ACADEMIC EXCELLENCE

Successes, Challenges, and Opportunities at the University of Oregon

A Self-Study Report Prepared for
the Northwest Commission on Colleges
and Universities

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PART II. EDUCATING THE GENERATIONS

PART III. INVESTING IN PEOPLE AND IDEAS

PART IV. INFRASTRUCTURE FOR GROWTH

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INTRODUCTION

THEMATIC OVERVIEW

Since it first opened in 1876, the University of Oregon has successfully educated and prepared generations of students to be outstanding leaders, citizens, scientists, teachers, entrepreneurs, and professionals. Our success rests largely on the energy, research, and creativity of our faculty members. How do we sustain and build on that success for future generations? The process of self-study undertaken as part of the decennial review by the Northwest Commission on Colleges and Universities provides us with an opportunity to consider how the university can meet the needs of the present while preparing to meet the challenges and opportunities of the future. Acting in the present in a way that sustains the University of Oregon as a first-rate public research university for future generations provides a framework for our study. As an organizing principle in evaluating the university, it points to the pivotal roles played by synergy, pluralism, an understanding of the past, and a vision of the future.

Synergy implies that no single aspect of a system stands alone, but instead is bound to its past and the complex interests and opportunities of the present. It recognizes that commitments made in one area necessarily affect the whole, both in the present and in the future. Pluralism implies that goals and how they are achieved is a collective matter that depends as much on a diversity of interests and abilities, those of tomorrow as well as today, as it does on common ground. In 1977, a delegation of the Hau de no sau nee (Iroquois) to an international meeting in Geneva, Switzerland, said that a sustainable way of life is one "based on a principle that directs us to constantly think about the welfare of seven generations into the future."[1] This standard requires not only respect for future generations, but also recognition of what has gone before, how needs have been understood, and how past efforts have succeeded and failed in light of those needs.

As the University of Oregon has engaged in the process of self-study, it has done so committed to understanding its contributions to the state of Oregon and the world beyond; educating present and future generations of students; cultivating the university community—faculty and staff members, as well as students; and fostering an infrastructure that makes its work possible. In this report, we examine the mission of the University of Oregon, identify its successes and potential for growth, and recognize its limits and needs.

SELF-STUDY GOALS AND PROCESS

While one might expect a university self-study to paint a deliberately complete and comprehensive picture of the institution,

that has not been the goal of the self-study undertaken at the University of Oregon over the past two years. Rather, this self-study intentionally focuses on a relatively small set of issues that affect the university's ability to achieve its mission—successes, challenges, and opportunities of particular importance to our campus at this time.

Engagement of the broad university community in the self-study process began in the fall of 2005, with information on campus challenges, successes, and opportunities solicited from a wide range of university committees and from all academic and administrative units. Over the winter and spring terms of 2006, this widely gathered information was narrowed by various subcommittees of a broadly constituted Steering Committee. Each subcommittee represented a general topical area (e.g. academic programs) and was charged with identifying common concerns and useful information in that area, with the goal of providing a manageable framework for the study as well as culling a set of issues of campus-wide interest. That work was, in turn, more sharply focused over the summer and brought to the Steering Committee in the fall of 2006 for comment and assistance in shaping the final document.

Our goal from the beginning has been to make this a useful process of campus interaction that will remain meaningful and practically helpful for some time after the NWCCU accreditation for 2007 has been completed. Of course, a purposeful by-product of the self-study is documenting our compliance with the nine standards that form the core evaluation criteria of the NWCCU as well as the NWCCU eligibility requirements. Accordingly, the self-study is complemented by a concordance that directs the reader to the portions of the self-study and the various supporting documents and exhibits that demonstrate compliance.

EXECUTIVE SUMMARY AND FINDINGS

The self-study is divided into four parts: *Transforming Oregon and Beyond*, an overview of mission, research, impact on the state, and student access; *Educating the Generations,* a look at undergraduate, graduate, and professional academic programs, as well as the information and technology resources that support these programs; *Investing in People and Ideas*, an examination of efforts to sustain the quality of the faculty, staff, and student body; and *Infrastructure for Growth*, which considers the issues we face in sustaining institutional health and vitality in the areas of leadership, facilities, and campus climate.

The four parts of the self-study are divided into individual sections, each of which concludes with a summary statement of the successes, challenges, and opportunities discussed in that section. Each of the four parts also includes an overall summary that further distills the discussions of the individual sections comprising that part of the self-study. The material presented here in the executive summary is therefore only intended as a guide to the reader, who should refer to the section and part summaries for more complete statements of the self-study's findings.

Part I, Transforming Oregon and Beyond, examines the ways in which the University of Oregon, as Oregon's flagship AAU institution, contributes to the future of Oregon, the region, and the global community through the discovery, dissemination, and application of knowledge. This contribution is made by fostering excellence, diversity, and synergy in the UO's research activities and structures, in its outreach and community development efforts, and in its educational programs. In three sections, *Transforming Oregon and Beyond* presents the UO's profile in disciplinary and interdisciplinary research, the practical and economic impact of that research, and the implications of the research mission for education at the university. The university is sustained through a future it helps to shape, and so each section of Part I also addresses the challenges faced by the university in the present and the opportunities it has to foster the success of future generations. Key challenges and issues in each area include:

Section I-A: "Inventing the Future: UO Research and Scholarship"

- Nourishing core disciplinary research programs
- Building on the UO's strong traditions of interdisciplinary scholarship and research
- Supporting and expanding international and diversity-related research programs
- Confronting the limitations of the UO's modest scale relative to its AAU peers
- Recruiting and retaining a high-caliber faculty
- Supporting research success and productivity with effective infrastructure

Section I-B: "Transforming the State: Role of the University"

- Documenting the returns to Oregon of additional state investments in the UO
- Reversing under-investment in the UO by the state of Oregon
- Promoting reform of inefficient state-mandated administrative rules and review procedures
- Elevating awareness of the social and economic benefits of UO research in Oregon

Section I-C: "Educating in the Present: Selectivity and Access"

- Maintaining appropriately selective admissions
- Enrolling a culturally, economically, and ethnically diverse student body

- Mitigating the undesirable effects of high and rising tuition costs
- Achieving appropriate scale, support, and composition in our graduate programs
- Addressing legislative interest in "seamless" education and college credit earned in high school

Part II, Educating the Generations, highlights the UO's role and contributions as a comprehensive research university as reflected in the educational mission of the university. Part II includes three sections. The first considers the quality and character of the university's liberal arts undergraduate education, recent efforts to strengthen general education, first-year programs, majors, advising, and assessment, as well as the challenges remaining in each of these areas. The second section presents the graduate programs through which the university meets the needs of future generations by preparing professionals, teachers, and researchers of a caliber only possible at a first-rate research university. The third section describes the vital role of information resources and technology in fostering learning and research at the UO, and provides an overview of strengths and challenges in these areas. Key challenges and issues in these areas include:

Section II-A: "The Present Generation: Undergraduate Teaching and Learning"

- Sustaining and building on successful first-year, residential, and honors programs
- Sustaining progress in advising technology and in the advising of undeclared students
- Facilitating crossdisciplinary and collaborative teaching
- Generating resources to provide high-quality undergraduate programs
- Facilitating internships, other participatory learning experiences, and career preparation

- Overcoming obstacles to valid assessment, particularly grade inflation

Section II-B: "Education for the Future: Graduate and Professional Education"

- Improving graduate funding, including more fellowship funds
- Improving assessment, particularly tracking graduate students after they graduate
- Insuring appropriate review of courses that serve both undergraduate and graduate students
- Promoting diversity-related teaching and research
- Providing training in applied statistics, responsible conduct of research, and professional ethics

Section II-C: "Sustaining Education and Scholarship: Information Resources and Technology"

- Building on success in network infrastructure, teaching, and regional collaborations
- Supporting and coordinating a decentralized, resource-strained IT environment
- Assessing the impact of technology on learning, scholarship, and business efficiency
- Meeting the evolving needs of scholars in library and related collections
- Addressing specific needs in security, IT literacy training and support, and system continuity.

Part III, Investing in People and Ideas, examines the community that does the work of the university—faculty and staff members, as well as students—and the ways in which these people are supported in their work. The first section of Part III describes the university's accomplishments and challenges in assembling, supporting, assessing, compensating, and retaining an excellent faculty. The challenges enumerated here are

among the most significant at the university, as faculty quality impacts every aspect of the university's mission. The second section describes and assesses UO programs that facilitate the hiring, training, and support of our classified staff members and officers of administration. The third section considers the ways in which the university works to recruit qualified students to its undergraduate and graduate programs, to support those students once they arrive on campus, and to achieve the university's goals in terms of the size and composition of the student body. Key issues and challenges in these areas include:

Section III-A: "Faculty Members"

- Building on successful strategies for hiring and supporting an excellent faculty
- Responding to enrollment growth well in excess of growth in tenure-related faculty members
- Providing institutional research and information-sharing capabilities relevant to academic units
- Adapting best-practice financial strategies, particularly in smaller schools and colleges
- Addressing retention and incentive issues driven by salary compression
- Sustaining recent progress in reaching compensation levels competitive with our peers

Section III-B: "Classified Staff Members and Officers of Administration"

- Measuring the effectiveness of procedures for hiring, performance appraisal, and training
- Expanding success in building diverse applicant pools
- Addressing issues of compliance in performance evaluation
- Analyzing market competitiveness and internal equity of compensation levels
- Reaching competitive compensation

- Sustaining and improving professional development programs

Section III-C: "Students"

- Building on successes in attracting top scholars
- Sustaining a message of quality that attracts students from diverse backgrounds
- Responding to recent declines in international enrollments
- Responding to the demographic changes within Oregon
- Continuing to improve both the residence halls and the residential experience
- Responding to specific challenges in graduate recruitment and support

Part IV, Infrastructure for Growth, emphasizes that a sustainable university—one that meets present needs and makes it possible for future generations to meet their needs as well—requires a flexible, responsive, and well-managed campus and financial infrastructure. The first section of Part IV examines the character of the physical campus including its safety, its size, and its relation to the natural environment. The second section considers the governance structures of the university that provide for accountability and process, as well as flexibility and responsiveness. The third section considers the financial infrastructure of the university especially fundraising and budgeting. While the university faces serious challenges in the area of infrastructure, it also has real opportunities in fundraising, innovative budgeting, shared governance, and a long-term commitment to developing a sustainable campus that will serve present and future generations. Key issues and challenges in these areas include:

Section IV-A: "Sustaining Our Campus"

- Crafting planning strategies that preserve the beauty and residential nature of campus

- Constructing and maintaining the facilities essential to our mission
- Adopting best practices in emergency preparedness
- Developing more effective substance-abuse-prevention strategies

Section IV-B: "Leadership and Governance to Sustain Excellence"

- Clarifying and sustaining appropriate roles for faculty members, administrators, and students in university decision-making
- Building capacities for institutional memory and documentation
- Evaluating the efficiency of the existing central committee structures
- Recruiting senior faculty members to serve on critical university committees

Section IV-C: "The Economics of a Sustainable University"

- Finding effective strategies to reverse decades of a declining share of state support
- Supporting current initiatives by the governor to begin reinvestment in public universities
- Revising the model for allocating general funds to academic units
- Successfully completing the current comprehensive fundraising campaign and establishing future development goals

STEERING COMMITTEE MEMBERSHIP

Carver, Deborah
The Philip H. Knight Dean of Libraries
UO Libraries
dcarver@uoregon.edu

Chereck, Herbert
University Registrar
Office of the Registrar
hchereck@uoregon.edu

Chong, Mandy
Office Coordinator
EMU Cultural Forum
mchong@uoregon.edu

Couch-Goodling, Becky
Executive Assistant
Office of the President
couchgo@uoregon.edu

Durrant, Stephen
Liaison to the CAS Curriculum Committee
Professor of Chinese
sdurrant@uoregon.edu

Dyke, Frances
Vice President for Finance and
Administration
Office of the Vice President for Finance and
Administration
fdyke@uoregon.edu

Friestad, Marian
Vice Provost for Graduate Studies
Associate Dean, Graduate School
msf@uoregon.edu

Gilkey, Peter
Chair, Faculty Grievance and Appeals
Committee
Convener, Promotion, Tenure, and Retention
Appeals Committee
Professor of Mathematics
gilkey@uoregon.edu

Gray, Jo Anna
Cochair, Accreditation Steering Committee
Professor of Economics
jgray@uoregon.edu

Harris, Don
Vice Provost for Information Services and
CIO
Information Services
cio@uoregon.edu

Hernandez Jr., Emilio
Assistant Vice Provost for Institutional
Equity and Diversity
Office of the Senior Vice President and
Provost
ehjr@uoregon.edu

Hubin, Dave
Cochair, Accreditation Steering Committee
Executive Assistant President,
Office of the President
hubin@uoregon.edu

King, Linda
Associate Vice President for Human
Resources
llking@uoregon.edu

Kolpin, Van
Chair, Faculty Advisory Council
Professor of Economics
vkolpin@uoregon.edu

Linton, Richard
Vice President for Research and Graduate
Studies
Dean of the Graduate School
Office of the Vice President for Research and
Graduate Studies
Professor of Chemistry
rlinton@uoregon.edu

Lobisser, Gregg
Director of Student Activities
Erb Memorial Union
lobisser@uoregon.edu

Mc Chesney, James
Research Assistant
Office of the President
chesney@uoregon.edu

Pitts, Martha
Assistant Vice President for Enrollment
Services and Director of Admissions
Office of Admissions
mpitts@uoregon.edu

Pratt, Scott
Associate Dean for the Humanities, College
of Arts and Sciences
Professor of Philosophy
spratt@uoregon.edu

Ramey, Christopher
Senior Director and Architect
Office of University Planning
cramey@uoregon.edu

Reed, Mark
Chair, Graduate Council
Professor of Geological Sciences
mhreed@uoregon.edu

Skalberg, Marilyn
Administrative Program Specialist
Office of the President
slfstudy@uoregon.edu

Sprague, Karen
Vice Provost for Undergraduate Studies
Liaison to the Undergraduate Council
Professor of Biology
kus@uoregon.edu

Stripp, Gregory
Assistant Vice President for Advancement
Office of the Vice President for University
Advancement
stripp@uoregon.edu

Tomlin, Russell
Vice Provost for Academic Affairs
Office of Academic Affairs
Professor of Linguistics
tomlin@uoregon.edu

Wagenknecht, Jeanne
President-Elect, University Senate
Instructor of Finance
jswag@uoregon.edu

Warpinski, Terri
Vice Provost for Academic Affairs
Office of Academic Affairs
Professor of Art
tlw@uoregon.edu

Welka, Sasha
Student Representative
swelka@uoregon.edu

GLOSSARY OF ABBREVIATIONS

AAA	School of Architecture and Allied Arts		CDRC	Child Development and Rehabilitation Center
AAALAC	Association for Assessment and Accreditation of Laboratory Animal Care		CEEB	Center for Ecology and Evolutionary Biology
AAEO	Affirmative Action and Equal Opportunity		CEPR	Center for Educational Policy Research
AAU	Association of American Universities		CET	Center for Educational Technology
AEI	American English Institute		CFC	Child and Family Center
ALS	Academic Learning Services		CHD	Center on Human Development
ANTC	Advanced Network Technology Center		CHI	Center on Housing Innovation
APA	American Psychological Association		CICS	Center on Indigenous Cultural Survival
APRU	Association of Pacific Rim Universities		CIDA	Council for Interior Design Accreditation
APS	Assault Prevention Service		CIRL	Computational Intelligence Research Laboratory
ARL	Association of Research Libraries		CIS	Career Information System, or Computer and Information Science (department)
ASAP	Alliance for Sexual Assault Prevention			
ASUO	Associated Students of the University of Oregon		CoDaC	Center on Diversity and Community
ASPAC	Associated Students President's Advisory Council		COI	Conflict of Interest
			CRESS	Center on Race, Ethnicity, and Sexuality Studies
BBMI	Brain, Biology Machine Initiative		CSC	Community Service Center
BRT	Behavioral Research and Teaching		CSI	Computational Science Institute
BUSTED	Beginning Underage Successes Through Educational Diversion		CSWS	Center for the Study of Women in Society
CAMCOR	Center for Advanced Materials Characterization in Oregon		CTL	Center on Teaching and Learning
			DARS	Degree Audit Reporting System
CAPS	Center for Asian and Pacific Studies		DBS	Diversity-Building Scholarship
CAS	College of Arts and Sciences		DDS	Designated Driver Shuttle
CASLS	Center for Applied Second Language Studies		DoD	Department of Defense
			DoE	Department of Energy
CATE	Center for Advanced Technology in Education		DPS	Department of Public Safety
CCACP	Center for Community Arts and Cultural Policy		EC CARES	Early Childhood Coordination Agency for Referrals, Evaluations, and Services
CCRTF	Campus Community Relations Task Force		ECS	Educational and Community Supports

EDC	Ecological Design Center		IPRI	Institute for Policy Research and Innovation
E&G	Educational and General		IS	Information Services
EHS	Environmental Health and Safety		ISC	Integrative Science Complex
EIC	Environmental Issues Committee		ISE	Institute for a Sustainable Environment
EIP	Early Intervention Program		ISP	International Studies Program
EMC	Enrollment Management Council		ITS	Institute of Theoretical Science
EMU	Erb Memorial Union		IVDB	Institute on Violence and Destructive Behavior
EMUB	EMU Board of Directors		JSMA	Jordan Schnitzer Museum of Art
EPD	Eugene Police Department		LCB	Lundquist College of Business
ETS	Educational Testing Service		LCNI	Lewis Center for Neuroimaging
ETSC	Educational Technology Steering Committee		LDAP	Lightweight Directory Access Protocol
ESD	Education School District		LibQUAL	Library Quality Assessment Tools
FIG	Freshman Interest Group		LLC	Living-Learning Center
FIS	Financial Information System		LOA	Leave of absence
FITT	Faculty Instructional Technology Training		LSAT	Law School Admission Test
FTE	Full Time Equivalent		MES	Medical Express Service
GIS	Geographical Information Systems		MNCH	Museum of Natural and Cultural History
GK-12	NSF Graduate Teaching Fellows in K-12 Education		MO	Medical Leave
GMAT	Graduate Management Aptitude Test		MRI	Minority Recruitment Initiative
GRE	Graduate Record Examination		MSI	Materials Science Institute
GTF	Graduate Teaching Fellow		NAAB	National Architectural Accrediting Board
HEP	High School Equivalency Program		NASPAA	National Association of Schools of Public Affairs and Administration
HOPES	Holistic Options for Planet Earth Sustainability		NERO	Network for Education and Research in Oregon
HRIS	Human Resources Information Center		NRCA	National Educational Computing Association
HSPP	Human Subjects Protection Program		NCITE	National Center to Improve the Tools of Educators
IACUC	Institutional Animal Care and Use Committee		NIH	National Institute of Health
IC	IntoCareers		NIC	Neuroinformatics Center
IDEA	Institute for Development of Educational Achievement		NILI	Northwest Indigenous Languages Institute
IELTS	International English Language Testing System		NRC	National Research Council
IMB	Institute of Molecular Biology			
ION	Institute of Neuroscience			

NSF	National Science Foundation
NTTF	Nontenure-track faculty
OAR	Oregon Administrative Rule
OCLC	Online Computer Library Center (Ohio)
OCO	Oregon Center for Optics
ODOT	Oregon Department of Transportation
OEOM	Oregon's Emergency Operations Manual
OIED	Office of Institutional Equity and Diversity
OIMB	Oregon Institute of Marine Biology
OIT	Oregon Institute of Technology (Klamath Falls)
OHC	Oregon Humanities Center
OHSU	Oregon Health & Science University (Portland)
ONAMI	Oregon Nanoscience and Microtechnologies Institute
ORCIS	Oregon Career Information System
ORCR	Office of Responsible Conduct of Research
ORSA	Office of Research Services and Administration
OSU	Oregon State University (Corvallis)
OTEP	Oregon Technology Entrepreneurship Program
OTT	Office of Technology Transfer
OUS	Oregon University System
OUSSPP	Oregon University System Suicide Prevention Project
OWP	Oregon Writing Project
PASS	Proficiency-based Admission Standards System
PGA	Public and Government Affairs
PNNL	Pacific Northwest National Laboratory (Richland, Washington)
PSO	Post-School Outcomes Center
PSU	Portland State University (Portland)

RARE	Resource Assistance for Rural Environments
RFD	Research and Faculty Development
RHA	Residence Hall Association
RRP	Riverfront Research Park
SAC	Safety Advisory Committee
SANE	Sexual Assault Nurse Examiners
SAPP	Substance Abuse Prevention Program
SHAC	Student Health Advisory Committee
SIS	Student Information System
SOJC	School of Journalism and Communication
SPP	Strategic Planning Project
SPUR	Summer Program for Undergraduate Research
SSET	Secondary Special Education and Transition Programs
SSIL	Social Science Instructional Laboratory
SWAT	Sexual Wellness Assault Team
SWORP	Southwest Oregon Research Project
TACS	Technical Assistance and Consulting
TEP	Teaching Effectiveness Program
TL	Time Loss
TOEFL	Test of English as a Foreign Language
TSPC	Oregon Teacher Standards and Practices Commission
UA	University Advancement
UHC	University Health Center
UOAA	UO Alumni Association
WRRC	Western Regional Resource Center
YE-TAG	Youth Enrichment-Talented and Gifted Programs and Services
ZIRC	Zebrafish International Resource Center
ZIFN	Zebrafish Information Network Facilities

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PART I. TRANSFORMING OREGON AND BEYOND

PART I: TRANSFORMING OREGON AND BEYOND

We begin this self-study with a reaffirmation: The overriding goal of the university is the creation and dissemination of knowledge worthy of its status as an American Association of Universities (AAU) institution and the best of its peers internationally.

The University of Oregon mission statement[2] defines a university to be "a community of scholars dedicated to the highest level of standards of academic inquiry, learning, and service," and knowledge to be "the fundamental wealth of a civilization." It goes on to recognize that research, "both basic and applied, is essential to the intellectual health of the university, as well as to the enrichment of the lives of Oregonians." It acknowledges the university's obligation to serve both the people of Oregon and those beyond it borders. And it affirms the University of Oregon's commitment to education, "with the goal of helping the individual learn to question critically, think logically, communicate clearly, act creatively, and live ethically."

The sections on research, service, and education that follow frame the University of Oregon's mission as a comprehensive research university and Oregon's only AAU institution. We begin with the university's distinctive profile in research and creative activity, which provides an academic environment unique within the state. This profile offers a rich array of economic, social, and cultural benefits to the state of Oregon, many of which reach beyond our region to have national and international impacts—benefits that we capture as "service." It is the environment described in the first two sections—rich in possibilities for inquiry, learning, and service to society—that is available to the students who attend the University of Oregon. These students are the primary reason for our existence as a public university, and our goal is to bring to campus students who are prepared to both benefit from and contribute to academic excellence at the University of Oregon.

A. INVENTING THE FUTURE: UO RESEARCH AND SCHOLARSHIP

The primary mission of the University of Oregon, as a leading public research university, is to sustain and transform society through the creation and dissemination of scientific and humanistic knowledge that addresses the economic, social, and environmental needs of Oregon,[3] our region, nation, and world.[4] Research at the University of Oregon—broadly defined throughout this section to include scholarship and creative activity in its many forms—can be examined in the same terms as the university as a whole: interconnection, pluralism, and a commitment to sustaining future generations through innovations that elevate economic competitiveness, global stewardship, and quality of life.

While many universities emphasize diverse research, plural in its interests but isolated in its process, the UO affirms both interconnection and pluralism. Work carried on within the diverse disciplines serves as a starting point for our discussion of research at the UO. Disciplinary research is conducted by tenured and tenure-related faculty members in every academic department. Such scholarship is central to establishing the reputation of Oregon's graduate programs and faculty and significantly affects undergraduate teaching and learning. Faculty members within the UO's schools and colleges are among the leading scholars in their fields and this outstanding faculty forms the basis for Oregon's interconnected research initiatives and programs. These initiatives, in the many forms in which they are presently manifest, have their roots in a long tradition of interdisciplinary research at the University of Oregon, first formalized with the establishment of the Institute of Molecular Biology in 1959. Today, more than sixty interdisciplinary institutes and centers provide opportunities for research and graduate training at the UO, but most importantly contribute, through truly innovative scholarship, to both today's world and the prospect of a sustainable future.

The research enterprise at the UO spans the arts, the humanities, the sciences, and the professions, and addresses the full cycle of innovation, from basic discoveries to technology transfer and societal application. The focus of Section A is on research programs and accomplishments that distinguish the UO, within the state, the nation, and internationally. A critical overview and assessment of the UO's research activities, the quality of its scholarship, and ongoing opportunities and challenges related to the research enterprise are considered in the subsections below. Many of the factors that impact the scope and quality of UO research are also addressed elsewhere in the self-study. The themes emphasized in this section relate to key input and performance measures defining the range and impact of creative and scholarly work at the UO.

A.1. DISCIPLINARY RESEARCH

The diverse disciplinary research carried out at the UO contributes to the research mission of the university by adding to and transforming received ways of thinking. One of the marks of an excellent university is its ability to affect the ideas with which people understand their world, their values, and their futures. While much research can be quantified in terms of the grant funding it generates or its economic output, the ability to affect ideas is often not directly quantifiable. It is found instead in the content of books and articles that change how we think about ourselves and the world. The impact of the research may not be immediate. What students study in the next generation is a direct result of the research carried out by the present generation. The questions asked by economists, philosophers, chemists, business people, and lawyers in the future are framed by the ideas and methods—the tools of inquiry—they inherit from today's scholars. The answers that emerge are tomorrow's

research results and they form a new starting place. Through its research, a great university produces ideas that foster the ability of future generations to flourish.

Scholars at the UO have published many hundreds of books and many thousands of articles in the last decade. Such research occurs in every college and school and represents the foundation of the UO's mission. However, little systematic information is available about the scope and impact of disciplinary research at the university. As a result, a variety of indicators can help give a sense of the quality of this research.

A.1.a. College of Arts and Sciences

The College of Arts and Sciences has more than 400 tenure-related faculty members. Its research and teaching provides the liberal arts core of the university's larger mission. It offers a broad general education at the undergraduate level—i.e., an introduction to social and intellectual history as reflected in a variety of disciplines; basic training in quantitative, analytical, and communication skills; and an understanding of the nature and uses of critical thought—as well as advanced study and research at the graduate level in specialized fields in the arts and sciences.[5]

While the college lacks a centralized means of comprehensively documenting the scope and impact of the research that takes place within individual academic units, reports provided by departments within the college describe both a wide range of research and significant recognition for that work. At least six faculty members have received Guggenheim Fellowships in the last few years. Faculty members have received a significant number of national fellowships including American Council of Learned Societies Fellowships, Fulbright Fellowships, and fellowships from the National Endowment for the Humanities, the von Humboldt Foundation, the American Philo-

sophical Society, and the Sloan, Searle, and Burroughs Wellcome foundations. Faculty members in many departments are recognized leaders in their fields, as editors and editorial board members of major disciplinary journals, as officers in national and international societies, and through their book awards and awards acknowledging excellence in research. (See Box A1.)

A.1.b. Professional Schools and Colleges

The faculty of the UO's professional schools and colleges also conduct research aimed at advancing work within their fields and at making a broader contribution to understanding the intersections between fields. Examples of national recognition for the quality and contributions of this research include the following (also see Box A2):

- In the School of Architecture and Allied Arts, the Department of Planning, Public Policy and Management is in the top ten of all such programs nationally in terms of total publications, with one faculty member ranking first among all public policy faculty members nationwide. In the recent report by the School of Architecture and Allied Arts, at least eight national awards for research and design are listed.

- Faculty members in the College of Education report seven recent national research awards including a National Institutes of Mental Health Research Service Award and an American Educational Research Association Researcher of the Year award. *U.S. News & World Report*[16] ranked the UO College of Education among the top ten public graduate institutions of education in the nation for the fifth year in a row, placing eighth among all publics and fifteenth among public and private institutions combined. And, for the seventh consecutive

Box A1. Faculty Research Excellence: Examples from the College of Arts and Sciences

Faculty members in psychology have received appointments to prestigious editorial boards and invitations to give keynote addresses; published books; been awarded grants from federal agencies; and received awards and fellowships. These include the following: 2006–7 Oregon Community Credit Union Fellowship (Jennifer Ablow); elected President of Society for Chaos Theory in Psychology and Life Sciences in 2005 (Holly Arrow); elected President of Society for Research in Psychopathology I in 2005 (Scott Monroe); 2006–7 Guggenheim and 2007–8 James McKeen Cattell Fellowship (Dare Baldwin); APA awards for Distinguished Contributions to Family Psychology (Tom Dishion) and Stanley Sue Award for Distinguished Contributions to Diversity (Gordon Hall); 2006 Lifetime Achievement Award from Society for Experimental Psychology (Doug Hintzman) for research on memory and cognition; and the prestigious international prize from Berlin-Brandenburg Academy of Science (Ulrich Mayr).

Stephen J. Shoemaker, associate professor of religious studies, teaches courses on the Christian traditions. His primary interests encompass the ancient and early medieval Christian traditions, and more specifically in early Byzantine and Near Eastern Christianity. He is the author of a number of studies on early Christian traditions about Mary (especially in apocrypha), including *The Ancient Traditions of the Virgin Mary's Dormition and Assumption*[6] (Oxford University Press, 2002). In the last two years, Shoemaker has been selected John Simon Guggenheim Memorial Foundation Fellow[7], 2006–7[8] (deferred to 2007–8), Alexander von Humboldt Foundation Research Fellow,[9] 2006–7, American Council of Learned Societies Fellow,[10] 2006–7,[11] Fellow in Byzantine Studies, Dumbarton Oaks, Harvard University Center for Byzantine Studies,[12] and as a recipient of a National Endowment for the Humanities Summer Research Award,[13] Summer 2004.[14]

Geri Richmond, the Richard M. and Patricia H. Noyes Professor of Chemistry, is the first woman to win the Spiers Medal (2004), presented by Great Britain's Royal Society of Chemistry, one of the most prestigious international prizes in chemistry. Richmond also received the 2005–6 Council for Chemical Research Diversity Award for her pioneering work contributing to the advancement of women in the chemical sciences through the Committee on the Advancement of Women Chemists (COACh).[15] She was elected a fellow of the American Academy of Arts and Sciences in 2006 and was elected a fellow of the American Association for the Advancement of Science in 2003. Richmond's research program uses laser-based spectroscopic techniques to understand important chemical, environmental, and technological processes that occur at surfaces and interfaces.

Box A2. Faculty Research Excellence: Examples from the Professional Schools and Colleges

G. Z. Brown, professor of architecture, received the fourth annual Leadership Award of the U.S. Green Building Council (USGBC), honoring outstanding individuals and organizations that signify vision, leadership, and commitment to the evolution of green building design and construction. He also was named by the American Institute of Architects (AIA) to its College of Fellows, an honor awarded to members who have made significant contributions to the profession. Brown's expertise is in the areas of building energy systems and building and component design. He is author and coauthor, respectively, of two books: *Sun, Wind, and Light: Architectural Design Strategies* and *Inside Out: Design Procedures for Passive Environmental Technologies*. In addition, he has published more than 100 papers and reports. Brown has consulted on and designed award-winning residential and commercial buildings with a strong focus on energy efficiency.

David Conley, Ph.D., is director of the Center for Educational Policy Research at the University of Oregon and conceptual architect for Oregon's Quality Education Model, a system originally commissioned by Governor Kitzhaber to develop a means to determine the amount of funding needed by the K–12 education system and the performance that could be expected of schools based on the level of funding.

year, the UO Special Education program is ranked third in the nation.

- The School of Law is consistently ranked by the *U.S. News & World Report* peer reputation survey in the top fifty law schools nationally. In similar surveys conducted by *U.S. News*, the Environmental and Natural Resources Law Center ranked sixth, the Appropriate Dispute Resolution Center ranked fifteenth, and the Legal Research and Writing Program ranked twenty-fifth.

A.1.c. Issues in Disciplinary Research

Uneven external funding opportunities. Research outside of the UO's centers and institutes relies more heavily on support from the academic departments and other resources internal to the university. External grant funding opportunities for individual research, especially outside the sciences, can be difficult to find, highly competitive, and awards often provide only very limited financial support. Additional internal funding opportunities that provide course release support, research assistants, and library resources would help to expand the range and quantity of research conducted outside of sponsored programs. More direct support for the identification of funding opportunities and associated grant preparation for individual research through the expansion of efforts involving the UO's Office of Research and Faculty Development would be helpful.

The humanities. Scholarship in the humanities serves to illustrate some of the specific challenges and opportunities facing disciplinary research. At the UO, the humanities are vigorous. Individual departments are generally strong, and the UO has a visible and active Oregon Humanities Center that supports faculty research, teaching, and public outreach. Many faculty members also are involved in interdisciplinary programs, including women's and gender studies,

medieval studies, Asian studies, environmental studies, Judaic studies, humanities, and comparative literature. There are strong institutional connections to both the East (e.g., China, Korea, and Japan) and to the West. The UO hosts several major academic events each year, including national and international conferences, symposia, and lectures that convene top scholars and are generally open to the public at large.

In light of the recent national dialogue around the humanities, the UO held a series of roundtables in 2005–6, including faculty representatives from major humanities disciplines and affiliated administrative units and centers. The participants were sent materials from the AAU report, *Reinvigorating the Humanities*, including the major recommendations and examples of best practices. Faculty participants addressed the strengths of the humanities at the UO, as well as opportunities for improvement and associated barriers.

Key issues spotlighted in the 2005–6 humanities roundtable discussions included concerns about teaching and service loads, availability of internal research fellowships and awards, and the national availability of external research awards. Reexamination of the curriculum was recommended, for example, through more consideration of core courses in the humanities that transcend departments or provide opportunities for collaborative teaching. Team teaching is one of the most stimulating opportunities for enhancing student learning and often leads to new directions in research.

Concerns about the guidelines and criteria for promotion and tenure also were raised, particularly with regard to appropriate recognition of the standing of collaborative work, value placed on public outreach and service, and assessment of acceptable outlets for scholarly work within a given discipline—especially in light of the emerging crisis in academic publishing. Specific recommendations included improved physical spaces for teaching and scholarship; greater priority in the UO's current capital campaign and associated fund-raising efforts; sustained investment in, and effective utilization of, library and electronic information resources; and a more central position in the university's efforts to represent the institution to the state and its citizenry. Better institutional mechanisms were recommended for supporting "bottom-up" humanities initiatives requiring sufficient seed money to allow them to develop and flourish.

Measuring scholarly productivity. One of the significant challenges faced in understanding the scope and impact of disciplinary research is the lack of systematic information about research conducted *outside* the UO's centers and institutes. Despite the fact that most faculty members have active research pursuits and that most publish the results of their work regularly, there is no central source for information about this research or its relative impact on scholarship and teaching in the various disciplines. A more centralized process of data collection should be pursued that can provide direct access to general information regarding books and articles published by the university faculty, awards and fellowships received, impacts of individual faculty research findings related to societal needs, and information about relative rankings and performance comparators within particular disciplines.

A.2. INTERDISCIPLINARY AND COLLABORATIVE RESEARCH

The University of Oregon has a long tradition of interdisciplinary and collaborative research activities that connect multiple investigators, disciplines, and institutions, including research that embodies a breadth of perspectives that cross national and cultural boundaries. These are some of the special areas of focus, distinctiveness, and distinction for the UO, as described in this section highlighting interdisciplinary, collaborative, international, and diversity-related research.

One of the preeminent strengths of the UO is its interdisciplinary focus, reflective of its research university mission, but at a scale that facilitates collaboration across academic boundaries. This approach should serve the UO especially well in the twenty-first century, as the locus of innovation and discovery becomes progressively more focused at the intersections and interfaces between disciplines.

A.2.a. Institutes and Centers

The university's interdisciplinary institutes and centers, which number more than sixty, provide opportunities for faculty research and graduate and professional training in a rich variety of areas, including the humanities, social sciences, natural sciences, allied arts and architecture, education, and a number of technical fields. The UO's institutes and centers also encompass a wide array of administrative and reporting structures, reflective of their unique histories and disciplinary origins. With the exemption of centers within the College of Education, most of the other research-intensive centers report to the vice president for research. However, some of these interdisciplinary units have joint reporting relationships to appropriate academic deans, such as selected centers within the School of Allied Arts and Architecture and the College of Education. Other centers are housed solely within the domains of schools and colleges and associated academic departments, or represent service centers focused on outreach activities. Irrespective of their administrative homes, centers receive indirect cost allocations from the vice president for research, based on the unit responsible for the grant proposal submission and grant award administration. Support staff members are sometimes shared between centers and closely affiliated academic departments, a model that needs to be further expanded to exploit economies of scale and to promote effective integration of teaching, research, and outreach missions.

Nearly all tenure-track faculty members of centers and institutes hold their primary appointments in related academic departments. Graduate students who intend to work in one of the centers or institutes must satisfy the graduate degree requirements of the related departments through which they will earn their degrees. However, the research outlets provided by the centers provide a strong selling point in the recruitment of many new faculty members and graduate students interested in opportunities beyond those available in the traditional academic programs and disciplines.

Organized under the vice president for research. About half of the UO's sponsored research funding is based within the thirty institutes and centers organized under the vice president for research. The research office is responsible for the formal establishment and review of these units. A complete listing is shown in Box A3, including links to more detailed descriptions.

Other centers and institutes. Other UO centers and institutes report to Academic Affairs, or to the school and colleges in which the respective units are housed. These represent a broad range of activities emphasizing educational and outreach missions, rather than interdisciplinary research as a primary focus. In addition, most have a narrower disciplinary perspective and address aspects such as educational practices and assessment, language learning, and entrepreneurship. Box A4 illustrates the range of activities supported by these units.

A.2.b. Initiatives at the School and College Level

Many of the UO's schools and colleges have special centers and programs that reflect dean-level commitments to interdisciplinary research efforts, including the application of college-level expertise and scholarship to broader academic and societal issues. Exemplars highlighted in this section include

Box A3. Research Units Reporting to the Vice President for Research and Graduate Studies

Detailed descriptions and links to websites are available online.[17]

Natural Sciences and Technology
Center for Advanced Materials Characterization in Oregon
Center for Ecology and Evolutionary Biology
Center for High Energy Physics (in process of formal establishment)
Computational Intelligence Research Laboratory
Computational Science Institute
Institute of Molecular Biology
Institute of Neuroscience
Institute of Theoretical Science
Lewis Center for Neuroimaging
Materials Science Institute
Neuroinformatics Center
Oregon Center for Optics
Oregon Institute of Marine Biology
Solar Energy Center

Social Sciences and Humanities
Center for Applied Second Language Studies
Center for Asian and Pacific Studies
Center on Diversity and Community
Center for Indigenous Cultural Survival
The Center on Race, Ethnicity, and Sexuality Studies (in process of formal establishment)
Center for the Study of Women in Society
Northwest Indigenous Languages Institute
Oregon Humanities Center

Allied Arts and Architecture
Center on Housing Innovation
Community Service Center
Center for Community Arts and Cultural Policy (in process of formal establishment)
Institute for Policy Research and Innovation
Institute for a Sustainable Environment

Education and Family Issues
Center on Human Development
Institute on Violence and Destructive Behavior
Child and Family Center

Box A4. Examples of Other Centers and Institutes

Links to the individual programs are available online.[18]

Advanced Network Technology
  Center
American English Institute
Center for Advanced Technology in
  Education
Center for Educational Policy
  Research
Center for Electronic Studying
InfoGraphics Laboratory
Institute for Development of
  Educational Achievement
International Institute for Sport and
  Human Performance
Lundquist Center for
  Entrepreneurship
National Center to Improve the
  Tools of Educators
Russian and East European Studies
  Center
Social Science Instructional
  Laboratory
State Museum of Anthropology,
  Research Division
Technology Education Center
Warsaw Sports Marketing Center
Western Regional Resource Center
Yamada Language Center

those in the Lundquist College of Business, the College of Education, and the School of Law. In addition, a number of the interdisciplinary centers and programs housed in UO schools and colleges have an especially strong coupling to community development through outreach and service missions. Examples from the School of Architecture and Allied Arts, the College of Education, the School of Journalism and Communication, and the School of Music and Dance are described in Part I–Section B.4, rather than included here.

Established interdisciplinary centers within the Lundquist College of Business (LCB) include the Lundquist Center for Entrepreneurship and the Warsaw Sports Marketing Center. The current vision within the college is to expand and build on these successes to become nationally recognized in four interdisciplinary themes:[19]
- Corporate valuation
- Entrepreneurship and innovation
- Sports business
- Sustainable supply chain management

The themes leverage strong disciplines in accounting, decision sciences, finance, management, and marketing, and enhance the disciplines through visibility, resources, and expanded opportunities for the faculty and students. Established through discussion with faculty members and the external community, each theme meets the following criteria: it is rooted in what is special about Oregon; it builds on existing and new faculty strength; it leads to jobs in the Oregon economy and beyond; it presents an opportunity for national leadership; and it is capable of attracting external funding. Each thematic center will be responsible for facilitating interdisciplinary research and providing experiential opportunities for students.

The College of Education is home to an alliance of nationally prominent centers, institutes, and affiliated research and outreach units. The college's research units foster fundamental and applied research, including the integration of multidisciplinary perspectives on science-based education research and reduction to practice. These units cover a wide range of critical research areas, including teaching practices directed toward at-risk students, early childhood intervention, developmental disabilities, special education, models of academic reform, and violence and destructive behavior in children and youth. (See Box A5.) Further examples of centers and programs that reflect a college-level commitment to

Box A5. College of Education Research Units

More detailed information is available online.[20]

Behavioral Research and Teaching (BRT). Combines applied behavior analysis with effective teaching practices to develop, study, and disseminate empirically based educational programs for students who are at risk of failure in school and in the community

Center for Educational Policy Research (CEPR). Carries out state and federal–level educational policy analysis through the development of tools that help organizations understand complex issues, analyze trends, and nurture new policy ideas

Center on Human Development (CHD). Assists and empowers people with disabilities and their families in ways that enhance their quality of life as a component of the national network of University Centers of Excellence (UCE) in Developmental Disabilities

Center on Teaching and Learning (CTL). Conducts, translates, and disseminates research on the role of curriculum, instruction, and assessment in models of academic reform for schools

Early Intervention Program (EIP). Expands and improves educational and therapeutic services for young children at risk with a focus on early intervention, early childhood special education, and early childhood education

Educational and Community Supports (ECS). Focuses on the development and implementation of practices that result in positive and scientifically substantiated change in individuals with disabilities and their families through research, teaching, dissemination, and technical assistance

Institute on Violence and Destructive Behavior (IVDB). Helps schools and social service agencies address violence and destructive behavior to facilitate the academic achievement and healthy social development of children and youth

Secondary Special Education and Transition Programs (SSET). Research, model development, and outreach focus on practices to help transition-age youth develop knowledge and skills to succeed in adult roles—meaningful employment, completion of postsecondary education or training programs, and living independently

interdisciplinary research and education are the special interdisciplinary centers and programs within the School of Law. These research units cover areas that range from dispute resolution to ocean and coastal law. (See Box A6.)

