Missouri - Rolla). The positive report produced from the
review stated, in part, that: the proposed program "will strengthen the
quality not only of the existing nuclear engineering and health physics
program but will also have beneficial synergistic effects to other
programs such as chemistry, biology, environmental engineering, and
others"; "the present faculty...is active in research and...capable of
generating more research support"; "the Radiation Center is an
excellent facility...and the faculty have the expertise, ingenuity, and
drive to utilize the laboratories in such a way that the benefit for
students is maximized"; and that OSU "should be given the green light
to start accepting doctoral candidates."

Staff Recommendation to the Board

Staff recommended that the Board authorize Oregon State University
to establish a program leading to the Ph.D. in Radiation Health
Physics effective fall term 1997, with a follow-up review of the
program to be conducted by the State System Office of Academic
Affairs in the 2002-03 academic year.

Board Discussion and Action

OSU Provost Arnold reviewed the proposed program. Ms. McAllister
moved and Mr. Imeson seconed the motion to approve the staff
recommendation. The following voted in favor: Directors Christopher,
Imeson, McAllister, Swanson, Van Patten, Whittaker, Willis,

RESOLUTION REGARDING CLASSIFIED INFORMATION FOR U.S.
DEPARTMENT OF DEFENSE, OSU

Staff Report to the Board

The Industrial Security Manual issued by the U.S. Department of
Defense requires that owners, officers, and executive personnel of
corporations and regents or trustees of colleges and universities
whose employees have access to classified material in the course of
working on Department of Defense contracts delegate to others the
authority for fulfilling the requirements of the Industrial Security
Manual and exclude themselves from access to classified information.

The resolution recommended for adoption is that which is required by
the Manual and is, except for changes in the date and names of
Board members, identical to that which has been previously adopted
by the Board.
Staff Recommendation to the Board

Staff recommended the Board adopt the following resolution regarding access to classified information related to the Department of Defense material.

RESOLUTION

That those persons occupying the following positions for Oregon State University shall be known as the Managerial Group as described in the Industrial Security Manual for Safeguarding Classified Information:

President
Vice Provost for Research
Vice President for Finance and Administration
Security Supervisor
Assistant Security Supervisor

That the chief executive and the members of the Managerial Group have been processed or will be processed for a personnel clearance for access to classified information, to the level of the facility clearance granted to this institution as provided for in the aforementioned Industrial Security Manual.

That the said Managerial Group is hereby delegated all of the Board's duties and responsibilities pertaining to the protection of classified information under classified contracts of the Department of Defense or User Agencies of its Industrial Security Program awarded to Oregon State University.

That the following named officers and members of the Oregon State Board of Higher Education shall not require, shall not have, and can be effectively excluded from access to all classified information in the possession of Oregon State University and do not occupy positions that would enable them to affect adversely the policies and practices of Oregon State University in the performance of classified contracts for the Department of Defense or User Agencies for its Industrial Security Program awarded to Oregon State University.
Meeting # 662

Officers and Board Members

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<td>Herbert Aschkenasy</td>
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<td>Tom Imeson</td>
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<td>Diane Christopher</td>
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<td>Gail McAllister</td>
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<td>Esther Puentes</td>
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<td>John Wykoff</td>
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<td>Joseph Cox</td>
<td>Chancellor</td>
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<td>Virginia Thompson</td>
<td>Secretary</td>
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Board Discussion and Action

Dr. Whittaker moved and Ms. Christopher seconded the motion to approve the staff recommendation. The following voted in favor: Directors Christopher, Imeson, McAllister, Swanson, Van Patten, Whittaker, Willis, Wustenberg, Wykoff, and Aschkenasy. Those voting no: none.

B.S. IN
COMPUTER
SCIENCE &
MATHEMATICS
(JOINT
MAJOR), WOU

Introduction

Western Oregon University (WOU) requests authorization to offer a new instructional program leading to the Bachelor of Science (B.S.) in Computer Science and Mathematics (Joint Major). The Board reviewed a preliminary proposal for this program on October 18, 1996. This program will be offered through the Computer Science Division and the Mathematics Department in the School of Liberal Arts and Sciences. The program is designed specifically for students desiring a solid foundation in mathematics and in programming/language skills sought by high-technology industries — and is most appropriate for students who would, at the present time, pursue a major in computer science and a minor in mathematics. This proposed degree is a combination of two current degrees, both of which are consistent with Western’s mission and campus strategic plan. Although there are similar programs at the University of Oregon and Southern Oregon
University, the proposed program is within the capacity of the institution to offer, is in response to growing needs in the high-tech sector of Oregon's economy, and provides a course of study appropriately situated between a community college preparation program and a more theoretically oriented research-university degree. No new resources are needed to implement the program.

Staff Analysis

1. Relationship to Mission

The proposed program combining existing majors is wholly consistent with Western's recently adopted mission statement, approved by the Board at its September 20, 1996, meeting, which states, in part, that it is Western's aim to "prepare students to make personal and professional contributions to the economy, culture, and society of Oregon...[through its] core curriculum in the liberal arts and sciences [which] provides the foundation for excellence in degree programs in creative arts, natural sciences, mathematics, humanities, and social sciences, as well as in professional degree programs in teacher education, business, computer science, criminal justice, and fire service administration."

2. Evidence of Need

This program responds directly to identified market needs in the region. Students will need to be well prepared to enter Oregon's expanding computer technologies industries, with special strengths in micro applications for software and hardware. Over the past eight years, there have been nine Western students who have received the B.S. in Computer Science and the B.S. in Mathematics (double majors). This proposed program would therefore institutionalize a path that some students have undertaken on their own — pursuing a program that affords fluency in the concepts and language of mathematics coupled with the ability to transform the mathematical form into one acceptable for a computer. Of those students who have pursued the double major and chosen to enter industry, all were hired prior to graduation and awarded salaries approximately 10 to 20 percent higher than their peers receiving B.S. degrees in computer science alone. Two of the students went on to earn master's degrees in computer
science, and one is currently pursuing a doctorate in computer science.