A.2.c. Office of Research Targeted Research Initiatives

Through the leadership and coordination of the vice president for research, the UO also is pursuing *targeted research initiatives* at the institutional level that cross disciplin-

Box A6. School of Law Interdisciplinary Centers and Programs

More detailed information is available online.[21]

Appropriate Dispute Resolution Center. Places dispute resolution theory into practice, educating students in negotiation, mediation, and arbitration

Environmental and Natural Resources Law Program. Features the earliest academic curriculum in public interest environmental law, the first public interest environmental law clinic in the nation, and the oldest and largest public interest environmental law conference in the world

Center for Law and Entrepreneurship. Sponsors a live-client business clinic, a fellowship program in which students evaluate new technologies for possible commercialization, and numerous special events for students interested in business law and entrepreneurship

Ocean and Coastal Law Center. Combines the efforts of law faculty specialists and advanced law students to research and analyze current ocean and coastal legal issues and to publish results

Wayne Morse Center for Law and Politics. Brings world-renowned scholars and activists to Oregon each year for interdisciplinary research, publication, teaching, and public discussion of critical topics in the fields of law and politics

ary boundaries, with a current emphasis on the physical and life sciences. Such initiatives have been extraordinarily successful in attracting major investment beyond competitive federal grants, most notably through Congressional Interest Project support, targeted state investments focused on economic development, and private sources including individuals, corporations, and foundations. Since 2000, these efforts have been responsible for attracting on the order of $100 million for targeted interdisciplinary programs, when broader statewide efforts and impacts are included. The initiatives also include multi-institutional collaborative strategies and strong university-industry-government partnerships as a "triple helix" of collaboration. The recent emergence of a capital facilities project, currently estimated at $76 million for the Integrative Science Complex, will provide advanced laboratory facilities, major shared instrumentation, and collaboration spaces to enhance the UO's pioneering interdisciplinary work in the sciences. The core of those efforts relate to the following two initiatives as high UO priorities: the Brain, Biology, and Machine Initiative (BBMI) and the Oregon Nanoscience and Microtechnologies Institute (ONAMI). (See Box A7.)

A.2.d. International and Diversity-Related Research

The American Council on Education indicated in 2003 that the UO is "among the most active research universities in the country in advancing internationalization in a wide variety of areas." The university also was recognized in 2004 by NAFSA: Association of International Educators for the success of the International Cultural Service Program and International Alumni Program. This recognition reflects a capable and adventurous student body, a dedicated and internationally oriented faculty, and a committed and culturally sensitive international programs staff.

Box A7. Targeted Research Initiatives

Brain, Biology and Machine Initiative (BBMI).[22]

The goal of the BBMI is to better understand how the human brain and mind functions (e.g., cognition, memory, learning, and developmental disorders) by pursuing research that integrates the fields of psychology, molecular genetics, animal model systems, advanced computing and imaging, and neuroinformatics. The initiative builds from a base of UO's leading programs in areas such as cognitive neuroscience, molecular biology, and high performance computing. Both the well-established UO units, such as the Molecular Biology and Neuroscience institutes, and recently created centers, such as the Lewis Center for Neuroimaging and the Neuroinformatics Center, are major participants in the collaborative BBMI activities. The next stages of the initiative will strengthen the emphasis on translational research such as the links between brain development and educational practices, and the field of rehabilitative neuroscience. Phase 2 of the Integrative Science Complex will emphasize collaborative programs related to BBMI.

Oregon Nanoscience and Microtechnologies Institute (ONAMI).[22]

ONAMI is Oregon's first signature research center and a cooperative venture among government and leading nanoscience and microtechnology R&D institutions and industry in the Northwest. ONAMI was created to cultivate research and commercialization to advance Oregon's leading economic sector and expand the benefits of technology innovation to traditional and natural resource industries. By putting nanotechnology to work in microsystems, ONAMI members are taking these advances from the lab through to commercialization through unprecedented collaboration among Oregon's research universities. In addition to shared facility access, university faculty members are working in conjunction with ONAMI to pursue both fundamental and applied research projects with regional industry. The UO component includes its leading materials science programs, including the Center for Advanced Materials Characterization, and its internationally recognized programs in green chemistry and green nanotechnology. Phase 1 of the Integrative Science Complex highlights the UO's connections to the ONAMI programs and is slated for completion in 2007.

The UO has an especially strong international research and outreach focus on the Pacific Rim. The UO is a founding member of the Association of Pacific Rim Universities (APRU), a consortium of thirty-seven leading research universities. APRU aims to foster education, research, and enterprise that contribute to economic, scientific and cultural advancement in the Pacific Rim. APRU promotes scientific, educational, and cultural collaboration, and embodies a commitment to global academic and research standards. The UO hosted the APRU Doctoral Students Annual Conference in 2005 and partnered with the University of Sydney in 2006 in developing an APRU conference focused on "Brain and Mind." Those interactions offer the promise of longer-term partnerships centered on the UO's Brain, Biology and Machine Initiative (BBMI).

A priority on international and diversity issues and scholarship in the Pacific Rim also prompted UO President Dave Frohnmayer to launch a China–East Asia initiative in 2004–5. The initiative builds on the university's already strong ties with East Asian countries to create new opportunities

for students, faculty members, alumni, and the public. The overall goal is to establish the UO as a major source of expertise in East Asia with a focus on business, government, and education. The UO is starting from a much stronger position than many U.S. universities in strengthening ties with East Asia. As of 2005, the UO had forty-two faculty members in sixteen disciplines specializing in East Asia. The UO has one of the earliest Asian studies programs in the country, founded in 1942. Almost two-thirds of the UO's international students, about 700, come from Asia. The 3,400 alumni from East Asia (China, Japan, South Korea, Hong Kong, and Taiwan) form the UO's largest block of international graduates.

Examples of current goals for the China–East Asia initiative include increasing the enrollment of East Asian students, increasing UO student study-abroad and faculty exchange and research programs; boosting the number of UO students studying East Asian languages and cultures; strengthening alumni groups in East Asian countries; developing an information resource bank; and establishing special programs for students in the professional schools. The UO's historic ties with the region are grounded in long-standing student exchange programs and the Asian collection that formed the core of the UO's Jordan Schnitzer Museum of Art when it was founded in 1922. For the past five years, the UO Continuation Center has provided management training to Shanghai city administrators, and the UO's Warsaw Sports Marketing Center is working with Fudan University in China to market the 2008 Beijing Olympics.

UO research centers and programs that integrate diverse disciplinary, cultural, and international perspectives enhance the development of critical thinking, communication, and interpersonal skills essential to the liberal arts educational experience central to the UO mission. UO research centers at the intersections of the humanities and

social sciences promote dialogue, inquiry, and appreciation of international issues and cultural diversity including aspects such as religion, gender, race, and ethnicity. UO programs include those in well-established centers such as the Center for the Study of Women in Society (CSWS), the Center for Applied Second Language Studies (CASLS), and the Center for Asian and Pacific Studies (CAPS). Emergent research centers that focus on diversity issues include the Center on Diversity and Community (CODAC), the Center for Indigenous Cultural Survival (CICS), and the Center for Race, Ethnicity, and Sexuality Studies (CRESS). (See Box A8.)

A.2.e. Issues in Interdisciplinary Research

General issues. Despite the apparent breadth and positive impact of the UO's interdisciplinary traditions and current activities, there are critical actions needed to sustain and build on those traditions. As typical of its sister research universities, the UO continues to explore ways to optimize interdisciplinary programs by addressing objectives such as the following:

- Balancing research and instructional missions
- Enhancing connections between the academic priorities of departments and interdisciplinary research objectives of centers and institutes
- Prioritizing faculty hiring by discipline and field to accommodate concepts of cluster hires and to facilitate multidisciplinary connections
- Recognizing interdisciplinary and collaborative contributions in faculty tenure and promotion decisions and providing time for faculty members to pursue such activities
- Addressing infrastructure needs of cross-disciplinary research, including major instrumentation facilities and information technology requirements
- Supporting graduate education equitably across disciplines

Box A8. Centers That Focus on International Issues and Diversity

Center for Applied Second Language Studies (CASLS).[24]
CASLS is a primarily grant-supported National Foreign Language Resource Center that promotes international literacy by developing proficiency-based tools for language learning and teaching. In unveiling the National Security Language Initiative (NSLI) on January 5, 2006, Undersecretary of Defense for Personnel and Readiness David Chu noted that the National Security Education Program had funded the first such program in Oregon and further commented "There's a great story out there." Chu was referring to the Chinese K–16 Language Initiative in Oregon overseen by CASLS.

Center for Asian and Pacific Studies (CAPS).[25]
CAPS-affiliated faculty members are engaged in teaching and research on the peoples, histories, languages, cultural traditions, and economies of East, Central, South, and Southeast Asia, and the Pacific Islands. CAPS organizes lectures, conferences, and workshops, and builds educational connections with key institutions in the Asia-Pacific region. A major grant from the U.S. Department of Education for Foreign Language and Area Studies (FLAS) Fellowships in East Asian Studies, funded in 2006, supports fellowships for graduate students who are U.S. citizens and permanent residents studying Chinese, Japanese, and Korean in conjunction with area or international studies.

Center for Indigenous Cultural Survival (CICS).[26]
CICS was created to share, develop, and access tools for the preservation of indigenous lifeways. Offered through an academic setting, the CICS helps individuals access undergraduate- and graduate-level courses, link with indigenous scholars and cultural specialists, locate unique funding sources, and create historically accountable representations of indigenous cultures.

Center for the Study of Women in Society (CSWS).[27]
CSWS is a multidisciplinary research center that generates, supports, and disseminates research on the effects of gender, race, ethnicity, class, sexual identity, and culture on women's lives. A member of the National Council for Research on Women (NCRW), CSWS develops alliances with other universities and outside organizations sharing interests in women and gender-related issues, and creates bridges between research, teaching, public understanding, and discussion about women's lives.

Center for Race, Ethnicity, and Sexuality Studies (CRESS).[28]
CRESS facilitates intellectual conversation and critical engagement among scholars of race and sexuality, with the goals of connecting the field of sexuality studies with race and ethnicity studies; highlighting current research, especially interdisciplinary studies of class, disability, and other nonracial or nonethnic minority identities; and fostering a diverse intellectual climate at the UO, in part by contributing to the recruitment, retention, and success of faculty members and students working in the fields represented by the center's mission.

Center on Diversity and Community (CODAC).[29]
CODAC's mission is to promote inquiry, dialogue, and effectiveness on issues of cultural diversity. CODAC fulfills its mission through basic and applied research, outreach programs and public events, consulting services, and information networks that serve the UO campus as well as stakeholder individuals, communities, and organizations. CODAC promotes interdisciplinary scholarship in the following areas: cultural competency in higher education; cultural diversity; and diversity, conflict, and resolution.

- Fostering interdisciplinary programs that provide breadth, while maintaining academic core programs that provide depth
- Following the university's priorities for academic quality and impact

Although the UO is a national leader in the success of its interdisciplinary research efforts, it is facing organizational challenges that must be addressed to sustain the development of interdisciplinary centers, including the following:

- Developing new approaches to the design and financing of interdisciplinary research space
- Mitigating the effects of the "soft money" dependencies of research centers
- Providing effective management and governance, including suitable cooperation between the deans and the vice president for research
- Stimulating and managing external collaborations and partnerships
- Promoting translational and commercialized research
- Finding adequate resources for seed investments in new initiatives beyond the allocation of facilities and administrative cost recovery

The UO has exceptional opportunities to explore institution-wide initiatives, analogous to BBMI and ONAMI, in areas such as sustainability, healthy communities, human and global security, human performance, digital arts, and diversity. The UO leadership, especially the provost and vice president for research in concert with the academic deans, are charged with further development of key signature research areas that build on academic excellence and the UO's interdisciplinary culture.

Centers focused on international issues and diversity. Continuing institutional challenges regarding these centers are twofold. A major concern is the adequacy of financial support, reflecting the highly competitive environment for seeking external sponsorship of research in these disciplines. There have been some notable recent successes such as the grants awarded to CASLS and CAPS in 2006 as indicated previously. The Office of the Vice President for Research assists with core operating funds for the centers through the allocation of indirect cost recoveries. The second major concern from an institutional perspective is assuring broad-based faculty engagement to create an adequate reservoir of expertise and leadership to sustain the educational, research, and outreach endeavors of these units.

A.3. RESEARCH SUPPORT

Input measures focus on the level of support for the UO's research mission. The input measures addressed in this sub-section are financial investment, in the form of research funding, and institutional infrastructure. Output measures—indicators of the UO's research productivity—are addressed in Section A.4, "Quality and Impact of Research Programs."

A.3.a. Funding

Overview of sponsored funding. Over the past five years, *sponsored program awards* to the University of Oregon grew from $57.8 million in fiscal year 2000–2001 to $96.5 million in fiscal year 2005–6, representing an increase of 67 percent. The supporting documentation for this self study includes the UO's annual contract and grant expenditures data for fiscal years 2002–3, 2003–4, and 2004–5 by unit and funding source.[30,31] Detailed annual reports on sponsored funding also are available through the Office of Research Services and Administration (ORSA) website.[32]

For purposes of this narrative, emphasis is placed on the most recent year (fiscal year 2004–5) for which complete data were avail-

able. The following ORSA websites provide specific information on fiscal year 2004–5 sponsored programs, including graphic and tabular representations of the data summaries. The data can be sorted by principal investigator (PI), coprincipal investigator, and submitting or home units. Awards,[33] proposals,[34] and expenditures[35] are available online.

The UO received nearly $84 million from external funding sources in grants, contracts and other competitive awards for fiscal year 2004–5, hereafter referred to as "FY05." This was the second highest total in award dollars ever recorded at the UO. Sponsored program awards in FY 05 had the primary purpose defined as follows, although many of the individual programs link multiple missions such as research and public service.

- *Research*: $57.5 million (68.7 percent)
- *Instruction*: $5.5 million (6.6 percent)
- *Public Service*: $20.7 million (24.7 percent)

The nonresearch categories above have a greater emphasis (31.3 percent of funds) than at many research universities. In part, this is a reflection of the extensive sponsored work in the College of Education devoted to outreach and public service.

Funding Sources. Sources of sponsored program funding include federal agencies, State of Oregon agencies, and private foundation and corporations.

Federal. Direct federal funding for sponsored programs totaled $60.5 million in FY05. Direct federal funding plus subfederal dollars ("flow-through" dollars to the UO allocated by other entities, such as universities, nonprofits, and state and local governmental agencies, in support of sponsored programs) totaled $77.1 million in FY05, an 11 percent increase over the prior year. Federal funding accounted for 92 percent of the total funding received by the UO in FY05. The UO traditionally relies on federal support as the predominant source of sponsored program funding, as is typical of research universities nationally.

Significant increases in federal support were realized in FY05 over the prior year from the National Science Foundation (a 15 percent increase to $14.1 million) and the U.S. Department of Education (a 13 percent increase to $29.3 million), while support from the U.S. Department of Health and Human Services, primarily from the National Institutes of Health, remained steady at $24.1 million. Three federal agencies (NSF, NIH, DoEd) consistently provide the vast majority of federal funds received by the UO, reflecting its research strengths in the physical and natural sciences and in education. Of great concern to the UO is the decline in success rates nationally for NSF and NIH proposals, owing to both increasing competition and relatively flat academic R&D funding for those agencies in recent budget cycles. Success rates at the UO have followed the national trends quite closely and have dropped in recent years from the mid-30s to the mid-20s, as a percentage of new and competing proposal submissions.

State of Oregon. Oregon's state agencies awarded grants and contracts to the UO totaling nearly $6.9 million in FY05, from both state funds and subfederal pass-through funds. Although the state provides direct appropriations for the faculty and staff positions, graduate programs, and capital infrastructure that support the research enterprise, it is traditionally a small contributor to sponsored programs funding (<10 percent). This is the norm nationally, where direct state support of research programs focuses on targeted investments related to advanced work force development or economic development (e.g., engineering, biotechnology, nanotechnology, agricultural extension, and research centers of excellence).

Private. Private foundations and corporations provided sponsored program funds totaling $2.7 million in FY05, and support from all private sponsors, including nongovernmental entities that pass through federal funds to the UO, totaled $5.2 million. Following the UO's gift-versus-grant definitions and associated policies, considerably more private funding flows annually through the UO Foundation in the form of gifts supporting the general academic mission. Out of $92.4 million in private gifts to the university in FY05, corporations and foundations provided $14.9 million. Such gifts generally are not counted as sponsored programs if they do not specify "deliverables" or raise compliance issues that require a sponsored project grant or contract to be administered through ORSA. Details of private giving to the UO for FY05 are available on the UO Foundation website.[36]

Assessment. Nearly 550 sponsored program awards were made to 224 faculty members serving as principal investigators in FY05. Some 625 faculty members held tenured or tenure-track positions in FY05. Thus, about 36 percent of tenure-track faculty members received a sponsored program award, and the average funding per faculty member in FY05 was approximately $135,000. This compares favorably to research universities nationally, especially when taking into account that many of the UO faculty positions reside in schools and colleges that have more limited external funding opportunities for research (e.g., the humanities and social sciences units of the College of Arts and Sciences, the School of Journalism and Communications, the School of Law, and the School of Music and Dance). It also is important to recognize that the UO lacks agriculture, engineering, and medical schools—three units that attract major support for basic and applied research at research universities nationally. Even for leading research universities having all three of these heavily funded schools, the average sponsored program funding per

faculty member is on the order of $200,000 institution-wide. In short, the UO is competitive with its research university peers on a per capita funding basis, especially when the range of academic programs is taken into account.

The tenure-track faculty members are customarily appointed through an academic department, where instruction, public service, and research activities are the primary functions. However, interdisciplinary research and collaboration are hallmarks at the UO, thus empowering many faculty members to manage their externally funded research programs through a research center or institute. Indeed, the majority of proposals are submitted by, and funds awarded to, the interdisciplinary centers and institutes as opposed to the academic home departments of the faculty. Over the past five fiscal years through FY05, forty-nine of the top fifty principal investigators receiving sponsored program dollars were affiliated with centers or institutes. With approximately thirty tenure-track faculty members, the College of Education received $30.2 million in FY05, primarily for its center and institute operations, ranking it near the top of education colleges nationally in its federal funding per faculty member.

How the money is spent. *Expenditures* on more than 1,200 active grants and contracts during FY05 totaled a record $86.4 million for direct and indirect costs. Expenditure totals do not match the award totals for the same fiscal year, as grants are received and reported during a fiscal year, but the funds can be spent over multiple fiscal years. Personnel costs represented 60 percent of direct expenditures, or $42.2 million, with another $28.4 million spent for services, supplies, equipment and miscellaneous project-related expenses. Research activities accounted for 72 percent of the total expenditures, while training, instructional, and public service programs accounted for the remaining 28 percent. According to U.S.

Department of Commerce figures, every $1 million in academic R&D expenditures in Oregon supports more than forty jobs. Thus, the UO's sponsored activity is estimated to have supported more than 3,400 jobs in FY05, when direct employment and economic multiplier effects are taken into account.

Facilities and Administrative (F and A) or indirect cost recovery totaled $15.8 million in FY05. The federally negotiated full F&A rate budgeted for research activities was 49 percent (other activities use different rates or do not allow F&A to be charged), but only 18 percent of actual expenditures in FY05 were for F&A costs. The consequence was a significantly lower "effective rate" for recovering facilities and administrative costs campus-wide. The federally negotiated F&A rate places the UO at approximately the average for research universities nationally.

The Office of the Vice President for Research has authority for the indirect cost budget for the UO and endeavors to be highly transparent in its approach to the allocation of F&A funds in support of the research enterprise. In recent years, a website has been constructed illustrating the use of the funds by category of expenditure. In FY05, more than half of the F&A was allocated directly in support of the faculty either as cost-share or matching funds, new faculty start-up costs, and for other faculty research needs such as the libraries, research center and institute operations, specialized labs, and shared research and instrumentation facilities. The remainder of F&A cost recovery is used to support general university administration, research administration, facilities maintenance and operations, and new building costs. The Oregon University System (OUS) requires 4 percent of the F&A generated by the UO be provided to the system in general support of its administrative functions. Further details on research expenditures and F&A are available on the ORSA website.[37]

A.3.b. Infrastructure

Grants management. The UO's pervasive decentralization of administrative and support services is keenly felt in the grants management arena. The involvement of four disparate groups is required to manage sponsored programs activity. These are the principal investigators, departmental grant administrators, Office of Research Services and Administration (ORSA) staff members including preaward personnel, sponsored program assistants and accountants, and the university business and finance staff. These groups collectively facilitate the submission of sponsored grants and contracts and play critical roles in postaward financial and administrative management. Responsibilities, accountabilities, and authorities between these diverse groups remain to be better defined and coordinated more effectively. Grants accounting expertise is unevenly distributed across the UO's academic and research units, and personnel have less than optimal access to appropriate professional development and training opportunities. Automated systems and electronic checks and balances on grants and contracts activity require further development, both of in-house systems, as well as those required to address federal agency requirements for electronic research administration such as "grants.gov." With the steady growth of research at the UO, grants management is perhaps the most important administrative concern for sponsored programs.

In response to these issues, and in alignment with OUS internal audit recommendations in 2006, ORSA was recently reorganized into distinct pre- and postaward units, each headed by an associate director. Further expansion of ORSA staffing is under way so that the total FTE will approach twenty by calendar year 2007. This will bring staffing to levels more typical of research universities with comparable grants activity. The total budget for ORSA operations has approximately doubled since

2000, and roughly corresponds to the overall growth of the UO's sponsored programs funding during that period. Total annual investment in ORSA remains less than 10 percent of the total F&A budget, so that the UO support structure remains administratively "lean." The survey of academic units (Research and Creative Activity–Question 2) confirmed the broad-based concerns about adequate staffing at both the ORSA and unit level in support of sponsored programs. The ORSA website[38] provides detailed information on its operations, responsibilities, training activities, and policies governing sponsored programs.

Research compliance. The university has made key research compliance investments in the 2005–6 and 2006–7 fiscal years. In January 2005, the university created the Office of Responsible Conduct of Research (ORCR) and hired its director and support staff. The director reports directly to the vice president for research and graduate studies. A detailed description of ORCR's mission and activities is available at its website.[39]

Role of ORCR. Although the conduct of research and compliance with federal regulations and sponsor requirements remains a decentralized obligation, the ORCR serves as a centralized resource and monitor. The ORCR's director currently guides, facilitates and monitors compliance efforts in human subjects research, animal subjects research, conflicts of interest (both individual and institutional), and misconduct in research. The ORCR also coordinates with the Office of Environmental Health and Safety to address personnel and facilities concerns related to research. Work is under way to codify the relationships between ORCR, ORSA, and Business Affairs to ensure fiscal and administrative compliance throughout the grants management process. Although twenty potential cases of misconduct in research had been reviewed and managed in the eighteen months since ORCR's inception, none rose

to the level of actual misconduct. Policy in this area is currently undergoing review to strengthen and clarify procedure and process.

Human subjects program. The UO has undertaken annual reviews of the human subjects program and recently made substantial investments in two additional FTE's and the purchase of an electronic protocol submission and management tool. The University has added an additional FTE to the ORCR staff to lead the effort for human subjects accreditation under the Human Subjects Protection Program (HRPP), and to enhance the university's postprotocol approval monitoring for both human and animal subjects research.

Animal program. The university has maintained full Association for Assessment and Accreditation of Laboratory Animal Care accreditation since 1994 and has a dedicated Institutional Animal Care and Use Committee. The UO animal program is predominantly composed of zebrafish research through the Zebrafish International Resource Center (ZIRC) and the Zebrafish Information Network (ZFIN) facilities. Mammalian animal research is steadily increasing, especially in aspects such as transgenic mice experimentation. With the recent growth, efforts are under way to expand staffing, facilities, and equipment resources.

Conflict of interest. The university has had a conflict of interest (COI) policy in place since 1990, last amended in 2001. Since that time, issues of COI have a higher profile within federal oversight agencies, while UO faculty members are more extensively involved in development of intellectual property. Such relationships include out-licensing of inventions, creation of start-up companies, or ownership or significant engagement in outside businesses or activities that create real or perceived conflicts with university responsibilities and commitments. Policies and procedures involving conflict of interest or commitment are undergoing further development to better manage these complex

relationships at the intersection of public and private interests. For example, beginning in fall 2006, the UO is undertaking revisions to policy and the implementation of a university-wide, annual, mandatory faculty disclosure of potential COI.

Capital facilities. Space assigned to the research function at the UO has not kept pace with the expansion of sponsored programs funding. Over the past decade, when funding has approximately doubled (in current dollars), space designated for research has only increased very slightly. A summary of recent and current construction and renovation projects is available at the UO Planning website.[40]

Of particular concern are the facilities supporting scientific and educational research that attract the preponderance of sponsored program funding. Efforts are under way to create additional space supporting these programs.

- Renovation and expansion of the College of Education facilities.[41]
- Development of the Integrative Science Complex that will house interdisciplinary efforts ranging from nanoscience to neuroscience.[42]

Construction of the College of Education project is expected to begin in 2007, and Phase 1 of the Integrative Science Complex began in the summer of 2006. Total funding for the two projects is likely to surpass $100 million, through a combination of public bond financing and private gifts and grants.

Recent facilities and space expansions for educational research and outreach have involved a diversity of solutions including the UO's Riverfront Research Park space (e.g., Center for Teaching and Learning, Western Regional Resource Center, Center for Advanced Second Language Study). Properties in proximity to the campus have been purchased and upgraded to house activities

such as those in the Early Childhood Coordination Agency for Referrals, Evaluations and Services. Property leasing also has become more extensive; for example, off-campus units house the Marriage and Family Therapy Program and the Center for Educational Policy Research. A variety of off-campus facilities managed by the university encompass research and outreach programs as varied as those involving the Oregon Institute for Marine Biology in Charleston to the downtown Eugene home of UO's Child and Family Center.

Major investments have been made in shared instrumentation facilities in the past several years such as centers for neuroimaging, proteomics and genomics, mammalian genetics, neuroinformatics, zebrafish, laser and optics facilities, geographic information systems, and advanced materials characterization. Total investments in these advanced facilities providing high performance laboratory and computational science instrumentation and associated programs exceed $40 million. Sources of support have included federal funding (e.g., NSF, NIH, and DOD) as well as foundations such as Murdock and Keck, corporations including H-P and IBM, and lead private donors such as Robert and Beverly Lewis and Lorry Lokey.

A more general discussion of capital facilities issues and approaches to long-range planning is included in other sections of this self-study, as are the roles of information resources and technology in supporting the university's research and teaching missions.

A.3.c. Issues in Research Support

Funding. Major concerns and opportunities center on federal private sources of research funds, faculty recruitment and retention, and diversity of scholarship.

Federal funding. A major concern in the area of federal funding has been the relative-

ly stagnant academic R&D budget in recent years and the escalating competition for federal grants. The president's American Competitiveness Initiative, and the variations of it manifested in congressional bills proposing FY07 appropriations, offers potential improvements, especially for physical sciences research programs in the National Science Foundation and the Department of Energy. Key interdisciplinary initiatives, such as those described in Section A.2, highlight ongoing strategies for attracting Congressional Interest Project funds such as those building research capacity and infrastructure in key UO research strength areas such as neuroscience, molecular biology, nanoscience, and sustainability.

Private funding. The UO has comparatively small sponsored program support from corporations and foundations, including joint R&D programs with industry. This is a significant opportunity for growth and involves ongoing efforts involving University Advancement to increase cultivation of corporations and foundations, especially by the continued expansion of the UO's Corporate Partners Program. The university's Corporate and Foundation Relations office has been restructured in recent years to enhance the coordination of requests in support of research and outreach programs.

Faculty recruitment and retention. Other sections of the self-study describe in detail the issues surrounding the faculty. From a research perspective, the ability to recruit and nurture faculty members to become successful in attracting sponsored research funds is a major priority. Almost 20 percent of the F&A budget now goes to faculty start-up packages for research support, facilities, and equipment. One junior faculty hire in disciplines such as biology, chemistry, or physics is now routinely costing in excess of $500,000 in start-up funds and consumes several percent of the total F&A expenditures. Remaining competitive in the recruitment of top research scholars is a

continuing challenge for the UO, especially in the physical and biological sciences that have been traditional areas of research excellence.

Diversity of scholarship. As apparent in the surveys of academic units (Research and Creative Activity–Question 1),[43] there is a paucity of sponsored program support and associated proposal submissions in the humanities and the professional schools, with the exception of the College of Education. The UO's Office of Research and Faculty Development implements various programs in support of new faculty members, summer research programs, and workshops to enhance the UO's proposal submission and awards, especially in the disciplines most challenged to attract sponsored grant funds. Details on Research and Faculty Development programs are available on their website.[44]

Infrastructure. Here the issues center on adequately staffing and organizing grant management services, keeping pace with mushrooming federal regulations related to research compliance, positioning the UO to seek national accreditation for human subjects use, and simple lack of space for researchers and laboratories.

Grants Management. This is a top priority for improvements in the administration of sponsored programs in light of the decentralized environment at the UO and concomitant needs for adequate staffing and expertise to oversee proposal submission and awards processes. With the expansion of sponsored awards funding in recent years, opportunities are being pursued to enhance support staff FTE and associated professional development opportunities related to grants management. Better integration of services and effort between the grants and contracts office, business affairs, and the units sponsoring the research is also being pursued.

Research compliance. The responsible conduct of research requires increasing institutional vigilance and acute awareness of the escalating regulatory demands related to research compliance, ranging from conflict of interest policy to the use of animal and human subjects in research. Priorities for the UO include further development and modification of policies and practices related to conflict of interest and commitment, development of expanded capacity to handle the escalating load of human and animal subjects protocols, and positioning the institution to seek national accreditation for human subjects use in research.

Capital facilities. One of the biggest challenges for the UO is the relative paucity of space to accommodate research programs. While sponsored program funds have approximately doubled over the past decade, the square footage devoted to research activities has remained nearly constant. Especially acute are the needs in the physical and life sciences, requiring adequate space for instrumentation facilities, interdisciplinary programs, and laboratories. The Integrative Science Complex project presents the first opportunity in almost two decades for major expansion of the space devoted to scientific research at Oregon.

A.4. QUALITY AND IMPACT OF RESEARCH PROGRAMS

Output measures indicative of the UO's research performance, quality, and impact are addressed in this section. Perspectives include assessments of institutional and faculty stature in research and scholarship. Impacts of UO research on the economy and society are discussed separately in Part I–Section B.

A.4.a. Institutional Ranking Systems

The European Center for Higher Education and the U.S.-based Institute for Higher Education Policy recently issued a report addressing college and university rankings. The "Berlin Principles" discuss the purposes of rankings, best practices for rankings design and measures, and data collection.[45]

The following paragraphs illustrate various ranking systems and associated performance metrics related to faculty research and graduate education at major research universities. In such measures, the UO generally is ranked in the top few percent of the more than 4,000 institutions of higher education in the United States and among the top few hundred of universities globally.

Association of American Universities metrics.[46]

The Association of American Universities (AAU) was founded in 1900 by fourteen universities offering the doctoral degree. The AAU currently consists of sixty-two leading research universities, including sixty American universities and two Canadian universities. The association serves its members in developing national policy positions on issues that relate to academic research and graduate and professional education, as well as providing a forum for discussing a broad range of institutional issues. Membership in the association is by invitation. The invitation of new members, which requires the assent of three-fourths of current members, is considered approximately every three years.

The performance of AAU institutions is the primary benchmark against which the University of Oregon judges its performance. The current AAU membership list[47] represents the elite of the 4,382 institutions of higher education in the United States. The UO was invited to join in 1969 and has been an active member for more than thirty-five years. Indicators used as membership indicators of performance comprise so-called Phase I and Phase II indicators. Primary indicators in Phase I include federal R&D expenditures for science and engineering,

faculty membership in the National Academies (NAS, NAE, IOM), National Research Council faculty-quality ratings, citations in scientific publications as complied by the Institute for Scientific Information, and arts and humanities awards and fellowships to members of the faculty. The Phase II indicators include aspects of nonfederal R&D funding, doctoral degrees granted, and the number of postdoctoral appointees. Various measures are expressed on both an absolute and a per capita basis to normalize for the number of faculty members at a given institution.

As of 2006, the most recent tabulation of AAU membership indicators was assembled in 2001. A tabulation of the percentile ratings for the UO is shown in Figure A1, indicating absolute and per capita measures side by side across the horizontal axis. It is clear that the UO consistently rates in the lowest quartile of the elite AAU institutions, but consistently does better on the per capita measures. This is the anticipated result of the UO's being one of the smallest of the AAU institutions, with a total enrollment and associated number of faculty members typically less than half of many other AAU schools. The UO's graduate enrollment is approximately 20 percent of total enrollment, one of the lowest percentages in the AAU, and a further reflection of a more limited capacity to perform advanced research projects. Furthermore, the UO lacks schools of agriculture, engineering, and medicine, which are all major components contributing to both the Phase I and Phase II indicators. Most of the AAU institutions have at least two of these three schools, and virtually none in the AAU lack all three. Thus, the per capita measures for the UO suffer substantially from the absence of the three schools and their many associated programs in fields receiving high levels of federal funding. As of yet, there are no program-specific AAU data generally available that would allow more precise or "apples

to apples" comparisons involving common programs from institution to institution.

The Carnegie Classification of Institutions of Higher Education.[48]

The Carnegie Commission on Higher Education developed a classification of colleges and universities in 1970 to support its program of research and policy analysis. Derived from data on colleges and universities, the "Carnegie Classification" was published for use by other researchers in 1973, and subsequently updated in 1976, 1987, 1994, and 2000. It has been widely used in the study of higher education, both to represent and control for institutional differences, and in the design of research studies to ensure adequate representation of sampled institutions. The Carnegie Foundation recently undertook a thorough reassessment of its classification system. With the 2005 revision, the single classification system was replaced by multiple classifications to provide various lenses through which to view U.S. colleges and universities.

The original Carnegie classification framework, now called the basic classification, was substantially revised in 2005. Institutions were included in these categories if they awarded at least twenty doctorates in 2003–4. Institutions with lower levels of doctorate production are included in the Graduate Instructional Program classification.

Doctorate-granting institutions are assigned to one of three categories based on a measure of research activity. *It is important to note that the groups differentiate solely with respect to level of research activity, not quality or importance.* The analysis involves the following correlates of research activity: research and development (R&D) expenditures in science and engineering (S&E); R&D expenditures in non-S&E fields; S&E research staff (postdoctoral appointees and other nonfaculty research staff with doctorates); doctoral conferrals in humani-

ties fields, in social science fields, in STEM (science, technology, engineering, and mathematics) fields, and in other fields (e.g., business, education, public policy, social work). These data were statistically combined using principal components analysis to create two indices of research activity (each index was a component score for the first principal component). One index was based on aggregate levels of these factors, and the other assessed per capita research activity using the expenditure and staffing measures divided by the number of full-time faculty members whose primary responsibilities were identified as research, instruction, or a combination of instruction, research, and public service. The values on each index were then used to locate each institution on a two-dimensional graph. Each institution's distance from a common reference point was used to assign institutions to one of three groups. The aggregate and per capita indices were considered equally, such that institutions that were very high on *either* index were assigned to the "very

high" group, while institutions that were high on one (but very high on neither) were assigned to the "high" group. Using this statistical classification, the UO ranked in the "High Research–Doctoral" category.

The reasons the UO does not reach the highest level of research activity in the latest Carnegie basic classification parallel those noted in the discussion of the AAU metrics. These include the small scale of the UO relative to other major research universities, and the absence of agriculture, engineering, and medical schools that are principal contributors to many of the key R&D and doctorate production measures. However, it must be reiterated that among the 4,382 higher-education institutions of all types in the current Carnegie classification system, only 4.5 percent attain the categories of "High Research–Doctoral" or "Very High–Research Doctoral." The distinction between these two top categories involves a complex statistical correlation involving both absolute and per capita measures

Figure A1. University of Oregon in the Context of the AAU
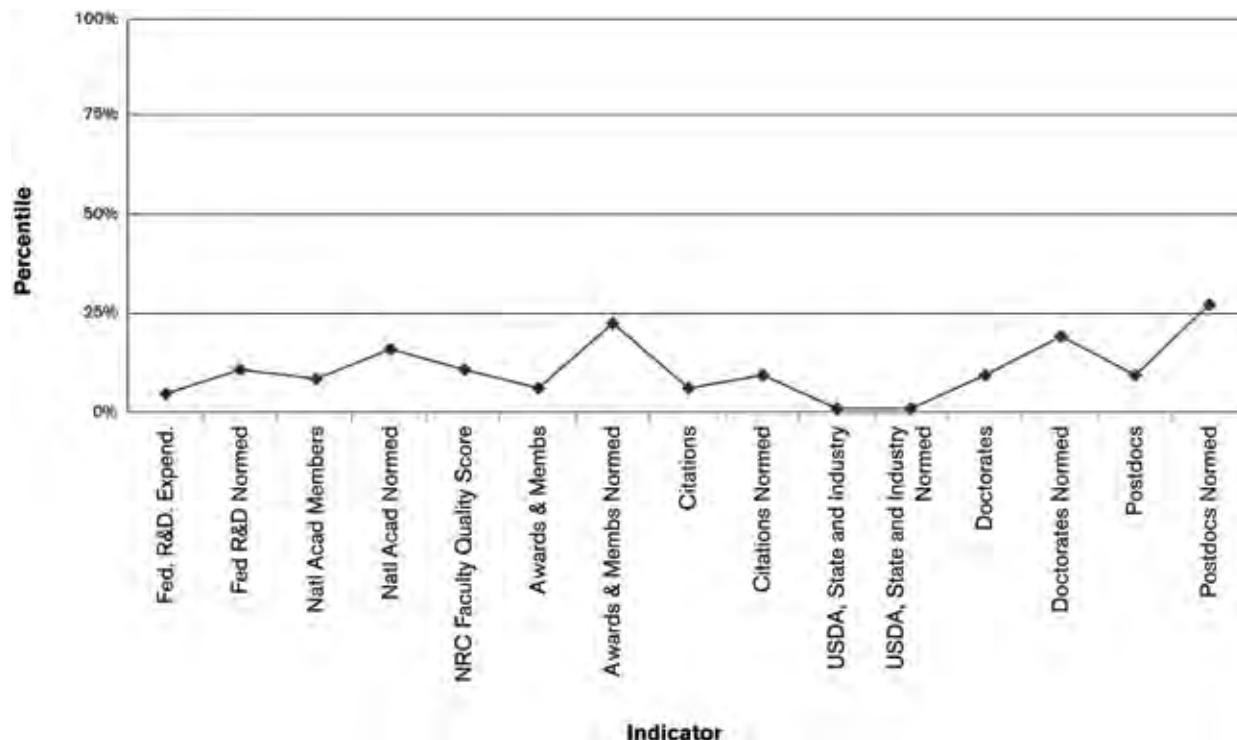
as outlined above. The result is unlike the simple definitions for "Research Extensive" and "Research Intensive" used previously as the Carnegie basic classifications for doctoral-granting institutions with substantial sponsored research activity.

TheCenter American research university data.[49]
TheCenter is a research enterprise focused on the analysis of the competitive national context for major research universities. TheCenter's major research and publication effort falls within the Lombardi Program on Measuring University Performance. Originally developed at the University of Florida during the 1990s, and later adapted to different institutional contexts at the University of Massachusetts, Amherst, and the State University of New York at Buffalo, the techniques are applicable to research universities nationally. Institutions that have federal research expenditures as reported to NSF of at least $20 million, and that fall within the top twenty-five on at least one of nine measures, fall into TheCenter's definition of the top research universities. Per capita measures are not utilized as in the AAU Membership Indicators.

On the basis of fiscal and performance data tabulated in recent years (primarily 2001 and 2002) by TheCenter, the University of Oregon achieved rankings on the nine measures as follows:

Total Research Funding:	*163*
Total Federal Research Funding:	*128*
Endowment:	*165*
Annual Giving:	*66*
National Academy Members:	*77*
Faculty Awards:	*77*
Doctorates Awarded:	*98*
Postdoctoral Appointees:	*122*
National Merit Scholars:	*135*

The average rating for the above categories is 96, or slightly better than "Top 100" performance among U.S. research universities.

Shanghai Jiao Tong University world universities rankings.[50]
For the third year (2005), Shanghai Jiao Tong University (SJTU) world universities ranking was published utilizing the following ranking criteria and weightings:

Quality of Education: (10 percent) Indicator—Alumni winning Nobel and Fields Medals
Quality of Faculty: (20 percent) Indicator—Faculty members winning Nobel and Fields Medals
Quality of Faculty: (20 percent) Indicator—Highly cited researchers in twenty-one subject categories
Research Output: (20 percent) Indicator—Articles in *Science* and *Nature*
Research Output: (20 percent) Indicator—Articles in various citation indices
Size of Institution: (10 percent) Indicator—Academic performance measures relative to size
TOTAL: (100 percent)

The SJTU's indicators were constructed to emphasize the quality of research, especially in disciplines where Nobel prizes and Field medals are given, namely mathematics, physics, chemistry, medicine, literature, and economics. In addition, the two journals in the N and S category, *Science* and *Nature*, were utilized as the component related to publication in "high-impact journals." Based on these selected SJTU survey, the UO placed in the third quintile of the 500 top universities worldwide, and ranked in the range of the leading 100 U.S. universities (grouping within a ranking of institutions between 91 and 119).

National Research Council rankings.[51]
The influential National Research Council (NRC) assessment of doctoral programs is used by granting agencies, faculty members, and institutions wanting to know how doctoral programs rate, and by prospective graduate students looking for the appropri-

ate place to apply. The first NRC survey was published in 1982, and the second in 1995. The third NRC survey will take place in 2006–7. There will be a significant increase in the number of doctoral programs surveyed. Programs in sixty fields will be assessed, compared to forty-one in 1995. Results of the survey are expected by 2008 in an online database form with a program ranking presented as a range, not as an absolute number. The surveys will not include ratings based solely on reputation. Because of the changes in the NRC methodology and the obsolescence of the 1995 survey report, there will be no consideration of NRC evaluations of UO programs in this report.

A.4.b. Other Performance Metrics

External sponsorship. Earlier in this section, sponsored funding was discussed extensively as an input into the research enterprise. Here we recognize that a faculty's ability to attract high-quality external funding is also an indirect measure of the quality and impact of that faculty and, by implication, of the output of the research process. Recent national studies of competitive grant awards suggest that in both science and education, UO faculty members are quite competitive nationally in attracting external funding.

Science and engineering funding. The research programs in the physical and life sciences attract a major percentage of the UO's sponsored research funds. Members of the science faculty attract on the order of $150,000 per faculty member per year in competitive grant awards. The most recent compilation of national data on science and engineering funding was released in June 2006 ("Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions: Fiscal Year 2003," National Science Foundation, June 2006).[52]

Lacking engineering and medical research programs, the UO is at a significant competitive disadvantage in these compilations.

However, it still ranked in the Top 100 (eighty-eighth spot) in federal support of fellowships, traineeships, and training grants. The UO did not rank in the Top 100 in federal obligations in science and engineering R&D. Institutions in the next tier were not specifically ranked. The Oregon University System, including programs at Oregon Health and Sciences University (OHSU) that receive extensive NIH support, achieved ninth place among sixty-one university systems in federal obligations for science and engineering. Oregon's relatively high performance among university systems in attracting federal research dollars is a testament to the complementary strengths of the state's three leading research universities: OHSU, Oregon State University (OSU), and the UO.

Education funding. The UO College of Education had external funding expenditures of $26.1 million in 2004–5 designated for educational research and related activities. The UO education faculty research activity represented almost $500,000 per faculty member, placing it again in the top three in the country for productivity per faculty member for each of the last five years. More than 4,600 schools and thirty-eight states utilize the research and outreach services of UO College of Education faculty members. *U.S. News & World Report* conducted its annual survey of U.S. graduate schools in fall 2005 and reported results in its March 31, 2006, "Best Graduate Schools" edition. The College of Education ranked again among the top ten public graduate institutions of education in the nation for the fifth year in a row, placing eighth among all publics and fifteenth among public and private institutions.

Scholarly works and publications impact. A Swiss research center has ranked the University of Oregon forty-fourth among the world's universities in terms of publications impact. The UO earned the ranking based on the number of published research articles its faculty had placed in top schol-

arly magazines and journals from 1994 to 1999. The comprehensive study[53] was performed in 2002 by the Switzerland-based Center for Science and Technology Studies (CEST), an organization that develops and assesses information for government policy decisions in the fields of research, higher education, and innovation.