National need for graduates of this program is indicated by the 1996-97 edition of the Occupational Outlook Handbook, which lists "computer scientists and systems analysts" as the fastest-growing field (in terms of number of projected openings) during the years 1994 to 2005. Further, the Oregon Occupational Projections Handbook (for the years 1996 to 2005) indicates that employment in the categories of computer systems analysis, computer science, and computer science teachers will remain high in the state with an accelerating ten-year job growth rate. Based on a projected growth rate of up to eight percent, as many as 440 positions in the state's software industry alone may be created annually. When the needs of other high-tech industries are considered, as well as the demand for high-tech employees in commercial businesses and government offices, as many as 800 to 1,200 positions in this field may be needed. In all OSSHE institutions, approximately 150 students graduated in computer science last year. Given the past history of graduates and projected trends in the industry, it is anticipated that the full-employment pattern of Western's computer science-degree holders will continue for the graduates of this joint-major degree.

In terms of the present computer science degree, Western is experiencing an increase of industry requests for its graduates and an increase of students in the current program (including entry-level students as well as increased transfers from the regional community colleges and four-year institutions). There are at least two major components that will make the proposed program's graduates attractive to prospective employers. First, the curriculum of this program fills a niche between the preparation of community college students for specific job categories and preparation of undergraduates at a research university, more of whom may be groomed for advanced degree programs. The purpose of the proposed Western program is to prepare students for the current workplace and for the pursuit of lifelong learning. Second, the liberal arts base of the program is responsive to corporations (e.g., Microsoft) that seek graduates having a breadth of knowledge, not only in computer science, but in other fields as well.
3. Quality of the Proposed Program

The quality of the proposed program draws from established programs, both of which are long-standing at Western. The computer science degree program was established in 1984 and, to date, there have been approximately 220 graduates. Over 80 percent of the program's graduates remain in the Willamette Valley. Enrollment has been increasing steadily, with the current count at slightly over 100 majors and averaging over 25 graduates per year. Western's graduates are recruited to such major corporations as Intel, Nike, Symantec, Oracle, Sequent, and Hewlett Packard. Graduates also are employed in local software corporations, such as Penmetrics, Statware, CTR, ONCO, and Supra, each of which has multi-million-dollar revenues. For the past four years, placement has been above 95 percent before graduation.

Faculty hold requisite degrees to ensure instructional quality. In the computer science division, of the ten instructors, four have a Ph.D. in computer science, three have other terminal degrees, one has done doctoral-level work in computer science, one has an M.S. in computer science, and one is a graduate teaching assistant. These faculty are invited to consult in such areas as networking, systems design, systems analysis, parallel processing, and distance learning. The three mathematics department faculty hold Ph.D.s.

Finally, students in this program have the opportunity to participate in internships and practica as part of their educational experience. Typically, Western indicated there are more industry requests for internships than there are students available to fill them. Of the students in internship experiences, approximately 98 percent of them receive offers from the company in which they were placed.

4. Adequacy of Resources to Offer the Program

Faculty. No new funds for faculty are required to implement this proposed program. As stated above, ten FTE instructors in computer science and three FTE in mathematics are currently on the Western faculty. The current course offerings in computer science and mathematics are entirely sufficient to support the proposed program.
Library, Facilities, and Equipment: Over the previous three years, expenditures for library resources in computer science and mathematics have totaled approximately $9,000 per year. It is anticipated that additional acquisitions in these areas — in the amount of $5,000 per year for the next three years — will be needed, primarily in terms of periodicals. These costs will be jointly covered by the library and the office of the Dean of Liberal Arts and Sciences for three years and eventually become a permanent fixture of the library budget. In addition, a variety of other resources available for multi-station student use are presently available (e.g., CD-ROM version of MS Developer Reference, Borland Desk Reference, Encarta Electronic Library, STATS S3, Bookshelf, Alternative Program Language, and Delphi).

Current computing facilities and equipment are sufficient to implement the program. With the dedicated technology fee, student computer resources are on a scheduled three-year replacement/upgrade schedule. Thus, the technology provided to all students (including those in the proposed program) will never be older than three years. Funds in the technology fee account have been approximately $255,000 per year for the last two years.

Program Review

The proposed program has been reviewed positively by all appropriate institutional committees as well as the Academic Council.

(Copies of the full proposal are available from the OSSHE Office of Academic Affairs.)

Staff Recommendation to the Board

Staff recommended that the Board authorize Western Oregon University to establish a program leading to the B.S. in Computer Science and Mathematics effective fall term 1997. A follow-up review of the program will be conducted by the State System Office of Academic Affairs in the 2002-03 academic year.

Board Discussion and Action (April 18, 1997)

Mr. Imeson moved and Ms. McAllister seconded the motion to approve the staff recommendation. The following voted in favor: Directors Christopher, Imeson, McAllister, Puentes, Swanson, Van

Board Discussion and Action (May 16, 1997)

Dr. Whittaker moved and Ms. Christopher seconded the motion to approve the staff recommendation. The following voted in favor: Directors Christopher, Imeson, McAllister, Swanson, Van Patten, Whittaker, Willis, Wustenberg, Wykoff, and Aschkenasy. Those voting no: none.

Introduction

Western Oregon University (WOU) requests authorization to offer a new instructional program leading to the Bachelor of Science (B.S.) in American Sign Language (ASL) Studies - Teacher Education. The Board reviewed a preliminary proposal for this program on October 18, 1996. This proposed degree will be housed in the Regional Resource Center on Deafness (RRCD), offered through the Division of Special Education in the School of Education, and will prepare graduates for employment in secondary and postsecondary school settings as ASL educators. Although at the present time no license is required to teach ASL, this proposed program is being developed in anticipation of TSPC approval of ASL as the Basic endorsement in Foreign Language Teaching. This ASL teacher education program is being requested at this time to meet the urgent demand for qualified ASL teachers in secondary and postsecondary settings in Oregon and the Northwest. The proposed program would be unique to this region of the country and require no new state resources to implement.