The UO achieved its high ranking through a combination of the quantity of published articles, the number of disciplines and subfields they represented, and the quality of the publications in which they appeared. For example, articles appearing in *Science*, *Nature*, *Cell,* and other leading publications received the highest impact points. Another criterion was the frequency with which these articles were cited in additional journals and field publications. Other U.S. institutions in the top echelon of the study were Harvard University, Stanford University, the California Institute of Technology, University of Southern California, and the University of California at Berkeley. Ranked lower than the UO were UCLA, the University of Arizona, Arizona State University, the University of California, Irvine, and the University of Colorado.

A new commercial entity, Academic Analytics LLC, began producing client reports for its 2004 Faculty Scholarly Productivity Index in 2005.[54] Data on more than 180,000 individual faculty members in 6,389 programs at 352 institutions were collected. The FSP Index measures per capita faculty scholarly productivity by measuring research funding, journal and book publication, citations, and honors and awards. Peer comparators are used as well as decile rankings against other institutions nationally. Seventeen UO Ph.D. programs are tracked in the initial reports, although the UO has not opted to subscribe to this commercial service and does not have access to details of its FSP metrics.

Awards, honors, and other indicators of quality. Based on the responses to academic unit questionnaires circulated as part of this self-study (in particular, the answers to question 4 in the category research and creative activity), there are many specific examples illustrating distinction in research or creative activities among UO faculty members. These include awards related to publications; high research productivity and impact; service on national boards and societies; art exhibitions; performances in music and dance; and national fellowships such as Guggenheim, Fulbright, NEH, Ford Foundation, American Council of Learned Societies, von Humboldt Foundation, Howard Hughes Medical Institute, and NSF Career awards. Specific examples of faculty achievements were highlighted in Section A.1 related to "Disciplinary Research."[55]

A.5. CHALLENGES AND OPPORTUNITIES

A variety of activities, accomplishments, issues, and concerns related to the UO's research enterprise were highlighted in each of the prior sections. Section A.5 provides a summary emphasizing key challenges and opportunities.

Disciplinary research
- A critical challenge is balancing research support across an immense diversity of disciplines, especially for the sustainability of individual investigators, curiosity-driven research that remains a hub of academic scholarship. This is especially problematic in areas such as the humanities and arts disciplines. Access to internal and external sponsorship is typically inadequate to address the multitude of needs related to the production and publication of scholarly works having high quality and impact.
- Through the leadership of the Office of the Vice President for Research, the UO seeks to elevate the capabilities of faculty members to link their creative endeavors to grant funding. Enriching faculty development opportunities, especially in proposal writing, will help to optimize

the UO's competitiveness in sponsored program awards, and needs reinforcement at the department, school, and institution levels.

Interdisciplinary and collaborative research

- Primary challenges concern the development of sustainable approaches to facilitate interdisciplinary research, including faculty recruitment practices, promotion and tenure criteria, and design of appropriate research facilities that dissolve traditional barriers to connecting disciplines. At the same time, strengths in the core academic programs also must be nourished to assure an appropriate balance of depth and breadth of scholarship.
- The UO is a well-established leader in interdisciplinary and collaborative programs, primarily through the work of its research centers and institutes, as well as through initiatives at the department and college levels. In recent years, the institution has been especially successful in building broadly-based research initiatives in scientific fields such as neuroscience or nanoscience. There are exceptional opportunities for the UO to craft additional targeted interdisciplinary research programs in areas of societal need, for example in sustainability, digital arts, human performance, and global security.

Research support and infrastructure

- The major challenge is to sustain and enhance the UO's research enterprise in a time of escalating competition for federal R&D funds, and in the era of the "knowledge economy" with its global implications. Infrastructure challenges include securing appropriate staffing levels and expertise in areas such as proposal development, grants management, and research compliance, as well as maintaining and creating research spaces appropriate for the twenty-first century. At the foundation, faculty recruitment and retention, especially in light of demographic challenges that are serving to escalate competition between research universities, is imperative to research success.
- A key opportunity area is the further development of integrative strategies that identify the UO's research priorities and coordinate and leverage sponsored funding across both private and governmental sectors. Building on the major successes involving its recent neuroscience and nanoscience initiatives, the UO will be well served by proactively linking faculty scholars in innovative, cross-cutting programs that build on faculty strengths and provide further incentives for collaboration and outreach.

Quality and impact of research programs

- The university's relatively modest scale, compared to its research peers in the AAU, makes the demonstration of the UO's research achievement and impact a major challenge when measured in absolute terms. For example, the UO lacks agriculture, engineering, and medical schools, has a small percentage of graduate enrollment compared to most AAU institutions, and has only 650 tenure-track faculty members. Despite these concerns, the UO's research quality and scope is adequate to place it in the "top 100" class of U.S. universities in many metrics, and in the "top few hundred" of the many thousands of universities globally.

- The UO's impact is best measured on a per capita basis (e.g., per faculty member or per research dollar). The university needs to embrace every opportunity to communicate its excellence in research productivity and its broader societal impacts as reflected by the extent to which its scholarly works are cited and utilized. Rather than attempt research excellence across all fields, the UO should continue to explore "niche areas" where it can excel globally in the decades to come.

B. TRANSFORMING THE STATE: ROLE OF THE UNIVERSITY

As a public research university, the University of Oregon's mission includes service to the people of Oregon through significant contributions to the economic, cultural, and political environment of the state and the world. The state's economy will become increasingly knowledge-based, and will be driven by a strong high-technology industry and by traditional industries that effectively apply research and technology. This economy will be increasingly global in nature, requiring an effective integration of diverse cultural and societal perspectives, and will be dependent on the work force having access to lifelong learning opportunities for specialized training and retraining. Finally, the health of the state cannot be based solely on the workplace skills of its citizens; the university must enrich and broaden the perspectives of all Oregonians through humanistic, culture-based education and experience. This section of the self-study asks whether these expectations are being met.

B.1. BENEFITS OF A UNIVERSITY OF OREGON EDUCATION

A high-quality university education benefits both society and the educated individual. Indeed, the societal benefits of education are so important that *public* education is a cornerstone of all thriving modern political states.

B.1.a. Educating Citizens and Leaders

The social benefits of education are realized when a university meets the goal of "helping the individual learn to question critically, think logically, communicate clearly, act creatively, and live ethically." The result is an attitude toward citizenship that fosters the "wise exercise of civic responsibilities and individual judgment throughout life." These are qualities that benefit all members of society. Higher education further benefits the educated individual by establishing "a framework for lifelong learning that leads to productive careers and to the enduring joy of inquiry."[56]

The university, since its inception, has provided experiences in and outside the classroom designed to create leaders and good citizens. Box B1 provides a handful of examples of university graduates and faculty members who have given back to society—not only to the state of Oregon, but to the country and the world.

B.1.b. Educating a Work Force

While a UO education has value in myriad noneconomic dimensions, it also has substantial economic benefits, both to the individual and to the state of Oregon. For example, a primary function of a higher education is to produce "human capital," which raises the productivity and earnings of those who acquire university educations. The higher earnings are a direct benefit to those of Oregon's citizens who attend the UO. But the benefits extend far beyond those who are educated at the UO. An educated work force raises the tax base of the state and benefits all of Oregon's citizens. Thus, for example, estimates based on reasonable economic assumptions imply that the 2005 UO graduating class will generate $279 million in income tax revenue in present-value dollars over their collective careers. This is a conservative estimate of the human capital benefits of higher education that excludes, among other things, other tax sources that increase with income such as property taxes. It follows that based solely on the value added of a UO degree, Oregon tax payers receive $4.67 in tax revenue for every $1 invested in a UO graduating class (i.e., a 467 percent return). By comparison, the average return on equities in the stock market has been 13 percent over the last fifty years.

Box B1. Good Citizens and Strong Leaders: Oregon Graduates and Faculty Members

Wayne Morse, professor and dean, School of Law—Elected to the U.S. Senate as a Republican in 1944, became an Independent in 1953, and switched to the Democratic Party in 1955. He built a reputation as a strong supporter of labor and an equally strong opponent of the Vietnam War. He was just one of two senators to oppose the Gulf of Tonkin Resolution, which initiated U.S. military intervention in Vietnam.

Diana Akiyama '81—The world's first Japanese American to be named an Episcopal priest, she brought sensitivity to racial, ethnic, and women's issues as well as a deep interest in the spiritual dimensions of human problems.

Admiral David Jeremiah '55—Became the nation's number-two military man in 1990 when he was named vice chair of the Joint Chiefs of Staff. Jeremiah stands as an example of the forty-four UO grads who have reached the rank of admiral or general—making the UO one of the top producers in the country, per capita, of senior military officers.

Emery Barnes '54—Elected to the British Columbia legislature in 1972 and, in 1994, became the first African American to be elected speaker of the legislative assembly.

Susan Sygall, M.S. '82—Cofounded Mobility International USA, which encourages people with disabilities to live up to its motto: "Challenge yourself and change the world." Sygall, whose legs were partially paralyzed in an accident at age sixteen, travels the globe to build awareness of the need for legal rights and encouragement for individuals with handicaps.

Kensaburo Hara, M.A. '36—Became a member of Japan's House of Representatives in 1946, the nation's first election following World War II. Over the next fifty years, Hara served as minister of labor, minister of the interior, and speaker of the House of Representatives. He was reelected to the house twenty times and received the Grand Cordon of the Order of the Rising Sun from His Majesty the Emperor in 1995.

Johnpaul Jones '67—A Native American architect who works to create an integration of design and the historical spirit appropriate to the structure. He served as the principal designer of the Smithsonian's National Museum of the American Indian as well as the UO Many Nations Longhouse.

John Frohnmayer, J.D. '72—He headed the National Endowment for the Arts from 1989 until his resignation in 1992, following the NEA's controversial funding of the exhibit Tongues of Flame. Defending the right to freedom of expression, Frohnmayer described his experience in *Leaving Town Alive*.

Tom McCall '36—A political maverick who won election to the Oregon governorship in 1967. He placed public good over party loyalty; many of his environmental initia-

tives still shape the Oregon landscape. McCall is one of seven Oregon alumni who have been elected state governor.

Prapon Wilairat, Ph.D. '74—Received Thailand's award as outstanding scientist in 1997 for his studies of the molecular basis of thalassemia, a hereditary anemia found in the indigenous Thai population.

Luis Ernesto Derbez, M.A. '74—Named to Mexico's cabinet-level post of head of the Ministry of Economy when Vicente Fox's National Action Party broke the seventy-one-year reign of Mexico's Institutional Revolutionary Party in 2000. Derbez has spent nearly twenty-five years as an economic adviser to the World Bank.

Yung Wei, M.A. '63, Ph.D '67—A parliamentary and cabinet member in the Republic of China. He has been a professor of political science at the National Chiao-tung University, president of the Vanguard Institute for Policy Studies, and president of Sino-American Cultural and Economic Association of the Republic of China.

David Lung, M.A. '78, M.Arch. '78—He was made a Member of the Most Excellent Order of the British Empire (M.B.E.) in 1994. For the past three decades, Lung has researched, taught, and published on the topic of Hong Kong's cultural and architectural heritage. Working with organizations such as UNESCO and the World Bank, Lung brings his architectural and historical knowledge to the urban planning challenges that face this former British colony.

This is just one example of the many economic, cultural, and political contributions that the UO makes to the state of Oregon. The sections that follow provide a much more complete, but certainly not exhaustive, picture of those contributions.

B.2. UNIVERSITY OF OREGON AS EMPLOYER AND ECONOMIC PARTNER

B.2.a. Direct Economic Impact

In-state expenditures. The UO is a major employer and purchaser of goods and services in Oregon, spending more than $395 million in 2004–5 (payroll: $265 million; materials and supplies: $122 million; construction: $13 million), with an additional estimated $169.7 million in off-campus expenditures by UO students. Although the UO generates most of its revenue from out-of-state sources, the vast majority of university expenditures take place within the state. For example, 54 percent of the purchases (or $68 million out of $127 million) are from vendors who have their headquarters in Oregon. Moreover, because most vendors whose headquarters are outside of the state (e.g., U.S. Postal Service) employ a significant number of workers in the state, the fraction of vendors who have headquarters in the state significantly understates the fraction of the revenue that remains in Oregon. In addition, the UO has made it a priority to support small business in the state. This is reflected in the fact that 91 percent of its vendors and more than 17 percent of its total expenditures are conducted with firms whose contracts are less than $25,000.

The university is also building for the future having averaged $30 million in annual construction projects over the past five years. Moreover, there are also a number of multimillion dollar projects under way such as the Living-Learning Center and the new Education, Integrative Science, and Music buildings. Thus, the UO is an active contributor to the infrastructure of Oregon.

University employment. The UO employs 3,478 full-time equivalent workers along with 538 FTE graduate students. In addition, there are more than 2,700 undergraduate workers that are employed on a part-time basis on campus. Excluding undergraduate workers, the Department of Labor for Oregon ranks the UO as the fourteenth largest employer in the state. The UO's primary role is as an institution of higher education and 43 percent of its employees are faculty members and administrators. Nonetheless, the UO offers a diverse set of jobs for workers with a variety of skills, which is reflected in the fact that more than a third of its employees work in clerical, technical, skilled-craft, service, or maintenance positions. The number of employees at the UO may actually significantly understate the impact of UO employment on the state, because there are several hundred retired UO employees residing in the state at any given time.

The UO pays nearly a quarter of a billion dollars in wages and salaries, which accounts for nearly 60 percent of its expenditures and yield nearly $12 million in state income tax. Because these workers reside in the state, this ensures that most of the UO outlays remain in Oregon. Moreover, the UO is one of the most stable employers in Oregon, which results from the fact that student demand for higher education is relatively unresponsive to economic cycles and because much of the UO's funding sources reside outside the state. Thus, the UO is one of the major employers in the state and, given the increasing demand for a college

education and the growing enrollment at the UO, is an important engine for economic growth in Oregon.

B.2.b. Multiplier Effects

The $434 million in direct expenditures and the 3,759 jobs generated by the UO in 2004–5 is likely to be a significant understatement of the economic impact of the University on the state, because it excludes the indirect or multiplier effects of these outlays. Using well-established measures of the expenditure and job multipliers that have been estimated using university-specific data, UO expenditures are predicted to generate more than $1.2 billion in direct and indirect expenditures and UO employment is predicted to generate a total of 8,632 direct and indirect jobs. In other words, the UO generates $20 in expenditures for every $1 in state appropriations and UO employment accounts for nearly 6 percent of the total Eugene-Springfield work force and almost 0.7 percent of the total state employment. Based on conservative economic assumptions, the direct and indirect expenditures generated by the UO yield approximately $54 million in additional income tax revenue annually, which alone offsets 91 percent of the state appropriations for the UO. Thus, the UO has a large economic and fiscal impact on the state.

B.2.c. Attracting Enterprise and Creating Jobs

The presence of a research university, such as the UO, in a state is critical in attracting and keeping bright, energetic entrepreneurs and providing them the intellectual capital necessary to be successful in today's high-skill, high-technology economy. For example, Phil Knight (CEO of Nike), Carolyn Chambers (founder of Chambers Communications and Construction), Ed Colligan (co-founder of Palm, Inc), Tim Boyle (president of Columbia Sportswear Company), and

Harry Glickman (founder of the Portland Trail Blazers) are just a few of numerous examples of a UO education combined with entrepreneurial ability to produce successful businesses that employ thousands of people and generate billions of dollars in revenue.

As these examples suggest, the value added of a university degree is greater than simply the increase in the average wage earned by someone who attends college. In particular, universities help to foster ideas that not only make the attending student more productive, but may also increase the productivity of persons around them. Thus, the role of the university in creating knowledge and ideas can yield benefits that extend well beyond those that accrue to individual students.

Higher education also plays a key role in attracting high paying jobs to the state. In the twenty-first century, access to a well-educated pool of workers is as important as access to raw materials was in the previous century. For example, economic research indicates that the pay differential between the top earning quartile and the bottom earning quartile of the population has expanded over the last several decades due in large part to an increasing return to education. Moreover, many employers rank availability of high-skilled labor as the most important factor in their location decision for a new facility. The quality of the work force is particularly important for small states like Oregon that do not offer product-market advantages (such as access to large markets) as those competing states to the north and south.

The UO leverages its creation of human capital by actively facilitating a synergistic relationship between research and business that creates jobs, attracts firms, and matches employers with employees. For example, the Riverfront Research Park was opened in 1993 in order to attract and promote the

growth of knowledge-based businesses by explicitly facilitating collaboration with the extensive research capabilities of the UO in a state-of-the-art facility proximate to the university. Moreover, the Office of Technology Transfer was opened in 1992 to guide university inventions through the transition from campus to the commercial market place. The UO's dramatic growth in technology transfer performance is discussed in detail in Section B.3.

UO research has given birth to scores of commercially marketed products, including monoclonal antibodies and other biomedical research tools; computer software for scientific research, for teaching, and just for fun; early-childhood support systems for use by schools and social workers; and even innovative furniture designs. The university's corporate partners are currently testing or developing a broad spectrum of UO inventions, ranging from potential cancer therapeutics to education methods to advanced thermoelectric materials. The UO's researchers and staff members have created a number of successful companies over the years, including Electrical Geodesics, a world leader in dense-array EEG acquisition and analysis; On Time Systems, a developer of innovative algorithms for scheduling complex tasks; and Just Write, a company that markets intelligent bridge-playing software.

Higher education also plays a critical role in attracting high paying jobs to Oregon from established firms. In particular, access to human capital has become as important in the twenty-first century as access to raw materials and physical capital was in the previous century. In fact, many employers rank availability to a highly skilled pool of workers as the most important factor in their location decision for a new facility.

Finally, the UO Career Center[57] helps facilitate the match between employers and the university's graduates through organiz-

ing job fairs and company presentations on campus. In 2004–5, there were 175 on-campus presentations by companies and organizations and a total of 1,462 interviews conducted on campus. Thus, the UO plays a critical role in the creation of jobs through innovation, the attraction of jobs through stocking the pool of highly-skilled workers, and by working as a match maker between employers and employees.

B.2.d. UO Revenue, Out-of-State Funding, and Research

The UO generated more than $454 million in revenues in 2004–5. Excluding the $60 million in state appropriations and focusing on the direct revenue alone, the university ranks among the top-fifty revenue-generating private enterprises in the state according to the 2004 *Power Book of Oregon Business*. The university is a particularly good investment for Oregon taxpayers because it is able to draw the vast majority of its revenue from sources outside the state. In fact, state appropriations and in-state tuition account for less than 30 percent of UO revenues in 2005, while federal grants and tuition charged to nonresident students account for more than 42 percent of revenues in the same year. Moreover, 67 percent of in-state students receive federally subsidized grants and loans, and UO students received more than $130 million in financial aid in 2005. Thus, acquiring a college education provides Oregonians access to federal funds and a college education, which improve the human resources of the state.

Research and sponsored programs received nearly $84 million in grants and contracts in the 2004–5 fiscal year. Moreover, the federal government accounts for 92 percent of the funding with only 2 percent of the grants and contracts from state agencies. In other words, the vast majority of research funding of the university is provided by sources external to the state. Federal funding is provided by a wide range of agencies reflect-

ing the UO's diverse research program that yields a broad impact on the state. Funding agencies include, for example, the Department of Health and Human Services, the Department of Education, and the National Science Foundation. Details are provided in Part I, subsection A.3.a.

Preliminary figures indicate research expenditures will reach at least $95 million for fiscal year 2005–6. To put in perspective, grants and contracts in 2004–5 exceed state support of the UO by $23 million. Thus, the UO increasingly is leveraging state funds with federal research dollars. The U.S. Department of Commerce indicates that forty jobs are supported for each $1 million in academic research and development expenditure in Oregon. Given the fact that the average level of grant support at the UO in this most recent decade is nearly double the level it received in the decade of the 1990s (nearly four times its average value in the 1980s), the UO's research and grant program has been an important source of job growth for the Oregon economy.

B.3. RESEARCH AND ECONOMIC DEVELOPMENT

Governor Ted Kulongoski is a staunch advocate for Oregon as the "innovation state." The governor clearly understands that our public research universities, industries, and research partners provide a fertile "greenhouse" for nurturing knowledge-based businesses. An innovation economy derives from basic investments in R&D and must be "globally competitive with quality jobs, a stable tax base, and a diverse economic future."

From developing plans for natural disaster mitigation to statewide collaborations in nanoscience and microtechnology, the UO serves, not only to create new knowledge, but also to apply it for the direct benefit of Oregon's citizens. The governor recognizes the UO's R&D expertise as an important ele-

ment in pursuing his vision of Oregon as the "innovation state."

B.3.a. Technology Transfer and the "Innovation Cycle"

An important manifestation of the UO's contribution to Oregon and the economy is the significant growth in its technology transfer activity over the past five years, from Fiscal Year 2000–2001 through fiscal year 2004–5. By the close of the five-year period, the university excelled in translating research into inventions, technology transfer revenue, and new start-up companies. The following paragraphs summarize the UO's growth and continuing performance involving the "innovation cycle" involving the disclosure of new inventions, the protection of intellectual property such as patents, and the societal-economic application of intellectual property through out-licensing agreements, start-up company formation, or both.

Invention disclosures. The UO set five consecutive institutional records for invention disclosure during the period from FY01 through FY05. Several of those UO innovations had exceptional potential value, with one UO invention singled out in a 2003 report by the National Institute for General Medical Sciences (NIGMS) to the U.S. Congress as one of the top ten innovations arising nation-wide from NIGMS funded research.

The UO's upward trend for innovation began in FY01 with a jump to 28 invention disclosures, a 300 percent increase over the UO's seven inventions reported in FY00. Invention at the UO grew with each subsequent year, rising in FY05 to a record forty-five invention disclosures on a research expenditure base of $86 million and a tenure-track faculty base of approximately 600. The increased pace of invention was sustained through FY06, when a new record of forty-eight invention disclosures was established.

Expressed per million dollars of research expenditure, the UO's rate of invention in FY05 was 0.52, a level that exceeds the recent historical norm for research universities in the U.S. of about 0.40. The UO's innovation rate represents a dramatic gain over the institution's performance during the latter half of the 1990s, when the UO's generation of 0.2 inventions per dollar of research expenditure placed the institution 113th among 117 United States universities (*Chronicle of Higher Education*, July 19, 2002).

Patents. The University of Oregon's technology transfer program views high quality patent rights as one means—but not the only means—to encourage private sector investment in the commercial development of UO innovations. For this reason, the UO differs from many other research institutions in that it seeks to commercialize innovations derived from a balanced portfolio of intellectual assets beyond patents, including copyright-protected innovations, tangible materials, and trademarks. Although the UO tends to weight patents somewhat less heavily that most other research institutions, nevertheless during the five-year period from FY01 through FY05, the UO set new records for investment in intellectual property protection. During that five-year period, the university filed eighty-two United States patent applications and expended an aggregate of $894,917 in securing intellectual property rights. A total of nineteen United States patents issued with assignment to the UO during that timeframe. Although only two U.S. patents were issued to the UO during FY06, the university continued its record pace of investment in intellectual property rights, filing twenty U.S. patent applications. With revisions to U.S. patent law pending in early FY07 to create streamlined patent prosecution for high-caliber innovations, the university is poised to accelerate its pace of U.S. patent acquisition.

Licensing. The University of Oregon's commercialization efforts enjoyed excellent growth and success from FY01 through FY05. Of the nineteen U.S. patents that were awarded to the University of Oregon in FY01 through FY05, the university succeeded in licensing 89 percent (seventeen of nineteen) to for-profit companies.

Income defined by the Association of University Technology Managers (AUTM) rose steadily during that five-year period, from $313,000 in FY00 (which at that time constituted the university's fifth consecutive record high for license income) to $3.41 million in FY05. By the close of FY05, technology transfer revenue was equal to approximately 4 percent of the university's research expenditure base (see accompanying tables)—the same level attained by Caltech during the "technology bubble" period from FY96 through FY00 according to the *Chronicle of Higher Education.* It is anticipated that such a "rate of return on research investment" may place the UO in the top twenty-five of research universities reporting annually to AUTM, when the national FY05 data are released.

Start-ups. Historically, the UO has had a high rate of start-up company formation per dollar of research expenditure (see the accompanying tables). According to the *Chronicle of Higher Education,* the UO ranked twenty-fifth for the number of start-up companies relative to research expenditures for the period from FY96 through FY00. From FY01 through FY05, the university exceeded this pace of start-up formation despite a rapidly rising base of UO research expenditure, and against a backdrop of economic recession and slower national rates of new venture creation from research at American universities. During that period, the university also actively sought to support the survival, growth, and success of new ventures through facilities support at the UO's Riverfront Research Park. Examples of UO-affiliated start-up companies

with prominent successes in the FY01–FY05 period are included in Box B2.

The quality of these UO-affiliated start-up companies was high, as evidenced by their considerable success in securing contracts, SBIR-STTR grants, and investment capital. In addition, Kaibridge, Inc., and MitoSciences, Inc., were among two of the ten semifinalists at this year's Angel Oregon competition, an event organized annually by the Oregon Entrepreneurs Forum.[64] MitoSciences went on to take top honors in this winner-take-all competition.

Operations and staffing at the Office of Technology Transfer. In FY01, the Office of Technology Transfer (OTT) moved for the first time from being a cost center to a source of net revenue for the university. As a result, the UO had the opportunity to expand the scope of OTT's operating budget during the FY01 through FY05 period while simultaneously maintaining prudent budgetary discipline. Distributions to UO inventors and academic units increased from $230,000 in FY00 to $355,000 in FY01, and continued to expand steadily to a level of $3.2 million by FY05.

Entering FY01, OTT's resident staff consisted of a single licensing professional and one administrative support staff-person. By the end of FY05, OTT's staff had increased to a head count of five and comprised 4.5 FTEs. The university's technology transfer efforts resulted in various leadership roles at local, regional, national, and international venues and conferences such as those sponsored by APRU, AUTM, NASVF, NASULGC, and SRA.

B.3.b. Association of University Technology Managers Metrics

The dramatic growth in technology transfer activity at the University of Oregon is illustrated quantitatively in the attached tables, which compare the university's

Table B1. Technology Transfer Metrics Per Unit of Research Activity
FY1996 through FY2000*

	U.S. Median	**University of Oregon Performance**
Inventions	0.4 per $1M	0.2 per $1M (UO Rank = 113 of 117)
Licensing Income	1¢ per $1	0.4¢ per $1 (UO Rank = 92 of 117)
Start-Ups	1.1 per $100M	1.9 per $100M (UO Rank = 25 of 117)

Source: Chronicle of Higher Education, July 19, 2002, (based on data published by the Association of University Technology Managers)

Table B2. University of Oregon Growth: Selected AUTM Performance Data
FY2000 through FY2005

	FY2000	**FY2001**	**FY2002**	**FY2003**	**FY2004**	**FY2005**	**Totals and Averages FY2001–5**
Total UO Research Expenditures	$62M	$66M	$75M	$76M	$85M	$86M	$389M
Number of Inventions	7 0.1 per $1M	28 0.4 per $1M	29 0.4 per $1M	36 0.5 per $1M	40 0.5 per $1M	45 0.5 per $1M	178 0.5 per $1M
Licensing Income	$0.31 M 0.5¢ per $1	$0.52 M 0.7¢ per $1	$0.54 M 0.7¢ per $1	$1.8 M 2¢ per $1	$1.9 M 2¢ per $1	$3.4 M 4¢ per $1	$8.2 M 2¢ per $1
Start-Ups	0	0	1	1	3	3	8 2.1 per $100M

performance in three selected metrics—inventions, license income, and start-up companies—that are defined, compiled, and published annually by the Association of University Technology Managers (AUTM). The FY01–05 direct comparison of UO performance to national data awaits the release of the FY05 data by AUTM over the coming year. (AUTM is the premier association for university technology transfer professionals, and its global network represents more than 350 universities, research institutions, teaching hospitals, and government agencies as well as hundreds of companies involved with managing and licensing innovations derived from academic and nonprofit research. Its membership is pre-dominately AAU institutions and leading land-grant institutions.)

B.4. OUTREACH AND COMMUNITY DEVELOPMENT

The University of Oregon has a remarkable range of programs in which internal expertise and scholarship are linked directly to societal need and application. These include the College of Education's national prominence in educational research and its broad impact on educational practices. A wide variety of education outreach units are effective in translating UO expertise into community service. Indeed, all of the UO's schools and colleges have strong outreach efforts, with many examples cited in the

Box B2. Examples of UO-Affiliated Start-up Companies

MitoSciences, Inc.[58] A spinoff venture based on UO biological research conducted by Rod Capaldi and Mike Marusich and now based in the UO's Riverfront Research Park, this 2004-founded biotechnology company was winner of the 2006 Angel Oregon venture competition.

Electrical Geodesics, Inc.[59] was founded by the UO's Don Tucker, EGI's medical devices made the covers of *National Geographic* and *Newsweek* in 2005. The company is based in the UO's Riverfront Research Park.

Oregon Social Learning Center,[60] a nonprofit institute cofounded by a team that included the UO's Paul Hoffman and Gerald Patterson, grew to employ about 200.

Kaibridge, Inc.,[61] another spinoff from UO research in computer science by Kent Stevens, produces software that allows kids and adults to interact with realistic, 3-D animated dinosaurs in virtual space. The company's graphics were featured in the June 27, 2005, issue of *Newsweek* magazine. The company is another corporate tenant of UO's Riverfront Research Park.

Language Learning Solutions, Inc.[62] This new company spun off from research at the UO's Center for Applied Second Language Studies directed by Carl Falsgraf. LLS is also a tenant in the Riverfront Research Park.

SeQuential Biofuels LLC[63] emerged as a growing biodiesel fuels company. Launched in 2002 by UO graduate students Ian Hill and Tom Endicott, the start-up company's initial home was the UO's Riverfront Research Park.

following sections. Based on the survey of academic departments (Question 5 on Research and Creative Activity), there are many specific examples illustrating individual faculty members achieving distinction in linking their research to applications serving society.[65]

The UO's centers and institutes also play a key role in connecting research and service missions. A cluster of such activities around international and diversity themes was previously summarized in Part I, subsection A.2.d. Other research units with an exceptionally strong orientation to public service will be highlighted in this section. As one of the four cornerstones of the current fundraising campaign, *connection* is considered a key element to the university's mission and in which it continues to excel.

B.4.a. College of Education Outreach Programs

The College of Education's research and outreach is nationally distinctive in its impact, scalability, and sustainability. The four research signatures of the college are as follows:

- Assessment and accountability
- Curriculum, instruction, and learning
- Prevention and behavioral interventions
- Systemic and individual supports

These four signature areas are the cornerstones of faculty expertise and interests, and

provide a comprehensive, systemic framework for addressing the college's mission, "Making educational and social systems work for all." The relevant research knowledge and applied research-based practices of the UO College of Education faculty help educators and administrators, individual schools, districts, and states respond to changing expectations for highly competent, caring educators. UO College of Education faculty members cultivate and maintain direct relationships with the school systems and community agencies they serve through outreach to schools and communities.

The college's outreach units provide schools and community agencies access to faculty research and expertise, and provide field-based opportunities for students to participate in the implementation and use of highly advanced, scientific, research-based knowledge to improve the effectiveness of services, practices, and policies. Details on each of the outreach units are available on the UO College of Education website.[66]

- Career Information System (CIS) is a self-supporting, fee-based consortium organization delivering comprehensive information about occupations and industries, postsecondary programs and schools, financial aid, and career exploration tools and planning systems.

- Early Childhood Coordination Agency for Referrals, Evaluations, and Services (EC CARES) provides early intervention and early childhood special education services to eligible children in Lane County. These services may include a combination of specially designed instruction in community or specialized preschools, parent consultation and education, speech therapy, physical and occupational therapy, vision and hearing services, and consultation for autism or challenging behaviors.

- High School Equivalency Program (HEP) is federally funded under the U.S. Department of Education, and designed to provide assistance to individuals from migrant or seasonal farm worker backgrounds in obtaining the General Educational Development (GED) certificate.

- IntoCareers (IC) is a national system providing multimedia and Internet access to career information and software to help with résumé writing and job search processes. Products locate information about local labor market and state or regional training opportunities.

- Oregon Writing Project (OWP) supports intensive summer workshops for teachers to learn new instruction strategies, improve their own writing, and develop ways to introduce new school-wide methods for writing instruction. This is a collaborative effort by Oregon schools, colleges, and private foundations to improve the teaching of writing and literacy at all grade levels throughout the state.

- Technical Assistance and Consulting Services (TACS) provides technical assistance to state education agencies and Part C lead agencies to assist and support them in systemic improvement policies, procedures and practices that will result in high-quality programs and services for children with disabilities and their families. TACS offers consultation, technical assistance, training, product development, and information services that provide state and local agencies access to current special education policy, technology, and best-practices research.

- National Post-School Outcomes Center (PSO) supports states in collecting and using data on postsecondary education and employment status of youths with disabilities.

- State improvement grant and state personnel development grant network (SIGnetwork) addresses the reform and improvement of early intervention, educational, and transitional services systems to improve results for children with disabilities. The SIGnetwork improves systems of professional development, technical assistance, and dissemination of knowledge about best practices.

- Youth Enrichment–Talented and Gifted Programs and Services (YETAG) provides challenging summer, Saturday, and afterschool learning experiences for children and youths that support, extend, and enhance their regular K–12 program.

B.4.b. Other Programs Connecting Education, Scholarship, and Service

Section A above highlighted various examples of interdisciplinary and collaborative research, with important outreach and service dimensions involving the faculty in various schools and colleges such as arts and sciences, business, and law. Described in the following paragraphs are additional examples demonstrating the range and impact of outreach activities involving the UO's faculty.

Journalism and communication. The School of Journalism and Communication (SOJC) also offers many venues for connection to alumni, friends, and the general public through special symposiums, lectures, and recognition events such as the Payne Awards, Hall of Achievement, and the Chandler, Johnston, and Ruhl lecture series.[67] The SOJC enjoys especially strong ties to the media and communication industries in Portland, with alumni in leadership roles in every communication arena. Currently, more than 2,000 SOJC alumni live or work in the greater Portland metropolitan area.

The George S. Turnbull Portland Center,[68] dedicated to advancing the study and practice of journalism and communication, is a vibrant entity within the heart of Portland. Since its opening in January 2006, the center has hosted writers and editors from *The Washington Post, The New York Times Magazine,* and the *Chicago Tribune.* The center also offers a senior experience for current SOJC undergraduates that combines course work with internship experience. In fall 2006, the Turnbull Center will offer its first graduate workshops for working professionals focusing on the most common problems facing today's practitioners: staying creative, handling crisis communications, and improving effectiveness in the nonprofit sector. The Strategic Communication Program provides working professionals in public relations, advertising, and allied communication fields with management-level credentials needed to lead campaign teams, manage communication programs, and establish their own professional communication businesses.

Music and dance. The School of Music and Dance is one of the larger music institutions in the western United States and offers a comprehensive music curriculum.[69] More than twenty major vocal and instrumental ensembles give public performances throughout the year. These ensembles are part of a School of Music and Dance program that offers some 200 musical events annually, including performances by faculty artists, faculty ensembles, numerous guest artists, students, and university ensembles. Invitational and competitive high school music festivals also are part of the school's program. The school's faculty of teaching artists, performers, composers, musicologists, music theorists, conductors, and music educators are highly sought after professionals in their respective fields. School of Music and Dance graduates are well represented in the performing arts, as well as in the fields of recording, writing, teaching, composing, and research throughout

the United States, Europe, and Asia. As an outgrowth of the UO's School of Music, the Oregon Bach Festival[70] has called Eugene home for several decades. The festival's concentration of major choral-orchestral works, educational offerings, and family atmosphere has attracted an annual audience of more than 32,000. Visitors from every state and dozens of foreign countries have been welcomed to the festival's beautiful natural and cultural setting in the Pacific Northwest. Members of the festival orchestra and chorus come from professional organizations throughout the United States, Canada, and Europe.

Architecture and allied arts. The School of Architecture and Allied Arts (AAA) engages faculty members across a wide range of activities that couple research and outreach.[71]

- The John Yeon Center for Architectural Studies fosters research and appreciation of architecture, interior design, historic preservation, art, and landscape architecture by students, faculty members, and professional architects and designers. The center is comprised of two Portland residences.

- The Center for Housing Innovation is a nonprofit, multidisciplinary research, development, and public-service arm of the university. Design quality and sustainability are particular concerns of the center. Projects include research for government agencies, development of design and construction prototypes, creation of community and neighborhood design plans, and development of new zoning ordinances as well as services to civic, community, and neighborhood groups. The center provides consulting services to architects and planners in the Pacific Northwest who seek efficient use of energy and material resources.

- The Energy Studies in Buildings Laboratory is focused on understanding how buildings and related transportation and land use systems determine energy and resource use, as well as developing new materials, components, assemblies, and buildings with improved performance.

- The Institute for a Sustainable Environment is a center for special, collaborative, and applied research projects. The institute produces information to sustain the economies and environmental systems supporting communities, and assists regions and communities in the Pacific Northwest and around the world in addressing complex environmental concerns.

- The Institute for Community Arts Studies sustains and strengthens arts, culture, and heritage in the American West through research, policy, education, and community engagement involving policymakers and cultural sector professionals. Primary activities focus on cultivating public participation in the arts, fostering creative activities, preserving cultural heritage, and nurturing sustainable community cultural development.

Museums and cultural facilities. The university's museums and cultural centers, in addition to providing a wonderful resource to the area's K–12 schools and the broader community, foster connections with a wide range of disciplines and programs on campus. Current examples of these connecting programs include the following:

- The Arts and Administration Program, which is housed in the School of Architecture and Allied Arts, is built upon more than three decades of academic programming, research and publication in the area of cultural and community arts services.

- A wide range of scholarship and research infuse Oregon's multidisciplinary program in arts management, which fo-

cuses on promoting the arts and culture for individuals and societies. The master's degree in arts management prepares leaders based on the belief that professional arts managers must be familiar with the social, cultural, economic, political, technical, and ethical contexts of the arts.[72]

- Arts Bridge at the University of Oregon invites University of Oregon faculty members from across the disciplines to incorporate visits to the museum into their curriculum, providing students with an additional "learning laboratory" that will support and enhance classroom studies. The program works in partnership with local public schools to provide high-quality arts education to K–12 school children. Stipends are given to those undergraduate and graduate students who teach the arts and lead projects in art, drama, dance, and music.

- Through its public programs division, the Museum of Natural and Cultural History provides learning experiences for visitors of all ages and strives to promote curiosity in natural and cultural history and sciences. Through interpretative exhibits, family events, field trips, classes, and lectures, the museum's research and extensive collections come to life. Outside the museum walls, its researchers and archaeologists lead surveys and excavations throughout the region. This research has unearthed fragile centuries-old basketry and traces of ancient settlements buried beneath volcanic ash. It also has uncovered evidence of a nineteenth century Chinatown in southwest Oregon and the doomed Donner Party camp in the Sierra Nevada.

- The Archaeological Research Division of the Museum of Natural and Cultural History has been Oregon's most active archaeological research program for many decades, and has been the leader in bringing to light new findings about the region's cultural past. Through field schools, grant-funded studies, and collaborations with corporations and public agencies (like the Oregon Department of Transportation (ODOT) and the Bureau of Land Management), the Research Division helps to rediscover and preserve Oregon's rich cultural heritage. One major project in collaboration with ODOT is the Bridges Project, begun in 2003, in which archaeologists survey areas adjacent to soon-to-be redesigned and rebuilt highway bridges, looking for evidence of past human settlement.

- The Many Nations Longhouse is part of a larger initiative dedicated to making the UO a regional and national center for Native American education and research. The initiative encompasses and coordinates many programs and ideas forged at the UO over the past decade to learn from and serve the Native American communities and individuals of the Northwest.

Other connections to Native American communities and studies. Faculty members in the departments of anthropology and linguistics, the International Studies Program, and the School of Law all have been active in research and education on Native American communities and cultures.

- UO Department of Anthropology faculty members and students, as well as staff members of the UO Museum of Natural and Cultural History, work closely with Native American communities of the Pacific Coast to preserve and protect native archaeological sites. Building on an extensive and distinguished history of scholarship in Native American life that started with Luther Cressman in the 1930s and continues with the work of faculty members Jon Erlandson, Madonna Moss, Mel Aikens, and others, the UO is at the forefront of changes that align

the field more directly with the interests and needs of native peoples.

- Rennard Strickland (Philip H. Knight Professor of Law and former dean of the UO School of Law), of Osage and Cherokee heritage, is a nationally known scholar of Native American law, art, culture, and mythology. Associate Professor Mary Wood's work on tribal environmental issues is being used by several federal agencies in developing national policies.

- UO Department of Linguistics faculty members, including Scott Delancey, Tom Givón, and Doris Payne, have done their own research and have guided Native American graduate students in the study and preservation of tribal languages. Graduate students in the department are studying Klamath, Northern Paiute, Tolowa, and Chinook languages as well as tribal languages of Mexico and South America.

- Under the leadership of the late Rob Proudfoot, a Six Nations Seneca Haudesaunee and an award-winning associate professor in the UO International Studies Program, the university developed the only international program in American higher education that focuses solely on the study of indigenous peoples around the world. Professor Proudfoot also created the Center for Indigenous Cultural Survival,[73] which focuses on the state of indigenous peoples globally, and their struggles to maintain culture.

B.4.c. Outreach Activities of UO Centers and Institutes

Earlier discussions have provided numerous examples of center and institute activities connecting research and service. In addition, there are numerous research units having an exceptionally strong orientation toward outreach and service. Several of these are highlighted as follows, spanning from the humanities, to community and family issues, to the natural sciences.

- The Community Service Center (CSC)[74] is an interdisciplinary organization that assists Oregon communities by providing planning and technical assistance to help solve local issues and improve the quality of life. The role of the CSC is to link the skills, expertise, and innovation of higher education with the economic development and environmental needs of communities and regions in the state of Oregon. Through the service-learning programs provided by the CSC, student participants gain important service and professional experience by helping to solve community and regional issues. The CSC establishes and strengthens the partnerships between faculty members and students on Oregon University System campuses and community representatives, state and local agencies and nonprofit organizations.

- The Child and Family Center (CFC)[75] is dedicated to understanding and promoting mental health and resilience within families across cultural communities. CFC emphasizes research on social emotional-development from infancy through adolescence, as well as innovation in assessment, prevention, and intervention services for children and families. CFC collaborates with local, tribal, state, national, and international organizations and researchers engaged in similar efforts to understand and promote mental health in children and families.

- The Materials Science Institute (MSI)[76] is an interdisciplinary institute addressing the structure and properties of materials, educating students in the science of materials, and serving Oregon as a resource in these sciences. Since 1985 the institute has more than tripled the size

of its research program, developed four new graduate programs in materials, and contributed to the state's prosperity through collaboration with more than twenty-five Oregon companies. It has a host of outreach programs, including those sponsored by NSF through IGERT and GK-twelve grants, provides a "High Tech Extension Service" through an advanced materials characterization center, and has a popular master's and doctoral internship program with industry.

- The Oregon Humanities Center (OHC)[77] is committed to fostering public awareness and discussion of interdisciplinary research in the humanities through a rich array of free public programs both on and off campus. These events include faculty presentations, lectures by renowned thinkers, poetry readings, art exhibitions, conferences, symposia, and debates. The OHC promotes discussion across disciplines that is accessible to the public at large and provides a public forum for discussion and reflection on issues important to individuals and communities in and beyond Oregon.

B.5. CHALLENGES AND OPPORTUNITIES

In fulfilling our role as employer and economic partner:

Challenges: The primary challenge facing the university as it attempts to maintain and grow in its role as a major employer and economic partner to the state is the availability of funding, especially public investment provided by the state of Oregon—in particular:

- The need to have access to the resources necessary to maintain its current size.
- The resources—and administrative flexibility—necessary to continue to offer attractive wage and benefit packages to attract top scholars, staff members, and administrative leaders.
- Access to business investment (and research funding) will be increasingly more competitive and tied to greater de-

mands for measurable benefits to society and the economy.