Staff Analysis

1. Relationship to Mission

The preparation of professional educators has been central to Western’s mission since its approval as a teacher training institution in 1882. Further, since the establishment of the RRCD in 1972, Western has come to be viewed as a major institution for the preparation of education, sign language interpretation, and vocational rehabilitation specialists focusing on individuals who are hard of hearing or deaf. Thus, the establishment of this proposed ASL teacher education program would be entirely consistent with Western’s institutional identity and long-term mission. The
proposed program has as its primary goals to: (1) meet the growing need for ASL educators who desire to focus on secondary and postsecondary classrooms; (2) ensure that students who choose ASL in order to meet second language requirements are afforded professional, high-quality instruction comparable to other languages; and (3) assist in creating a more supportive and accessible environment for native users of ASL.

2. Evidence of Need

This ASL teacher education program is being requested at the present time to meet the urgent demand for qualified ASL teachers in secondary and postsecondary settings throughout Oregon and the Northwest. Several events have contributed to the development of this need, including the national recognition of ASL as a language, enormous popularity of ASL courses (it has become the fourth most commonly studied language in the country), and the demand for higher ASL language competency among students applying to counselor-, teacher-, and interpreter for the deaf-preparation programs. Further, in 1995, the Oregon Legislature passed SB 475 which (1) recognizes ASL as a language that meets second language requirements in high schools and higher education institutions; (2) encourages the development of K-12 ASL school curricula; and (3) encourages the State Board of Education to coordinate with the State Board of Higher Education to implement programs that "prepare qualified teachers of American Sign Language." Over the last five years, in an effort to address the quality of ASL instruction, the RRCD has offered week-long workshops for practicing ASL teachers. Through contact with these in-service professionals, it has become clear that specific, professional preparation in ASL teaching is nonexistent among the approximately 150 individuals hired to teach ASL in secondary and postsecondary settings in Alaska, Idaho, Washington, and Oregon. Thus, this proposed program will address the current, specific educational needs of those individuals desiring positions in ASL teaching.

3. Quality of the Proposed Program

This proposed program builds on a rich tradition of teacher education at Western and the work of the RRCD. The RRCD was created to meet the demand for qualified professionals throughout the Northwest who work, in a variety of education and social
service settings, with individuals who are deaf or hard of hearing. At the present time, the RRCD maintains M.S. degree programs in "teacher preparation: deaf education," and "rehabilitation counseling: deafness"; a B.S. program in ASL/English interpretation; and three federally funded programs for currently employed professional counselors and interpreters who serve hard of hearing or deaf individuals. Students accepted into the ASL teacher education program will complete a 63-credit ASL major as their subject area, as well as a 42-credit secondary education professional core. This secondary education core, approved by the National Council for the Accreditation of Teacher Education (NCATE), provides students with a solid foundation in pedagogy that is supported by developmental psychology and learning theory. The secondary education faculty sets rigorous entrance requirements and maintains high academic standards throughout the student experience. A maximum of 18 students will be enrolled in each of the sophomore, junior, and senior levels; this class size will ensure adequate individual instruction, monitoring, and evaluation. Specific program objectives have been set forth for all students in the areas of ASL, deaf culture, deaf history, ASL literature, linguistics, and pedagogy. Finally, the resident faculty who will teach in this proposed program are all highly experienced in the ASL field.

4. Adequacy of Resources to Offer the Program

Faculty. Core faculty are presently on board. Each of the three current staff members has many years of experience in interpreting and in the ASL-education field. All have served in the interpreter training program at Western in such positions as coordinator for the Region X interpreter education center; coordinator for the RRCD summer interpreter education program; and coordinator of the "teacher education: deaf education" program.

Current faculty resources are sufficient to implement the proposed program. One of the current faculty positions is supported with campus-based funding; the other two are primarily supported through federal grant dollars. These federal funds have been a fixture of Western's resource picture since the mid-1970s and this condition is not expected to change. Further, Western will seek additional federal and other grant funds to build and maintain the program at an appropriate instructional level in the coming years.
An additional 0.67 FTE instructional staff is desired the first year of operation, with an increase in additional FTE to 1.17 in the second and third years when the full course of study will be offered. Rank for new faculty will be at the assistant professor level or above. In the event that the expected new external grant funds are not forthcoming, Western will internally reallocate resources to support the program at the necessary level. In the unlikely event that federal funding is withdrawn in the future, students currently in the program would be guaranteed program offerings through graduation.

**Library, Facilities, and Equipment.** Over the past several years, Western has added heavily to its library holdings in American Sign Language research, teaching, and interpreting. Combined with the materials purchased with several federal grants, the campus has become one of the strongest schools in the West in terms of its collection of ASL, deaf education, and ASL/English interpretation instructional media. No additional financial support is required for additional materials. With regard to routine upgrading of current reference sources, requests will be made through Western’s ongoing acquisition process.

With respect to facilities and equipment, the following are in place: accessible office space in the Education Building; videotaping and other media services; duplicating services; computer, printer, and related repair/support services; adequate and accessible classrooms; standard office supplies; and telecommunication devices for the deaf (TTYS). In addition, the School of Education is presently exploring the design and the resources necessary to develop an interactive, multimedia, computer classroom teaching environment. This educational technology, when implemented, will serve as a language laboratory for all students and assist in keeping Western at the national forefront of ASL studies.

**Program Review**

The proposed program has been reviewed positively by all appropriate institutional committees as well as the Academic Council.

(Copies of the full proposal are available from the OSSHE Office of Academic Affairs.)
Staff Recommendation to the Board

Staff recommended that the Board authorize Western Oregon University to establish a program leading to the B.S. in American Sign Language Studies - Teacher Education effective fall term 1997. A follow-up review of the program will be conducted by the State System Office of Academic Affairs in the 2002-03 academic year.

Board Discussion and Action (April 18, 1997)

Provost Hunt reviewed the program proposal. Ms. Christopher asked if American Sign Language was a universal language or if there were others such as Spanish Sign Language. Dr. Hunt responded that he would provide that information to Ms. Christopher. Vice Chancellor Clark added that sign language has international dimensions and cultural aspects — there are interconnections among the languages and cultures.