Opportunities: The university has enjoyed success in recent years in attracting and retaining top employees, and with establishing and maintaining mutually beneficial relationships with the Oregon business community. Specific opportunities include the following:

- Continued work and investment at the interfaces between disciplines. The work of the university and the Oregon Health and Science University (OHSU) in the area of neuroscience is an example of how cross-disciplinary work within campuses can lead to national prominence and commercial success.
- Collaboration across institutions and sectors builds the foundation for economic and community vitality.
- Continued evolution of the university's Corporate Partners Program, a partnership between the university and Oregon business aimed at enhancing employment opportunities for university graduates, providing new knowledge and sponsorship activities for Oregon businesses, and providing the spark for research that leads to new products and industries.

In technology transfer:

Challenges: Sustaining the growth of Oregon's technology transfer program must successfully confront a number of significant challenges. Foremost among these are the following:

- The State of Oregon's cumbersome three-tier legal review and approval process, which supplements UO's campus-level review with an additional "legal sufficiency" review by the Oregon Department of Justice, and a third-level review and approval by legal counsel for the Oregon University System.
- Lack of significant State of Oregon funding for technology transfer.

- Private use definitions and activity thresholds established by the United States Internal Revenue Service, vis-à-vis the State of Oregon's use of tax-exempt bonds to fund research facilities at the University of Oregon and other campuses of the Oregon University System.
- A relative dearth of venture capital, especially seed-stage capital to fund the establishment of emerging ventures.

Opportunities: Balanced against these challenges are varied opportunities on which the university will capitalize in FY07 and beyond. Three of the most compelling examples include the following:

- Expansion of the University of Oregon's Technology Entrepreneurship Program (TEP), which was initiated in the spring of 2002 to bring together interdisciplinary teams of M.B.A., J.D., and Ph.D. students to assess and carry forward new ventures formed around technologies derived from the university and from the Pacific Northwest National Laboratory in Richland, Washington.
- Creation of a fund, capitalized by private donations, that will in turn be encouraged by the deployment of State of Oregon tax credits as established in 2005 under Oregon's Senate Bill 853, with plans to use the funds 1) to establish a translational research fund, 2) to expand the TEP effort described in the immediately preceding paragraph, and 3) to create a venture grant program that can assist seed-stage companies emerging from University of Oregon entrepreneurship efforts.
- Commercialization of the early research successes of the Oregon Nanoscience and Microtechnologies Institute (ON-AMI), an unprecedented collaboration among Portland State University, Oregon State University, the UO, and the Pacific Northwest National Laboratory.

In outreach:
Challenge: The primary challenge facing the university as it attempts to share the many benefits offered by a leading educational and research institution is the availability of funding to provide outreach activities. As will be echoed elsewhere in this report, funding is tight at the university. Our many wonderful points of intersection with the broader community—from the UO Libraries' vast resources to KWAX radio station's classical music, from the museums of art and natural history to student music and theater performances, from the Oregon Bach Festival to the Oregon Humanities Center's broad range of public lectures, conferences, and symposiums—are each faced with the challenge to generate revenue to help sustain operations.

Opportunities: The university remains a cultural focal point for the state and the region. Specific opportunities include the following:

- Creation of an expanded presence in Portland with the development of the Portland Center. This center will allow the university to expand the hub of its activities and tap into the state's major metropolitan area.
- The university has the only chartered music school in the state. The current building renovation and expansion will enhance the school's ability to reach more members of the community.
- The recently expanded Jordan Schnitzer Museum of Art and the renovated exhibit areas at the Museum of Natural and Cultural History allow each museum to improve collections, produce innovative exhibits, and develop new educational programs.
- Creation of operating endowment funds for both the Jordan Schnitzer Museum of Art and the Oregon Bach Festival will provide operational flexibility.

- Renovation of the Robinson Theatre complex will allow students to practice and perform in facilities that enhance creativity and experiential learning, and will provide a more rewarding experience for community guests.

C. EDUCATING IN THE PRESENT: SELECTIVITY AND ACCESS

At the University of Oregon, the educational and research missions interconnect in ways that produce distinctive contributions to the state of Oregon and beyond. The value of a UO education for our alumni and the value of new professionals, researchers, and educators to future generations are tied directly to the opportunities and challenges of study at a research university. These interconnections mean that the students who enter the university must be ready to accept the challenge of demanding undergraduate education and the expectations of a graduate program that aims to produce the next generation of innovators and leaders in a broad range of disciplines. It also means that our students will contribute to the learning environment of which they are a part.

To take advantage of interconnections between research and learning, the admission process seeks to provide access to all promising students, from Oregon or elsewhere, who are prepared academically for study at this institution. Oregonians, whether or not they are students seeking degrees in our programs, should look to the University of Oregon for something special. They should expect committed teachers and scholars—professors who exercise students' minds and who command scholarly respect because their insights have been tested and found substantial. Oregon's best students should expect an education comparable to that of the best of our peers nationally and internationally—they should be able to look in-state to the UO to meet their educational needs. Students from beyond Oregon should look to the UO as an outstanding research university that makes a contribution to research and learning around the world.

The character of the undergraduate student body is developed through admission standards and a centralized admission process that targets the enrollment of well-prepared students interested in a liberal arts education or a professional education in a liberal arts environment. At the graduate level, the decentralized admission process seeks students committed to professional education—whether as professionals in law or business or as professional researchers and teachers—and academically prepared to be successful. The result is a selective process of enrollment that aims not to maximize applications but to maximize the enrollment of students who are ready to benefit from study at the UO. The commitment to fostering the enrollment of students who will benefit most from the learning environment and also make a contribution to that environment has resulted in higher expectations for academic preparation and an overall shift in the quality of both undergraduate and graduate students since the UO's last decennial review.

While interconnection establishes certain expectations about the students who will study here, the idea of pluralism frames our commitment to fostering a diverse student community. Thus, the university also focuses on the enrollment of students from a wide variety of backgrounds—racial, cultural, and economic—and with a wide variety of academic and extracurricular interests. Admission standards are designed with the flexibility needed to assess many talents and varied backgrounds, not merely to acknowledge privilege or practice elitism—quite the reverse. The challenge, and our mission, is to serve *all* of Oregon's qualified students regardless of privilege, background, or means.

In light of our mission and goals, the UO Enrollment Management Council, in 2001, reviewed enrollment trends and changes in the character of the learning environment at the UO and set new goals that now serve as a guide for the work of sustaining the UO as a leading research university. In the following sections, we discuss how key components of the enrollment process have set the stage for the university to foster excellence in education now and for future generations.

Box C1. Keeping Oregon's Best at Home

In seeking to serve the needs of Oregon's best students, the UO simultaneously sets high standards of achievement for all of Oregon's schools—from kindergarten to graduate study. Success in this dimension of our mission is documented in many ways throughout the self-study. Most compelling, perhaps, are the individual stories of our students. One such story appears here, and others elsewhere in the self-study.

Alletta Brenner. From winning the first annual UO Undergraduate Library Research Award to becoming the first UO student to win the prestigious Marshall Scholarship, Alletta Brenner has made the most of her experience at the UO. Alletta, a native of Forest Grove, Oregon, came to the UO "undeclared" with a gamut of interests. She has taken advantage of the interdisciplinary opportunities available to her since then, combining her history and women and gender studies double major to create her award-winning research paper, "The Good and the Bad of That Sexe: Monstrosity and Womanhood in Early Modern England." Alletta's accomplishments have opened up a wide range of future opportunities, which will begin with her two-year, Marshall-funded master's study in Edinburgh, Scotland. In the future, Alletta also hopes to give back to the community through Teach for America and by becoming a lawyer for a human rights organization.

C.1. THE STUDENT BODY

In 2001, after much analysis and discussion, the Enrollment Management Council (EMC) came to a consensus about the UO, its size, and the composition of its student body. The EMC report to the president states: "The university faculty, staff, and students value the campus's manageable size, its human scale, beauty, and accessibility. We understand the importance of our mission, our size, our culture, and our environment in attracting quality students and faculty members. We believe in the enduring value of the educational experience we offer, and our ten-year vision is of a campus that builds upon the best of these qualities. We should not lose our advantages, but rather strengthen them and market them properly so that potential students, their families, and the communities we serve may better understand their importance. In a time of growing pressure on higher education to change, we recommend a radical *affirmation* of our existing strength."[78]

C.1.a. Size

The university has undertaken several reviews of its optimal size, beginning with a report from the Faculty Advisery Council (FAC) in 1999, again in 2001 with the Enrollment Management Council's report to the president, and in 2006 when the Enrollment Management Council prepared a report for the new senior leadership of the university. In each case, the value of the size of the university has been affirmed. Both the 1999 FAC report[79] and the 2001 EMC report set the optimal enrollment at around 20,000.

As indicated in Table C1 below, the University of Oregon has maintained enrollment between 20,000 and 20,400 since 2001 as recommended in the 2001 EMC report. The most recent enrollment figure (2005–6) is 20,394.

C.1.b. Composition

The 2001 EMC report to the president laid the groundwork for our current enrollment plan. The imperatives to limit our enrollment to 20,000, coupled with the current environment in which applications are strong enough to assure this level of enrollment, have provided an ideal time to shape the composition of our student body to reflect the quality, character, and diversity to which we aspire. The following recommendations, contained in the 2001 EMC report, were made to ensure that those aspirations were met.

1. The freshmen class should include no more than 3,000 students just emerging from high school
2. Students of color should constitute approximately 18 percent of the student body
3. Quality of the undergraduate student body, as measured by high school GPA and standardized test scores, should increase
4. Nonresident undergraduate tuition revenue should continue to be a significant source of institutional funds
5. Enroll no less than 850 new nonresident freshmen and 450 nonresident transfers each fall
6. International students should constitute approximately 10 percent of total enrollment
7. Combined, graduate and law students should constitute no less than 20 percent of the student body
8. Community college relationships should be evaluated and should be overseen by the Office of Academic Affairs
9. Transfer student information and orientation programs should be evaluated and expanded

Table C1. Recent Enrollment Statistics*

	1995	2001	2005
Total Enrollment	17,138	19,008	20,394
Undergraduates	13,717	15,121	16,475
Graduates	3,421	3,887	3,919
Residency			
Oregon Residents	59.5%	69.3%	70%
Nonresidents	40.5%	30.7%	30%
Sex			
Male	48.8%	46.7%	47.3%
Female	51.2%	53.3%	52.7%
Ethnic Identity			
Students of Color	12.5%	12.7%	13.6%
Caucasian	72.7%	73.1%	74.3%
International	9.6%	7.6%	5.4%
Unknown/Declined to Respond	5.2%	6.6%	6.7%
Full-time	85%	84%	84%
Mean Age of Undergraduates	20.9	20.9	20.9
Mean Age of Graduates	28.6	28.3	27.8
Number of Entering Freshmen	2,546	2,998	3,062
Entering Freshman GPA	3.31	3.43	3.51
Entering Freshman SAT Verbal + Math	1,011**	1,104	1,117
Number of Entering Transfers	1,658	1,397	1,436

* Compiled from the University of Oregon Profile of Students, Office of the Registrar
** Includes scores prior to recentering of the SAT

As described in the sections on our undergraduate and graduate students below, and in other portions of the self-study (Parts II.A. and III.C.), we have had good success in meeting some goals, made progress in other areas, and experienced difficulty in a few areas. General observations include success in maintaining total enrollments at around 20,000 students, as discussed above; some progress with respect to representation of students of color on campus; and difficulty in maintaining the desired representation of international students on campus.

Students of Color. At the same time that the UO student body has increased in size, we have seen modest increases in the real number of students of color attending the university. As a percentage of students enrolled, the ethnic diversity of our student body has remained relatively stable. Projections of state demographics, and their implications for the composition of the UO's student body, are addressed in Part III.C. of this self-study.

International Students. International education has been a tradition at the University of Oregon since our founding in 1876. The presence of international students in significant numbers adds to the distinctive character of the university and enhances the educational experience for all students. The UO thrives on global perspectives, global engagement, and the rich exchange of ideas that can come only from a vibrant international curriculum. World economic conditions and increasing costs of a UO education have made recruiting students more difficult. Other external factors, including the increased difficulty of getting visas, increased safety concerns after 9/11, and increased competition for international students by countries including Australia, England, and, more recently, other European countries including Germany, have also had a significant impact on international enrollment. During this same time, the UO

has noted an increase in transfer students coming to study on one-year programs and a decrease in the number of students coming to complete a four-year degree. This enrollment pattern has also had an effect on overall enrollment of international students. Initiatives under way to increase enrollment of international students is discussed further in Part II.C. of this self-study.

C.2. UNDERGRADUATE STUDENTS

The character of undergraduate study at the university depends upon a number of factors affecting the size of the student body and the characteristics of the students that make it up. In this section we discuss the overall profile of the undergraduate student body relative to the EMC goals summarized earlier in the section, admission standards for freshman and transfer students, the role of the UO in Oregon's public education system, and the issue of access and affordability.

C.2.a. Profile

Composition. Specific enrollment goals for incoming undergraduates have included between 2,000 and 2,100 new-from-high-school resident freshmen each year. The UO has been on target in meeting this goal each year. Enrollment as a percentage of Oregon high school graduates has stayed at about 6 percent per year. Enrollment of nonresident students has been more variable. External forces including economic fluctuations and higher education policies in other states have more effect on this population. However, we have fallen below our enrollment targets for nonresidents in only one year since 2001.

Quality. The 2001 EMC report called for efforts to increase the academic quality of undergraduates while maintaining the overall enrollment of the university. Implementation of new recruitment programs, increased

requirements for automatic admission, and the awarding of new scholarships had the desired effect of increasing the quality of the entering freshmen. As these efforts have been integrated and have reached their full effectiveness, the quality measures for the freshman class have stabilized.

The 2001 EMC report defines the measures for academic quality as high school grade point average and SAT scores. By these two measures, the UO has made progress in improving the quality of the entering freshmen. These gains have been made by enrolling more students with grade point averages and SAT scores just above the mean and enrolling fewer students below the mean. Grade inflation has called the reliability of GPAs into question; however our research shows that the GPA remains the single best predictor of academic success at the UO. Since 1995, the average GPA of entering freshmen has increased from 3.31 to as high as 3.54, and has stabilized at 3.50.

Since 1997, the mean SAT scores for entering students have increased by five points in critical reading (verbal) and ten points in mathematics. As with GPA, gains have been made through increases in the numbers of students entering with SAT scores just above the mean and by decreases in the numbers of students with scores below the mean. The 1995 data provided in the table above contains scores prior to the recentering of the SAT, so 1997 data is used in the discussion above for better comparability.

C.2.b Access and Selective Admission

The distinctive mission of the UO as an AAU research university requires a selective approach to undergraduate admission that ensures that entering students are prepared for success and that every qualified student has access to the university's programs. The UO is committed to the success of its students, providing instruction framed by advanced research and education aimed at the

development of critical reflection, effective communication, and intellectual breadth. It is the responsibility of the University of Oregon, through its admissions process, to provide access to all Oregonians who are prepared to be successful.

Freshman admission. In order to achieve success in undergraduate study at the UO, we expect students to earn a high school GPA of at least 3.00, graduate from a standard or accredited high school, take fourteen college preparatory courses, and submit SAT Reasoning Test or ACT scores. Students are guaranteed admission if they have high school GPA of at least 3.25 and take at least sixteen college preparatory courses in appropriate subject areas.

Development of selective admission standards. The UO first differentiated its admission requirements after the state board's 1989 policy decision to allow schools to differentiate their requirements. The UO required for admission a 3.00 or higher high school GPA or a combined GPA and SAT score that predicted academic success at the university. Research was conducted utilizing College Board tools to determine SAT and GPA combinations that predicted success at the UO. Admission requirements were set to ensure that students admitted had the academic preparation and level of achievement to be successful at the UO.

UO admission requirements have changed over the years to reflect the growing number of well-qualified applicants to the UO and system limits on growth. The UO modified the interpretation of automatic admission in the early 1990s to stay within the prescribed enrollment corridor. Students with a GPA above 3.00 were guaranteed admission. Applicants below 3.00 who had the required GPA and SAT combination were reviewed carefully for indicators of academic success. The review included grade trends, class rank, and rigor of academic preparation. For several years, this process allowed the UO

to successfully manage enrollment as mandated by the university system.

The UO increased its admission selectivity again for Fall 2003. Enrollment was increasing so quickly that action was necessary to keep enrollment at a level that did not outpace university resources. The Enrollment Management Council recommended in 2001 that total enrollment be held at approximately 20,000, reinforcing a similar Faculty Advisory Council recommendation from 1999. The EMC did not expect that enrollment level would be reached until 2004, or 2005. Enrollment of 20,000 was reached in 2002, and measures were needed to stabilize enrollment, so admission requirements were increased.

Recognizing that the best predictor of academic success is the academic rigor of courses completed in high school, the UO raised its automatic admission requirements to sixteen college preparatory courses (up from the fourteen required by other OUS schools). The minimum GPA required for guaranteed admission was increased to 3.25. The process was designed to be transparent for students whose GPA is above 3.25 and who have completed at least sixteen academic units, to instill in those students confidence that they will be admitted. Criteria for admission of students who fall below guaranteed admission levels were designed to help the UO enroll those students most likely to succeed.

A list of the considerations used in the comprehensive review process for students with fewer than sixteen college preparatory courses or lower than 3.25 GPA is posted on the web for easy accessibility to students and their families.[80]

The process currently in use at the UO provides selectivity that predicts success along with transparent standards that engender academic confidence. The absolute nature of the guaranteed admission requirements allows most applicants to know they meet minimum requirements and will be admitted at the time they apply. Selectivity at the UO is used to enroll students prepared to succeed and to add to the academic quality of the university, not to recruit students only to turn them away.

Results of selective admission. Because of the transparency of the system, the admission rate has actually increased since 2002 at the same time academic quality indicators have increased. In 2002, the year before our most recent increase in admission requirements, the UO admitted 86 percent of its applicants. In 2005, 90 percent of freshman applicants were admitted. Using selective admission, we have stabilized enrollment, increased the academic quality of the entering class, contributed to increased retention and graduation rates, and increased the ethnic diversity of the incoming class.

The current system has resulted in overall academic achievements for entering UO freshmen that are the highest in the state.[81]

- Entering freshman grade point average has increased from 3.37 in 1997 to 3.51 in 2005
- Average SAT scores have increased by five points in critical reading (verbal) and ten points in mathematics
- Freshman-to-sophomore retention rates have increased to 86 percent
- Four-year graduation rates have increased to 40 percent, an increase of 10 percent in three years, and are just starting to reflect the increases from our 2003 admission changes
- Students of color made up 12.7 percent of the freshman class in 2001 prior to implementation of selective admission. That number rose to 13.6 percent in 2005

Since implementation of this policy, applications from students whose GPA is above 3.50 has risen by 4 percent, and applications from students below 3.25 has dropped

Box C2. Profiles in Undergraduate Achievement

Junior chemistry major **Stacey Standridge** has been designing and synthesizing novel substances in the Materials Research Lab since freshman year. "Now that I've gotten involved in research, I know that this is what I want to do," says Stacey. "It's really solidified it for me." Her research team is synthesizing bismuth-telluride and titanium-telluride super lattices—a compound where the elements are layered on top of one another into a superstructure—to be used in the creation of a thermoelectric material. When heated on one end and cooled on the other, this material creates an electric current—an efficient energy source that could be used as a refrigerant or computer-coolant.

Geological sciences major **Tahirh Motazedian** discovered evidence of water on Mars as a UO junior. *Astronomy Magazine* published her findings while she was still a student, and she advised the European Space Agency on a Mars mission. That research in 2002 gained her instant celebrity status and flooded her with job offers, requests for scientific collaboration and presentations, as well as interviews and fan mail. During an internship at NASA, she conducted research on extremophiles, organisms that survive in environments far too hostile for ordinary life, which may give hints about life forms that could exist on other planets.

Studying abroad last year gave **Cory Eldridge** a chance to put his classroom lessons to work covering issues of global importance—and his efforts won him a prestigious scholarship. When Cory was a senior majoring in journalism: news-editorial in the School of Journalism and Communication, he was one of only two undergraduate students nationwide chosen for an Overseas Press Club Foundation Scholarship. Eldridge won the award in part for writing and reporting a story on West Bank ophthalmologist Dr. Mutei Asir. His winning article and photographs portray the doctor's midnight surgery to save the barbed-wire-ruptured eye of a child from the Palestinian village of Jenin.

English major **Aron Donaldson** and political science major **Jason Lear** were the first students from any U.S. public university to reach the final rounds of the World Universities Debating Championship, the largest nonathletic student competition in the world.

by almost 20 percent. Our biggest concern about the implementation of selective admission is the transparency that is part of its success. We are concerned that some students just below the 3.25 GPA requirements are not applying because they believe we do not admit students below 3.25. If these students do not understand how the comprehensive review process works, they may assume they will not be admitted. There has been growth this last year in the number of applicants in the 3.00 to 3.25 range as we

have worked to get more complete information to students in that range and to high school counselors.

Ensuring access for promising students.
Two processes are used to admit students who do not meet the regular admission requirements:

Exceptions. Students with strong overall preparation for university study who have earned good grades throughout their educa-

tion but are deficient in one area may be admitted as an exception with no additional university requirements or restrictions. For example, a student may have completed required courses with above-average grades, but may not have completed one course in social science. These students are generally prepared for academic success at the UO, and are admitted as exceptions with no additional requirements. One exception is mandated by the State Board of Higher Education: a student deficient in a second language is required to complete the language requirement before graduation.

Undergraduate Support Program. Prospective freshmen who lack the preparation or demonstrated academic achievement for success on their own, but whose records demonstrate that they can succeed with additional academic and personal support, are admitted to the Undergraduate Support Program (USP).[82]

Admitted students have demonstrated that, with additional support, they can be academically successful in a number of ways that may be difficult to measure precisely using traditional academic measures. Students are provided help from the Center for Academic Learning Services (ALS) (study skills and time management), the Office of Academic Advising (advising and personal support), and the Office of Multicultural Academic Support (advising and personal support).

As a condition of admission, students are required to complete an ALS skills course and preselected general courses for one academic year. Most of these classes are standard UO courses that fulfill graduation requirements. Students also meet monthly with an academic adviser. The advising meetings provide a supportive environment in which students can discuss any problems, ask for academic assistance, learn about the UO's academic system, and receive individual advice. This academic and

personal support is available throughout their UO education.

As admission requirements have changed, the UO has constantly reviewed and modified the USP program to make sure that applicants who can succeed with additional support are identified and reviewed by the Undergraduate Support Program Committee for possible admission into this program.

The application for admission is the only application required for the Undergraduate Support Program (USP). During the regular application review process, students who have overcome educational adversity and who show academic promise to succeed with academic support are referred by admissions counselors and managers to the USP Committee for review. Students who are referred are asked to submit a personal statement, two letters of recommendation, and seventh-semester transcripts for review by the committee, which is made up of the staff members who will provide direct support for students and the senior assistant director of admissions.

Transfer admission. Transfer students who meet all transfer admission requirements[83] are automatically admitted. Because more direct information is available for transfer students regarding their likelihood of success in college-level work at the UO, the intensive review necessary for freshman admission is not required. Instead, decisions are based on the history of college-level work completed.

Both Oregon State University and the UO require completion of courses in college-level composition and college-level mathematics. Admission exceptions are made for students on a case-by-case basis after evaluating a number of criteria, including student preparation for success. As an example, exceptions to the math requirements are frequently made for students who are in majors that require no math. Very few

exceptions are made for students missing the writing requirement, because writing is required for all students earning a degree at the University of Oregon.

The UO, and the Oregon University System as a whole, saw decreasing enrollment from Oregon community colleges in 2006. Early indications suggest declining enrollment in Oregon community colleges was responsible in part for this decrease. In addition, cuts in state funding have forced Oregon community colleges to increase tuition and reduce course offerings. Both of these actions make completing the course work necessary to transfer to a four-year university more difficult. As a result, the pool of community college students seeking transfer may have become smaller.

The UO has established a dual admission and enrollment program with Lane Community College and Southwestern Oregon Community College, and is in the process of developing a dual admission program with Blue Mountain Community College. These types of partnerships may become more important to enrolling transfer students in the future.

C.2.c. The UO's Role in Oregon's Public Education System

There is great emphasis in the Oregon legislature and at the highest levels of educational administration in Oregon on providing a "seamless education" for students from kindergarten through college graduation. While there is not agreement on what "seamless education" means, there is little disagreement with the principle that unnecessary administrative barriers to degree completion should be removed while retaining those policies intended to ensure that a student gets the full benefit of an undergraduate education. How do we evaluate what policies and procedures truly safeguard quality and which are unnecessary roadblocks?

Working with Oregon high schools. Part of the answer lies in consulting broadly and listening carefully. The University of Oregon High School Advisery Council serves as a consulting group on issues of admission processes, recruitment planning and implementation, communication and publication messages and structures, and access issues. The council comprises college counselors representing different constituents from around the state: large and small schools, urban and rural areas, public and private schools, high and low socioeconomic areas, and high and low college-going populations. The counselors have provided information on issues ranging from changing the dean's scholarship program to meet legislatively mandated decreases in fee remissions to web and publication redesign. The group also provided significant guidance in the development implementation of the selective admission requirements that contributed to its successful execution. Finally, it has helped to inform the UO's position on some of the most heavily debated issues in higher education's relationship to K–12.

College credit earned in high school. A good example of such an issue is the award of college credit for work done in high school. Advocates on both sides of this issue are looking for ways to benefit students. Many tout successful programs, and the Oregon legislature has now mandated that students have no-cost options available to them for earning college credit. However, Caroll P. Dugan—former dean of business and computer science at Gaston College, now a trustee at Klamath Community College in Oregon—argues that faculty groups should oppose dual-enrollment courses where students take courses in high school and receive college credit. She argues that these college courses taught in the high school shortchange the students participating because they rarely prepare students at the same level as students who go through the full educational experience (*Chronicle of Higher Education*, October 28, 2005).

Box C3. Supporting Success

Margarita Smith came to the UO on the Undergraduate Support Program and soon distinguished herself, joining the honors college in her second year at the UO and becoming a McNair Scholar soon after. A student of color and single mom going back to school after working as an advocate for Womenspace, Smith found her home in the Ethnic Studies Program. The professors in the program are so good, she says, that they "could be teaching the history of dry toast and it would be intriguing and fascinating." Smith, who also has a minor in history, focused her thesis on representations of African American women and poverty in film and also examined welfare reform. The next phase in Smith's life will be heading to the University of Southern California in the fall to pursue a doctorate in American studies and ethnicity.

The UO provides opportunities for students who have not yet graduated from high school, but the experience is provided as part of regular university courses taught on our campus. Students must meet the requirements just as any other currently enrolled UO student.

Duck Link is a program for local high school juniors and seniors who have taken all courses offered at their high school in a given academic subject, and allows students to take up to 8 credits per term (fall, winter, spring). Duck Link students take regular university classes through the Community Education Program at the UO. They receive regular university credit. Interested students work with their high school counselor to obtain permission to participate and fill out the needed forms. The UO waives their tuition (instruction fee) and the student pays fees and book costs, which currently range from $200 to $300 per quarter. Duck Link students most often take advanced math or foreign language studies at the UO.

In the last session, the Oregon legislature created the Expanded Options Program, requiring school districts to offer their students the opportunity to earn college credits at no cost to them. Working with Eugene School District 4J and the Lane Education Service District, the UO has modified its Duck Link program so that the districts pay the portion currently covered by the student for those students selected for the Expanded Option Program. The first group of students enrolled through this program entered the UO in fall 2006.

The UO in relation to other higher-education institutions. A central issue is the student's transfer of credit. Again, there are principles on which few disagree—the desirability, for example, of eliminating unnecessary administrative barriers to a transfer of credit, and providing timely, accurate information to students on how transfer credits will apply toward earning their degree. Commitment to these principles should not, however, be misinterpreted as endorsing enrollment at multiple institutions on the way to a baccalaureate degree. This phenomenon, termed "swirl" in higher-education literature, is argued to result in less student engagement in academic activities and to diminish the value of a degree.[84]

In the areas of transfer of credit, admissions, and recruiting, the UO has sought the advice of the Community College Advisery Council. This group originally comprised representatives from a small number of schools, but has been expanded to include representatives from all Oregon community colleges. The council was particularly helpful in discussions of what constituted acceptable exceptions to the transfer re-

quirements, and helped us develop a better understanding of the impact of those exceptions on their advising.

Lowering policy barriers. The UO has worked to examine academic policy to ensure that academic standards are upheld while unnecessary administrative barriers are eliminated. In 2004, the UO changed its policy to allow transfer students to fulfill a UO group requirement with course work totaling 15 credits instead of 16, assuming that their course work fulfills the UO's breadth and depth requirements within groups.

As part of their general education, the UO asks students to take 16 total credits of course work in each of three broad groups: arts and letters, social science, and science. This is equivalent to taking four courses in each group, since all of the courses that may be used in this fashion at the UO carry 4 credits apiece. Transfer students coming from a school where courses typically carry 3 rather than 4 credits can find themselves in a situation that seems bureaucratic and arbitrary. For example, a student who has satisfied his school's group requirement by taking five 3-credit courses would be 1 credit shy of satisfying the UO requirement, and would have been required to take a 4-credit course in that area at the UO. While taking more group-satisfying courses is not necessarily a bad thing, the original requirement presented barriers to student success that did not significantly add to the quality of a UO degree.

Another policy that required completion of the Associate of Arts–Oregon Transfer (AAOT) degree prior to enrollment at the UO was an unnecessary barrier for transfer students. The policy was created to ensure that UO students did not avoid requirements by taking courses at the community college and earning an AAOT degree. The policy was restrictive and did not recognize

the emerging patterns of transfer enrollment, and the policy was revoked.

Finally, the UO is playing a central role in the development and implementation of the Articulated Transfer Linked Audit System (ATLAS). This new statewide system will allow students to electronically assess their progress toward a degree at any public university in the state system, greatly enhancing the advising tools available for transfer advisers.

C.2.d. Access and Affordability

As a public university, the UO is committed to making its academic programs accessible to all qualified students, particularly students from Oregon. As a university committed to providing an excellent education relevant to the global community, the UO is committed to enrolling a student population that mirrors the diversity of our region and the world.

Cost of undergraduate education. According to the publication "College Board's Trends in College Pricing 2006," tuition and fee costs in constant dollars for public four-year higher education institutions in the United States rose by approximately 86 percent between 1991–92 and 2006–7, from $3,145 to $5,836. During a slightly shorter overlapping period of time (1990–91 to 2004–5), tuition and fee costs in constant dollars at the University of Oregon rose by approximately 92 percent, to $5,805 in 2004–5.

Focusing more specifically on the West Coast, the College Board report indicates that tuition and fee costs have been more contained in our region than costs for the U.S. as a whole. Over the last decade, tuition and fee costs in constant dollars increased 51.3 percent nationally, while in the West the increase was only 38.5 percent. During this same decade, tuition and fee costs in constant dollars increased 54.25 percent at the University of Oregon.

As Figure C1 shows, the cost of undergraduate education at the University of Oregon relative to median household income in Oregon roughly doubled over the years between 1990 and 2005 due to the declining state appropriations for higher education. Between 1990 and 2005, state appropriations to the University of Oregon (in real dollars) fell by more than 30 percent, driving up resident undergraduate tuition and fees by more than 90 percent. In contrast, over the same period, Oregon's median household income (in constant dollars) held almost steady. The result is that, for an Oregon household in the middle of Oregon's income range, undergraduate education at

Figure C1. Oregon Median Household Income Compared to State Appropriations and Resident Undergraduate Tuition Percentage Change Since 1990, Adjusted for Inflation
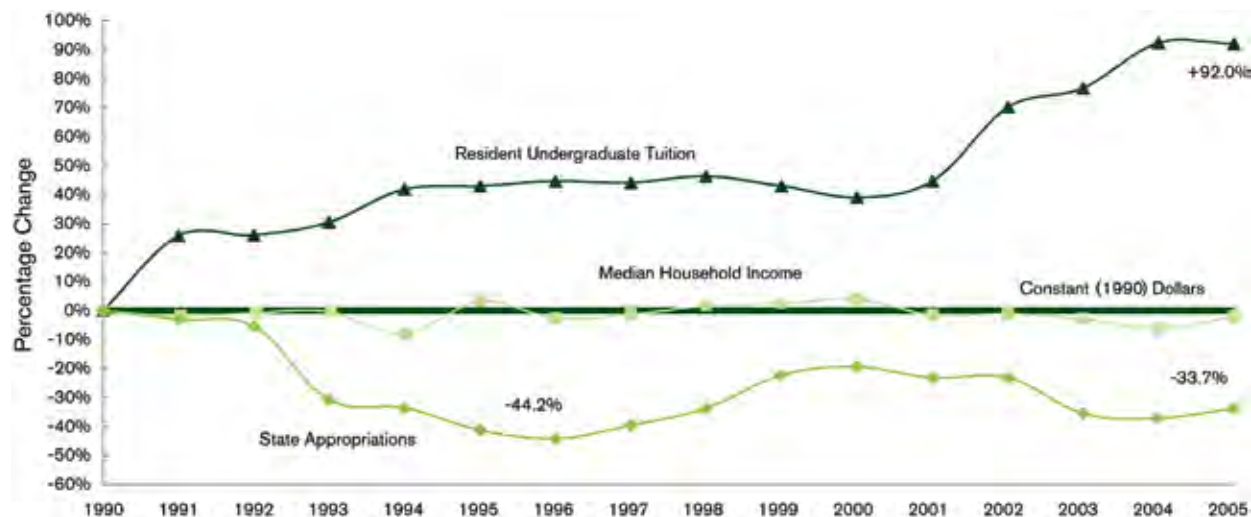
Source: Office of Resource Management

Figure C2. University of Oregon Comparison of State and Tuition Revenue Per Student FTE (Inflation Adjusted Dollars)
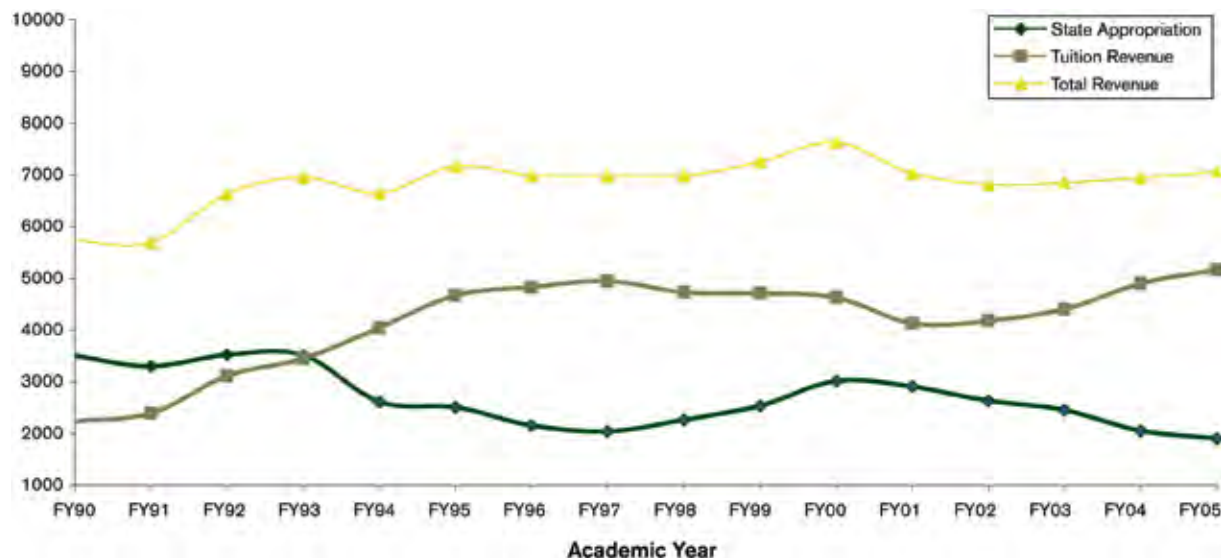
Source: University of Oregon, Office of Institutional Research

the UO was only about half as affordable in 2004 as it was in 1990.

Increases in UO tuition since 1990 have been largely driven by decreases in state funding for higher education in Oregon. Figure C2 shows the total per student revenue in constant dollars for the UO from 1994 to 2004, along with the relative amounts, derived from tuition revenue and state support. In real terms (after accounting for inflation), per student total revenue is lower in 2004 than in 1994. While per student tuition revenue has increased 10.7 percent, per student revenue from state appropriation has decreased by 25 percent.

Tuition cost-mitigation measures. The UO has made changes to mitigate the effects of tuition increases on student access in a number of ways.

New tuition plan. A new tuition plan calculates tuition on a per-credit-hour basis for all *undergraduate* students. Previously, tuition was assessed on a per-credit basis up to 11 credits and then a single rate was charged for 12–18 credits. Instead of an across-the-board increase in tuition in fall 2002, the new assessment plan spreads the cost of tuition more equitably to all students. Under the old system, students taking 12 credits were providing a substantial subsidy to those taking 17 or 18 credits. Initial implementation of the new tuition plan provided a discount for students taking between 13 and 18 credits. The amount of discount per credit has slowly been decreased over the last four years to soften the impact of the tuition increase.

Tuition discounts for specific classes. The UO pioneered a tuition discount program that allows student to choose specific courses offered in the late afternoon or early morning. The discount ranged between 10 percent and 15 percent per credit hour for courses of sixty or more students offered before 9:00 a.m. or after 3:00 p.m. This in-

novative tuition structure received national attention because it gave students additional control over the cost of tuition, and helped spread enrollment into nonpeak hours, allowing the university to serve a larger number of students at a time that a number of classrooms were under construction.

Tuition remissions. Tuition remissions were instituted for low-income resident undergraduates to help offset the impact of tuition increases. Legislative mandates have affected the ways in which tuition remissions have been used over the last four years. A further discussion of remissions is the following subsection.

C.2.e. Financial Aid

Financial aid plays an important role in the ability of potential and current students to achieve their academic and career goals. The University of Oregon recognizes the importance of reducing or eliminating financial barriers to a college education for all Oregonians. As college costs continue to increase, students and their parents look for ways to help pay for college. Many families are no longer able to pay for college with savings or current income and must find other sources such as loans and scholarships.[85]

Loans. Families are borrowing more than ever from the federal education loan programs to assist in paying for college. In the past ten years, total UO student and parent borrowing has increased from $51,982,776 in 1996–97 to $107,340,581 in 2005–6. In contrast, the federal and state need-based grants increased from $8,286,720 in 1996–97 to $14,299,920 in 2005–6. To help finance their educations, 50 percent of UO undergraduates take out loans. Undergraduates who must borrow will graduate with an average debt of $18,029.

Fee remissions. The University of Oregon was limited in the 2003–5 biennium and the start of the 2005–7 biennium to an OUS-

wide 8 percent cap on tuition-remission aid programs. Universities use these types of remission programs to assist in meeting enrollment management plans and goals. The UO uses the fee-remission programs to help needy students, students who bring diversity to our campus as defined by our campus diversity plan and who have demonstrated particular merit or talent. These are one-year awards that, prior to the cap, were offered to all class levels for undergraduate study. The cap on tuition remissions instituted in 2005–7 severely hampered our efforts to assist needy students. The Office of Student Financial Aid and Scholarships

has a funding goal for every needy Oregon resident student who applies for aid by the priority deadline: that he or she will be offered enough financial aid through federal, state, and institutional sources to cover the education costs that cannot be met by the family. Tuition remissions are essential to meeting that goal.

The cap was lifted for the 2006–7 academic year, and Oregon institutions are now increasing individual student awards and creating new financial aid programs to serve needy Oregonians. The University of Oregon used additional fee-remission money

Table C2. **Fee Remissions: Projected Effect of Lifting the Tuition Remission Cap**

Fee Remissions UG Resident		2004–5	2005–6	2006-7 projected
	Merit	$2,094,174	$1,835,993	$1,782,879
	Need	$2,881,565	$2,467,963	$3,390,753
	TOTAL	$4,975,739	$4,303,956	$5,173,632
TARGETED TO NEED	**>**	**57.9%**	**57.3%**	**65.5%**
UG Nonresident				
	Merit	$1,638,939	$2,027,542	$2,513,917
	Need	$1,152,040	$1,218,521	$1,282,839
	TOTAL	$2,790,979	$3,246,063	$3,796,756
TARGETED TO NEED	**>**	**41.3%**	**37.5%**	**33.8%**
Graduate				
	Merit	$ 58,303	$226,065	$199,977
	Need	$498,434	$651,225	$1,025,527
	TOTAL	$556,737	$877,290	$1,225,504
TARGETED TO NEED	**>**	**89.5%**	**74.2%**	**83.7%**
Other		$1,356,963	$1,587,338	$1,868,716
Total		**$9,680,418**	**$10,014,647**	**$12,064,612**

Source: University of Oregon, Office of Institutional Research

to restore one-year awards to needy juniors and seniors and created the Dean's Access Award described in the *Dean's Scholarships* section below. We have already seen a positive effect of this investment in need-based aid on the enrollment of new students and expect the awards to affect retention as well. The table below shows the fee-remission amounts awarded by the University of Oregon after the 8 percent cap was implemented, and the growth projected since the cap was lifted, effective for the 2006–7 academic year.

Scholarships. In addition to our fee-remission programs, UO students may also receive funding from an academic department or from a university-wide scholarship program paid through the UO foundation. In 2005–6, students received $4,093,817 from these foundation accounts. In 2001, the Enrollment Management Council identified fundraising for scholarships as critical to the university's ability to recruit top scholars, to meet its diversity goals, and to continue to provide access to students. As part of Campaign Oregon: Transforming Lives, the university has set a goal of raising $100 million for scholarships, and has currently raised more than $64 million. Proceeds from funds raised are being used to provide new scholarships and to fund scholarships previously funded through fee remissions. The UO's scholarship programs include the following:

Presidential Scholarships. This is one of the UO's most prestigious scholarship programs, available to the top-achieving graduates from Oregon high schools. It serves 200 Oregonians and is a four-year renewable scholarship with the current award set at $6,000 per year. While this program receives some funding from the tuition-remission program, almost half of the funding comes from generous gifts from donors.

Dean's Scholarships. The Dean's Scholarship Program serves both Oregon students and students from other states. Awards range from $500 to $2,000 for Oregonians, and—as with the Presidential Scholarship Program—this award is renewable for up to four years. Last year, the UO established the UO Dean's Access Award. This $1,000 scholarship is additional to the Dean's award and is also available for up to four years of study at the UO. To qualify for this award, a student must be an Oregon resident and demonstrate need as determined by the financial aid office. The purpose of this award is to increase access to college for needy Oregonians by reducing college costs.

Diversity-Building Scholarships. This program recognizes undergraduate and graduate students who enhance the educational experience of all students by sharing diverse cultural experiences. These scholarships are an integral part of the university's effort to meet the educational diversity needs of its students, and they complement other programs in the UO Campus Diversity Plan.

The Diversity-Building Scholarship (DBS) is a tuition-remission scholarship with awards ranging from partial to full tuition and fee waivers. The amount of each award is determined by the UO Diversity-Building Scholarship Committee.

From 2001 to 2005, the DBS program saw a general decrease in the numbers of complete applications and awards offered. Even as application and award numbers have decreased, we note a consistent increase in the enrollment yield of freshman DBS recipients. Enrollment has increased every year since 2001, averaging 65 percent over the five-year period. For example, in 2005 the UO enrolled almost three-quarters of its DBS recipients. Although this is approximately 10 percent lower than the overall freshman yield rate, we must keep in mind that this scholarship cohort also earned an average high school GPA of 3.67. This high academic achievement no doubt provided

DBS awardees with more academic and funding opportunities at a wider range of institutions than the average student.

There are several ways to view the DBS application and award trends. First, application numbers reached their peak in 2003—the year after the UO raised both admissions and DBS eligibility requirements. It is quite possible that these changes set in motion a process of self-selection among potential scholarship applicants, the end result being that the least academically viable students may have opted to not apply at higher rates than in previous years.