Ms. Christopher noted that in the section under libraries and facilities, there was mention of exploring resources for interactive classrooms. She asked what type of funding sources they were considering. Provost Hunt responded that it would probably be in the form of federal grants.

Ms. McAllister moved and Dr. Whittaker seconded the motion to approve the staff recommendation. The following voted in favor: Directors Christopher, Imeson, McAllister, Puentes, Swanson, Van Patten, Whittaker, Willis, Wustenberg, Wykoff, and Aschkenasy. Those voting no: none.

Board Discussion and Action (May 16, 1997)

Dr. Whittaker moved and Ms. Christopher seconded the motion to approve the staff recommendation. The following voted in favor: Directors Christopher, Imeson, McAllister, Swanson, Van Patten, Whittaker, Willis, Wustenberg, Wykoff, and Aschkenasy. Those voting no: none.
Executive Summary

Market for K-12 Educators

Oregon school districts annually employ 51,000 personnel. Teachers make up the largest number, about 26,500; administrators, 2,500; library/media specialists, 600; guidance/counseling and other professional personnel, 3,000.

The 32,000 professional personnel employed by public school districts must be licensed by the Teacher Standards and Practices Commission (TSPC), an independent commission appointed by the Governor. TSPC issues three types of licenses: Teaching, Personnel Service, and Administrative. TSPC also issues a Basic and Standard license (Basic is the entry license; Standard is required once an educator has been employed for five years and meets continuing licensing requirements).

TSPC sets the minimum standards for, and approves programs at, institutions of higher education in 42 licensure "endorsement" areas: 36 fields in Teaching, 4 in Personnel Services, and 2 in Administrative. No institution prepares individuals in all 42 areas.

About 1,500 new educators complete preparation programs at Oregon's public and independent institutions each year. Of these, about 1,300 seek an Oregon license from TSPC. About an equal number (1,200) move annually to Oregon from other states.

The majority of newly prepared educators obtain employment in an Oregon public school during the year following college graduation (about 62 percent). New educators are also employed in Oregon's private K-12 schools, other sectors including education related, and as substitute teachers in public schools.

TSPC annually surveys school districts to assess the adequacy of the size of the pool of licensed applicants for employment openings. From these data, TSPC has identified the following shortage areas for 1997: Handicapped Learner, Hearing-Impaired, Severely Handicapped Learner, Speech-Impaired, Visually-Impaired, Counselor, School Psychologist, Foreign Languages, Technology Education, and Superintendent.
Preparation Programs

Six OSSHE universities offer educator preparation programs approved by TSPC in a variety of locations throughout the state:

Eastern Oregon University  Four- and fifth-year programs for teachers; programs at Central Oregon University Center, Bend; collaborates with Oregon Institute of Technology in professional/technical program.

Oregon State University  Fifth-year programs for teachers; counselors; advanced degree programs for workforce education specialists, community college teaching and administration.

Portland State University  Fifth-year programs for teachers; counselors; administrators (principals/superintendents); speech-language pathologists.

Southern Oregon University  Fifth-year programs for teachers.

Western Oregon University  Four-year programs for teachers; programs in school districts by contract; cooperative professional/technical program with Chemeketa Community College.

University of Oregon  Five-year program (K-8 elementary/special education) for teachers; fifth-year programs for teachers; administrators (principals/superintendents); school psychologists; speech-language pathologists.

Eleven independent institutions offer educator preparation programs (up from nine within the last two years). Six institutions offer four-year programs only; four offer both four- and fifth-year programs; and one offers only fifth-year programs.
In addition to programs leading to licensure (these are typically reported as "certificates" by OSSHE institutions), OSSHE institutions offer master's and doctoral degrees that meet the advanced professional needs of educators, individuals working in human service agencies, and business/industry. In 1995-96, over 2,100 degrees were awarded in education by OSSHE campuses. The actual number of degrees awarded to educators is higher since many educators complete advanced degrees in disciplines such as English, history, biology, etc., which are not reflected in the counts of "education" degrees awarded.

Recent Major Changes in Educator Preparation

There has been declining growth in enrollments in the public educator preparation programs over the past ten years compared to significant enrollment growth at the independent institutions. A decade ago, OSSHE institutions prepared 85 percent of the new educators in Oregon; that has dropped to about 50 percent today.

In 1994-95, public and independent institutions prepared about the same number of Elementary teachers who received an Oregon license after completing preparation programs (48 percent public institutions, 52 percent independent). Public institutions prepared about the same number of Secondary teachers who received an Oregon license (51 percent public institutions, 49 percent independent).

There were some notable differences by specialty areas, however. Public institutions prepared the majority (more than 60 percent) of the following specialties: Professional/Technical (70 percent), Physical Education/Health (65 percent), Fine Arts (70 percent), Special Education and Hearing/Visually-/Speech-Impaired (85 percent). And independent institutions prepared the majority of the following specialties: Counselor/Psychologist (78 percent), Language Arts (66 percent), and Social Studies (60 percent).

Public institutions typically enroll a higher percentage of students who receive an Oregon license than the independent institutions. In 1994-95, 89 percent of OSSHE students received an Oregon license compared to 76 percent of independent institution students.

The rise in independent education program enrollments began in the late 1980s, prior to Measure 5 cutbacks. In the mid-1980s, OSSHE
institutions were asked by the Legislature to respond to the problem of an oversupply of educators (particularly teachers) in the state and simultaneous calls for higher standards. OSSHE institutions agreed to restrict enrollments by about one-third.

Simultaneously, OSSHE developed plans to move from four- to fifth-year programs in order to meet several needs. First, there was a need to attract more diverse people into the teaching profession (baccalaureate-holders, second/third-career people) and a rigorous, one-year program was the preferred option to meet these needs. Also, many students wanting to become teachers were "late deciders," making the decision to enter a preparation program often in their senior year in college. A post-baccalaureate model was preferable for these students.

Campuses were also asked to raise standards in order to improve the "products" of these programs. This included requiring a college major in the subject areas to be taught; passing a basic skills test for admission; passing the National Teachers Examination (NTE) in subject and pedagogy for licensure; completing a longer practicum in the schools (moving from 10 to a minimum of 15 weeks of full-time teaching); and submitting higher GPAs for admission to preparation programs. These changes resulted in fewer students being admitted to OSSHE institutions. Many of these students thereafter sought and gained admission at growing independent institution programs.

Measure 5 cutbacks brought major changes to teacher preparation programs in the public sector. In 1991, endorsement programs were eliminated at several OSSHE institutions, and reorganization within Colleges of Education occurred at many institutions. OSSHE adopted a Coordinated Plan that called for campuses to differentiate and work together to share programming as feasible, anticipating the advent of telecommunications options. However, investment resources in technology were unavailable to pursue the latter course, and major changes in school reform have dictated regional solutions.

The onset of the Educational Act for the 21st Century carried major implications for the preparation of new educators and the retraining of existing educators. The Joint Boards of Education developed an Action Plan on Redesigning Teacher Preparation and Licensure in collaboration with TSPC. The plan included a common policy and procedure to realign teacher licensure and teacher preparation programs with reforms called for in the Educational Act for the 21st
Century. The Oregon Department of Education, in its oversight of school reform federal grant programs (Goals 2000, School-to-Work), asked higher education institutions to partner with schools in their regions to assist them in responding to the components of Oregon’s school improvement plans.

Since these developments, OSSHE institutions have played a major role in assisting TSPC and the Oregon Department of Education in determining what changes should be made within the licensing requirements, preservice programs, and professional development opportunities for current educators.

Also, OSSHE developed the Proficiency-based Admission Standards System (PASS) in response to the Educational Act for the 21st Century. PASS carries unique responsibilities for the Colleges of Education, which must prepare educators (particularly high school teachers) with the knowledge/skills to implement the new methods of assessment for a proficiency-based college admission system.

Future Changes Affecting the Preparation Programs

TSPC has proposed a number of changes in the licensure system that will affect the educator professions and preparation programs. There would be an Initial and Continuing license, no longer a Basic and Standard. This change requires legislative approval in 1997 (adoption of Senate Bill 124) to change the existing TSPC statute.

There would be a professional development requirement in addition to successful employment in a school district for meeting the Continuing license (requires legislative adoption of Senate Bill 124 and further approvals from the TSPC). OSSHE institutions will be expected to play a role in providing needed professional development opportunities for educators. Presently, professional development programs are subject to OSSHE’s self-support continuing education and summer policies.

All higher education institutions with TSPC-approved programs would have until 1998 to develop new four-stage preparation programs. The current two – Elementary and Secondary – would be redesigned to four – Early Childhood, Elementary, Middle, and High School. TSPC adopted this policy change in 1996.
TSPC has also requested that each student in an approved program be asked to train in two of the four levels, such as Early Childhood/Elementary, Elementary/Middle, or Middle/High School. This would mean that all preservice students would complete coursework and practicum in two, and that OSSHE's programs would require extended coursework and practicum opportunities to comply with these changes.

Other changes are also affecting (and will in the future) OSSHE's programs and services. The impetus comes from local school districts responding to school improvement directions; the Oregon Department of Education; individuals in the profession seeking access to new professional development opportunities; changes within many content areas from national standards groups (e.g., mathematics, sciences, foreign languages); technology's impact on education, particularly the Internet; and the growing diversity of the state's population, requiring greater attention to multicultural preparation.

**OSSHE Institution Responses.** OSSHE institutions have already begun to respond to these changes, primarily through reallocated resources and external grants. For example:

- Each OSSHE institution that prepares educators is participating in new partnerships with school districts and Education Service Districts preparing for mandated changes (for example, on school-site councils, Goals 2000 projects, curricular development, research on outcomes-based education, assessment guides and models).

- Each OSSHE institution is playing a role in providing professional development opportunities for educators within the campuses' areas of expertise. This includes access to advanced degree programs, add-on certificate programs (related to endorsement areas), courses/workshops, and on-site professional development (at school sites) for school staffs.

- Several OSSHE institutions are participating in partnerships to develop strategies for dealing with at-risk children and that support successful school starts.

- OSSHE institutions that prepare future language teachers are working on the development of strategies to prepare teachers who have second language skills to implement new K-12 second
language requirements, particularly how to function in the new proficiency environment.

- Each OSSHE institution that prepares educators has made changes in their programs that result in enhanced "technology" skills for their graduates. In the past year, each campus joined an effort to link OSSHE preservice students to a new network of K-12 teachers learning how to use technology.

- OSSHE Colleges of Education are partnering with others in the school community to build new teams (for example, school and social service agency teams).

Statewide Initiatives. Several statewide initiatives, housed with the Chancellor's Office, are providing professional development assistance to teachers and OSSHE institutions in responding to school reform changes. These include:

- OSSHE's PASS project;
- Standards-based Teacher Education Project (STEP) which directly links PASS requirements with the Colleges of Education to assist them in preparing new educators with the knowledge/skills to carry out PASS assessments;
- Eisenhower Professional Development Program, a collaborative effort between OSSHE and the Oregon Department of Education, emphasizing the development of professional development opportunities for K-12 teachers, particularly in mathematics and sciences;
- Statewide Japanese Language Project, directly assisting teachers of Japanese throughout the state to develop curriculum and enhance their teaching and networking;
- Other foreign language projects aimed at enhancing the skills of current and future foreign language teachers, including elementary teachers who will need to implement early language programs as part of school reform plans.

Summary. OSSHE's Colleges of Education — and the many academic departments which play a vital role in preparing new teachers in the various "content" disciplines — have been greatly impacted by the changes of the past decade. The late 1980s marked a transition from primarily four- to fifth-year programs for the OSSHE institutions, and a reduction by about one-third of student enrollments in education programs. The independent institutions now prepare half of the new
educators for the state, though OSSHE institutions still prepare the majority of educators in many of the "specialties."