Second, the strong increase in yield percentage suggests that, in spite of decreasing numbers of applications and award offers, the UO DBS Committee successfully selected applicants who ultimately found the UO a good fit for them.

Third, the consistent increase in enrollment yield may be related, in part, to the awarding of more full-tuition scholarships. The rationale behind this policy shift was to encourage the enrollment of more high-achieving students who also demonstrated financial need. An examination of the five-year GPA trend shows that recipient averages climbed from 2001 through 2003.

One of the most important goals of the DBS is to extend academic access to students from financially disadvantaged backgrounds. Though not a direct measure of financial need, first-generation status is generally correlated with both lower socio-economic status and likelihood of attending college. From 2001 to 2005, 42 percent of freshman DBS recipients were first-generation college students.

Median and mean figures of the expected family contribution (EFC) for freshmen recipients indicate a positive trend within the context of the DBS selection process. This is a desired trend when one considers concur-rent increases in high school GPA and yield percentage. Even though the UO has been able to enroll freshman DBS recipients with higher academic profiles, the figures for median recipient EFC suggest that the program has remained true to its goal of serving those students with demonstrated financial need.

C.3. GRADUATE AND PROFESSIONAL STUDENTS

Graduate students at the University of Oregon are preparing to become the next generation of scholars, researchers, and artists who will advance knowledge and creative expression in the future. Master's degree students in applied areas will be tomorrow's architects, artists, business managers, educators, journalists, writers, dancers, and musicians. Doctoral students, in addition to becoming the faculty of tomorrow, will carry the primary responsibility for being innovators who generate "new knowledge and shape experience for the benefit of humanity."[86]

It is the responsibility of the university to assure that the graduate students accepted into its programs have demonstrated the skills and experiences that are necessary for success, have interests and goals that are appropriate to the programs and specializations we offer, and represent the breadth and diversity of backgrounds appropriate to a comprehensive research university. The university also seeks to provide the financial support needed to facilitate student access to graduate programs.

C.3.a. A Question of Scale

We begin with a brief overview of national trends in graduate student enrollments and recent enrollment experience at the UO. With this as background, we look at the underlying question of the desired size of our graduate programs at the university.

Background. According to the Council of Graduate Schools, graduate enrollment in the U.S. has been growing modestly, on average, between 1 percent to 3 percent per year over the last two decades. Currently, there are over 1.5 million graduate students enrolled in U.S. colleges and universities. Of those, approximately 70 percent are enrolled in master's programs and 30 percent in doctoral programs.

There are some trends that are expected to increase this growth rate in the next fifteen years: an increase of 10 percent in the U.S. population between the ages of twenty and twenty-four who may attend college and then later be available for graduate training; a significant increase in the percentage of high school students who expect to seek a graduate or professional degree (up from 27 percent in 1990 to over 40 percent in 2000), and increasing demands for postbaccalaureate training by business and industry (primarily at the master's level).

On the other hand, there are also forces that may negatively affect graduate enrollments. Examples include the increasing competitiveness of universities in Europe and the Pacific Rim, and growth in the total number of degree-granting programs within the United States.

The University of Oregon currently enrolls almost 3,500 graduate students (including law students) into sixty-five degree-granting programs. Approximately 60 percent of those students are enrolled in master's degree programs and 40 percent in doctoral programs. The total enrollment in our graduate programs between 1997 and 2005 showed an increase of 5.3 percent, although across those years there were increases and decreases related to changes in the strength of the economy and the specific case of international graduate student enrollment after September 11, 2001.

In the period from fall 1997 through fall 2000, applications to graduate programs at the UO dropped by about 14 percent, and then rose again from fall 2000 to fall 2005 by 25 percent to yield an overall gain of 8 percent in applications across the nine admissions cycles.

Optimal size of graduate program. There are two aspects to the issue of whether or not the size of our graduate student population is optimal for the university. The first is the global issue of whether or not we have a large enough graduate student population to support the research mission of the university. For at least the last ten years, graduate students have represented from 17 to 20 percent of the total student body. This has been identified as an issue that needs to be addressed by the Enrollment Management Council,[87] by faculty members and administrators who value our membership in the AAU, and by the NWCCU in its Interim Accreditation Report (page 7). Most research universities and all but six of the AAU public universities have a higher proportion of graduate students. Thus, increasing the size of our graduate student body is a priority for the university. The issue of how to do this is directly related to the second aspect of this issue, which is local to the departments and programs.

The optimal size and composition (master's versus doctoral) of each graduate program can only be examined at the local level. As part of the self-study process for this accreditation report, department heads were asked whether their programs would be improved by either increasing or decreasing the size of their graduate programs; and, if so, to briefly explain their answers.

Twenty-nine program heads and two deans indicated that they would like to increase the size of their graduate programs. Not surprisingly, 58 percent (eighteen) of those responding indicated that they would increase their graduate enrollments if they

had additional resources (e.g., a larger faculty, more funding or space); 45 percent (fourteen) cited improvements in the quality or strength of their programs as a reason to increase enrollments; and 29 percent (nine) identified the desire to expand the degree options or specializations beyond what they currently offer. Only one program (environmental studies) responded that they have the capacity to expand with their current resource base. In addition, some of the programs that indicated a desire to increase their graduate enrollments identified growth by student level, with 61 percent (eleven) identifying growth at the master's level and 39 percent (seven) at the doctoral level. Finally, only five graduate programs (three in the College of Education and two in the School of Architecture and Allied Arts) reported a desire to downsize their graduate programs. A summary of each program's response can be found in the document titled "Graduate Program—Optimal Size."[88]

Although a number of our departments would like to increase the size of their graduate programs, there are external factors that may constrain our ability to pursue a growth strategy. One factor that would affect programs wishing to increase enrollments in master's programs is that there is virtually no state funding for nonresident master's students. This is somewhat ironic. Data from the graduate student exit surveys show that, although about 50 percent of our incoming master's students are Oregon residents, between 60 and 70 percent of them take jobs within the state when they graduate, resulting in a net gain of highly educated citizens for Oregon. In any case, enrollment growth at the master's level would need to be associated with one or more of the following: a change in the legislative funding policies, tuition levels that are sufficient to support the program in its entirety, or an agreement that other programs at the university would be providing a subsidy.

Growth in graduate enrollment at the doctoral level will require an increase in funding for students, an increase in the faculty,

Figure C3. Selectivity by College and Total
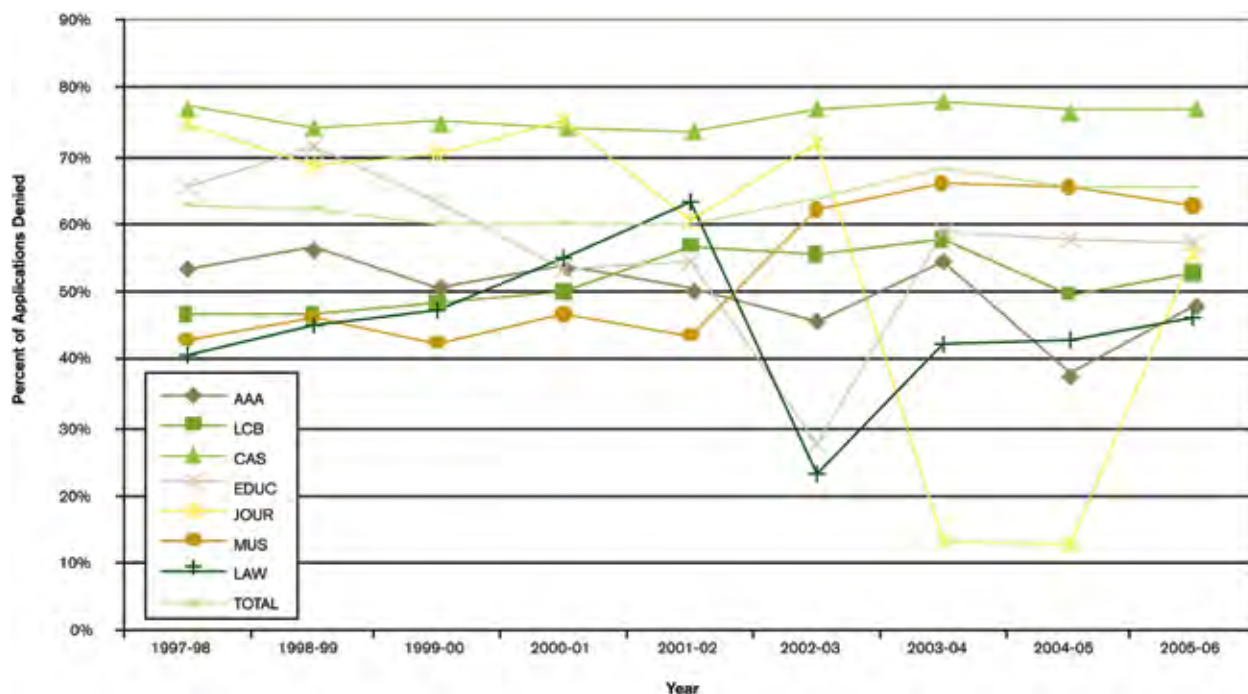
Source: Graduate School, Selectivity and Yield '96 to '05[89]

or both. Currently, approximately 90 percent of our doctoral students are supported by Graduate Teaching Fellowships or by other programs of support that waive the student's entire cost of instruction, provide a reduction in fees, and/or pay a stipend (either in exchange for work or as part of a training program). Thus, a significant increase in doctoral enrollment will entail a combination of the following: increasing the amount of institutional investment in these types of subsidies, increasing external funding for graduate students, or increasing the size of our faculty. Additional information about the support packages offered to graduate students appears in Part III, C.3 of this report.

C.3.b. Admission and Selectivity

The requirements for admission to the university and graduate programs are the first ways in which the quality of our graduate student body is assured. Admission to the Graduate School requires the student to be a graduate of an accredited four-year college or university; if the student is international, he or she must supply the results of the Test of English as a Foreign Language (TOEFL) as part of the application process. Beginning in the 2006–7 academic year, the university will also consider scores provided by the International English Language Testing System (IELTS). It is also likely that the Graduate Council will be asked to take up the question of whether we should modify our policy requiring a four-year degree, and consider the issue of three-year degrees from universities outside the United States. Changes in higher education in the European Union (e.g., the Bologna Accord) are bringing this issue to the forefront for graduate schools across the country.

Applicants to the university must also be accepted by the professional school or major department in which they intend to study. Each graduate program sets additional requirements for admission, which can only be more stringent that the Graduate School

requirements. The majority of departments also require some standardized tests such as the GRE, GMAT, or LSAT, and in some cases specialized subject tests. In performance and creative disciplines where these types of information may be less relevant, the programs typically require applicants to submit a portfolio of their work or audition in person before admission. The department and program-level admission requirements can be found in the university catalog, listed under each program.

One way to assess the quality of the students who are being admitted into our graduate programs is by examining the percentage of applicants admitted from the pool of applications received (i.e., selectivity). Figure C3 presents data on the selectivity of the colleges and schools within the UO over the last nine years. Overall, the university has become more selective, with the average of 39 percent of applicants admitted between 1997 and 2001 dropping to 34 percent between 2002 and 2006. The College of Arts and Sciences (CAS) as a whole is more selective than the university overall, with the percentage of applicants admitted ranging between 22 percent and 26 percent over the entire nine-year period. This pattern of data can be explained in part because there are a higher percentage of doctoral students within CAS than the professional schools and colleges. In general, doctoral programs are more selective than master's programs, with some notable exceptions. The most selective program at the University of Oregon is the master of fine arts degree in creative writing. In the current application cycle, there were 393 applications to the Creative Writing Program, with twelve students admitted (3 percent). Other programs that are highly selective are counseling psychology in the College of Education (6 percent); and psychology (7 percent), English (11 percent), and philosophy (14 percent) in the College of Arts and Sciences.

Once enrolled at the university, graduate students must maintain a 3.00 GPA or they risk termination from their graduate program and the graduate school. They must also complete their degree within seven years while staying continuously enrolled in their program. Data from the Graduate School exit survey show that our students are successfully completing their degrees in a timely fashion. Master's students average 2.05 years and doctoral students 5.47 years. Doctoral students may have program-level requirements and comprehensive exams to complete, and also may be required to advance to candidacy within a specific time frame. The Graduate School requires doctoral students who have not advanced to candidacy by the end of the fourth year in their program to develop a completion plan. Doctoral students who have not defended their dissertation by their seventh year in their program are blocked from registering, and must petition for an extension. These petitions typically involve a term-by-term plan for completing and defending their dissertation.

Although a graduate student must be admitted to both a specific program and to the Graduate School, the most important parts of the process are located in the individual departments and programs. Thus, as with the faculty, the focus of effective recruiting strategies is decentralized to those levels. In the self-study process, we asked departments and programs to describe any specialized recruiting activities that they engage in, either generally or with a focus on diversity.

C.3.c. Access and Affordability

In the previous reaccreditation report (1997), financial support for graduate students was identified as a key concern by both faculty members and administrators. Since that time, the university has made significant progress in this area.

GTF appointments. The primary mechanism through which graduate students are given financial support is the awarding of a Graduate Teaching Fellowship (GTF) appointment, for which students are assigned teaching, research, or administrative duties. In the most recent year for which we have full data (2005–6) the university spent approximately $9.9 million for tuition waivers, $820,000 to subsidize student fees, $2 million for health insurance (total cost of benefits, $12.8 million), and approximately $13.2 million on salaries. The total number of GTF appointments range from 1,150 to 1,300 per term, with an average of 1,200 academic-year appointments. Approximately one-third of all graduate students receive this type of support, although this is not equally distributed across master's and doctoral students. Approximately 40 percent of master's degree students have a GTF appointment during their graduate programs, while approximately 90 percent of doctoral students receive such an appointment for some or all of their time at the university.

Students who receive a GTF appointment receive a full tuition waiver, whether they are working .20 FTE (9 hours per week) or .49 FTE (19.6 hours per week). They also receive a subsidy to reduce the amount of noninstructional fees that they must pay; they receive paid health insurance for themselves and a subsidy for health insurance for a partner, children, or both; and, finally, they receive a salary for the work that they do. The amount of support provided by the university from fall 2004 through summer 2005 was approximately $26 million.

Over the last ten years, the largest percentage increases in this support has come from the increasing costs of health insurance (more than 500 percent) and tuition waivers (more than 180 percent). The minimum salary rates have increased by 31 percent over this same time period.

The most recent contract negotiations with the Graduate Teaching Fellows Federation focused on increasing the take-home pay of GTFs by agreeing to increase the minimum salary rate by 6 percent for the 2006–7 academic year, and another 4 percent in the 2007–8 academic year, while also providing protection for the other components of the total compensation package (tuition, fees, and insurance). These changes have improved the competitiveness of our financial support packages, which have an impact on our success recruiting top students as well as on students' ability to focus on their program of study and receive important teaching and research opportunities that enhance their employability upon graduation.

Assessment of current financial support activities. The Graduate School exit survey provides data on the level of debt that graduate students accumulate prior to graduation. This is one indicator of the extent to which we are providing sufficient financial support to our students. A summary of the data compiled over the last three years indicates that 26 percent of master's students and 33 percent of doctoral students are graduating with no debt at all. An additional 11 percent of both master's and doctoral students graduate with less than $10,000 in debt. However, it is also the case that a significant percentage of our graduate students (31 percent for both master's and doctoral) are graduating with more than $30,000 in debt. It should be noted, however, that the question posed to students on the exit survey does not distinguish between debt from their undergraduate training and debt from their graduate training.

It is also the case that the distribution of these overall averages is not constant across the various disciplines. There is a higher percentage of "no" or "low" levels of debt for graduates in the physical sciences and business than in the humanities and some social sciences. There is also significant correlation between the availability of GTF positions and external funding and the level of debt at graduation.

In addition to the challenges of increasing funding resources available to graduate programs, there are two more specific areas where the university may wish to focus attention on increasing support for graduate students. The first is the area of summer support. The majority of graduate students do not have financial support during the summer months unless they teach a summer session course or are being supported on an external grant. This may provide them with some excellent teaching experience, but it may also interfere with progress toward their degree if the summer months are the only ones during which they could focus exclusively on their research, or the only time during which they can readily do fieldwork. An increase in fellowships or research support during the summer months was identified as one of the highest priorities by the Graduate Council.

The second area that may need attention is developing more extramural funding for graduate students in areas that do not have a strong history of this type of support (e.g., humanities, some social sciences, and some professional schools). Actively seeking support from private donors and foundations through the university's development structure is one possible avenue. Another approach is related to the work being done by the research office[90] to encourage faculty members in these disciplines to seek outside funding, and to provide support to the students themselves when they apply for funding (e.g., the Ford Foundation). The Graduate School often provides additional resources (e.g., tuition waivers) to students who have been awarded these prestigious fellowships.

C.4. CHALLENGES AND OPPORTUNITIES

In undergraduate admission and access:

- The University of Oregon's well-publicized selective automatic admission standards may discourage students who have not traditionally seen themselves as college-bound but who could be successful at the UO.

- The University of Oregon has the opportunity to grow in diversity and to increase the numbers of underenrolled students attending a university through recruitment and financial aid. In order to maintain enrollment and continue to serve the same percentage of Oregon residents, we will be required to grow in these dimensions.

- As the cost of education rises and the state continues its disinvestment in higher education, the UO will need to continue to raise scholarship endowments and find ways to help keep college affordable for middle- and low-income families.

- We have the technology and opportunity to partner with community colleges to identify keys to academic success for students transferring from community colleges. It is in our best interests and those of Oregon that we do so.

- If declining enrollments and budget restrictions at Oregon community colleges continue to constrict the pipeline of students transferring to the UO, we will need to expand collaborative programs and partnerships to create new pipelines.

In admission and access to graduate programs:

- Efforts to increase the graduate student population at the UO will need to focus on increasing applications and yield, while maintaining or enhancing our selectivity.

- Expansion of master's programs needs to be balanced with expansion of doctoral programs, which are central to the institution's research mission.

- Focus on developing external funding opportunities in areas that have not traditionally had access to these resources (e.g., humanities, performing arts).

- Consider increasing the amount of summer support for doctoral students.

- Make decisions on how increased investments in graduate-student funding can best serve the enrollment goals of the university.

- Work to involve development officers in the task of raising funds for graduate student support.

Summary: Part I. Transforming Oregon and Beyond

The University of Oregon's story as a twenty-first-century institution of higher education begins in Part I, which affirms the UO's identity and its mission as a comprehensive research university with the overriding goals of creating and disseminating knowledge that is worthy of its status as a member of the Association of American Universities (AAU).

"Inventing the Future: UO Research and Scholarship," the first section of Part I, describes both our accomplishments and our challenges in achieving depth, breadth, and excellence in the creation of knowledge. Those accomplishments are described both for individual faculty members and disciplines and for the university's wide array of interdisciplinary and collaborative research units. In this area, challenges include (i) nourishing strengths in core disciplinary programs, while simultaneously facilitating interdisciplinary research that penetrates traditional disciplinary barriers, (ii) exploiting the opportunities, and overcoming the disadvantages, of a modest scale relative to our peers in the AAU, (iii) recruiting and retaining a high-caliber faculty, the foundation of our success, and (iv) supporting success in the areas above with appropriate and effective infrastructure. All of these issues are more difficult as the state share of our budget continues to decline.

"Transforming the State: Role of the University," the second section of Part I, addresses the complex role for the University of Oregon in serving society through its economic, cultural, and technological contributions—contributions that extend beyond our campus programs. These include educating exemplary citizens and leaders, fostering economic prosperity in Oregon, expanding technology transfer programs, and enriching an impressive range of outreach and community development programs. Here, challenges arise in the areas of funding and administrative flexibility. The evidence provided in this section suggests that Oregon is under-investing in the University of Oregon; additional state dollars invested in UO programs would, at the margin, produce benefits (including substantially increased state income tax revenues) in excess of the dollars invested. Furthermore, greater administrative flexibility and streamlined legal review and approval procedures would allow the state to enjoy even greater returns on its appropriations to the UO.

"Educating in the Present: Selectivity and Access," which concludes Part I, focuses on the UO's successes and challenges in attracting students who are prepared to take advantage of the educational opportunities offered by a comprehensive research university. Success is evident in various measures of selectivity, retention, graduation rates, and diversity. At the undergraduate level, challenges include responding to the Oregon Legislature's interest in "seamless" education and college credit awarded in high school, as well as enrolling a student body that is culturally, economically, and ethnically diverse. Selective admissions standards have the potential to discourage qualified students who have not traditionally

seen themselves as college-bound, while rising tuition costs further deter this group of students. At the graduate level, the primary challenges are adequate support for graduate students, the size of the UO's graduate programs, and the balance between growth in master's and doctoral programs.

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PART II. EDUCATING THE GENERATIONS

PART II: EDUCATING THE GENERATIONS

It is the goal of the University of Oregon to provide today's students with excellent educational opportunities at the undergraduate, graduate, and professional levels, while preserving its ability to meet the needs of future generations of students. Success in this critical dimension of the university's mission is measured, in part, by the quality of its academic programs, classrooms, and information resources and technology. This is the focus of Educating the Generations.

We begin with a discussion of internal assessments carried out over the course of the past ten years, which include the university's response to the last, accreditation review. At the undergraduate level, we will look at both the breadth and depth of general education at the UO, as well as the way in which we move beyond a "checklist" to create opportunities for personal exploration—for enthusiasm about learning that serves the academic career and beyond. Through revised orientations, focused advising, special freshman programs, and meaningful assessments designed to increase the likelihood of student engagement and success, we show—citing exemplary programs—how we are strengthening undergraduate education at the UO.

Graduate education is viewed through the variety of new programs introduced since the last review, and the ways in which these programs meet both scholarly needs and the needs of society. An array of mechanisms for assessing program quality and student success suggest that the University of Oregon's graduate programs offer the most current and broad-ranging knowledge in the fields of study we offer, as well as meaningful professional development opportunities.

Finally in this part of the self-study, we demonstrate how information resources and technology play a central role in all aspects of the academy: teaching and learning, research, administration, and service, and how investments in both library resources and information technology represent a significant commitment at the University of Oregon. While these investments have been critical to success in all aspects of the university's mission, nowhere within the university is the importance of that investment more evident than in the educational experiences of our students.

A. THE PRESENT GENERATION: UNDERGRADUATE TEACHING AND LEARNING

A.1. BACKGROUND

A.1.a. UO Philosophy

The education of undergraduate students is a central activity of the UO. At a comprehensive research institution like ours, undergraduate education must offer a wide range of subject areas that correspond to faculty expertise, as well as opportunities to hone communication and quantitative reasoning skills. It must give students the experience of focused work in one area, and ask them to explore the key ideas in that field in some depth. In addition, an effective undergraduate program helps students appreciate the insights and approaches of fields outside their areas of specialization, and develops the habits of mind that underlie professional success and responsible citizenship. Course work in all three segments of a UO undergraduate program (general education, major, electives) encourages these habits, and links among them can increase their effectiveness. In addition, students at a research university should have the benefit of learning from faculty members who are active scholars—faculty members who can communicate both the delight of original discovery and the sustained intellectual engagement it requires. An ideal undergraduate program would:

- Emphasize challenging course work that develops the capacity to reason and encourages individuality and creativity.
- Offer thoughtfully constructed programs of study that show students the relationships among ideas, in addition to the ideas themselves.
- Encourage students to participate in research or other creative work and to apply what they've learned in the classroom.

- Ensure that student work is evaluated with care and candor.

This part of the self-study examines the extent to which these ideals shape our undergraduate academic programs. UO undergraduate programs were strong to begin with, but they've been enhanced by insights and recommendations that emerged from two processes: the previous Accreditation Self-study and Review, and the university's "Process for Change."[91] These are summarized in the following paragraphs.

A.1.b. The Previous Accreditation Self-Study and Review

The 1997 review team made two general recommendations that applied to the undergraduate program:

- Consider the general education curriculum, with the aims of clarifying the criteria for courses within it and of fostering cohesiveness.
- Employ assessments that focus on outputs and that gauge quality rather than quantity, alone.

In addition, the reviewers suggested that the university review academic advising to ensure campus-wide effectiveness.

A.1.c. The "Process for Change"

In addition to the Accreditation Self-study and Review, the internal examination that occurred during the university's "Process for Change" (1997-1999) provided impetus for improvement. The deliberate mixing of faculty and staff members and students in small discussion groups created human links that had not existed previously and juxtaposed perspectives that are typically isolated from each other. The groups were particularly concerned with the following aspects of UO undergraduate education:

- Recruitment of intellectually lively students
- General education that makes effective use of faculty expertise and encourages both exploration and intellectual synthesis on the part of students.
- Internships, research opportunities, and other Participatory Learning Experiences (PLEs)
- Effective academic advising: general and major-specific
- Appropriate orientation to the university for incoming students
- High-quality academic programs for freshmen

What emerged was creative thinking and practical solutions to problems that had seemed intractable. The energy and good-will of those early brain-storm sessions has persisted, and some of the best ideas have been successfully implemented.

A.1.d. UO Response

Specifically, in response to the last Accreditation Review and the Process for Change, we have:

- Improved the academic advising system, particularly the articulation between the general and major-specific advising.
- Developed more effective criteria for group-satisfying courses.
- Improved our communication of the content and purpose of general education.
- Made the intellectual connections within general education more evident to students.
- Instituted a regular system of general education review.
- Solved logistical problems that previously prevented systematic analysis of educational effectiveness (*e.g.,* supply of writing classes insufficient to allow timely completion of writing requirement).

- Carried out a pilot assessment in writing.
- Instituted regular assessment of student engagement via the National Survey of Student Engagement (NSSE).
- Determined the extent of grade inflation, with the goal of ensuring that the assessment function of grades is maintained.

We look forward to continued improvement along these lines and to additional insights that will emerge from this 2007 self-study and review.

A.2. THE UNDERGRADUATE CURRICULUM

A.2.a. Overview

The University of Oregon prides itself on the breadth of the education it offers undergraduates, regardless of the area chosen as a major. That is, although an essential part of each student's education is the opportunity, through the major, for sustained engagement with the key ideas in one area, students must explore more widely to earn a UO degree. The vehicle for much of this academic exploration is the course work that makes up the general education curriculum. In addition, a generous allowance for electives gives students the chance to satisfy their curiosity about particular ideas, to acquire specific skills, and to participate in activities, such as research and internships, that are outside the traditional classroom Each of these broad areas—general education, the major, and electives—corresponds to about a third of a student's total course work for a UO baccalaureate degree. In the following sections, we discuss the rationale for current practice in these curricular elements, as well as our aspirations for the future.

A.2.b. General Education

Purpose of the general education curriculum. The university expects a lot from this curriculum, as indicated by the following

description of purpose, adopted by the University Senate in May 1999:

General Education at the University of Oregon

The liberal arts and sciences form the foundation of the General Education curriculum at the University of Oregon. The General Education curriculum prizes a common educational experience for all students, and offers opportunities for mastery of linguistic, analytic, and computational skills, as well as the development of aesthetic values. It fosters personal development and an expanded view of self. It offers a breadth of knowledge and a variety of modes of inquiry. It strives for coherence of learning through integration and synthesis. It seeks to impart enthusiasm for learning. It emphasizes critical thinking, logic, and effective reasoning along with a healthy skepticism. It encourages appreciation of heritage and culture and examines values and controversial issues.

The University of Oregon, as a comprehensive research university, offers opportunities through General Education to develop an understanding of and appreciation for:

1. the centrality of effective communication and language facility
• oral and written communication
• group, interpersonal, and technological communication

2. the moral foundations of human interaction
• ethical judgment, personal and social responsibility
• the increasing interdependence and diversity of world cultures
• the consequences of current actions and policies

3. the nature of the historical past and its relationship to the present
• the common concerns and diverse responses of societies, past and present
• historical approaches to understanding contemporary issues

4. the diversity of human experience through the study of various cultures
• culture and its tangible achievements
• creative expression
• critical approaches
• aesthetic standards
• oral and written histories

5. the importance of modern sciences and technology
• science as an interrelated body of knowledge, rather than a collection of isolated facts
• scientific methods of discovery
• scientific perspectives on major problems facing society
• quantitative reasoning and computational skills

6. the fundamentals and interrelationship of the human mind and body
• human behavior
• perception and cognition
• diverse modes of thought and creativity
• self-awareness
• health and physical activity

The general education curriculum consists of courses (fifteen to twenty for most students) that are intended to achieve two broad goals: (i) development of fundamental skills and (ii) introduction to the richness and breadth of what we, as humans, understand and create. The fundamental skills are reasoning and effective communication, and these are honed through courses in writing, mathematics, foreign language, and multicultural perspectives. Introduction to human knowledge is done through courses in each of three broad areas: arts and letters, social science, and science. The pie

chart below illustrates the relative amount of course work in each part of the general education curriculum, and the significant contribution of this curriculum to the total course work (approximately forty-five courses) required for a baccalaureate degree.

A precise description of the number and kind of general education credits required for graduation can be found in the *University of Oregon Catalog*[92] and the *Student Handbook,*[93] but one of our goals has been to communicate the rationale and appeal of this curriculum more effectively. Therefore, when explaining the curriculum to students and parents, we've found it useful to focus on courses, a familiar idea, rather than credits, which are abstract. We initially developed the pie chart illustration to give clarity and simplicity to these explanations, and have found it useful in many settings.

We strenuously avoid presenting general education as a checklist, and instead, emphasize the rich opportunities for personal exploration it provides. We count ourselves successful when students (and parents, too) are intrigued enough to dig into course descriptions on their own and come to advisers with long lists of courses they'd like to take. This happens frequently now, and is promoted by the longer, more interesting course descriptions that we're able to include in *Chart Your Course*, the *Student Handbook,* and in the online class schedule.[94] These convey interesting ideas to both beginners and experts far more effectively than the twenty-five-word snippets in the catalog. The online class schedule enables students to readily peruse the universe of available general education courses.

The Registrar's Office, UO Libraries, and Undergraduate Studies are also collaborating on a project that will present all group-satisfying courses, and eventually other UO courses, in the attractive, illustrated format shown in the prototype at http://ocw .uoregon.edu.

Figure A1. General Education at the University of Oregon
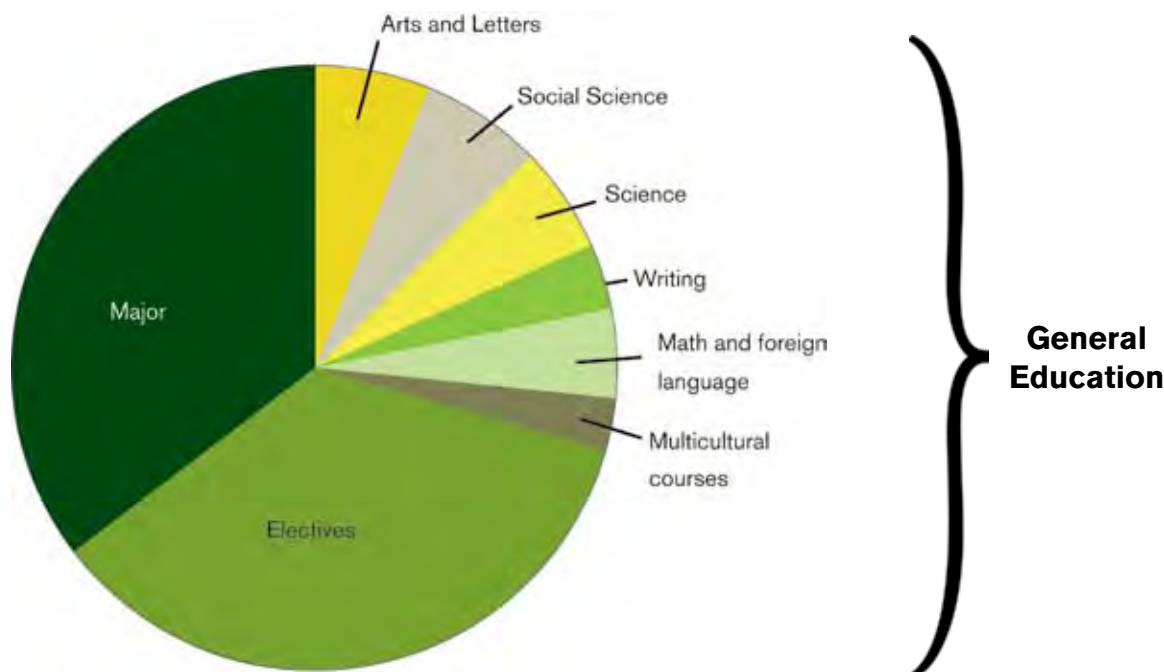
Encouraging intellectual connections: The Pathways Project. One of the calls that emerged repeatedly during the Process for Change was for greater intellectual coherence in the general education curriculum provided to undergraduates. Ideally, we wanted to offer students the excitement and challenge of being in a major research university, but foster the sustained examination of key ideas that characterizes education at a first-rate liberal arts college. A possible way to do this emerged during the implementation phase of Process for Change as the Pathways Project. A Pathway was intended to satisfy at least half of the group requirements (four courses in each of three areas: humanities, social science and natural science), which make up the bulk of the UO's general education curriculum. Each Pathway was expected to serve approximately fifty students, in groups no larger than twenty-five, and thus to offer close contact with the professors who taught and advised in it.

An essential feature of the approach was that each Pathway was proposed by a group of self-selected faculty members. The idea was that the faculty interest and communication patterns necessary to create significant intellectual links among Pathway courses would be built in from the beginning. With the support of university donors and a grant from the William and Flora Hewlett Foundation, the Pathway Project was launched in fall 1999 and expanded thereafter so as to discover the strengths and weaknesses of various Pathway topics and designs. Each Pathway approached general education with a spirit of inquiry shaped by a particular theme. For example, the Human Nature Pathway asked what it means to be human—from the perspectives of psychology, philosophy, literature, and genetics. All of the pathways are described in a "Descriptions of Pathways" document.[95]

Although the Pathway Project ultimately proved logistically impractical, the funda-mental idea was appealing to both faculty members and students and has inspired improvements to other programs. Evaluations of Pathways were consistently positive and, perhaps most important, indicated that students enjoyed finding the intellectual connections among courses.[96] Unfortunately, the very design elements that fostered intellectual cohesion also created logistical challenges. Specifically, the structured nature of the program became a hindrance to many students after a term or two. We found that once students had become academically engaged, they did not want or need the structure of a Pathway for very long, and enrollment declined. For example, each Pathway encouraged students to explore possible majors, and when they did so, the demands of the major course work often precluded continuing in the Pathway. Students also left Pathways to study abroad, something we did not want to discourage. Since the high academic achievement and persistence of Pathway students was matched by that of students in freshman Interest Groups (FIGs) (see section A.7.e. below).[97] We concluded that investment of Pathway funds in the FIG program, particularly in residential FIGs, had the potential to benefit a larger proportion of UO undergraduates.

Although Pathways themselves are no longer a regular part of the curriculum, the project has had significant influence on two important elements of the undergraduate curriculum. First, it provided the inspiration to remodel the FIG program with an eye to emphasizing intellectual connections between the two courses that comprise a FIG. The Pathway experiment and the evolution of the FIG program proceeded simultaneously, with detailed comparisons and deliberate adoption of successful aspects of both programs. As it turned out, the short duration of FIGs made them more practical than Pathways, but the intellectual cohesiveness of Pathways now enriches FIGs.

Perhaps the most important result is that one Pathway, Elementary Education, has evolved to become a stable feature of teacher training in the College of Education. That Pathway's strong science and math courses, along with special seminars cotaught by arts and sciences and education faculty members, will become the new required curriculum for students planning to teach at the elementary level. Many on this campus have long wanted to strengthen our preparation of teachers, especially those who will influence very young students, and we are pleased and proud that the intellectual and personal connections fostered by this Pathway achieved the breakthrough.

A.2.c. Majors and Electives

UO undergraduates have many possibilities for concentrated study. There are seventy-nine different undergraduate majors, offered by the College of Arts and Sciences and each of the professional schools. (See Table A1.)

There are also fifty-six minors, similarly distributed among the College of Arts and Sciences and the professional schools, and five certificate programs available to undergraduates. Each major requires significant course work in its area (the credit requirements range from 44 to 104), but each of them also requires a balanced curriculum that includes general education, as well as focused disciplinary or pre-professional course work. Thus, each program promotes liberal education, and fosters an appreciation for it.

Students are encouraged to use elective course work to explore possible majors, and many do so—frequently deciding to earn minors or additional majors in related, or even disparate, fields. The statistics for the spring 2005 graduating class tell the story. (See Table A2.)

Students also use elective credit to take individual classes that are simply appealing or useful on their own, or to engage in research or internships. More than 20

Table A1. Majors by College

School or College	Number of Distinct Majors
College of Arts and Sciences	46
School of Architecture and Allied Arts	15
Lundquist College of Business	2
College of Education	3
School of Journalism and Communication	7
School of Music and Dance	6

Table A2. Majors, Minors, and Certificates

Total students earning bachelor's degrees:	2,139	
Number earning:		
1 Minor	817	(38%)
2 Minors	114	(5%)
2 Majors	273	(13%)
3 Majors	19	(~1%)
1 Certificate	31	(~1%)

percent of UO undergraduates have some sort of experience abroad as part of their UO education (study, internships, or work), and although some of these activities count toward major requirements, they earn elective credit for many students. Foreign language majors have been studying abroad for some time, but increasingly, students in other majors deliberately build this experience into their plans. For example, in 2005–6, the top five majors with respect to studying abroad were business, journalism, architecture, international studies, and Spanish. Science students historically have been underrepresented, but the increased variety and length of programs is making participation possible for students in these majors, as well.

How students select majors. Students learn about possible majors from a variety of sources. The application and admissions process includes workshops, for applicants and their parents, that survey available majors and introduce faculty members. During IntroDUCKtion and orientation, students who enter with a declared major see an adviser from that field, who discusses the major and provides assistance in course selection. For students who enter without a declared major, or decide to change majors, the general education curriculum is often an entryway into a major. In addition, students consult the Office of Academic Advising (OAA) that, in addition to one-on-one advising, maintains an extensive library of information on majors and careers, and provides regular workshops on choosing a major. Each spring, a campus-wide "Majors Fair" provides information on the entire array of majors and enables students to compare them in a central location that is accessible and highly visible. Departments and colleges also provide advising and informational materials, both in person and through their websites. OAA cooperates with departments and colleges to provide pre-professional advising in the fields of medicine, nursing, physical therapy, dentistry, education, engineering, pharmacy, social work, and law.

Majors and careers. Some students enter the university with a specific professional goal in mind and choose majors in professional schools, such as business or architecture. For these students, the link between their undergraduate courses and their future work is obvious. Even for students who are not in professional schools, but who are majoring in fields whose content is directly required for a profession (e.g., biological science for medicine, or economics for financial analysis), it is easy to see how work toward the degree serves as preparation for a job in the real world. For students in other majors, the links between college and career may seem less clear. The links exist, of course, because the undergraduate curriculum is based on the idea that grappling with fundamental ideas in any field sharpens the mind and teaches the thinking skills needed for creative and analytical work later on.

Professional Distinctions Program. The addition of certain areas of concentration to the requirements of a major can help undergraduates think about the future and take practical steps toward a satisfying career. This is the goal of the Professional Distinctions Program[98] that enables students to develop and enhance professional skills that complement their majors and are relevant to their long-term aspirations. For instance, a business major interested in international trade might earn a professional distinction in the language, culture, and history of a particular region of the world. Possible areas of concentration range widely and include analytical reasoning, arts management, cross-cultural literacy, data analysis, GIS and technology, information ethics, information research and management, international communication and culture, leadership management, professional research and presentation, and written communication. In addition to upper-division course work, students get practical field experience through an internship in their junior or senior year, participate in professional training workshops, and create a pro-

fessional résumé with the help of a Career Center counselor.

Career Center. All students at the university, not just those in the Professional Distinctions Program, have access to the resources of the Career Center.[99] Career counselors work with students individually to assess interests and provide information tailored to those interests and ambitions. At the small group level, the center's Career Success seminars cover topics such as networking, résumé-writing, and interview strategies. An important event each year is the center's Career Fair, which brings dozens of local, national, and international companies and organizations to the UO. Career Success seminars prior to the fair prepare students to make the most of the opportunity. The Career Center also has a Campus Interview Program to give students interview experience and a UO Mentor Program that links students with professionals in fields they're considering.

A.2.d. Concerns and Gaps: Curriculum

An important feature of some UO majors is a culminating experience that promotes intellectual synthesis. Although the value of such an experience is widely appreciated by the faculty, it occurs relatively rarely. Departmental survey responses indicated that only about 20 percent of them offer an opportunity of this kind,[100] and the 2006 National Survey of Student Engagement results[101] show that only 20 percent of seniors have, in fact, had a capstone experience. Internships, research experience, and other opportunities for students to apply what they've learned in classes are more common: more than half of the departments surveyed listed these as the most distinctive features of their major, and 48 percent of 2006 seniors report participation (via NSSE). Still, significant practical experience for an even larger proportion of our students is desirable.

Another gap that is widely perceived is the lack of information about graduates. Less than a third of our programs have systematic methods for learning what their students actually do with their educations once they leave.[102] Another 12 percent do exit interviews or surveys, and the remainder maintains loose contact through newsletters, or has no contact at all. Nearly everyone recognizes the value of tracking the professional activities of graduates, but lack of resources precludes it for most. Ultimately, alumni success and satisfaction is an excellent gauge of educational quality, and a systematic central effort to obtain these data would assist everyone.

A.3. SPECIAL EDUCATIONAL OPPORTUNITIES

A.3.a. Honors work

Clark Honors College. The Robert Donald Clark Honors College[103] offers an intensive, integrated liberal arts curriculum for academically gifted students. In fall 2006, the entering class of 176 students had a median combined SAT score of 1353 and a median high school GPA of 3.89. The honors college differs from honors programs at most other universities because it has a resident faculty and a dedicated space for classrooms, informal study and lounge spaces for students, and faculty offices. The result is the creation of an effective community of scholars in which intellectual effort and creativity are encouraged, and in which students work closely with faculty members. In many ways, students in the Clark Honors College have the best of two worlds—the close mentoring and structured general education curriculum of a small liberal arts college, combined with access to the wide range of majors and opportunities for research and scholarship characteristic of research universities.

Clark Honors College students fulfill their university general education requirements through course work in the college, the foundation of which is a pair of year-long lower-division sequences in literature and history. There are also general education science courses designed for nonscience majors, although these are not arranged sequentially as the other lower-division courses are. The success of the literature and history sequences has inspired interest in creating an integrated general education science sequence, and honors college faculty members are consulting widely to determine the best way to do this. Such a sequence is not needed for students majoring in a science, but could be effective in addressing the lack of science literacy among nonscientists, which is unfortunately not uncommon even in this highly selected group.

Honors college students choose majors outside the Clark Honors College, in regular university departments, but maintain strong connection with the college through required upper-division seminars. In the seminars, students in a variety of majors focus on a topic at an advanced level (e.g., The Human Genome Project, Historical Conflicts and Moral Dilemmas, Crime and Criminals in Nineteenth-Century Fiction) and enrich the class with the perspectives they bring from their studies elsewhere in the university. Development of a lower-division science sequence (described above) would ensure that seminars with a science focus would be accessible to all students. Because these seminars are taught by both Clark Honors College and non-Clark Honors College faculty members, they provide a vehicle for maintaining intellectual links between the college and the university at large.

Perhaps the most significant formative experience for honors college students is the required thesis they write as seniors. The thesis work is typically done outside the honors college, in the students' major

departments, but honors college classes help students pose clear questions, delineate approaches, and communicate findings. Each thesis is defended before a committee that includes Clark Honors College and non-Clark Honors College faculty members, and the range of topics, as well as the depth and sophistication of the work, is impressive.

Society of College Scholars. Incoming freshmen with strong high school records are invited to enroll in the College Scholars Colloquium for Freshmen, a 1-credit elective course through which they learn first-hand about faculty research and scholarship.[104] A colloquium is offered in each of three broad disciplinary divisions (humanities, social sciences, and natural sciences), and students are encouraged to sample multiple areas, if they wish. Participation opens a further opportunity, in the sophomore year, to participate in discussion-oriented courses taught for College Scholars by distinguished faculty members. Juniors and seniors are encouraged to do honors work within their major departments.