Measure 5 resulted in major cutbacks to several OSSHE institutions in their education programs. At nearly the same time, however, passage of the Educational Act for the 21st Century called for stepped-up activity within OSSHE institutions (preparation of new types of staffing for 21st Century schools, the provision of new professional development opportunities for educators, increased direct involvement with school sites for the type of "building-wide" changes required for school reform). TSPC's proposed licensure changes will require that OSSHE Colleges of Education move from a two-stage licensure program (elementary/secondary) to a new four-stage system by 1998 (early childhood, elementary, middle, high school). And new professional development requirements are anticipated for the continuing licensing of existing teachers, carrying implications for professional development programming by OSSHE institutions.

OSSHE institutions, particularly the Colleges of Education, will face major challenges over the next decade as public schools throughout the state phase in Certificates of Initial and Advanced Mastery (CIM/CAM); OSSHE phases in the PASS system; and the education profession evaluates (and perhaps alters) staffing requirements as it becomes clearer what the needs of 21st century schools will be. To meet these challenges, OSSHE institutions must collaborate closely with public schools, Education Service Districts, social service agencies, business/industry, the education professional associations — indeed, the rich array of agencies and groups that contribute to educational policy-setting and the operation of successful public schools and educator preparation programs.

Board Discussion

Associate Vice Chancellor Holly Zanville provided the Board with the context for the report. "During OSSHE's presentation on engineering to the Ways and Means Subcommittee last month, it was pointed out that high tech is now Oregon's largest employer (with 54,000 staff) and is an industry that requires many employees with baccalaureate and graduate degrees (about 60 percent total, made up of about 42 percent baccalaureate degrees and 16 percent advanced degrees)."
"An interesting comparison is that the K-12 workforce is about the same size as the high tech workforce. K-12 employs about 53,700 staff — 52,000 in the public schools and an additional 2,500 in private schools. And, like high tech, a majority of the K-12 workforce must have baccalaureate and advanced degrees. The percentage is higher in the K-12 marketplace than high tech, with many more advanced degrees in K-12.

"Another comparison is that continuing professional development is vital to both high tech and education.

"A major difference, at least until high tech companies pervade the entire state, is that the K-12 enterprise follows Oregon's population growth. We, therefore, have a very decentralized job market for educators. So our preparation programs, which fortunately are available at many locations in the state, try to address this diversity by preparing educators who specialize in urban, rural, and suburban schools, as well as in a variety of the 42 different 'specialty' areas TSPC covers with its licensing system.

"That's a bit of the context — K-12 is one of the biggest employers in the state."

Dr. Zanville than reviewed the highlights of the full report. (Copies of the full report are on file in the Board's office.)

Ms. Christopher congratulated Dr. Zanville on her excellent work in preparing this report.

(No Board action required)

**ONE YEAR LATER: THE STATUS OF 1994-95 OSSHE BACHELOR'S GRADUATES**

**Executive Summary**

The study identifies what OSSHE baccalaureate graduates in 1994-95 were doing 6 to 12 months following graduation. Campuses worked with the Chancellor's Office to identify common questions and procedures to be integrated into existing data collection efforts. A total of 2,736 1994-95 graduates on the seven campuses returned mailed questionnaires. The seven institutions include: Eastern Oregon University (EOU), Oregon Institute of Technology (OIT), Oregon State University (OSU), Portland State University (PSU), Southern Oregon University (SOU), the University of Oregon (UO), and Western Oregon University (WOU). The overall response rate was slightly less
than 40 percent, but individual campus response rates ranged from 20 percent to 97 percent.

What proportion of 1994-95 OSSHE graduates are employed?

More than eight out of ten of the 1994-95 bachelor's graduates are employed 6 to 12 months following graduation. About one in five is continuing their education (8 percent are continuing their education and another 14 percent are combining work with advanced education primarily in graduate or professional school). About 4 percent are not working but are seeking work.

Majors in which bachelor's graduates are employed at levels greater than the OSSHE average (84 percent) include engineering (93 percent), agriculture and forestry (93 percent), business (92 percent), computer science (93 percent), health-related fields (92 percent), and education (89 percent).

Majors in which bachelor's graduates are employed at levels lower than the OSSHE average include mathematics and science (73 percent), liberal arts (79 percent), and social sciences (81 percent).

These 1994-95 baccalaureate recipients are employed in all sectors of the economy, including private business (59 percent), public and private education (24 percent), government (13 percent), nonprofit organizations (2 percent), and self-employed (2 percent).

The majority of respondents (70 percent) are found in managerial and professional specialty occupations, such as managers, engineers, writers, social workers, and teachers.

These graduates take a wide range of jobs — 23 percent are managers in a variety of fields, 20 percent are teachers (15 percent at K-12 level and 5 percent at postsecondary institutions), 14 percent are engineers, computer or math scientists, 7 percent are in health-related fields, 6 percent are in agriculture/forestry/fisheries, 6 percent provide technical support, 5 percent are social workers, 8 percent provide administrative support, 5 percent have sales-related jobs, 3 percent hold service jobs, 2 percent hold construction and repair jobs, and 1 percent are writers, artists, or musicians.
Of those employed, three-fourths of 1994-95 bachelor's graduates from seven OSSHE institutions are employed in Oregon, ranging from 66 percent of UO graduates to 85 percent of PSU graduates.

One year after graduation, 21 percent of baccalaureate recipients are continuing their education (13 percent are enrolled and employed, and 8 percent are enrolled). Of those continuing their education, more than three-fourths are enrolled in graduate or professional schools, 11 percent are attending seminars or workshops, 3 percent are attending community colleges, and 9 percent are involved in other educational activities.

The median income range for 1994-95 bachelor's completers is between $15,000 and $24,999. Almost 40 percent were employed within a year of graduation at jobs earning $25,000 or more.

Those respondents more likely to complete an internship as part of the bachelor's degree majored in health-related fields (98 percent), education (76 percent), agriculture, forestry and environment (61 percent), engineering and computer science (50 percent), and other career-related majors such as architecture and journalism (67 percent). Those graduates least likely to have this opportunity majored in business (45 percent), math and sciences (39 percent), liberal arts (36 percent), and social sciences (40 percent).

Almost nine of ten respondents indicated that what they learned in college was helpful in performing their job.

OSSHE graduates rate highly the education they received. Based on their experiences since graduation, 16 percent of the bachelor's graduates rate the education they received as "excellent," 56 percent "very good," 20 percent "good," 7 percent "fair," and 1 percent "poor."

Graduates were asked to provide a reason for their rating. Their comments focus on several broad areas: academics, practical experience, teaching, academic advising, student services and administration, student finances, university finances, and the overall experience. The majority of responses are concentrated in four areas — 74 percent focus on some aspect of the academic program, 15 percent on the quality of instruction, 5 percent on the overall experience, and 3 percent on practical experience. Very few students (1 percent or less) discuss issues concerning student services, university finances, research facilities, or student finances. Overall,
student comments tend to be positive about their academic program, the quality of instruction, practical experience, and their overall university experience. Students are less positive about academic advising, other student services, and fiscal issues.

(The full report is in the supplementary section of the Board's docket.)

Board Discussion

Dr. Nancy Goldschmidt reviewed the report for the Board. After her summary, she indicated that there are significant issues for higher education. "What are the goals of higher education: participation? Does it prepare somebody for a job? Is it to prepare them for graduate school? Is it to enhance their quality of life, enabling them to make a contribution to the community? Is it to teach students to 'learn how to learn'? Is it to provide access to the American dream? Whatever these goals are, when reading the comments of students, we find that people have different goals, thoughts, and intentions when they start pursuing education. The question becomes: Are these mutually exclusive or are they somehow complementary? I didn't ask people if they were happy with their quality of life, but these are some things we might think about doing in the future."

Dr. Goldschmidt addressed the supposed gap between education and employment. It's been suggested that higher education consider using that time of transition more productively. "We need to think about how to provide more opportunities to gain practical experience based on this survey." Dr. Goldschmidt also indicated that "we need to see what the longer-term effects of employment are for different kinds of degrees. We have to see how successful these people are later in life and how happy they are with their lives."

President Aschkenasy thanked Dr. Goldschmidt for the excellent report, requesting that this study be conducted on an ongoing basis. In addition, he stated that he hoped OSSHE would make this information available to freshmen. "We're not in the business of running people's lives," he said, "but we should make available to them information with which they can run their own lives." Finally, Dr. Aschkenasy pointed out that the fact that two-thirds of baccalaureate-degree holders start out their careers earning $25,000 or less should underline for the Board and OSSHE the connection between the cost of education and the remuneration it buys.
Ms. Wustenberg asked if there was any indication about the effectiveness of having an internship early in the collegiate experience as opposed to later (e.g., as a teacher, perhaps one could discover, early on, a "match" with or an unsuitability for teaching). Dr. Goldschmidt responded that it was a good question; however, the question of timing in internships was not raised in this study. She did note that Oregon Business Council recommends more job shadowing and also having the faculty more involved so that they could see how skills are used in the workplace.

Dr. Whittaker asked if this information of employability was being provided to high school counselors. Dr. Goldschmidt replied that it was, including an article in a recent edition of the Counselor's Newsletter.

Mr. Wykoff said that this study demonstrates the importance of internship experiences, but asked how it applied to liberal arts graduates. Dr. Goldschmidt said those kinds of details could not be obtained during this first study.

Dr. Aschkenasy asked how often this type of survey would be conducted. Dr. Goldschmidt responded that she envisions doing it every two years so that OSSHE would have fresh data during a legislative session.

Vice Chancellor Clark shared one comment from Governor Kitzhaber earlier in the week at a conference: "The goal of education is to prepare students to earn a living and to live. "That should be our goal," said Dr. Clark. "All students intend to have jobs and to have the most fulfilling lives they can. Our challenge is how to balance those two things."

(No Board action required)

Staff Report to the Board

The third quarter investment report of the Pooled Endowment Fund of the Oregon State System of Higher Education for the period January 1, 1997, through March 31, 1997, prepared by R. V. Kuhns and Associates, investment consultants, was included in the supplemental materials and is on file in the Board's office. Highlights of the report are presented below, along with the economic analysis for both domestic equity and domestic fixed income funds.
Fiscal Third Quarter and Year-to-Date (YTD) Review: The Common Fund Equity Fund fell short of the Standard & Poor's 500 Index (S&P 500), influenced by the small company (Russell 2000) and international stock components (Europe, Australia, and Far East - EAFE), which both underperformed the S&P 500 Index.

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<th>Index</th>
<th>Quarter</th>
<th>Fiscal YTD</th>
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<tr>
<td>Russell 2000</td>
<td>-5.2%</td>
<td>0.1%</td>
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<tr>
<td>EAFE</td>
<td>-1.5%</td>
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The addition of the enhancement components (small company and international stock) has held back the performance of the Equity Fund for both the quarter and the fiscal year to date. The Common Fund Bond Fund only slightly underperformed the Lehman Aggregate Bond Index for the quarter, -0.7 percent versus -0.6 percent. It has outperformed the index for the fiscal year to date, 6.0 percent versus 4.3 percent.

Economic Analysis: The domestic economy continued to exhibit strong growth and low inflation throughout the quarter, evidenced by forecasts for first quarter growth in Gross Domestic Product (GDP) of 4.0 percent. This marks the second straight quarter of accelerated economic growth over 3.8 percent. Record levels of consumer confidence, driven by factors such as a strong job market and a buoyant stock market, resulted in the much anticipated tightening of monetary policy on March 25. Anticipating this reaction and suspecting slower growth moving forward, the market responded, and stock prices declined.

Domestic Equity: The equity bull market continued into the third quarter, with the S&P 500 Index returning 2.7 percent and the Dow Jones Industrials gaining 2.1 percent. Notably, the equity market experienced sharp declines during the last two trading days of the quarter.

Much like most of 1996, strong earnings growth, record cash flow into mutual funds, and continued merger and acquisition activity fueled the equity market gain. Throughout the quarter, there was a flight to liquidity/quality, resulting in small capitalization equities continuing to underperform large capitalization issues. The Russell 2000, a proxy for the small cap market, returned -5.2 percent for the quarter. Contributing to this underperformance was the market's intolerance for earnings disappointments.
Large cap value stocks outperformed large cap growth stocks, which is evident in the Russell 1000 Value Index's 210 basis point lead over the Russell 1000 Growth Index.