Departmental honors and undergraduate research and scholarship. Most academic departments within the university offer the possibility of graduating with honors to undergraduates who meet appropriate academic criteria. In most cases, this means that the student has excelled in course work and has also carried out some sort of independent work. In some departments, the opportunity for independent work requires a certain level of proficiency but is not strictly tied to an honors program, thus expanding the opportunities for undergraduates to discover their aptitude for original thinking. Although research and creative work for undergraduates is widely available in the university, the information is not well-organized and undergraduates must be enterprising to find it. This is not a great problem in the sciences, where students are often in small classes or lab sections, where they learn about research through direct

conversation with faculty members. In other areas, communication is more difficult, and students with no previous exposure to original scholarship are less likely to discover it. One approach to this problem is the one that the UO Libraries is taking—namely, to collect information on opportunities for honors work centrally and to make it accessible to undergraduates through a website. Another is to give undergraduates in large classes a taste of faculty scholarship. The Faculty Perspectives Seminars that accompany some large-enrollment courses are designed to give a small group of interested students at any level the chance to examine the material in more depth, guided by the faculty member teaching the course. These seminars, begun in AY2001–2, have sparked student curiosity about specific ideas in the social sciences and humanities, as well as in the sciences.

Distinguished scholarships. Although the current UO student body is academically solid, our students are not as successful as they should be in competing for distinguished awards, such as Rhodes, Marshall, Truman, and Goldwater scholarships. We have outstanding students, both in the Robert Donald Clark Honors College and outside it, whose merit is indicated by the quality of graduate programs to which they are accepted, but who rarely consider applying for Rhodes or Marshall scholarships. The university had its first Marshall Scholar in 1984, but did not have a second until Alletta Brenner, a Clark Honors College student, won this honor in 2005. Similarly, there had been no Rhodes Scholars since 1985 until Andrew Shipley, also a Clark Honors College student, was awarded a Rhodes Scholarship this year (fall 2006). We fare better with Goldwater Scholarships, typically winning one to three each year. The problem seems to be one of communication. Students who would be strong candidates simply don't know about these possibilities and are often unaware of their own potential. They need the attention of a dedicated

adviser—someone who can devote the necessary time to identifying them and working with them through the challenging application process. At present, the College of Arts and Sciences Dean's Office does its best to coordinate applications, but the time-consuming one-on-one work with potential applicants is simply not possible. It is likely that the success with Goldwater competition is a reflection of the intense personal and intellectual interaction that characterizes daily life in a research lab. Current efforts are underway to improve our ability to identify and encourage promising students in all academic areas.

A.3.b. Participatory Learning Experiences (PLEs)

Internships for undergraduates are offered through individual academic programs, such as the Lundquist College of Business and the Department of Sociology, and also through a central office. As a working definition, internships are typically one-time work or service experiences related to a student's major or career goal. The internship plan generally involves a student working in a professional setting under the supervision and monitoring of practicing professionals. Internships can be paid or unpaid, and the student may or may not receive academic credit for performing the internship. Ideally, internships should enable students to acquire applied and meaningful experiences to identify or test their interests and talents and make informed career and professional decisions.

Appreciation of the value of such practical experience has increased among the faculty, as well as among students, parents, and potential employers of university graduates. Local campus interest was evident during the Process for Change and took tangible form in the work of the Upper-Division Implementation Group. That group surveyed existing opportunities for students and focused on means for assuring their edu-

cational quality. The name "Participatory Learning Experiences" (PLEs) was adopted to include the full range of internships, participation in research, and other applied work, and a set of common desired features of credit-bearing experiences was identified. These features included careful design and selection of projects, significant faculty input and evaluation, and close supervision and feedback throughout the experience.

For a period of approximately two years, while funds were available to hire a PLE director, progress was substantial. Advisers for unit-specific internship programs joined advisers in the central program, then run by the Career Center, to standardize high expectations for both student participants and supervisors and advisers across the university. In addition, the organization of information about PLEs was greatly improved, and the director worked closely with an advisory group to monitor the quality of existing PLEs and to solicit proposals for new ones. There was widespread appreciation of the progress already made and enthusiasm for the direction in which the program was headed. Unfortunately, this optimism didn't last. Budget constraints eliminated support for a director's position, and reduced the Career Center's contribution to the work. At present, the program is administered by a single graduate teaching fellow, who has little or no direct interaction with prospective or actual interns. All proposals are submitted online through a website and are reviewed and approved electronically. Students have difficulty finding the program and fewer than fifty per year participate.

A.4. ACADEMIC ADVISING

A.4.a. Background for Recent Improvements

While the University of Oregon has always defined advising as part of the faculty's role, there had been a long history of real difficul-

ties in identifying interested and qualified faculty members to work with undeclared students during initial advising. This created a situation where it was not unusual to have inexperienced and less-than-enthusiastic faculty members put in the uncomfortable role of being an expert adviser to entering undeclared students. This also contributed to a tendency for advising to be isolated in the professional Office of Academic Advising. Also, the Office of Academic Advising relied heavily on student initiative in seeking help—probably unrealistically in cases where help was most needed. Finally, advising was too often a mechanical check of students' completion of degree requirements rather than an opportunity to encourage curiosity and stimulate intellectual growth.

Academic advising for undergraduate students has undergone significant improvement as a consequence of the Process for Change. In that process of self-examination, an Advising Implementation Team identified the following goals:

- Increase faculty involvement.
- Provide better outreach to students.
- Make advising more intellectual and less mechanical.

To meet these goals, the university developed a program for excellence in advising that combines

- Overlapping advising organizations that promote effective interaction of faculty members and professional advisers;
- Aggressive outreach efforts to students;
- Implementation of electronic systems for the mechanical aspects of advising: degree auditing and course availability checks.

A.4.b. Organization

The University of Oregon has a distinctive structure of academic advising, which

provides students with multiple opportunities to be advised on academic programs, course selection, career possibilities, and so forth. Advising takes place in the centralized Office of Academic Advising (OAA) *and* in academic units across campus. The result is that every undergraduate has more than one academic adviser. Upon arrival for orientation, each student is introduced to an OAA adviser and is also assigned an adviser in an academic unit. Students who have declared a major are assigned advisers in the appropriate units. Students who are undeclared are assigned to "generalist" faculty advisers. Among the innovations of the Process for Change was the improvement of advising for undeclared students through the creation of a stable group of experienced faculty members with affinity for this work. This College Advising Program was built on the expertise of a small group of faculty members and has added specially trained newcomers. Participants are compensated and are expected to participate in a certain number of organized advising events during the academic year, in addition to their primary task of advising students at the start of fall term. They're also encouraged to maintain contact with their advisees throughout the year. The effective training and esprit de corps of the College Advisers have increased the consistency and reliability of undeclared advising, and thus greatly improved its quality.

Central advising services. The Office of Academic Advising is staffed by nine professional advisers who are available by appointment and on a drop-in basis on all weekdays. OAA interfaces with the Office of Student Life to coordinate academic with nonacademic support and advising. OAA advisers work with the university Academic Review Committee and Scholastic Review Committee to handle students' degree and progress issues. In addition, OAA maintains a website[105] to provide students with advising information and resources. A second centralized advising office, the Office of

Multicultural Academic Support (OMAS), coordinates with OAA and provides five advisers specifically oriented to the needs of self-identified students of color, that are available to other students, as well.

Advising within academic units. Individual academic units organize advising differently, as appropriate and possible, given local needs and resources. Each academic department has a designated advising coordinator, who is typically responsible for coordinating advising within the department and handling transfer evaluations. Most departments in the College of Arts and Sciences rely on instructional faculty members to advise their majors, although some of the larger science departments have professional advisers. The larger professional schools also rely upon professional advisers for their majors. In addition, some units provide peer advisers and some employ graduate teaching fellows for advising. The Department of English is an example of a unit in which academic advising is embedded in faculty culture. The responsibility for advising is taken seriously and shared by faculty members at all levels. Many departments rely on carefully trained graduate students to supplement faculty advising. The philosophy and psychology departments use this approach, and in the case of psychology, the largest CAS major, undergraduate peer advisers make it possible to handle the advising load. The Department of Mathematics also uses its excellent undergraduate majors effectively—as tutors and advisers to other math students.

Specialized advising services. In addition to the advising services described above, which are designed for all UO undergraduates, there are some that are deliberately specialized to meet the interests and needs of particular groups of students. These are:

Transfer students. Over the last several years, we have experimented with variations of our freshmen advising program

so as to make it more suitable for transfer students. What we've found effective are modified advising workshops that focus specifically on transfer credit equivalencies and the academic planning strategies appropriate for experienced students. We now offer this kind of specialized advising to prospective, as well as newly admitted, transfer students. UO advisers provide on-site advising at Lane Community College (located in Eugene) and at several other Oregon community colleges throughout the year. All transfer students are sent a welcome letter in their first term. Those earning a first term GPA that falls one point or more below their admission GPA are contacted and encouraged to connect with important campus resources. Those who do exceptionally well are congratulated. In addition to meeting with an academic adviser, transfer students are encouraged to enroll in Transfer Seminars, which function for them much the same way that the FIG seminar does for new freshmen.[106]

Future professionals. A group of faculty members in a range of disciplines constitutes the Education Careers Advising Team (ECAT)[107] and is available for specialized advising of students interested in middle- or secondary-level teaching in those disciplines. Pre-professional advising in education is also provided by OAA, and specialists there collaborate with faculty members in the relevant departments to advise students headed for other professions, e.g., medicine, dentistry, pharmacy, nursing, physical therapy, engineering, social work, and law.

Student athletes. Support Services for Student Athletes reports to the provost and works jointly with the Office of Academic Advising and the Department of Intercollegiate Athletics to provide academic advising for NCAA athletes and to ensure compliance.

Students needing special academic support. Disability Services (DS) provides academic support to students with a range of disabilities and accommodation needs. DS works with faculty and staff members and students to minimize the limitations experienced due to physical, programmatic, informational, policy, and attitudinal barriers. This is accomplished through direct services, the creation of inclusive learning environments, consultation, outreach, and collaboration. Students use both general and specialized academic advising services. Typical accommodations include sign language interpreting, computer-based note taking, alternate testing environments, classroom relocation, and physical barrier removal. The Adaptive Technology Lab provides opportunities for students to use technologies, such as voice activation, speech output, Braille, and alternate text conversion (scanning print for speech or Braille output).

Academic Learning Services (ALS) provides math and writing labs for all students who want assistance, beyond their formal classes, with these essential skills. The staff members for both labs work closely with mathematics and composition faculty members who design and teach the courses, so that each group understands and respects what the other is doing and can reinforce key concepts and approaches. ALS also advises McNair Scholars and other TRIO program participants, and thereby increases the likelihood of academic success for first-generation college students. ALS is also a key partner in the university's Undergraduate Support Program (USP), which assists the small number of freshmen (approximately thirty per year) who do not meet admissions requirements, but show promise. USP students are required to participate in a specialized curriculum, Models for Academic Performance and Success (MAPS),[108] along with a comprehensive advising program during their freshman year. The idea is to build essential academic skills through a curriculum that initially grounds students

in the foundations of humanities and social sciences, and progressively integrates course work in other disciplines according to individual interest. A small team from three campus offices—Academic Learning Services,[109] Academic Advising,[110] and the Office of Multicultural Academic Support[111]—collaborate to run USP. Recent improvements include a revised admission contract that clarifies the university's expectations, a special orientation that introduces USP students to the whole USP team and prevents isolation, and a regular check-in with the three-member USP administrative team.[112]

In addition to these central academic services for general needs, there is support for more specialized needs, as well. In the sciences, it is common for excellent undergraduates to serve as tutors for students in particular courses. In chemistry, biology, and math, this help is organized in groups of carefully selected and trained peer tutors. The Yamada Language Center offers students the opportunity to hone their language skills and to learn languages that are not formally taught at the university.

A.4.c. Assistance to Advisers and Students

Information for advisers. Information about all advising offices and resources is given in the *Student Handbook*, in a form that allows both students and faculty members to understand where to go for various kinds of advising. For advisers from units across campus, OAA regularly offers workshops for beginners and information sessions for everyone. These take place prior to the start of the academic year, as well as quarterly during the year, and are offered individually or in small groups throughout the year by request. They provide training and also encourage interaction among faculty members and professional advisers. This interaction, as well as the other outreach efforts of OAA, has significantly reduced the isolation that

previously compromised UO advising. Advisers are provided with a *Faculty Advising Manual*, a *Student Handbook*, and a quarterly *Advising Bulletin* that covers recent changes and highlights key information.

Information for students. Before registering for the first time, students are required to attend an advising workshop and to meet with their individual advisers. They are encouraged to see their advisers frequently thereafter and the name of their faculty adviser is readily available in two places, DuckWeb and their degree audit (see below). The Office of Academic Advising now actively creates opportunities for advising to take place in informal settings, making it more accessible to students. These include regular Advising Outreach programs in the residence halls (e.g., informal pizza dinners with advisers), and in the student union, as well as presentations to classes and student organizations. In addition, OAA regularly contacts students via e-mail and postcard, to encourage all students to seek advising during class registration periods, to congratulate those who are successful, and to provide students in difficulty with more targeted information and advice. Advertisements of approaching events are published widely (in the student newspaper, through flyers, and on street banners), and undeclared students are given important advising information via the Blackboard Academic Suite™.

Electronic systems. The university now utilizes a Degree Audit Report System (DARS) that enables students to track electronically their progress toward completion of degree requirements. The move toward such a system, and purchase of the necessary software, came out of the implementation phase of the Process for Change. Completion of general education course work was trackable almost immediately because the requirements had already been encoded in a home-grown system. The Registrar's Office then led the campus effort to systematize

and enter the requirements for all seventy-nine UO undergraduate majors.

DARS reports[113] are generated after every quarter, and they've quickly become popular with both students and advisers. They are structured by requirement category: a description of the requirement is followed by a list of the student's course work that meets it, and a statement of what is missing. DARS reports make it easy for students to check on their own academic progress. Because each report provides the name of the academic adviser, students learn of whom they need to see for in-person advising follow-up. The reports dramatically improve sessions with advisers because they eliminate the need for manual progress-checking, and thereby allow more time for substantive discussion.

DARS has been particularly helpful in monitoring and enforcing the completion of prerequisite courses. Prior to the implementation of DARS, impatient students often would register for a course like biochemistry without any prior course work in chemistry. Since their inappropriate registration could not be prevented, faculty members were left to try to discover these students after the fact (through laborious manual checking) and then persuade them to drop the course. This was not a recipe for establishing good rapport with the class.

Implementation of DARS was followed by inauguration of an electronic Class Schedule, which facilitates advising about course selection through its effective search functions and expanded course descriptions. The electronic Class Schedule enables advisers to readily find open classes that meet students' needs and interests. Another popular advising aid is the DuckWeb faculty advising menu, which gives advisers instant access to transfer evaluations, degree audits, and transcripts.

Finally, the UO is also playing a central role in the development and implementation of ATLAS (Articulated Transfer Linked Audit System). This new statewide system will allow students to assess their progress toward degree at any public university in the state system electronically, and will greatly enhance the advising tools available for transfer advisers.

A.4.d. Concerns and Gaps: Advising

In order to make our distinctive, overlapping advising structure even more effective, we need to enhance communication and collaboration among the advising offices and academic departments. Steps have been taken in this direction through the advising workshops and discussion sessions offered by OAA. The new Living-Learning Center residence hall, with classrooms and faculty offices as well as dormitory rooms, has an explicit goal of enhancing informal opportunities for advising by both faculty members and professional advisers. We think that students are certain to benefit, but we expect that the interactions among advisers will yield dividends, as well.

Technology can be very effective in enhancing communication and collaboration among advisers. The web-based tracking system, AdvisorTrac™, allows advisers within OAA or other offices to document information about meetings with students and, when appropriate, to share information readily, even when on opposite sides of the campus. It also provides reporting functions that will reveal patterns of students' use of advisers. AdvisorTrac™ is now being installed and tested in OAA with full office implementation anticipated in 2006–7. The next step will be to determine interest and applicability to specific academic departments and other advising units throughout campus.

A.5. INTRODUCING STUDENTS TO THE ACADEMY

A.5.a. New Student Orientation

Background for recent improvements. The way in which students are introduced to the university influences the likelihood that they will engage with the academic core and ultimately succeed. Both the importance of orientation for new students and the need to improve it were pointed out in the Process for Change discussion phase. A significant improvement had already been made in the early 1980s, when a massive fall program was replaced with a series of smaller mid-summer orientations. The wisdom of this change was widely appreciated, but neither the structure nor the spirit of the summer events was seen to be ideal. Summer orientation, called "IntroDUCKtion," was designed to be a relatively relaxed, two-day program during which students could register for fall term classes, and both parents and students could get a feel for campus life. The overall plan was good, but because program components had been added piecemeal, over time, key ideas and desirable messages had gotten lost. For example:

- Although parents were encouraged to accompany their children to IntroDUCKtion, the programs for parents and students did not fit together conceptually. On the one hand, parents were urged to be involved in the decisions associated with beginning college study; on the other, they were barred from the one-on-one meetings of students with their academic advisers. Not surprisingly, the result was frustration and anger.
- Students were overwhelmed with information on Day 1, but were still not adequately prepared to meet with academic advisers and select fall term classes on Day 2.
- Undesirable peer influence was common. Too much was asked of the student orientation staff members, who simply lacked the experience and perspective to carry the full burden of encouraging both academic engagement and responsible personal behavior.
- The event was largely isolated from the academic side of the university. Although a few faculty members participated as academic advisers or occasional speakers to parents, none understood the orientation program as a whole or had been involved in its design.

To improve matters, and particularly to strengthen and coordinate the academic aspects of orientation, the Office of New Student Orientation[114] was brought together with the offices of Academic Advising and First-year Programs in 2000, and put under the leadership of the newly created Vice Provost for Undergraduate Studies.

The current program. The changes listed below have created orientation events that show what our academic community is and more effectively bring students and parents into it. As a result, students now emerge from orientation confident and enthusiastic about starting challenging course work, not just going through the mechanics of registration; parents are reassured that they understand the academic decisions their children are making, and they often compliment the university on the thoughtful design of its undergraduate programs.

Stronger student orientation staff. Students representing greater academic strength and greater diversity of all kinds (academic major, ethnic and cultural background, age, and social interests) were deliberately recruited as Student Orientation Staff (SOS). Whereas Caucasians in a few majors previously dominated SOS, active recruitment across campus now produces staffs that more nearly match the actual array of student academic interests and personal characteristics at the UO. The typical staff member now has a strong academic record, a high standard of personal behavior, and a

lively interest in a range of activities (e.g., music, athletics, and languages).

Increased participation by incoming students. As shown in Figure A2, participation in IntroDUCKtion[115] has increased steadily since it was redesigned in 2000 under the new vice provost for undergraduate studies.

A fall orientation just before classes begin is still offered, but fewer and fewer incoming students rely on it exclusively. Completion of an entirely online registration system in 2004 simplified IntroDUCKtion logistics. In addition, clearer messages to incoming students and parents via telephone and the *Chart Your Course* book (a publication created in 2001 that is now mailed to all admitted students while they are still in high school[116]) has diversified the population of students who attend and increased the proportion who come with family. These efforts are in line with the recommendations of the UO Diversity Plan: Strategic Directions Involving Students[117] and a focused outreach effort in 2004 brought about 100 students of color, and their families, who wouldn't otherwise have attended IntroDUCKtion. Since then, participation of students of color at IntroDUCKtion has been strong, and special outreach has not been needed.

Improved explanation of the curriculum. Formerly, the academic information necessary for fall term course selection, as well as for planning an entire bachelor's degree program, was presented in detail to students at orientation. In contrast, little or nothing having to do with the curriculum was explained to parents. As a result, overwhelmed students tuned out and anxious parents fretted about the unknown. Our current approach is to explain the curriculum more effectively to everyone, deliberately separating students and parents at this point, but bringing them together later to compare notes and share what they've learned. Advising of students is done in two stages: 1. An overview session presents the general structure of a bachelor's degree, without a lot of detail. This is followed by a smaller more informal workshop that ad-

Figure A2. **IntroDUCKtion Attendance Comparison**
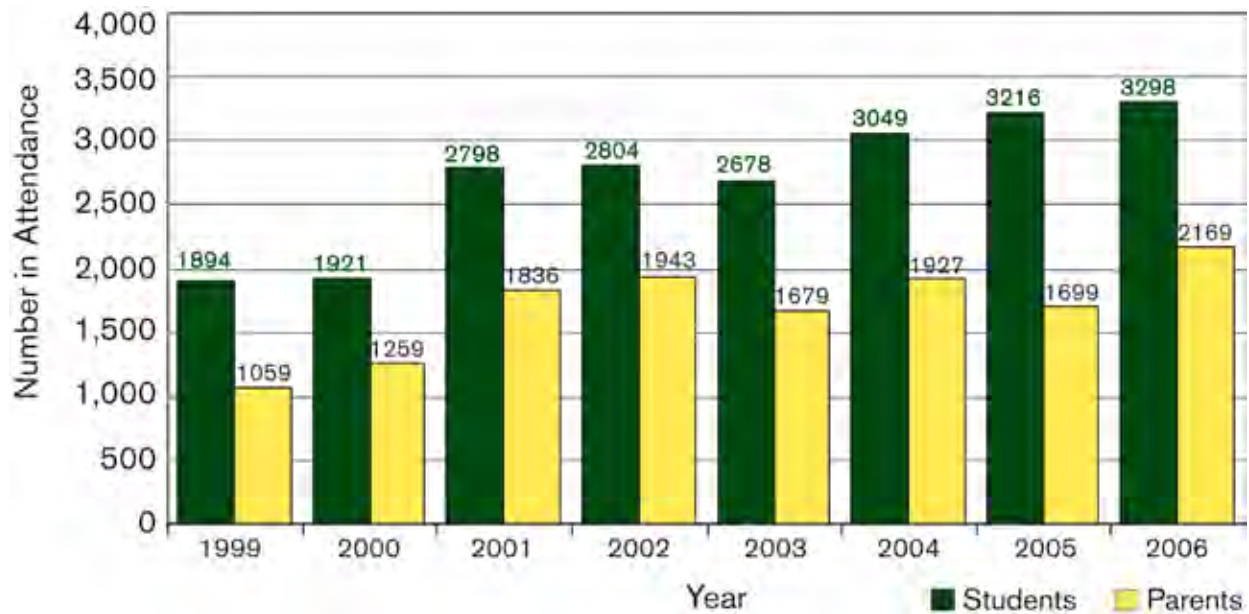
Source: BANNER reports, 1999–2006, compiled by the Office of Student Orientation Programs, UO Division of Undergraduate Studies.

dresses individual questions and situations. 2. On the second day students typically meet individually with an academic adviser, who may be a faculty member or a professional adviser.

Parents go to a single session, which is the functional equivalent of the students' workshop, and is led jointly by the directors of Academic Advising and First-year Programs. Just as the students do, parents learn about the deliberate inclusion of general education and electives in our curriculum, but parents learn considerably more about the rationale behind this design and are also introduced to the philosophy and goals of our First-year Programs, as well as the importance of academic advising.

Both students and parents are given copies of the *Student Handbook*[118] and encouraged to approach course selection with curiosity—reading the descriptions of general education courses provided online or in the *Student Handbook* and considering a wide range of courses that sound interesting. The idea is to prepare students and parents to communicate with each other when they are reunited and to give both groups the knowledge and confidence needed for students to talk directly with their academic advisers, without parents present, the following day. We've improved our explanation of the curriculum by:

- Eliminating unnecessary detail and structuring the workshops with Power Point slides tailored to students[119] or parents.[120]
- Improving the preparation of advising staff members for leading these sessions, and training students to assist.
- Creating the *Student Handbook*, which aims to make academic information more accessible than it is in a typical catalog.
- Personalizing the student workshops by organizing them around small, twenty-

five-student groups that go through orientation as cohorts.

We monitor the effectiveness of advising during orientation by:
- sitting in on workshops.
- collecting feedback from students and parents.
- asking faculty members and professional advisers to rate the extent to which the students they advise have been properly prepared in advance.

Improved campus climate. In addition to working out their fall term schedules, students at IntroDUCKtion get a sense of campus culture and begin to create a new community that will shape the university in the future. We have therefore taken care, in the design of orientation and the choice of its leaders, to encourage the attitudes we prize: intellectual curiosity, openness to new ideas and unfamiliar people, kindness, and personal integrity (UO mission statement).[121] Through the specific changes described below, we have sought to prevent the cynicism and antagonism that sets in when students feel alienated from the academic core of the university.

The appeal of ideas is emphasized throughout orientation. For example:

- The opening session uses various media, including a student jazz trio, to convey the pleasure of engagement with ideas and the sense, ala Pogo, of "insurmountable opportunities."

- In the "Faculty Perspectives" sessions, faculty members offer mock classes for students and parents (separately) that feature the ideas and philosophies that motivate their teaching and scholarship. During IntroDUCKtion 2006, for example, an anthropologist explained what's interesting about the social behavior of the great apes she studies; a mathematician who works at the physics-math

interface talked about what we might learn from gravity waves; and a historian asked where universities came from and why they persist. This popular program is often cited as students' and parents' favorite part of IntroDUCKtion. Instead of equating academics with mechanical study skills and time management, it gives students a glimpse of the rewards of thinking logically and asking good questions, and it encourages them to join this creative community.

- Advising workshops for students and parents are designed to encourage curiosity and understanding, not to overwhelm with information. The results of this change in emphasis have been dramatic. Both parents and students are eager to talk with faculty and staff members—often about ideas or topics that they simply find interesting, rather than about how confused they feel.

Staff concerned with the academic and nonacademic aspects of student life collaborate to encourage positive attitudes and responsible behavior among students. For instance:

- The structure of IntroDUCKtion is designed to integrate academic and social messages, and throughout, staff members in Student Affairs and Undergraduate Studies communicate with each other and take care to reinforce key ideas, such as personal integrity, attentiveness to the needs of others, and the notion that academic challenge is not a bad thing.

- University Housing works closely with Undergraduate Studies to create residential FIGs and promote them to incoming students.

- The role of Week of Welcome (fall orientation) is changing, as more students arrive with class schedules in place. We now use this time to encourage healthy

community formation through university-wide events that celebrate the pleasure of human interaction (Intermingle) and the values of the academy (University Convocation). University Convocation serves as the official welcome for both new students and new faculty members. It features an outstanding speaker (usually connected with summer reading for incoming students), academic regalia, wonderful music, and afterwards, an informal picnic supper for about 3,000 on the lawn. The speaker in 2005 was string theorist Jim Gates; this year's was U.S. Poet Laureate Billy Collins.[122]

A.5.b. First-Year Programs

Key to the education the UO offers its undergraduates are the programs we have designed especially for freshmen.[123] The programs are based on the idea that effective academic engagement of beginning students is essential, and that if it can be achieved, sustained academic success and persistence toward a degree are likely. We foster academic engagement by:

- Bringing beginning students and faculty members together in small groups with an academic focus.
- Helping students discover the connections among different subjects.
- Creating opportunities for the practical application of classroom concepts.
- Creating and promoting academic programs in the residence halls.

Freshman Interest Groups (FIGs). Freshman Interest Groups (FIGs) have been a part of introducing new students to our campus since 1982. In fact, the UO was the second university in the nation (after SUNY Stonybrook) to create such a program. A FIG is a group of twenty-five freshmen who are co-enrolled in two general education classes and also in a one-credit seminar. The general education courses are regular university courses that include students at other levels

and may be quite large. The seminar course, however, is limited to FIG students. There are FIGs to suit students with different interests. Some are designed for students with specific majors or careers in mind; most are intended to introduce students to general education subject areas that interest them. The two general education courses in each FIG are selected because they fit together conceptually and because the faculty members teaching them are interested in making the intellectual links explicit for students. The FIGs for fall 2006 are described in Chart Your Course 2006.[124]

FIGs[125] have undergone major changes since fall 2000, growing in size and in academic focus. A total of forty-seven FIGs were offered in fall 2000, compared with sixty-two for fall 2006. Although FIGs are not mandatory, nearly half (48 percent) of entering freshmen now choose to join one. Over the same period, the academic rigor of FIGs has increased—because of stronger student leaders and cultural change throughout the program. Before fall 2000, the role of the FIG seminar was primarily social—to help FIG students get to know one another and be introduced to campus resources (e.g., the Career Center, student organizations and clubs) by an upperclassman who served as an organizer of social activities outside of class. There was concern among instructors that these influential older students did not always prove to be ideal role models for incoming students. The representation of academic majors within the group was skewed (in 1998, two majors contributed 40 percent of the FIG leaders and, at 47 percent of the FIG leaders, professional schools were over-represented), and too often, the "leadership" provided was simply access to grapevine information on easy courses. In some FIGs, expression of serious academic interest was actively discouraged. Moreover, the FIG seminar was frequently not taught by faculty members and tended to focus on study skills rather than intellectual content. Most research and teaching faculty members

were not interested in participating in a program without academic purpose.

Changing the role of the FIG seminar. The original FIG program had a demonstrable positive effect on student retention (see 1998 in Figure A6 of this section), but we thought it had the potential to play a more significant role in introducing students to the academy. Therefore, we deliberately remodeled the program to attract faculty members. The FIG seminars are now taught by the faculty members who are teaching the general education courses—sometimes both of them. Whereas in fall 1998, 40 percent of the seminars were taught by regular tenure-related faculty members, 8 percent by instructors, and 51 percent by administrators and staff members, in fall 2006, 65 percent were taught by regular tenure-related faculty members, 26 percent by instructors, and 8 percent by administrators and staff members.

The most important change in FIGs is that the purpose of the seminar is now very clearly to explore the ideas in the main courses and to find connections among them. For instance, the "Rockin' Science" FIG paired a physics course with the History of Rock and Roll, and the physicist-drummer who taught the seminar made the most of the music-physics connection. The Rippey Innovative Teaching Award has been a key factor in promoting collaborative teaching of the FIG seminar by both of the general education course instructors. One team of ecologists uses the award to support a FIG field trip to the Olympic National Park, where students investigate the watershed they'll be studying later on in class. Other pairs of faculty members stay on campus, but connect ideas just as effectively. Box A1, for example, describes what happened when John Lysaker and Sara Hodges co-taught a FIG that included a philosophy and a psychology course.

Changing the role of the FIG student assistant. The role of the student assistant has also changed markedly. Inspired by the University of Missouri, we now carefully train UO students (called FIG Academic Assistants, FAs) to be able to work jointly with FIG faculty members to create original syllabi for their seminar. The training is done in a spring term course by an experienced faculty member. Preparation for both academic and social leadership is woven into the course. Of particular note is the attention to effective interaction with different kinds of people.[126] The diversity training provided for FIG leaders is imaginative and nuanced, and students tell us that it is useful in practice.

Unlike earlier FIG leaders, the FAs begin working with the faculty members during the training course the preceding spring and continue the collaboration throughout fall and sometimes into later terms. We've found that the FAs have good, original ideas for seminar topics and activities, and they're able to lead some of the discussions in class. One FA suggested a completely new FIG, based on his interests in environmental studies and philosophy, and showed us how the intellectual links could be made; another FA brought together her two majors, psychology and biology, in a highly successful FIG that she proposed. Collaboration with the Teaching Effectiveness Program and with the UO Libraries has improved the FAs' ability to facilitate productive discussion and to introduce freshmen to substantive library investigation. (It hasn't hurt their own library skills, either!)

Faculty members routinely rave about their FAs, and it's clear that these partnerships are mutually beneficial. All of the student mentors also arrange out-of-class activities that help new students become better acquainted with each other, the faculty, and campus resources. The overall quality of the students in FA positions has increased dramatically. Compared to 1998, the FAs for fall 2005 represented a wider range of ma-

Box A1. Comments by Faculty Coteachers

John Lysaker *(December 7, 2004, phone conversation excerpt):* "On [one] occasion, we brought the two FIGs together and had them watch a video on the Stanford Prison Project and reflect generally on what the video showed about human nature. In addition to the benefits for the students, it was also beneficial for Sara and me as faculty members. For example, I had never seen the prison project before (this was a famous study in the '70s where they simulated a prison, and the participants really devolved into the roles they were playing and the lead researcher had to end it). It allowed me the chance to work with someone in psychology. Both of us are talking about human nature, but from different perspectives and in different ways. I wanted my students to think about different ways of exploring human nature. I wanted them to think about it empirically and with experiments, and being in the Rippey made it easier for me and for the students to follow."

Sara Hodges *(December 7, 2004, e-mail excerpt):* I have no doubt that students are constantly exposed to profs telling them how one discipline fits with another—we don't need Rippeys just to alert them to that fact. However, there is something very potent about students seeing faculty members interacting—having fun playing with ideas together, being energized by the intellectual connections. I think they think we are a little weird to be excited by this stuff, but they "get" it: That our job is not just to create tests and assignments to make their lives a living hell; that we actually LIKE what we're studying, and we seek out new ways of thinking about it."

jors (from biochemistry to religious studies), earned higher grades (3.64 vs. 3.36 senior GPA), and included more members of the Robert Donald Clark Honors College. Moreover, it is now common for FAs to serve more than once. About half the FAs return each year, and some work with the same professor for three or four years.

Residential FIGs. An important component of the current FIG program is the group of FIGs known as "ResFIGs" (Residential FIGs) that go one step beyond standard FIGs by allowing the twenty-five FIG students to live in the same residential complex. Students don't live right next door to one another but are close enough to find each other for study purposes or to take part in special events connected with FIGs (e.g., expeditions to plays, poetry readings, or informal meals with campus visitors). For example, the Creative Arts hall contains FIGs dealing with architecture, theater, and art, and also houses non-FIG students interested in music or the fine arts. The Residential FIG program did not exist before fall 2000, and it has grown from an experimental offering of four residential FIGs in fall 2001 to the current twenty-three. All are popular and are exceptionally effective in fostering academic engagement. The success of Residential FIGs would not be possible without the effective partnership we are fortunate to have between Undergraduate Studies and University Housing.

Freshman Seminars. Freshman Seminars are small, interactive courses designed to introduce first-year students to thought-provoking, challenging, and interesting subjects. The topics are diverse, currently ranging from "How to do Baseball Research" to "The French Mind." These courses develop writing, speaking, and critical-reasoning skills, in addition to providing faculty guidance and peer interaction. Freshman Seminars are open to all incoming students in their first year of university study. Each term, approximately ten different seminars are

offered and enrollment in each is limited to twenty-three students. Students may take more than one seminar during the year; however, space is limited and enrollment is on a first-come, first-served basis.

One example of a popular Freshman Seminar is "Theories of Leadership," taught each year by President Frohnmayer. In this seminar, students investigate how theoretical concepts about interaction of personality, training, character, and environment help explain the principled or unprincipled exercise of power and influence. Students also examine various definitions of leadership from political theory, history, psychology, sociology, literature, moral philosophy, and organizational behavior, and they test the insights of classical theorists from Machiavelli to Nietzsche. Another popular seminar, on philanthropy, shows students that giving away $10,000 is harder than they imagine.[127]

A.6. PROGRAM EVALUATION

A.6.a. Background

Ideally, all decisions about continuing or changing undergraduate programs would be based on objective data on their effectiveness. In some cases, the information we would most like to have is difficult to obtain, but increasingly, we strive to base programmatic decisions on evaluation of the quality of the program, not simply on quantitative measures, such as enrollment. This section describes the evaluation methods that are currently in place and what we have learned from them. We are always receptive to suggestions for additional or better ways to measure the results of our effort and anticipate adding tools in the future.

A.6.b. Assessing the General Education Curriculum

Determining the effectiveness of a curriculum that has multiple components, and that encourages students to devise their own paths through it, is not trivial. In addition, few faculty members, even those who frequently teach general education courses, have a comprehensive understanding of the full curriculum. Therefore, the provost and vice provost for undergraduate studies suggested an initial focus on analyzing the curriculum as it presently operates—trying to discover its strengths and weaknesses. To do this, we examined the group-satisfying courses, the largest part of general education, at the level of syllabi. We also examined the elements of general education that most students have in common (writing, mathematics, and foreign language) at a more pedestrian level—asking simply whether students were beginning their course work at the appropriate level and completing it in a timely fashion.

UO group curriculum. The Undergraduate Council carried out a systematic review of

Box A2: Why Faculty Members Enjoy Teaching Freshman Seminars

Eugene Luks, professor of computer and information science, volunteered these observations on his Freshman Seminar, "Making and Breaking Codes":

"Today I was showing the *Masterpiece Theatre* video 'Breaking the Code,' about Alan Turing, . . . and the students were submitting . . . original ciphers for "Cipher Challenge," a two-week take-home activity. One [student] showed up with a bowl of chocolate cookies to share with the class. I appreciated the gesture but did not give any special thought otherwise, since I had brought snacks of some kind to our prior events. However, Kate's motive involved more than showing off her baking talent. It turned out that she baked her cipher into each cookie—and the encoded message even referred to cookies. What a delightful surprise!"

the group curriculum in AY 2003–4 and 2004–5, which led to the development of supplemental guidelines for the design, presentation, and ongoing review of courses that satisfy the university's group requirements. To our knowledge, this was the first systematic review ever conducted of the group curriculum as a whole, in contrast to the reviews of individual courses by various curriculum committees at the proposal stage.

The review process. For the purpose of the review, the council developed a questionnaire that focused on whether a course met existing criteria for group courses in its area

and was consistent with the overall intent of general education. The criteria were:

- *Group courses in arts and letters* must create meaningful opportunities for students to engage actively in the modes of inquiry that define a discipline. Proposed courses must be demonstrably liberal in nature and broad in scope. Though some courses may focus on specialized subjects or approaches, there must be a substantial course content locating that subject in the broader context of the major issues of the discipline. Qualifying courses will not focus on teaching basic skills but will require the application or engagement of those skills through analysis and interpretation.

- *Group courses in the social sciences* must be liberal in nature rather than professionally oriented or devoted in substantial measure to the performance of professional skills. They must cover a representative cross section of key issues, perspectives, and modes of analysis employed by scholars working on the subject matter addressed by the course. The subject matter of the course will be relatively broad (e.g., involving more than one issue, place, or time). Courses with emphasis on methods and skills will satisfy the requirement only if there is also a substantial and coherent theoretical component.

- *Group courses in the sciences* should introduce students to the foundations of one or more scientific disciplines, or should provide an introduction to fundamental methods (such as mathematics) that are widely used in scientific disciplines. Courses should introduce students to the process of scientific reasoning. Although laboratory courses are not automatically excluded from group-satisfying status in the sciences, to acquire this status, the courses must not focus primarily on techniques or data collection.

- *Upper-division group courses* must provide depth and rigor beyond that of typical lower-division general education courses.

The questionnaire[128] was used to evaluate the syllabi of all 100- and 200-level group-satisfying courses (excluding math and language courses) offered in 2002–3, as well as the syllabi for all 300-level group-satisfying courses offered in the fall term of that year. This amounted to a review of approximately 230 syllabi from the total of approximately 300 courses that make up the group curriculum. Overall, the findings were encouraging: most courses were found to be appropriate in level, breadth, and rigor, and council members discovered a number of excellent courses that they'd been unaware of. Where significant problems were noted, they were communicated to the relevant academic unit.

During its review, the Undergraduate Council also analyzed features beyond the subject-matter of the courses—for example, the effectiveness of course descriptions and syllabi and the time-frame in which the courses were offered. On the basis of this analysis, the council proposed, and the University Senate subsequently passed, supplemental legislation to improve the group curriculum and communication of its content. The legislation now requires:

- The posting of electronic course descriptions for all group-satisfying courses.

- An explanation in the syllabus of (a) the fundamental questions addressed by the course and (b) how the course meets the criteria for group status. These requirements are designed to increase awareness and appreciation of the content of group-satisfying courses, most especially by helping faculty members

communicate to students *why* these courses are part of our general education curriculum.

- A lower limit on the time interval within which the course may be offered. To ensure that students have sustained engagement with material that is likely to be new to them, group courses must be offered in time periods that are standard for academic terms, and not less than three weeks.

Although much of the group curriculum is deliberately offered at the lower-division level, appropriate for incoming freshmen, a substantial segment (40 percent) is offered at the 300 level. These courses face multiple constraints: they must have the intellectual sophistication of the upper-division, yet be accessible to students untrained in the field. The council found the existing guidelines for such courses inadequate ("provide depth and rigor beyond that of typical lower-division general education courses") and drafted further explanation, which has been adopted. The full explanation, along with examples, is available[129] but the essence is that 300-level group courses should introduce students to a discipline, educate students in the way knowledge is produced in a discipline, encourage students to integrate perspectives and material, and assume that students have completed some lower-division university course work, although not necessarily in same field as the course. For purposes of clarity and effective application, we recently compiled all of the legislation dealing with the group curriculum in one coherent document, which forms the current basis for design and review of courses that merit inclusion in this curriculum.

Future directions. The Undergraduate Council's systematic review of group-satisfying courses marked the inauguration of a regular, cyclical review of all parts of the general education curriculum. The plan is to work through the five elements of the curriculum (group courses, multicultural courses, writing, mathematics, and foreign language) over a period of approximately five years. At that frequency, it should be possible to identify needed improvements in each element, make appropriate changes, and still have time to consider their effectiveness before the element is reviewed again. The council deliberately began with the largest and most diverse segment of general education (the group-satisfying courses) in order to set up and test a robust review system. As described above, the system worked well: the criteria previously developed for these courses proved useful in practice, and responses to the questionnaire created by the council permitted rough quantitative summaries of course characteristics.

A weakness of the initial review was that no well-defined process existed to communicate and act on the Undergraduate Council's findings. This reduced the usefulness of the council's work, and a credible means of responding to problems was needed before more review was undertaken. We have adopted the following approach that we think is broad and consultative enough to inspire confidence in its fairness. Starting in AY2006–7, the practice will be for the Undergraduate Council to give its findings to the university curriculum committee that deals specifically with general education, the Inter-College General Education Review Committee (ICGERC). It is ICGERC that initially reviews all newly proposed general education courses, but since courses can change between the proposal stage and the classroom, we think that the flow of information back to ICGERC about specific courses in actual operation is vital. Inclusion of the ICGERC chair on the Undergraduate Council already fosters informal communication and has helped both groups apply the criteria for group-satisfying courses more systematically. Now, there is an explicit procedure for asking ICGERC to re-examine general education courses that have attracted the Undergraduate Council's

attention during review. The breadth and dispassion of this approach will facilitate action and thereby maintain, even increase, the quality of the UO's general education.

The Undergraduate Council plans to return to its review of general education, with a focus on multicultural courses, in AY2006–7. The choice of these courses as next in line for review was based on their partial overlap with group-satisfying courses, as well as the strong campus interest in them expressed in the university's Diversity Plan[130] (see "Strategic Directions Involving Students").

Required Writing Curriculum. Nearly all UO students take the same two writing courses (the exceptions being those who are exempted by high SAT-Verbal or AP scores, or membership in the Robert Donald Clark Honors College). Faculty members throughout the university understand the central importance of writing and worry that the overall standard of undergraduate writing is declining. This is not to blame our Composition Program, which is highly respected, but to acknowledge a significant problem. There have been several efforts to address the problem, including a pilot Writing Assessment during the Process for Change and a donor-funded "Writing Across the Disciplines" project that gave students additional writing instruction (beyond the two-course standard) through well-taught writing components that were added to upper-level courses ranging from political science to biochemistry. Both initiatives were seen to have promise, but financial limitations prevented implementation on a broader scale; even with adequate funding, there were logistical problems that had to be solved. Specifically, a pattern of complaints from students and advisers indicated a chronic shortage of writing classes for incoming freshmen, despite the use of remarkably accurate enrollment forecasts to determine the need for writing sections.