**Domestic Fixed Income:** All major fixed-income indices posted negative results during the quarter, with the Lehman Brothers Government/Corporate Index returning -0.9 percent and the Lehman Brothers Aggregate down -0.6 percent. Portfolios that held overweighted positions in mortgages and corporates generally outpaced the broad market. Mortgages benefitted from a consistently low level of volatility as interest rates increased. Corporate bond returns exceeded those of similar duration Treasuries due to favorable fundamentals and strong demand.

**Board Discussion**

Ms. Becky Gratsinger from R. V. Kuhns reviewed the report for the Board. President Ashkenasy asked for clarification about the role of R. V. Kuhns. Ms. Gratsinger responded that their role is to select managers and monitor performance. Dr. Ashkenasy inquired about how payment was made; Ms. Gratsinger replied that they are on an annual retainer for all their services, which include asset allocation work, policy development and monitoring, reporting at meetings such as this one, and providing the Board with a long-term track record for its fund, as well as helping the Board make improvements to the fund by replacing underperforming managers.

President Ashkenasy asked when R. V. Kuhns would decide that a manager was underperforming. Ms. Gratsinger replied that, typically, they want to analyze investment managers through a market cycle—that is, over a market peak to a market trough and back to a market peak. “We have yet to see a market trough,” said Ms. Gratsinger.

“With the Common Fund’s equity fund, you have a highly diversified fund that actually contains some portion of the market that has underperformed,” continued Ms. Gratsinger. “Going forward, we would anticipate you would want to stay in some of those same market segments, but perhaps look for specialists in each of those segments. For example, just looking at the large company exposure you have in the equity fund at the Common Fund, they employ three different sub-portfolios: one oriented at broad market exposure, another toward stocks that are growing faster than the marketplace, and a third toward value stocks that are underpriced in the marketplace. When
you combine all these equities, you end up with a portfolio of over a thousand stocks. It's difficult to outperform the market when you have more stocks than the S&P 500 itself. So that's one thing we are analyzing. In terms of the Common Fund, we feel it is time to do a review with its competitors at a three- or four-year evaluation period.

"I will mention one caveat. When we look at the S&P 500 as a benchmark to outperform, keep in mind that it has some fundamental flaws. First of all, that index is weighted towards the largest companies that are represented in the S&P 500. In other words, it's capitalization weighted. So IBM and Exxon have a much larger share than some smaller companies that are in the S&P 500. As long as those large companies, the top 50 in this case, are doing very well, it's difficult for your investment managers to keep up, to some extent, because they don't want to take the risk of market capitalization weighting their portfolios. In many cases, investment managers won't have any more than a two percent weighting to any one stock. Yet the S&P 500 is comprised of positions much larger than that. An interesting statistic is, if you were to take the performance of the top 50 stocks out of the S&P 500 (the largest 50 out of the S&P 500 in 1996), the S&P would not have had a return of 23 percent, as it actually performed. It would have had a return of about nine and one-half percent. That tells you how dramatically the top portion of this market is pulling the performance of the S&P 500."

Ms. Gratsinger noted that one of the issues most frequently discussed in the last two years has been: Do we pay an active manager to buy stocks that are going to beat the S&P 500, or do we buy the S&P 500? "It's our job to work through those issues with the Board's Investment Committee and educate them about the trade-offs," said Ms. Gratsinger.

"If you felt that changing to index funds was appropriate, is that a recommendation you would make to us?" asked Dr. Aschkenasy. Ms. Gratsinger responded that it would.

(No Board action required)

Mr. Grattan Kerans summarized recent legislative activity. He discussed four main topics with the Board. First, the revenue estimate was just delivered; however, there is no budget agreement yet between the House and the Senate. It will probably come together within a week or two.
Second, OSSHE is continuing to press for the add-back list. There are 73 items on the co-chairs' add-back list; OSSHE has five of those: engineering, faculty salaries, education technology, salary roll-up, and regional access. The Governor recommended a three-plus-three percent faculty salary increase; the legislature wants a two-plus-two, which translates into a $5 million gap. There is a $21.5 million gap between what the Governor recommended for faculty salaries and what the Board requested.

Third, OSSHE is supporting the Oregon Student Association (OSA) in the need-grant campaign.

Fourth, Mr. Kerans reviewed SB 919. This bill, which just passed out of the Senate Education Committee unanimously, begins with the Board's own main goals. This bill harmonized the interests of business partners and the legislature without unfunded mandates. The most valuable part is in section 2, which requires a biennial report to the legislature on the progress made and, most importantly, a report on the fiscal, physical, and technological resources needed. "The measure says, 'Here are the goals we all recognize as primary, and we need you to give us a report on which is necessary to carry forward in the next biennial period,'" explained Mr. Kerans. "It provides the State System with the requirements to come back and honestly price the cost of extension of the goals across the state."

The Board discussed the pros and cons of the bill, as well as the underlying politics that helped shape it.

**COMMITTEES**

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<th>Joint Boards Working Group</th>
<th>Mr. Whittaker reported on items discussed at the last Joint Boards Working Group (JBWG) meeting:</th>
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<tr>
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<td>• Progress report on HB 3565 implementation</td>
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<td></td>
<td>• Progress report on PASS and PREP (the community college version of proficiency-based admissions)</td>
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<td>• Joint Boards Articulation Commission report</td>
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He indicated that work on the one-stop Web page for higher education (public, private, and community colleges) is advancing. JBWG is also beginning to craft the agenda for the September meeting of the Joint Boards.

| Investment Committee | Mr. Swanson indicated that the earlier investment report by Ms. Gratsinger summarized the Board's committee work. |
Meeting # 662

ADJOURNMENT  The Board meeting adjourned at 12:30 p.m.

Virginia L. Thompson
Secretary of the Board

Herbert Aschkenasy
President of the Board