The problem. The basis of the shortage turned out to be the large number of upper-class students who hadn't completed writing requirements within their first two years. Enrollment by upper-class students reduced the space available to freshmen and thus perpetuated a pattern of delay that defeated the main purpose of the writing requirement, namely, to prepare students for writing in more advanced courses.

The solution. An aggressive plan to solve the problem was put in place for fall 2002. The plan relied on (i) concerted advising to urge new students to take their writing courses on schedule and (ii) financial support over a three-year period to provide the extra writing sections needed to accommodate both incoming freshmen and upperclassmen. Since then, we have kept careful track of the balance between supply and demand for writing classes. Periodic enrollment checks by the advising office indicate that incoming freshmen now do a good job of taking their writing classes on schedule, and the graphs (Figure A3) show that the number of advanced students who have delayed writing has decreased. We continue to monitor these classes to ensure that the recent slight rise does not regenerate the original problem.

Future direction. Having removed the barrier to timely (before junior year) completion of the UO writing requirement, we are now in the position to examine the development of writing skill by our students and to enhance it in various ways. The university may wish to reconsider a writing assessment of some sort—designed to measure the qualities emphasized by our composition faculty and supported with sufficient resources to respond to its results. For instance, mechanisms to follow up with students whose writing is weak, as well as to encourage higher-level work from other students, need to be in place. The new Certificate and Minor Program in Writing, Public Speaking, and Critical Reasoning, recently

created with Williams Fund support by the English and philosophy departments, begins to address the need for sustained higher-level work. We appreciate the insight, creativity, and collaborative energy that have gone into the design of this new program, and we anticipate that it will serve as an inspiring model for further enrichment of the UO writing curriculum.

Mathematics. The UO offers a wide range of math courses for students with different interests and math backgrounds. Good communication between the Department of Mathematics and the rest of the university has resulted in an array of strong courses that meet the specialized needs of various majors and also promote math literacy for students who earn a B.S. degree. For example, in addition to the "regular" calculus sequence, the math department offers a sequence that is designed for business majors, another tailored to students in the biological sciences, and a highly regarded Honors Calculus sequence designed for math majors and other students who want a deep under-

Figure A3. Juniors and Seniors Lacking Writing 121 and 122

Current Students Needing WR121

*No data available on current students needing WR121 during AY 2000–1

Current Students Needing WR122-123

*No data available on current students needing WR122-123 during AY 2000–1
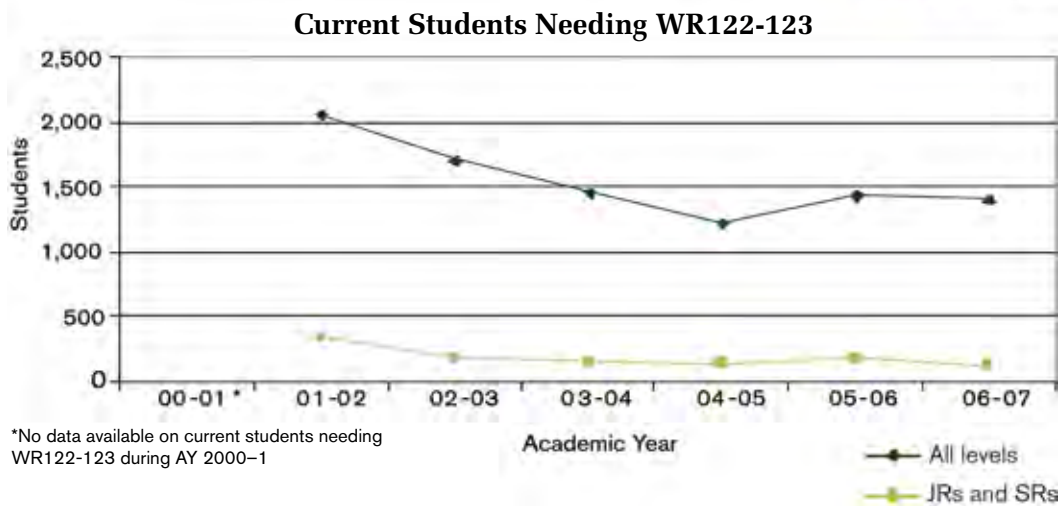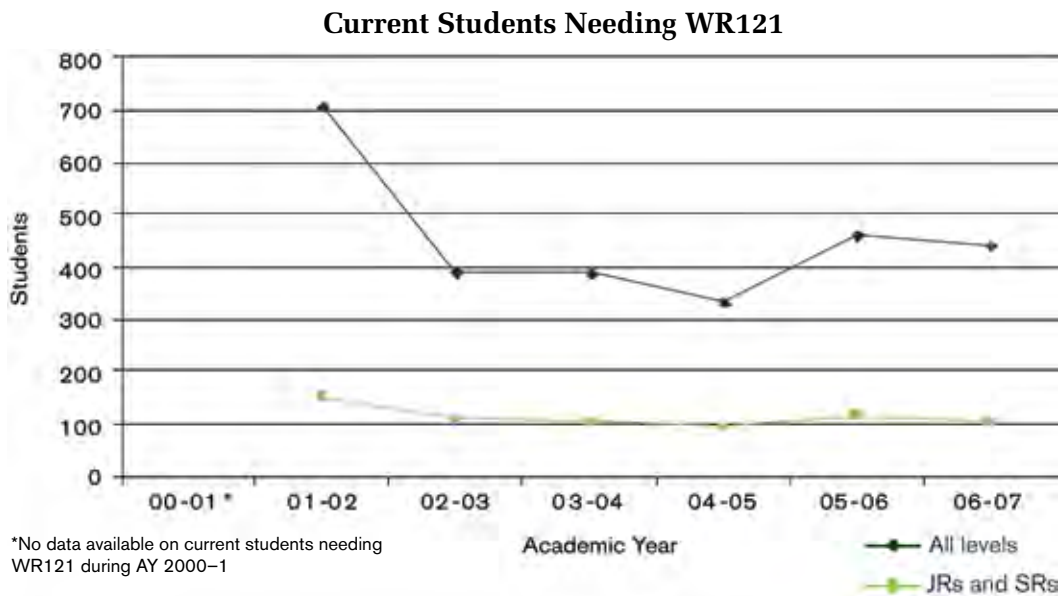
Source: BANNER reports 2001–6, compiled by the Office of the Registrar and used by UO Division of Undergraduate Studies for Writing Course Analysis, 2001–6

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standing of the mathematics of calculus, not just its applications. The math offerings just below calculus are also varied and include both the prerequisites for calculus (College Algebra and Elementary Functions), a sequence for students who plan to teach at the elementary level, and a sequence that doesn't provide the specialized math required by certain majors, but serves as an effective part of general education for all B.S. students.

The problem. The challenge in mathematics is to place entering students in appropriate courses. For many years, the approach had been to have everyone take the math department's placement test during orientation. The testing center was able to handle the large number of students, but the test was irrelevant to those students (about half of the total) who were headed for a B.A., rather than a B.S., degree. The inclusion of these students, whose anxiety about math was typically severe, was damaging to the spirit of confidence and optimism we were trying to cultivate, and the performance of those who did not take it seriously made the overall test results uninterpretable. The results consistently overestimated the need for remedial courses, for instance.

The solution. We've solved this problem by using SAT-Math scores as an initial, approximate placement guide. We (University Testing Center in collaboration with the Department of Mathematics) took this approach after using past student math performance to calibrate the SAT scores and compare their placement accuracy with that of the department test. The SAT-Math scores proved as effective as the local test, at least as a basis for the most fundamental decision—readiness, or not, for college math. This discovery allowed us to design a streamlined math placement procedure, which has proved effective and user-friendly throughout the five years it has been in place. All students are given "ready or not" placements, based on their SAT-Math

scores, when they arrive at orientation. For students not planning to take further math (those headed for B.A. degrees), this is simply information that requires no action. For most of the others, this crude placement is sufficient, and they can begin university math where most students do—with college algebra. Students are invited to challenge the SAT placement via math department tests: the regular one for placement at the college algebra level (if the SAT-Math placement was lower), or the advanced one for fine-tuned placement in calculus or above. The adoption of this approach has been transformational for the academic parts of orientation. While test-taking is nobody's favorite activity, the general anxiety level has gone down dramatically, and most students taking placement tests see them as potentially beneficial. This makes it easy to encourage all students to aim high.

Foreign language. Placement challenges also beset foreign language instruction, and a different psychology makes them more difficult to deal with than they are in math. Students planning to study a foreign language in college typically want to begin at the lowest possible level. This is appropriate for students who lack prior experience with the language, but not for students who've already studied the language in high school. These students should build on the high school experience and begin at the second-year level, if they've had two years of the language, and even higher if they've had more.

Problem and partial solution. Large numbers of "ringers" in introductory classes cause problems. They take resources away from higher level instruction and interfere with the faculty member's ability to teach the true beginners in their classes. In an effort to reduce the problem in Spanish (where it is most severe) and also in French, an accelerated beginning sequence has been created for students with some language experience. Nonetheless, many students

simply take the standard first-year sequence, starting at the very beginning, with 101 classes.

In some cases, reluctance to begin at an appropriately high level is due to poor high school training, but in others, it reflects unjustified fear and avoidance of challenge. The contrast between this behavior and that of math students probably comes from the fact that since most math courses are taken as prerequisites to something else that corresponds to the student's primary interest, the motivation to shorten the waiting period by starting with an advanced course is strong.

Over the last five years, we have relied on advising to encourage students to start language study at the appropriate level, and to investigate languages other than the one they studied in high school. This effort has been aided by the recent addition of high school language experience to the electronic records of incoming students. Previously, UO academic advisers knew only that students had met the two-year foreign language requirement for entrance, not which language had been studied.

Future direction. Electronic encoding of more of the information contained in high school transcripts has allowed us to determine, for the first time, the extent to which students heed our advice. It's clear that the advising approach has been only partially successful. Thus, we've neither optimized our own language instruction, nor pressed for rigorous language instruction in Oregon high schools. It may be appropriate to consider stronger measures, including blocking students with significant high school language study from registration in beginning classes. The availability of electronic high school records makes this feasible, and our obligation to our own students, as well as to the K-12 education system, makes it worthwhile.

Despite placement problems, there is inspiring progress in the largest segment of UO language instruction. Specifically, a new method of assessing students' command of Spanish has been introduced recently with good results. (See Box A3 for the Spanish Language Program's perspective.)

A.6.c. Assessing Major Programs.

Undergraduate majors are examined in detail through the Program Review Process, which also assesses the quality of the faculty and the graduate program in each academic unit. The process is described in section B. Graduate and Professional Education and in the Program Review Guidelines.[131] It includes both external and internal reviewers. Review of undergraduate programs was strengthened when the process was revised to include the vice provost for undergraduate studies. In addition, the process now includes regular provision of data that can inform units about the academic progress of their students and the unit's grading practices, in comparison with university norms. The first reviews, using the new approach, were carried out in AY 2005–6 for four social science departments: anthropology, economics, political science, and sociology. The External and Internal Review Teams' reports on each of these programs are available for review.[132]

A.6.d. Grades as Assessment Throughout the Curriculum

Meaningful and consistent assessment of student learning outcomes is one of the principal responsibilities of a university faculty, and grading ought to be an effective form of assessment. Despite its importance, grading practice is not often emphasized in accreditation reviews. Our self-study departs from the norm in this respect because we are convinced of the necessity for candid and responsible evaluation of student work. We have made a careful study of UO

Box A3. Teaching Culture and Building Language Proficiency: The Role of Authentic Assessment

Studying a second language and its cultures is a cornerstone of a liberal arts education, and the UO two-year language requirement for the B.A. represents a serious commitment to this ideal. But what are our real goals for second language study? In the past few years, the Spanish Language Program at the UO has pursued a two-pronged objective: real-world, usable proficiency for students who study only two years, and a firm basis for continued study for those who go on to advanced-level courses. To achieve these goals, we have taken seriously the well-studied phenomenon of assessment "washback" on instruction, a type of reverse design in which implementing authentic oral and written assessments impacts how courses are taught. The results have been:

- development of proficiency gains in students' real-world ability in Spanish
- lowered grade inflation
- increased student accountability and motivation in the learning process

The role of authenticity is important: in our lower-division language courses, students do not simply manipulate grammatical structures and vocabulary in artificial exercises. Rather, our chapter exams are more like in-class compositions on topics of personal and cultural interest. Even as early as Spanish 101, students are producing two- and three-page compositions on written exams and in oral exams they can speak for three to four minutes without interruption.

The focus on real content in our assessment program has allowed us to integrate a criterion- or rubric-based evaluation system. Instead of a discrete-point system that is subtractive—that is, one in which a writing sample is expected to be perfect and errors cause points to be subtracted from an ideal 100 percent total— our system is additive. An evaluator looks for both positive and negative aspects and rates the sample against a list of well-defined criteria. Positive aspects of a composition cause points to be added to a baseline grade, thus encouraging students to strive for higher levels of performance.

undergraduate grading patterns over the period for which electronic data are available, and we intend to respond to the evidence of grade inflation we have found. We believe that grades can be useful indicators of student learning, but we understand that this function requires use of the full grading scale and agreement on the degree of mastery represented by points on the scale.

While we find that our grading practices are not out of line with practices elsewhere—indeed, we are probably best characterized as

"typical"—the national picture that we reflect is not inspiring. Grade inflation threatens to eliminate the assessment function of grading systems because it erases distinctions in student performance. Moreover, variation in grade inflation across institutions and time leads to a systemic erosion of confidence in the meaning of grades. (See discussion of grades as assessment by Rosovsky and Hartley, 2002).[133]

Grade inflation at the UO. The phenomenon of grade inflation, as experienced at the

UO, is documented in a study by the Undergraduate Council that was completed in spring 2006.[134] The report includes evidence on national trends, compiled at www.gradeinflation.com, which indicates an average increase in grades given of 5.1 percent from 1992 to 2002. The graph from that site is reproduced as Figure A4 below.

There is considerable variation across academic units in both the level of grades awarded and the amount of inflation. Figure A5 uses data from the Registrar's Office to give a general picture of this variation at the UO over the period 1992 to 2004.

Additional analysis by the Undergraduate Council focused on the percentages of As and Bs awarded in the large-enrollment

Figure A4. Trends in Grade Inflation Nationwide
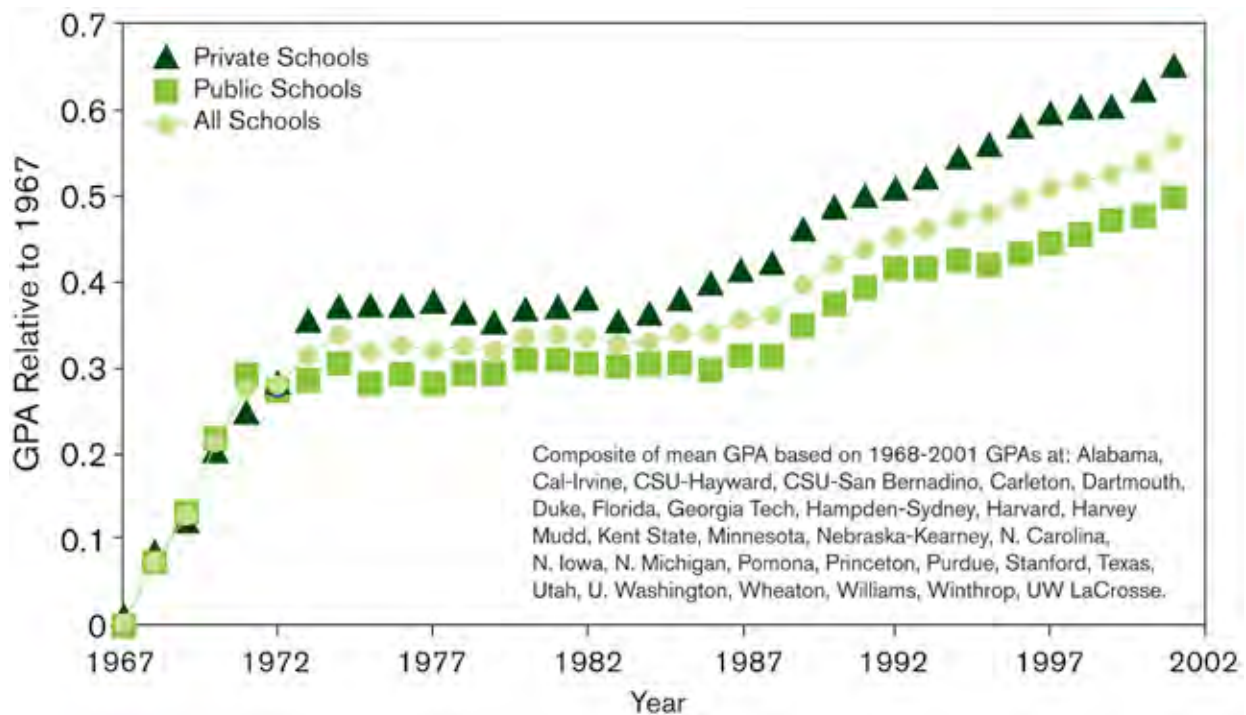
Source: www.gradeinflation.com

Undergraduate grades at the University of Oregon exhibit a similar pattern: (See Table A3.)

Table A3. Trends in GPAs: Changes between 1992 and 2002

UO GPA	5.1% increase
All schools GPA	5.1% increase
Public schools GPA	5.3% increase
Private schools GPA	4.8% increase

Figure A5. UO Undergraduate GPAs by College and CAS Division[135]
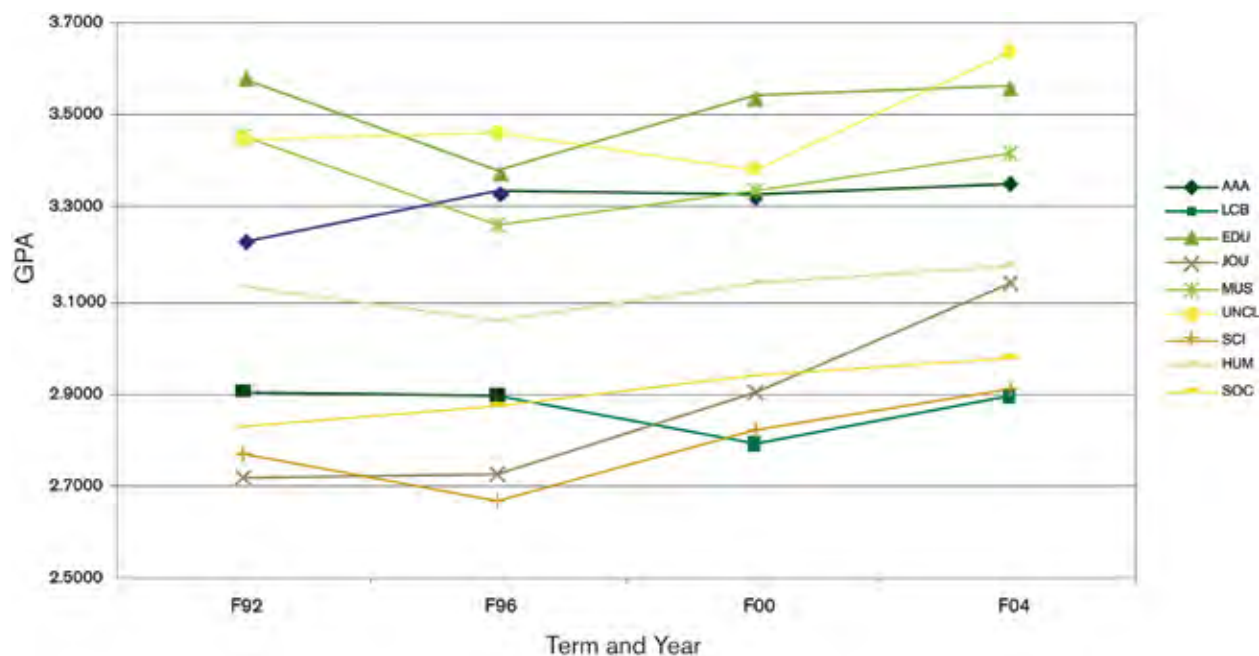
classes offered over the same period. A class had to have been taught in three of the four sample years (1992, 1996, 2000, and 2004) to be included in this study, and the findings are thus less likely to reflect changes in the composition of classes than is the case when institution-wide GPAs are tracked. The percentage of As awarded increased from about 31 percent to about 42 percent between 1992 and 2004, while the share of As and Bs combined increased from 66 percent to 73 percent. (See Table A4.)

Table A4. Change in Percent As and Bs Awarded between 1992 and 2004

Percentage A	10% increase
Percentage A+B	7% increase

As for GPAs, variation across academic units was evident. The results of both analyses show that grades have risen over the interval examined. Since concurrent changes in student characteristics are not large enough to account for the higher grades, we conclude that inflation has occurred.

UO response to grade inflation. Concern about this trend has prompted a number of colleges and universities to respond locally to grade inflation. For example, the University of North Carolina–Chapel Hill, Princeton, Georgia Institute of Technology, and Indiana University are doing so. We recognize that curbing grade inflation is difficult. While it is true that faculty responsibility for the curriculum includes an obligation to provide meaningful evaluation of student work, this responsibility is balanced by academic freedom, which allows faculty members to grade as they deem appropriate. Clearly, if the UO decides to distinguish itself as one of the institutions attempting to address the problem of grade inflation, faculty members will need to collaborate within their departments to develop approaches that respect both the responsibility and the freedom involved in the act of grading students.

A number of market forces favor the tendency to award high grades, and there is concern that if grade deflation is not universal, UO students will be at a disadvantage

with respect to their peers at other institutions. On the other hand, inaction will quickly lead to a grading system that is of little value. The growing public demand for standardized proficiency demonstrations may well be prompted by the lack of evaluative information in college grades. From this perspective, if the University of Oregon were to succeed in curtailing grade inflation, our students would likely benefit from the university's enhanced reputation for rigor.

In the interest of stimulating a productive campus-wide conversation, the Undergraduate Council has considered possible ways to curb grade inflation on our campus and has compiled and circulated them to the campus.[136] These ideas represent an initial frame for the conversation and should not be confused with recommendations. Any recommendations that come forward will do so through a process of campus-wide discussion coupled with careful consideration of their feasibility and consequences—intended or otherwise.

We expect that a lively campus-wide discussion of the Grade Inflation Report will generate proposals for action. All interested members of the academic community have been invited to participate and to send ideas to the Undergraduate Council, which will formulate recommendations based on this feedback. An approximate time table would put the council's consideration of possible recommendations in winter term 2007, and a motion to the University Senate in late winter or early spring term 2007.

A.6.e. Assessment of Programs That Promote Academic Engagement

Freshman Interest Groups (FIGs). FIG effectiveness is evaluated using a range of different kinds of data. Both qualitative information from participants and quantitative data on students' academic performance in other course work are used to measure the quality of the program. The size of the program (approximately 1,700 students) means that analyzing all of the qualitative information is not trivial, but it also makes quantitative measures reliable. Specifically, these data are collected and analyzed each year:

- Qualitative evaluations from multiple sources
  - First-year students in the programs (about 1,700 per year)
  - Faculty members teaching courses in the programs (about ninety per year)
  - Advanced students serving as assistants (about sixty per year)
  - Classroom visits by First-year Program staff members

- Measures of students' academic success
  - Grades in specified courses (controlled for SAT scores and high school GPA)
  - Overall UO GPA

- Persistence toward a baccalaureate degree
  - Term-to-term retention
  - Year-to-year retention
  - Graduation rate

Both quantitative and narrative responses from first-year students, faculty members, and student assistants reveal the popularity of these programs and suggest that participation in them is satisfying. Moreover, the quantitative evidence of student academic success and retention is compelling.

Academic Success. The graph in Figure A.6 shows that after 2000, FIG students have consistently earned higher grades than non-FIG students. In contrast, there was no difference in FIG and non-FIG academic performance before that time. The data for the single cohort shown (1998) is representative of the other pre-2000 cohorts that were analyzed. All of the comparisons were done with FIG and non-FIG groups that had been matched with respect to high school

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Figure A6. FIG and Non-FIG Academic Performance

First Year GPA: FIG Freshmen and Non-FIG Freshmen

First Year Retention: FIG Freshmen and Non-FIG Freshmen

FIG Freshman   Non-FIG Freshman   Matched on High School GPA
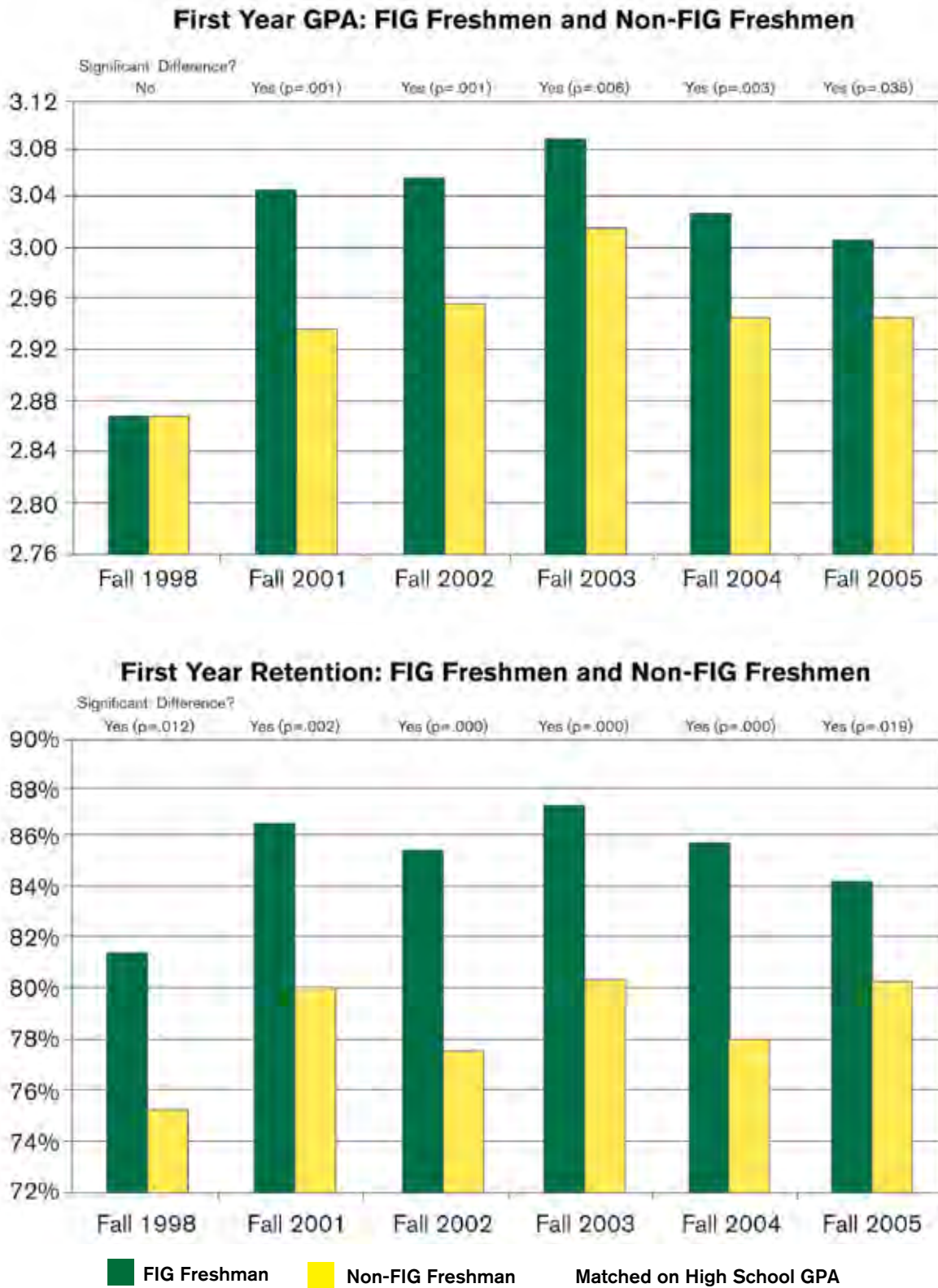
Source: UO Office of Institutional Research, December 2006

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GPA, and FIG SAT scores were either the same as, or lower than, the non-FIG scores. Although the possibility of self-selection makes it difficult to establish a causal relationship between FIG participation and academic success, we can conclude that the alterations in the FIG program since 2000 have had a good effect. (This conclusion is based on the assumption that the self-selection factor has remained constant over time.)

Comparisons that eliminate some additional potential variables reinforce the conclusion. Specifically, letter grades earned by FIG and non-FIG students in the same FIG courses were compared directly, and the possibility of FIG instructor bias was removed by considering only the courses not taught by each student's FIG seminar professor.[137]

Residential FIGs became a substantial proportion (about 40 percent) of the FIG program only recently, but our data suggest that these FIGs are especially effective in helping students reach their potential. Even when students in residential FIGs had earned lower high school grades than had students in regular FIGs, they performed just as well in the FIG courses and in their university course work overall, as measured by UO GPA.[138]

Retention. FIG students are also more likely than non-FIG students to return the following year (88 percent versus 81 percent for the 2004 cohort) We are in the process of tracking retention in subsequent years, as well as graduation rate, for each of these groups.

Freshman Seminars. The university first offered Freshman Seminars in fall 1984, following the program's creation by the Faculty Advisory Council to the president. Each year, the Freshman Seminars Advisory Board conducts a campus-wide competition to select the best courses for the program.[139] A new board of faculty members

with rotating membership was appointed in 2000, and since that time proposals have been subjected to particular scrutiny, and a required writing assignment has been added to reinforce the university's attention to writing through general education. The board considers the suitability of the topic proposed, the choice of readings, and the appropriateness of all assignments, especially writing. Board members regularly request changes or additions, which are discussed with the instructor and incorporated before the seminar is offered. Even existing freshman seminars now undergo this review process on a rotating basis. Regular visits to all freshman seminars were instituted in 2000 as a way to monitor the quality of the classes and to support the faculty. Workshops with small groups of instructors each term serve the same function. Both the faculty[140] and the students[141] in each freshman seminar are asked to assess the seminar each year, using questions designed by First-year Programs. The reflection and feedback helps faculty members improve their seminars and forms part of the ongoing evaluation of the program.

A.6.f. NSSE: An Overall Measure of Student Engagement

We have participated twice in the National Survey of Student Engagement (NSSE) survey (2003 and 2006), but have only just begun a detailed analysis of the results. A summary of the response rates (about 46 percent) and characteristics of the sampled students gives confidence that the results are likely to be meaningful. In addition, the 2006 survey deliberately expanded the sample size (from about 500 to approximately 5,000) so as to permit comparisons of subgroups of students. Although the analysis is far from complete, some generalizations are possible. To facilitate thinking about the large number of survey items, we've devised a simple sorting scheme to highlight the items on which the UO does especially well or especially poorly, compared to the mean

for AAU schools.[142,143] The take-home lesson from both surveys is that the UO scores at the AAU mean for most items, but does significantly better on some. Examples from 2003 freshmen and seniors, the two groups surveyed, are listed below. The results for 2006 were similar, but the results are not easy to compare because of the differences in sample size. Overall, the UO resembled the AAU mean in 2006 even more closely than it did in 2003. This could reflect a real change, or simply the reduced variation of a large sample.

Freshmen
- Prepared two or more drafts of a paper or assignment before turning it in.
- Did not come to class without completing readings or assignments.
- Included diverse perspectives (different races, religions, genders, political beliefs, and so forth) in class discussions or writing assignments.

Seniors
- Prepared two or more drafts of a paper or assignment before turning it in.
- Have studied abroad, or plan to.
- Positive relationship with faculty members.

In contrast, our 2003 scores are below the mean for these items:

Freshmen
- UO emphasizes spending significant amounts of time on academic work.
- UO contributed to their growth in acquiring a broad general education.

Seniors
- Amount of time spent studying and on academic work.
- UO contributed to skills in solving complex real-world problems.

An additional comparison that we find revealing is between the responses from freshmen and seniors. We ranked the dif-

ferences (seniors minus freshmen) by size and noted those with the greatest statistical significance (P < .001). The full comparison is shown in the UO NSSE data analyses[142,143] and the overall picture is encouraging. Students clearly change while they are part of our community, and they do so in the direction we hope for. A few examples are given in Table A.5., and these show gains in important intellectual habits: synthesizing ideas rather than memorizing facts, being critical of one's own ideas, and applying concepts to practical problems.

We anticipate that further analysis will reveal additional insights, which will be used to direct our attention and effort in the future.

A.7. ACHIEVING THE IDEAL: CHALLENGES AND OPPORTUNITIES

At the beginning of Section II.A., we identified four elements of an ideal undergraduate program. In conclusion, we consider each of these in light of the challenges and opportunities that have been revealed by our self-study.

Emphasize challenging course work that develops the capacity to reason and encourages individuality and creativity

- *Opportunities:* The academic quality and rigor of our programs for beginning students have increased significantly, and that progress has catalyzed other initiatives that hold great promise. For example, one of the fruits of the ResFIG collaboration is the new Living-Learning Center. The idea of bringing the intellectual life of the university into undergraduate residence halls is not new, and residence halls intended to promote this union have been built on a number of campuses. The intended goal is not always met, however. Our confidence that such a venture has a high probability of success at the UO comes from our

experience with the Residential FIGs. These provided direct evidence that the living-learning idea is appealing to our students, and the ResFIGs established the organizational infrastructure for the community we hope to create in the Living-Learning Center.

- *Challenges:* The principal obstacle facing First-year Programs is financial. The essence of this unit's work is connecting beginning students with excellent faculty members. Faculty time is precious and must be purchased, but the available funds increasingly fall short of compensating departments for the actual cost of this time. For example, the cost of buying a faculty member out of a formal course has risen beyond the standard payment for a freshman seminar. In addition, a variety of worthwhile programs, such as Honors College Seminars, the Society for College Scholars, FIGs, and Freshman Seminars, now compete for faculty time and must keep pace with the compensation they offer.

A pervasive concern is the indication from the NSSE results that, despite freshman program improvements, UO students may still not encounter sufficient academic challenge. We expect to invite broad faculty discussion of this finding, and more detailed analysis may suggest appropriate responses.

Offer thoughtfully constructed programs of study that show students the relationships among ideas, in addition to the ideas themselves

- *Opportunities:* Innovations in programs for beginning students have stimulated both students and faculty members

Table A.5. Excerpts from 2006 UO NSSE Results:
Items showing marked* improvement from freshman to senior year

1.	**Academic and Intellectual Experiences**	
		In your experience at your institution during the current school year, about how often have you done each of the following? 1=never, 2=sometimes, 3=often, 4=very often
	d.	Worked on a paper or project that required integrating ideas or information from various sources
	i.	Put together ideas or concepts from different courses when completing assignments or during class discussions
2.	**Mental Activities**	
		During the current school year, how much has your course work emphasized the following mental activities? 1=very little, 2=some, 3=quite a bit, 4=very much
	c.	**Synthesizing** and organizing ideas, information, or experiences into new, more complex interpretations and relationships
	e.	**Applying** theories or concepts to practical problems or in new situations
	a.	**Memorizing** facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form (**decreased** freshman to senior year)
6.	**Additional Collegiate Experiences**	
		During the current school year, about how often have you done each of the following? 1=never, 2=sometimes, 3=often, 4=very often
	d.	Examined the strengths and weaknesses of your own views on a topic or issue
	a.	Attended an art exhibit, gallery, play, dance, or other theater performance
	e.	Tried to better understand someone else's views by imagining how an issue looks from his or her perspective

* P ≤ .001

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to connect ideas in different courses. We should build on this progress to create additional curricular links for students and opportunities for the faculty in different disciplines to teach collaboratively.

Most majors are constructed so as to give students a common core of disciplinary knowledge and to connect the topics in specialized courses to fundamental principles. The recent efforts of the sociology department to increase the structure and coherence of its major[144] are an example of thoughtful and practical response to the need for synthesis. The university should continue to encourage intellectual linkage within majors.

- *Challenges:* Probably the most effective way to encourage students to synthesize what they've learned is through a capstone project. True capstone experiences put students in situations that are unfamiliar and challenging enough to require them to integrate and expand upon the full range of knowledge they have gained in their earlier course work. Unfortunately, true capstone experiences are relatively rare at the UO, and it is worth considering how they could be made available to a larger proportion of students. One possibility is to consider study abroad as a kind of culminating experience for students in a wide variety of majors—not simply foreign languages. The UO is already known for its vigorous international programs and thus has the capacity to make overseas study a regular part of its undergraduates' education. One way to do this would be to make overseas study an explicit part of the general education curriculum. Some students already use approved courses taken abroad to fulfill a few of their group requirements. Better information about interesting combinations of courses to take through study abroad in particular locations could help stu-

dents design individually rewarding and coherent plans for their education.

Encourage students to participate in research or other creative work and to apply what they've learned in the classroom

- *Opportunity:* One of the best ways to help students see how their course work connects to their own lives, as well as to the world beyond the campus, is to introduce them to positive, educational extracurricular opportunities very early in their college careers. Progress in this endeavor has been substantial over the last decade, but more could be done. Initiatives such as the Living-Learning Center are motivated by our conviction that students' everyday living environment is a major factor in fostering the intellectual curiosity and social engagement that are necessary to link abstract ideas with practical applications. Much of our attention during the next few years will be aimed at finding additional ways to influence this environment productively.

- *Challenge:* Although the value of applied work is undisputed, the number of UO students finding ways to do it effectively has decreased over the last five years. Students with access to internship programs in their majors are probably better-served, but general UO students seeking internships face challenges such as:

  — Knowing where to begin looking for internships: Identifying internship opportunities related to a particular field or interest area is not straightforward.
  — Understanding how to obtain academic credit for internships or how to find paid internships, if financial circumstances require this: There is no internship center or clearinghouse that can provide guidance.

— Understanding the responsibilities associated with an internship: Again, the lack of an effective central resource is a problem, and the number of departmental coordinators and faculty members who can help is small.

In addition, there are special challenges for international students, students with disabilities, LGBTA students, and other students who seek internships and have special needs.

The opportunity for the University of Oregon to connect students with valuable internships is significant. Currently, there is no centralized program to act as a referral source for students interested in internships. The UO Career Center formerly acted in this manner by hosting the Career Development Internship Program in which thirty sites were offered each term, with many organizations using interns on a regular basis. Upper-division elective credit was awarded based on attendance at seminars, required written work throughout the term, and written evaluation by the supervisor. More than 250 students per year participated, and this program was a strong component of the PLE initiative described above.

Ensure that student work is evaluated with care and candor

- *Challenge:* The existence of grade inflation at the UO is undeniable, and its corrosive effects are already felt by both students and faculty members. The award of academic honors is complicated by the differences in grading practices across campus, and faculty members increasingly are pressured to perpetuate the problem by students with a long history of receiving inflated grades. We know that halting this trend is essential if our evaluation of student work is to be meaningful, but we also know that it will not be easy to accomplish.

- *Opportunity:* Despite the obvious challenge, we are optimistic about ultimate success. First, two units (the economics department and the Lundquist College of Business) have already successfully implemented measures to stop local grade inflation. Second, and perhaps most important, our preliminary campus-wide discussions have indicated broad willingness to tackle this problem and considerable agreement on approaches that might be used. We are especially pleased that undergraduate students, through their representatives in the Student Senate and the Undergraduate Council, have expressed strong support for the effort. Although these students recognized that more realistic grading would cause some personal angst in the short-run, they appreciated the enduring benefit that would come with a meaningful grading system that commanded respect. Therefore, we head into the next phase of improving our grading practices with a confidence borne of consensus, and with the conviction that the effort is fundamental.

B. EDUCATION FOR THE FUTURE: GRADUATE AND PROFESSIONAL EDUCATION

There are two quite traditional conceptions that we see as essential dimensions of the mission of graduate education. The first is that graduate education is an apprenticeship in the methods, skills, practices, history, and current state of a particular discipline or field. There are standards of excellence internal to the complex practices that are the sciences, the arts, the humanities, and the professions. Students have to learn these things by *doing* them, not merely by reading or listening, and they must be done in dialogue and interaction with people who have achieved a level of accomplishment and distinction in those fields. The second crucial aspect of our mission is that graduate education should teach citizens to think analytically, critically, creatively, and cooperatively. It is in the combination of the two crucial aspects of our mission that we are positioned to address the problems, complexities, and conflict in our communities from the local to the global scale.

B.1. OVERVIEW OF GRADUATE PROGRAMS

The UO has the authority to grant 167 different degrees within sixty-seven graduate programs, housed in seven schools and colleges. These programs offer graduate degrees at the master's level, which include the traditional M.A., M.S., and M.F.A. degrees, as well as specialized professional degrees such as master of architecture, education, public policy, law, music, and landscape architecture; and at the doctoral level, which include the Ph.D., D.Ed., and a doctor of musical arts (D.M.A.). We do not have degree programs in agriculture, engineering, or the health sciences. However, plans are underway for collaboration with the Oregon Health & Science University (OHSU) and PeaceHealth's Sacred Heart Medical Center to bring medical students to campus for portions of their medical training. This initiative also will provide opportunities for these students to pursue the Ph.D. portion of an M.D./Ph.D. program of study at the UO.

B.1.a. Programs Eliminated Since 1997

Since the last reaccreditation in 1997 a number of graduate degree programs have been eliminated. These include foreign language teaching (M.A.), industrial relations (M.A., M.S.), leisure studies and services (M.A., M.S., D.Ed., Ph.D.), and telecommunications and film (M.A., M.S., Ph.D.). The elimination of both the leisure studies and services and telecommunications and film degree programs were a direct result of the budget cuts necessitated by Ballot Measure Five (see pages 8–10 on the 1997 Reaccreditation Report).

B.1.b. New Programs Since 1997

However, since the last reaccreditation study there has been healthy growth and development in new graduate programs that are responsive to disciplinary or community needs. These new degree and certificate programs are:

- College of Arts and Sciences
    Applied Physics (M.S.)
    Materials Science Industrial Internship-Master's Program (M.S. chemistry)
    Environmental Sciences, Studies, and Policies (Ph.D.)—a joint program with Oregon State University and Portland State University
- Lundquist College of Business
    Accounting (M. Actg.)
- School of Architecture and Allied Arts
    Digital Arts (M.F.A.)
    Landscape Architecture (Ph.D.)
    Museum Studies (certificate)

Not-for-profit management
(certificate)
Photography (M.F.A.)
- School of Law
Conflict and dispute resolution
(M.A., M.S.)
Environmental and Natural
Resources Law (LL.M.)
- School of Music and Dance
Dance (M.F.A.)
Intermedia Music Technology (M. Mus.)
Jazz Studies (M. Mus.)

Also during the last ten years two "experimental" programs were started, but they did not become sustainable. The first of these was a master of software engineering, launched in 1999 as a collaborative program between the UO, OSU, PSU, and OIT (Oregon Institute of Technology). This program was designed for working professionals and was delivered in a combination of face-to-face and distance learning. The program continues today under the management of Portland State University, but the University of Oregon no longer participates. The second program, started in 2002 in the College of Education, was a pilot program that combined distance and face-to-face learning to deliver doctoral training in educational leadership to school administrators in the state of Alaska. This program was not sustainable after the loss of faculty members within the offering department.

B.2. ASSESSMENT OF ACADEMIC PROGRAMS

In assessing our graduate programs we need to examine how we assure that our graduate students are being adequately trained in the most current knowledge of their fields, and whether or not there are gaps in the course work and learning environments that we provide to our master's and doctoral degree students.

B.2.a. Direct Measures

Ongoing within-program review. Evidence for the currency and rigor of our academic programs is measured in at least five ways. The first of these occurs within the program itself where detailed examination and modification of the curriculum is done on an ongoing basis by the faculty within the program. The faculty members involved in graduate education are responsible for designing and redesigning their master's and doctoral degree programs. In some areas there may be standing committees (e.g., master's program committee, doctoral program committee) that are responsible for reviewing and modifying program requirements, but those changes must also be approved by the faculty as a whole and, in some cases, by other groups or individuals on campus (e.g., Graduate Council, University Senate, Provost's Office). (See Box B1.) A description of the process by which new programs are proposed and reviewed can be found on the Office of Academic Affairs website.[145]

College and university curriculum review. A second way in which the curriculum is evaluated occurs if there are new courses being proposed (or significant changes being made in existing courses). A description of the process by which courses in the College of Arts and Sciences (CAS) are reviewed can be found in an overview titled "Structure of Curricular Review."[146] The other schools and colleges may have slightly different internal processes, but they generally follow the same type of review. Any new or significantly modified changes in courses also must be approved by the university's Committee on Courses, which makes recommendations to the University Senate about whether the new or redesigned courses should be added to the curriculum. This body also regularly removes courses from the curriculum that have not been taught recently or frequently enough to warrant their continued listing. Examples of the Commit-

Box B1. Graduate Council

History and Authority: The Graduate Council was established in 1900. Currently the Graduate Council has twelve elected faculty members: six members from CAS (two humanities, two social sciences, and two natural sciences) and six members from the professional schools and colleges (one from each professional area and two at-large). The dean of the Graduate School, the associate dean of the Graduate School, and a representative from the UO Libraries serve as exofficio members of the council. There are two student members, one master's level and one doctoral level.

Among the Graduate Council's powers is the authority to establish general policies and regulations governing graduate study at the university. The council also serves as an advisory committee to the dean of the Graduate School. Other responsibilities include reviewing and making recommendations about proposals for new graduate degree programs, ruling on academic grievances filed by graduate students, evaluating applicants for various scholarships and awards, and serving on internal review committees for the program review process. The council may also decide to engage in research or advocacy related to issues that affect graduate education at the University of Oregon.

tee on Courses reports can be found on the Registrar's website.[147] (See Box B2.)

Program review. A third way in which graduate curricula are examined in detail is through the university's program review process, a description of which can be found in the document titled, "Program Review Guidelines."[148] During this process a team of three highly respected scholars in the discipline being reviewed reads a self-study document, visits the campus, and writes a report. In addition, an internal review team also reviews the self-study, meets with faculty members and students if needed, and writes a separate report. The internal review team is made up of three faculty members, one from the Graduate Council, one from the Undergraduate Council, and one that has been nominated by the program being reviewed. Although the program review process is broader than just the graduate program, in that it covers the undergraduate program and faculty productivity, the examination and assessment of the graduate curriculum are main components of the review.

The program review process at the UO was on hiatus from 2001 to 2004 while it was being redesigned. It began again in fall 2005 with the review of four programs within the social sciences: anthropology, economics, political science, and sociology. The external and internal review teams' reports on each of these programs are available for review.[149] In addition to the university's program review process, a number of our graduate professional programs are subject to regular reaccreditation within their particular fields. (See Box B3.)

Student perceptions. Although evaluation by experts in the discipline, both internal and external, is central to making sure our graduate curriculum is both current and rigorous, it is also important to learn how the students themselves evaluate their academic programs. Thus, a fourth way of examining this is through the exit survey that is completed when students apply for their advanced degree. In that survey we ask students to evaluate their program using the following questions:

Box B2. Committee on Courses

Charge and Responsibilities: The Committee on Courses shall be responsible for: (1) screening all proposals for course changes and reporting its recommendations to the university faculty through the University Senate; (2) directing the university editor on the content and structure of the *University of Oregon Catalog*; (3) consulting with the Undergraduate Council and the Graduate Council on curricular patterns of concern; (4) participating, on behalf of the university faculty, in planning the development and improvement of the instructional program of the institution; (5) reviewing courses not taught on a regular basis; and, (6) providing advice and assistance to schools and departments in the planning of the curriculum. When the committee is recessed, the chair of the committee shall have authority to approve immediate emergency requests for course changes subject to review when the committee resumes business. This authority may be delegated to the provost in the absence of the chair.

Box B3. Accrediting Bodies

School of Architecture and Allied Arts
 Architecture—National Architectural Accrediting Board (NAAB)
 Interior Architecture—Council for Interior Design (CIDA)
 Public Policy and Management—National Association of Schools of Public
  Affairs and Administration (NASPAA)
 Art—National Association of Schools of Art and Design (NASAD)

Lundquist College of Business
 Association to Advance Collegiate Schools of Business (AACSB)

College of Education
 Various accrediting and licensing bodies such as the Oregon Teacher
  Standards and Practices Commission (TSPC).

School of Journalism and Communication
 Association for Education in Journalism and Mass Communication (AEJMC)

School of Law
 American Bar Association (ABA)

School of Music and Dance
 National Association of Schools of Music

- What is your perception of the academic expectations of your department or program?
- How would you rate your program's performance in keeping pace with recent trends and developments in your field?

- How would you rate the professional training and research opportunities your program provided to graduate students?
- What is your perception of the quality of the faculty in your degree program?
- How would you rate the overall quality of your degree program?

In general we have found that doctoral students tend to have slightly higher ratings than master's level students across these questions. Using the scale 1 = low or poor, 2 = below average, 3 = average, 4 = above average, 5 = high or excellent, the range of scores for the individual questions from 1998 through 2005 is relatively narrow, from a low of 3.45 to a high of 4.25. The overall means (collapsed across time) tend to converge to an even narrower band ranging from approximately 3.8 to 4.1. The items that consistently have the highest ratings are "keeping pace with trends and developments" and "quality of faculty." A summary of the exit survey data across multiple years, as well as the full questionnaire are available for review.[150]

It should also be noted that a number of individual programs as well as some schools and colleges survey their own students during and at the completion of their programs. These data are used to modify and improve the curriculum and other aspects of the programs.

Postgraduation plans. Finally, a fifth way of assessing the quality of our graduate programs is to examine the extent to which students are successful after graduation. In some cases this means additional academic training (a doctoral program or postdoctoral fellowship) and in others, employment. Data from our exit survey provide some information about where our students are going.[150] We find that, on average, master's students who have a position secured at the time they are applying to graduate show the following pattern: 32 percent will be furthering their academic training, 29 percent have jobs teaching in a school or community college, 22 percent have secured positions in business or industry, and the remaining 17 percent have positions with nonprofit organizations, the government, or will be self-employed. It is also interesting that the exit survey data indicate that on average, more than 70 percent of our master's degree students who have a position secured at graduation will be staying in the state of Oregon.

For doctoral students who have a position secured at the time they are applying to graduate, the pattern is: 29 percent have secured a postdoctoral or research fellowship, 38 percent have a teaching or research position at a four-year institution, 18 percent will be teaching in a school or community college, and the remaining 15 percent have positions in nonprofits, government, or will be self-employed. Finally, it should be noted that the university does not have a centralized process for tracking our students after they graduate. Some of our schools or colleges make a special effort to do this (e.g., College of Education, School of Journalism and Communication, Lundquist College of Business); and some departments have excellent records of where their students, particularly doctoral students, have found jobs.

B.2.b. Indirect Measures

Time to degree. Graduate programs need to be of a sufficient length to adequately train individuals for the degrees they are seeking. However, care must also be taken, particularly at the doctoral level, to make sure that students do not take so long to complete their degrees that the course work they took early in their program has become dated. The general university policy is that students have seven years from the time they first enroll in a graduate program to complete the degree they are seeking. In addition, the UO has a continuous enrollment policy for graduate students, which has been designed to keep students moving toward degree completion. Students are eligible for three terms of an official leave of absence (LOA) during a master's program or prior to advancement to candidacy in a doctoral program. Doctoral students who have advanced to candidacy may also have three terms of in absentia status where they

are not required to be enrolled. However, in every case the seven-year time period remains the same (i.e., the clock does not stop during a LOA or in absentia period).

Over the last eight years, the time-to-degree for master's students has averaged 2.05 years, with a range of from 1.6 years for our M.B.A. program to 3.1 for music and dance students and 2.6 years for students in architecture and allied arts. During that same period, the time-to-degree for doctoral students has been more varied, averaging 5.5 years, with a range of 3.8 years for journalism and communication to 6.2 years for students in music or the social sciences. More detailed program-level data for this indicator can be found in the exit survey data[150] for each academic year.

In those cases where students, typically doctoral students, have not been able to complete their degree within the seven-year deadline, they must petition the Graduate School for an extension. An extension for one additional year is granted as long as the student has already made significant progress, has a specific plan for completion, and has the support of their program. Depending on the specifics of the situation, the student may be given a term-by-term extension that is contingent on reaching specific goals for each term. This tool for moving students toward completion is virtually always used if the student has gone past the eighth year. Students who have broken their enrollment must apply for readmission to their program and may be required to retake course work, do another year of residency, or redo other academic requirements (e.g., comprehensive exams).

Faculty quality. A second indirect means of assessing the quality of our graduate programs is through the quality of the faculty we hire, a topic that is covered in parts I.A and III.A of this report. However, it is also important that we have policies and practices in place that assure the faculty members teaching in our graduate programs are those most qualified to do so. For example, at the most general level, our policies state that the instructor for any course should already hold the degree that is being sought by the students enrolled in that course. Exceptions to this principle, which are not common, tend to occur primarily in some professional programs where an individual with extensive applied experience, but no graduate degree, may be teaching a course with specialized content. Another example is the policy governing who can serve on doctoral dissertation committees.[151] This policy is particularly important at the UO because we do not have a "graduate faculty." One challenge that we have faced over the years is that of "research" faculty members who hold a Ph.D., are involved in research projects, but are not tenure-track faculty members (NTTF). This is a particularly challenging issue in our College of Education and somewhat less critically in the School of Music and Dance.

Hiring highly qualified faculty members and having policies in place to assure that they are the ones delivering our graduate programs helps assure that these are the individuals who are available to train graduate students. However, we also need to recognize the value of training graduate students through our policies governing teaching assignments for graduate (particularly doctoral) seminars, and our reward structures for faculty members serving on thesis and dissertation committees. One example of the latter can be found in the Lundquist College of Business where service on dissertation committees earns credit toward release time for teaching, with faculty earning three points for chairing a dissertation committee and one point for serving as a member. When nine points have been accumulated, the faculty member gets a one-time, one-course reduction.

Student engagement in research and creative activity. Students' involvement in original

research and creative activities is another way in which we can assess the quality of our graduate programs. As part of the self-study process, departments and programs were asked to provide examples of graduate student involvement in these types of activities, and to indicate whether the unit took any special measures to encourage this type of engagement (Question 3). Forty-six graduate programs responded to this question. The most common response (89 percent) identified research or creative collaborations between graduate students and faculty members. The second most mentioned response (30 percent) was facilitating graduate student participation in conferences or publications, more specifically by coauthoring papers. Collaborative research that results in students having publications prior to graduation is critical in many disciplines.

One-third of the departments responding to this question identified special measures taken to encourage student engagement in research and creative activities. Examples of the measures listed were obtaining external grant funding, assigning GTFs as research assistants, providing summer funding, the use of faculty Academic Support Accounts to fund students, internships, and access to research centers. Working directly with faculty members on research immerses students in the research process, increases the likelihood that they will have a publication prior to graduation, and prepares them for the next step in their professional career, whether that is a postdoc, an academic or government position, or a research position in the private sector.

B.2.c. Gaps and Concerns

The relationships between master's and doctoral degree programs vary across disciplines. In some areas such as business there may be virtually no overlap between an M.B.A. program and the doctoral programs that focus on specific areas (e.g., accounting, finance, management, or marketing).

In other areas such as the physical and life sciences, students are admitted directly into a doctoral program after their undergraduate degree and a master's degree is earned "along the way," after some initial course work and an examination or project. Professional master's degrees may be the terminal degree in a particular discipline (e.g., M.F.A., M.Arch.) and tend to be highly structured with an appropriate emphasis on application. Master's degrees in the liberal arts will have a core set of requirements, but may also offer students more flexibility in selecting a focus for their studies. In addition, the nonprofessional and nonterminal master's degree programs can lead into a doctoral program, either at the UO or another institution. Given the differences between these two levels of graduate programs, we need to assure that students at both of these levels are receiving graduate-level training appropriate to the degree they are seeking. In addition, we need to examine whether or not there are any gaps in the training that is available to graduate students at either or both of these levels.

Graduate-only courses. Ideally, graduate students would take courses with other students at their same or higher level of academic training. At the UO we have a practice that is not uncommon in public higher education, which is to have combined undergraduate and graduate courses. On this campus these courses are identified as 400/500 level courses. Thus, the same course will be listed as an undergraduate course (e.g., 411) and also listed separately as a graduate course (e.g., 511), even though the course is delivered to both groups of students at the same time. A number of our master's programs depend heavily on these types of courses, primarily for financial reasons. This may not be a problem if the enrollment in the course is a small number of advanced undergraduates and a majority of first-year graduate students. However, a randomly selected term (fall 2003) showed a total of 394 courses offered that combined

undergraduate and graduate students, with a total enrollment of 7,850 undergraduate students, and 2,401 graduate students. Thus, overall these courses were 77 percent undergraduate and 23 percent graduate. Although there was significant variation in that some classes had enrollments that were 100 percent undergraduate and others were 100 percent graduate, additional analyses showed that just 22.8 percent of these courses had at least 50 percent graduate students, and that only 18 percent had graduate enrollment of 60 percent or higher. Thus, in 78 percent of these courses, graduate students make up 40 percent or less of the students in the class.

Starting in the late 1990s the university has taken one important step to help manage this situation by requiring that syllabi for all 400/500 course proposals have explicit and substantive differentiation in the work required for graduate versus undergraduate students. The Committee on Courses is responsible for making sure course proposals comply with this requirement. When departments and programs were asked as part of their self-study if there were particular gaps in course work, research opportunities, or professional training opportunities for their graduate students,[152] 77 percent of the thirty-five programs responding identified course work issues, and 33 percent of those specified the problem as having to do with 400/500 level courses or the absence of graduate-only seminars.

The applied statistics gap. In the same self-study responses described above, 26 percent of the departments who identified course work gaps listed issues related to the lack of statistics and methods training. This is a long-standing problem because the University of Oregon does not have a formal department of statistics. This is of particular concern for a number of graduate programs across the physical sciences, social sciences, and some professional schools. Individual departments provide courses in various

statistical methods (see page 190 of the 2006–7 *UO Catalog*); however the course content is specific to each discipline, spaces available to students outside those departments are limited, and overall there is less than sufficient coverage of newer and more powerful statistical methods. In addition, this decentralized approach to training in statistics had led to some courses becoming "service courses" to other graduate programs (e.g., psychology), or to the inefficient use of resources as the same courses are taught in multiple departments without any coordination. In a 1993–94 Program Review of Statistics, the situation even at that time was described as "fragile." There has been very little progress on improving the situation since then. As the analytical tools that are available continue to develop, and the size and complexity of databases increase, this situation will limit the quality of both the graduate training we are providing and possibly the productivity of our faculty.

Diversity. Graduate academic programs need to engage with the issue of developing a culturally responsive community[153] by supporting teaching and research related to diversity. Two examples of current support for this type of research are the support to Co-DaC (Center on Diversity and Community), described in B.3, and the support provided by the Graduate School to the Southwest Oregon Research Project (SWORP), which continues to archive ethnographic information from national repositories. The SWORP archive[154] contains valuable linguistic, cultural, and historical information about native peoples in the region.

B.3. PROFESSIONAL DEVELOPMENT

B.3.a. Training Tomorrow's Teachers

Many graduate students serve as Graduate Teaching Fellows (GTFs) during their time at the university, and the majority of those students will have the experience of

teaching an undergraduate course, either as the sole instructor or as the leader of a discussion or lab section. The Teaching Effectiveness Program (TEP) has an exemplary record of providing these students (as well as faculty and other instructional staff members) with a whole range of training opportunities and resources.[155] TEP provides materials, workshops, and individualized training to departments and individuals on topics such as incorporating research into courses, developing effective assessment tools, and teaching large classes. TEP provides training opportunities for beginning instructors that include topics such as motivating students, leading productive discussions, giving effective presentations, lesson planning, testing and grading, promoting critical thinking, and using instructional technology.

TEP also provides training opportunities directed at creating inclusive classroom environments in which students from diverse backgrounds can learn effectively. This type of training will be essential as our graduate students begin their own careers in classrooms that are becoming increasingly diverse, whether those are in the K–12 system, community colleges, or other universities.

Individual departments may also have their own training programs. For example, the English department has a year-long training program that incoming graduate students must complete before they can be assigned as instructors in undergraduate writing classes. The mathematics department assigns first-year graduate students to teach separate sections of the same lower-division math class, and requires weekly meetings to go over teaching tips and deal with problems that may arise. A number of departments have a less formal approach, but one that involves a planned sequence of training. In these situations, the graduate student is first assigned to assist a faculty member with a course, then lead a discussion section, and finally to be the sole

instructor. Overall, the graduate students who are involved in teaching undergraduate students are given multiple sources of training and support. They are also evaluated with the same instruments used for faculty members, and these are reviewed by the graduate program director or department head to identify any problems, provide additional training, and reward exemplary performance. In the latter case, the Graduate School has two privately funded teaching awards for GTFs, one of which goes to one or two first-year GTFs who participate in TEP training and perform well, and the other which goes to one or two experienced GTFs (with at least five terms of teaching), who perform well in both their teaching and their academic programs.

B.3.b. University Conferences

Providing opportunities for graduate students to participate in conferences provides training and preparation for the life of an academic scholar or the life of the citizen scholar. Below are examples of events that provide just these types of opportunities.

HOPES Conference. Begun in 1995 and held every April, the Ecological Design Center's (EDC) Holistic Options for Planet Earth Sustainability (HOPES) conference is the only ecological design conference developed and managed by students. The HOPES conference works to promote the deeper understanding and broader application of sustainable design principles by featuring nationally recognized keynote speakers, expert panel discussions, hands-on workshops, and a green business expo. This conference takes place within the larger mission of the EDC, which is to advocate for an interdisciplinary ecological design curriculum for architecture and allied arts (AAA) students, cultivate networking opportunities for AAA students with professionals practicing sustainable design, create a forum for ecological design dialogue, and

advocate for and implement ecological planning and design on the University of Oregon campus and in the Eugene community.

Association of Pacific Rim Universities—Doctoral Student Conference. The Association of Pacific Rim Universities (APRU) Doctoral Student Network created the annual Doctoral Student Conference five years ago to provide a forum for doctoral students in the sciences, humanities, and social sciences. The goals of the conference are to share current research, facilitate communication, increase mutual understanding, and forge links among doctoral students in the Pacific Rim. This multidisciplinary conference offers a venue for critical comment of student research and provides opportunities for establishing lasting international networks. The theme of the sixth annual conference,[156] held at the UO in August 2005, was "Moving Toward a Sustainable Future: Multidisciplinary Perspectives from the Pacific Rim." The conference was organized by graduate students from the UO, with support from the Office of International Programs, the Graduate School, and the Office of the Vice President for Research and Graduate Studies. More than seventy doctoral students from fifteen countries attended the conference.

CoDaC Graduate Research Conference. For the last four years the Center on Diversity and Community (CoDaC), with support from the Graduate School[157] and the Office of Institutional Equity and Diversity,[158] has hosted an annual crossdisciplinary UO graduate student conference, at which that year's CoDaC Graduate Summer Research Award recipients give presentations from their research projects. A full description of the programs from each year's conference provides an overview of the breadth of topics that have been presented.[159]

B.3.c. Internships and Practica

Professional development for students who are entering professions other than the professoriate typically takes the form of internships, practica, or other opportunities to engage in the application of their training in nonacademic settings. These types of training opportunities tend to be focused, although not exclusively, in the professional schools. In some cases these opportunities are a part of the academic requirements for a degree (e.g., counseling or clinical psychology), or for licensure in the field (e.g., College of Education programs), while others are enhancements to the academic training that will better prepare students for their professions. (See summary of departmental policies regarding internships.[160]) Multiple examples of professional development opportunities that are available to graduate students, and which are embedded in activities that serve broader audiences and stakeholders, are provided in B.4.

B.3.d. Responsible Conduct of Research and Professional Ethics

Another type of professional development that is important for students who will be engaged in research is training in the responsible conduct of research and professional ethics. Thus far there has not been a centralized program of this type of training for graduate students; however the Graduate School and the Office for Responsible Conduct of Research will be exploring options for providing this type of experience. This training is likely to take place within a broader collection of workshops and seminars around related topics such as managing relationships with faculty members, learning to balance research and teaching, funding opportunities, and completing your dissertation. The Graduate School has regularly provided training opportunities in both funding resources and completing a thesis or dissertation. The latter has taken the form of twice-per-year workshops that

have been typically attended by sixty or more students in each session. An expansion of this program to include specialized sessions for disciplinary areas (e.g., social sciences, natural sciences, professional) is currently being developed.

B.4. MEETING EXISTING AND EMERGING NEEDS

Graduate programs evolve in response to changes in academic disciplines, changes in the problems that are given priority by funding agencies, and changes in the issues that the larger society identifies as a priority. It is important to note that whether these changes originate within an academic discipline or outside one (e.g., from industries or governmental agencies), these boundaries quickly become blurred. For example, the creation of a new degree program in conflict and dispute resolution serves the evolving discipline of legal education; helps to reduce the pressures placed on our judicial system; and may ultimately reduce the level of conflict within a community. So although these boundaries may not be clearly marked, universities must carefully balance the long-term commitment they make when establishing a new graduate program with being responsive to these changing needs. They also must manage strategically their responses to evolving academic disciplines with their responses to public (government, community) and private (business) stakeholders who want to see changes in their programs.

Below we provide examples of established programs that serve the needs of the broader academic enterprise as well as society, followed by examples of newer programs developed in response to community and societal needs.

B.4.a. Established Programs

The programs described below have been in place for a number of years, and in some cases, decades. They represent a long-term commitment to serving the academic and practical training needs of our graduate students and the broader needs of our communities and society.

RARE Program: Academic and Service to Communities. The Resource Assistance for Rural Environments (RARE) Program began (1994) just a short time before our last reaccreditation visit and it continues to be successful. This program is administered by the University of Oregon's Community Service Center[161] and is designed to increase the capacity of rural communities to improve their economic, social, and environmental conditions through the assistance of trained graduate-level participants who live and work in communities. RARE host communities receive a full-time RARE participant who will provide community service for eleven months, support services from a team of six planning-policy analysts, and regular site visits and evaluation by RARE staff members. More than 200 RARE participants have been placed throughout rural Oregon, and projects that have been completed include the development of a downtown master plan, implementation of a county-wide tourism master plan, coordination of a watershed assessment, assistance to rural residents with small business skills, and coordination of the development of a city-wide economic development plan.

Strategic Planning Projects: Academic and Service to Business. The Lundquist College of Business M.B.A. program has as its centerpiece of experiential learning the Strategic Planning Project (SPP).[162] This project takes place in the winter and spring terms of the first year of the M.B.A. program, and it pairs teams of four students with a Northwest business. Wherever a company sees a growth opportunity or barrier, the student

consultants will research and analyze the situation and present their conclusions to senior management. Students receive training and mentoring in communication, teamwork, and leadership skills. Some of the projects that have been completed include integrating newly acquired product lines, designing a new seat-licensing system for a sports franchise, and writing a marketing plan for educational services. Over the last five years approximately sixty different businesses and nonprofit organizations have participated in these projects.

Environmental and Natural Resources Law: Academic and Service to Society. More than thirty years ago, the University of Oregon established one of the first and most highly regarded environmental law programs in the country.[163] This program has the mission of "engaging the law to support sustainability on Earth." Graduate students have the opportunity to work with a large number of professors who specialize in the environmental area, and they can elect to work on a number of established projects. Examples of the projects undertaken in this area are:

- Global Environmental Democracy Project: Preparing students to be advocates for global change
- Conservation Trust Project: Focusing on public trust theory and private property tools to achieve landscape conservation
- Sustainable Land Use Project: Evaluating land use laws, theories, and practices to ensure sustainable development in our communities
- The Native Environmental Sovereignty Project: Examining emerging tribal roles in comanaging lands and resources
- The Ocean and Coastal Project: Working on sustainable use and protection of ocean and coastal resources

Many law students are involved in public interest work during their time in law school, and most of these students seek jobs in the public interest or government sector. Graduates have taken positions with the U.S. Department of Justice, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, attorneys general offices, tribal agencies, the Columbia River Inter-Tribal Fish Commission, Sierra Club, Earthjustice, the Wilderness Society, Southern Environmental Law Center, and Trust for Public Lands.

Chemistry and Physics Science Outreach: Academic and Communities. The University of Oregon's GK12 Science Outreach Program provides graduate students from chemistry and physics with experience teaching hands-on physical science and mathematics in elementary and middle schools in Lane, Deschutes, and Jefferson counties. The program works in partnership with the Lane and the High Desert Education School Districts (ESD) to provide inquiry-based curriculum to the schools. The students spend approximately one day a week assisting with a variety of in-school activities. Some of the objectives of this program are to increase K–12 students' knowledge and appreciation of math and physical science, enhance K–12 teachers' knowledge of physical science and mathematics content, and prepare graduate students for careers that encourage or require community outreach. As part of this program, graduate students can serve as content resource specialists and assist with instruction, provide demonstrations and other content resources to teachers and students, help teachers with scientific-inquiry based work samples developed from kit materials, develop activities (puzzles, challenges, and so forth) that integrate both math and science skills, and mentor students in science fair project development.

B.4.b. New Programs

The following programs are exemplars of graduate programs that have developed more recently and are still establishing themselves.

Conflict and Dispute Resolution. The university recently launched a master's degree program in conflict and dispute resolution,[164] housed in the law school. This program is grounded in dispute resolution theory and combines broad interdisciplinary training and opportunities for individualized study and skills development. In addition to traditional mediation, negotiation, and adjudication courses, the first-year curriculum explores the implications of ethical, cross-cultural, and third-party dynamics in the field of conflict resolution. The first-year course of study sharpens analytical skills, encourages intellectual rigor, and fosters the lively exchange of ideas in and out of the classroom. In the second year students focus on individualized learning and work closely with an approved, on-site practicum supervisor and a UO faculty member. The practicum experience allows students to observe and practice conflict resolution techniques and approaches in real-world settings, to gain experience in an area of the field that is of particular interest to them, and to develop relationships with established practitioners who can provide guidance and mentorship.

Materials Science—Academic and Business. The Industrial Internship-Master's Program,[165] offered through the Materials Science Institute, pairs chemistry and physics students with industry (see Box B.4). Students spend time in class and on the job and typically end up with their foot on the first rung of their career ladder. The summer education and training provide participants with the knowledge and skills necessary to be successful in the industrial research laboratory setting. Students who successfully complete the course work will be offered interviews for internships at regional or national industries. Students selected by these companies will complete a six- to nine-month internship. During the internship, students maintain their connection with faculty members via meetings or campus seminars.

Box B.4. Internship Sites for the Materials Science Program

Intel Corporation
LSI Logic, Inc.
TriQuint Semiconductor
Hynix Semiconductor America
Novellus Systems
Micron
Borden Chemicals
Bend Research
Forrest Paint Company
Willamette Valley Company
Neste Resins
Albany Molecular
AVI Biopharma
Chemical Technologies
Marker Gene
Invitrogen/Molecular Probes
Organic Consultants
TCI America
Dynea
CW Group
Nike

Technology Fellows Program: Academic and Business. The Center for Entrepreneurship at the Lundquist College of Business, the School of Law, the Department of Physics, the Department of Chemistry, the university's Office of Technology Transfer, and the Pacific Northwest National Laboratory (PNNL) have partnered in a consortium for entrepreneurship education and technology commercialization. The mission of this unique student internship program[166] is to catalyze and accelerate the formation of new technology-based businesses. At the heart of the collaboration is the commitment of the parties to provide graduate students from these varied disciplines with relevant, live experiences in evaluating, structuring, financing, and planning high-technology start-ups. Student teams assess the market potential and financial value of intellectual property underlying disruptive proprietary technologies where no comparables exist. This initiative is in its fifth year and thus far close to sixty students have participated. In 2005–6, the program attracted a pool of more than thirty-five applicants, from which nine were selected and named Technology Entrepreneur Program Fellows.

B.4.c. Graduate Student Involvement

The newly developed graduate programs discussed earlier in this section provide considerable evidence that the UO is responsive to the needs of communities and society as well as evolving academic disciplines. In addition, departments responded to a question about the ways in which their graduate programs engage students in activities that serve the needs of society, either while in training at the UO or through the positions taken after graduation. Of the forty-four departments responding to this question,[167] 84 percent identified activities that their students participated in while enrolled in school.

One of the general categories of these activities is related to "performances" such as the

students in art, dance, music, or theater who demonstrate their developing skills in galleries, schools, and communities around the state. Another category could be described as "direct service" in which graduate students in programs such as clinical psychology, counseling psychology and human services, marriage and family therapy, communication disorders, or special education work directly with clients in schools and clinical settings. Finally, there are programs where graduate student and faculty research provides benefits to society. One example of this is work done by students and faculty members from anthropology helping local police in missing persons' cases and consulting at the World Trade Center in the recovery of human remains. Another example is the computer and information science (CIS) department's development of "CogLink" and "Eyedraw." The former is a system that helps people with significant cognitive impairments maximize their independence and community integration. The latter, started in 2003, is the product of a research project that enables users to draw pictures solely with the use of their eyes. EyeDraw is designed for children and teenagers with severe mobility impairments, and although other software exists for them to type and read, a drawing program is a novelty for these users.

B.5. CHALLENGES AND OPPORTUNITIES

In Academic Programs and Assessment

- The UO lacks a centralized system for tracking our graduate students after they graduate.

- The existing system of 400/500 level classes does not adequately serve our graduate students; we lack a sufficient number of graduate-only courses.

- The current system for delivering graduate-level training in applied sta-

tistics is, for some programs, inefficient and inadequate.

- More teaching and research related to diversity is needed.

In Professional Development

- A more systematic approach to training graduate students in the responsible conduct of research and professional ethics is needed.

In Support for Graduate Programs

The many challenges we face in this area are addressed in III.C of this self-study.

C. SUSTAINING EDUCATION AND SCHOLARSHIP: INFORMATION RESOURCES AND TECHNOLOGY

Information resources and technology play a central role in all aspects of the academy: teaching and learning, research, administration, and service. Investments in both library resources and information technology represent a significant commitment for any research university, and the University of Oregon is no exception. In decades past, technology has allowed us to improve our standard procedures and processes and to increase efficiency. E-mail systems, online library catalogs, electronic journals, student computer labs, course websites, presentation software and equipment, and enterprise-wide management systems are classic examples of technology-assisted functions. The University of Oregon has invested appropriately in all these technologies and in building the network infrastructure that is necessary to support these activities. Like most research universities, we are also beginning to see new applications emerge that may have a more profound impact on higher education. Looking toward the future, technology will likely create new opportunities for scholarly collaboration, new pedagogical approaches in the classroom, and better methods for managing and accessing an explosion of information.

C.1. BACKGROUND

Information resources and technology at the University of Oregon are provided through the University of Oregon Libraries and through the University of Oregon's Information Services.

C.1.a. The University of Oregon Libraries

The UO Libraries is a member of the Association of Research Libraries (ARL). ARL is a nonprofit organization of 123 research libraries at comprehensive, research-extensive institutions in the United States and Canada that share similar research missions, aspirations, and achievements. It is an important and distinctive association because of its membership and the nature of the institutions represented. The University of Oregon Libraries is small compared to most ARL institutions, ranking 105th out of 123 members.

Compared to other ARL libraries, the UO Libraries is also relatively centralized. The main collection for humanities and social sciences is located in Knight Library. There are four branch libraries on campus: Architecture and Allied Arts, Science, Mathematics, and Law. Organizationally, the Law Library is part of the library system. There are also two off-campus branch libraries: the Portland Architecture Library in the Portland Center, and the Loyd and Dorothy Rippey Library at the Oregon Institute of Marine Biology Library in Charleston, Oregon. In addition to the traditional collections and services, the UO Libraries provides a full range of media-related services including support for campus classroom technology, video production services, broadcasting and teleconferencing capabilities, and streaming media. The library also includes the Center for Educational Technology (CET), which provides assistance and referrals for educational technology training, support, and production. The CET's professional staff offers training, consulting, and project management as needed related to Blackboard™ (course management system), graphics and digital images, digital video and audio, instructional design, and web design and development.

In addition to the ARL, the university is a member of the Greater Western Library Alliance, the Orbis-Cascade Consortium, the Pacific-Rim Digital Library Association, the Northwest Digital Archives, and various other collaborative efforts to improve access to print and digital information.

C.1.b. Information Services

Information Services (IS) reports to the university's chief information officer (CIO), who in turn reports directly to the provost. Information Services provides a full range of information technology support for the campus community, including administrative systems, networking, telecommunications, and the central help desk. Administrative systems provide support for enterprise-wide student, financial aid, human resources, and financial systems along with a data warehouse. This unit also supports customized applications for administrative units including University Housing and University Health. Networking and Telecommunications provides enterprise-wide support for the entire campus network infrastructure, full campus wireless connectivity, and telephone and voicemail services. The central help desk provides desktop support for students and faculty members, including distribution of a site-licensed operating system and virus protection software as well as hardware repair services. In addition to the services focused on supporting the technology needs of the university, the Network for Education and Research in Oregon (NERO) also reports to the university chief information officer, who reports to the Oregon University System chancellor's office for this function. NERO provides Internet service to all public higher education institutions, most public K–12 schools, and many city and county governments, as well as the state government. Information Services also operates the Oregon Gigapop that provides Internet2 services to all research-intensive public higher education institutions in the state.

In addition to these central services, IS provides coordination and consultation for all units on campus in the use of technology. Beyond the core infrastructure services mentioned above, the campus is decentralized with respect to technology deployment and management. Very recently, more effort has been made to improve communication among the various units and staff members responsible for managing information technology. Under the leadership of the new CIO, the campus is also beginning the process of a strategic vision and plan for the structure, governance, and direction of campus IT. We are taking these steps to reduce the cost of our IT infrastructure and services by operating in a more coordinated and efficient manner.

The university is a member of several national and international groups and maintains active involvement in information exchanges, conference attendance, and joint projects with other universities. Specifically, Information Services maintains membership in EDUCAUSE, The EDUCAUSE Center for Applied Research, Internet2, the Association of Pacific Rim Universities APRUNet initiative, The Quilt, the Northwest Academic Computing Consortium, Net@EDU, and many other organizations. Information Services staff members are frequent presenters at regional and national conferences and are often asked to provide leadership for major information technology initiatives.

C.1.c. Continuous Improvements and Infrastructure Investments

There are several committees and user groups on campus that work closely with the UO Libraries and Information Services in shaping the future of information resources and technology. The University Library Committee, the Strategic IT Issues Group, the Banner Coordinating Group, the Blackboard Advisory Group, the Educational Technology Steering Committee, and the Departmental Computing Group provide avenues for faculty and staff members and students to influence policies, procedures, and services. In addition to these groups, the core administrative groups and key curriculum planning groups have representation from the UO Libraries and Information Services. For example, an associate univer-

sity librarian serves on the Undergraduate Council and the Graduate Council. The dean of libraries serves on the Deans' Working Group, and the CIO is a member of the newly formed Associate Provosts Council. Both administrators serve on the campus Leadership Council.

With respect to information technology, the University of Oregon has made significant investments in campus infrastructure since 1994. Many of these investments are described in detail in the sections that follow. Funds collected through the educational technology fee have been heavily directed toward building that basic infrastructure including Ethernet and wireless network access, modem pools, the Blackboard™ course management system, user support, and student labs. More recently, significant investments have been made in classroom technology; faculty support through central services such as the CET; wireless laptop classrooms; and an increase in dedicated FTE in network security, streaming video, and significant increases in transit bandwidth and in overall connectivity to the global Internet through our membership in Internet2. Many of the obstacles that preclude a wider use of more technologies, such as the lack of faculty support for instruction, are gradually being addressed by more investments in faculty training. More tools are available to faculty members. There is better centralized support on campus through the Center for Educational Technology and the Teaching Effectiveness Program, which focus on using technology to achieve pedagogical outcomes; and there has been improved support for individual faculty members through cash or time release awards from the Educational Technology Steering Committee and through workshops sponsored by Academic Affairs that focus on effective use of information technology in teaching.

C.2. MEETING STUDENT NEEDS

Are we prepared to support the information needs and expectations of students on and off campus? Compared to previous generations, and even compared to a decade ago when the last accreditation was completed, today's students have very different use patterns and expectations regarding information. Many students are technologically competent, have many more choices of information sources, and expect to be able to find information easily and immediately. The university has invested heavily in digital content and in the necessary technological infrastructure and tools to provide adequate access to the current range of information. However, the explosion of information, in terms of both content and format, presents many challenges for the academy in meeting the expectations of students and in helping students navigate a more complex information landscape.

The institution's core collection and related information resources are sufficient to support the curriculum. The UO Libraries continues to invest heavily in its collections. The total materials budget is approximately $5,000,000. Combined with easy document delivery and interlibrary loan options, students have access to a wide range of print and electronic resources. Subject specialists in the library work closely with the academic departments in selecting materials and providing resources that support the curriculum.

UO students continue to make heavy use of information resources that are either purchased or licensed through the UO Libraries, with annual total circulation of print sources exceeding 300,000 and nearly 2.6 million uses of licensed online resources. While use of print content has declined gradually since the emergence of the web, the availability and use of electronic databases and journals have increased dramatically, and that increase more than makes up

for the decline in use of printed resources. Even with the ubiquity of the web, however, students still make use of traditional printed materials. After four years in the undergraduate program, 88 percent of students have checked out print resources from the libraries' collections. Given the heavy preference for electronic information, this figure is a positive indicator that many students are still focused on the quality and relevance of the content, regardless of the format.

C.2.a. Barrier-Free Access

Convenience and immediate access are two themes that resonate with today's students. Even the most innocuous rule or limitation can be seen as a barrier and push busy students in a different direction. Barriers to access can often result in poor choices, or the reliance on information that is most readily available, even though it may not be the most pertinent or authoritative. To address this expectation of convenience, the UO Libraries has identified three top strategic directions[168] for the next few planning cycles, including "the delivery of barrier-free access to global information resources that meet or exceed users' needs and expectations." The library's planning process is grounded in these strategic directions. The 2005–7 planning cycle[169] includes several initiatives that improve access to information and address the changing expectations of students. One of these is to improve document delivery options on campus and to revise many of the existing circulation policies to remove unnecessary restrictions and to make information more accessible. Another is to convert many analog resources, such as images and audio, into digital format. A third is to implement a metasearch tool that allows students to search across several databases. These efforts will improve the convenience factor for students on campus and will increase the availability of resources to students in remote locations. By eliminating some of the complexity often associated with large research libraries, these efforts

also help students to work independently and effectively.

The library's online resources are available to students from any location. Access from off-campus currently requires a password to authenticate, but the campus is working on an LDAP directory, which should provide easier and more differentiated access to resources in the future. In addition to making content available remotely, the UO Libraries also has pushed some of its services onto the network. These services include direct online requests from users for materials not owned by the library (which has greatly enhanced delivery time), and online reference services using freely available and widely adopted instant messaging protocols. This year, the UO Libraries launched the UO Channel,[170] which provides streaming video and podcasting for programs and events that have taken place on campus. The mission of the UO Channel is to reflect the quality, creativity, and diversity of academic and cultural life at the University of Oregon. Featured programs include lectures, interviews, performances, symposia, and documentary productions. Services such as the UO Channel give students more opportunities to participate in the university's rich extracurricular events. It also gives viewers from outside the university an opportunity to view the events from remote locations.

The University of Oregon is committed to providing access to technology for students with disabilities. The Technology Access Program[171] is dedicated to promoting independence through technology for University of Oregon students with disabilities. The purpose of the program is to provide adaptive access to electronic technology that has become a fundamental element of student life. The Adaptive Technology Lab, located in Knight Library, provides a suite of specialized software including JAWS, ZoomText, and Dragon NaturallySpeaking. The Adaptive Technology access adviser is responsible for issues relating to students

with disabilities and their access to technology at the University of Oregon.

C.2.b. Facilities and Services

The University's library facilities are relatively new and function well in today's networked environment. They clearly are seen by many students as the intellectual center of the campus and are used very heavily throughout the academic year. Approximately 6,000 people use the library's facilities each day. The UO Libraries has extended its services to 24/7 during exam periods, which has proven to be extremely helpful. The students now consider extended hours a core service.

The UO Libraries has participated twice in the ARL's assessment tool, LibQUAL+™ [172] that is a suite of services libraries use to solicit, track, understand, and act upon users' opinions of service quality. The assessment uses gap analysis to measure the difference between minimal, perceived, and desired levels of service. In general, the undergraduate students ranked the UO Libraries positively, with the strongest scores dealing with questions on library facilities. Undergraduate students were more critical of the library's website (which has just been redesigned as a result of this feedback), and the availability of electronic information. The full results and analysis of the LibQUAL+™ assessment are available on Scholars' Bank. [173] Looking at responses from undergraduate students, the UO Libraries scored higher than the ARL average in all questions except one (employees who are consistently courteous). There are several actions planned to address this particular result, including more extended orientation for student assistants and having fewer students work more hours.

Today's students have different social and study preferences that require new investments in the library infrastructure, e.g.,

more collaborative work spaces, more high-end software and production capabilities integrated with the services and the resources. To that end, the UO Libraries is designing a new Learning Commons on the main floor of Knight Library. The Learning Commons combines the research and instructional expertise of reference librarians with technology-enhanced study and social spaces that facilitate student learning, integrate library support services, and provide opportunities for other campus units such as Academic Learning Services to work with students in a central and highly visible location. The library's popular laptop checkout program for students will be expanded and incorporated into the Learning Commons.

Both the UO Libraries and Information Services provide several computer labs on campus [174] designed for student use. These labs include a range of software and are used very heavily throughout the year. It is often the case that students will be waiting in line for a workstation, particularly in Knight Library and McKenzie Lab. There is no accurate data on the number of students who bring their own computer to campus, since it is not yet a requirement in all schools and colleges. However, evidence from other universities suggests that it is certainly the majority of students. Nevertheless, students still make heavy use of these public facilities, possibly because of the convenience, the software available, and the draw of the more social setting that these labs provide. In addition to these open, general labs, the schools and colleges also provide computer facilities that are more specialized for students in specific disciplines. For example, the School of Music and Dance houses the Kammerer Microcomputer Lab. This lab features software and equipment for music notation and computer-assisted instruction in music theory and aural skills. The School of Architecture and Allied Arts provides students with the equipment and software to work in animation, multimedia, graphics, and computer-aided design.

Box C1. Recent Highlights from the UO Channel

Lee Hong-Koo, former prime minister of South Korea, on the *Emerging Asian-Pacific Community and the American Role*

Film director David Lynch on *Consciousness, Creativity, and the Brain*

Richard Thompson Ford, the George Osborne Professor of Law at Stanford Law School, on his book *Racial Culture: A Critique.*

Box C2. Use of the UO Channel

Month – Year	Unique visitors
March 2006	2,084
April 2006	9,178
May 2006	7,295
June 2006	6,603
July 2006	4,081
August 2006	6,291
September 2006	6,995

The university has taken aggressive steps to provide a comprehensive networked environment. Central funding for network services has meant that students do not have to constrain their use of network connections because of monthly usage charges. As a result, all buildings are networked and additional connections are added when required. Likewise, the campus enjoys wireless access in all spaces used in the academic program, as well as spaces commonly used by students including many outdoor quads. (Some specific areas, particularly offices, may have weak signals, and these are being addressed as soon as the problems are reported.) With ongoing funding by the educational technology fund, wireless access points are upgraded on a regular basis to take advantage of new standards for connectivity and security.

All students are provided with an e-mail account. The UO Web mail service provides secure access and has recently been redesigned with a new, user-friendly interface similar to popular commercial products, e.g., Gmail. In addition to an e-mail account, Information Services provides a central help desk as well as online assistance for troubleshooting many routine problems, e-mail issues, password problems, acceptable use violations, viruses, and information on site-licensed software. Information Services also operates a hardware repair service for laptop and desktop computer systems.

Campus classrooms are obviously a core infrastructure supporting the teaching and learning mission of the university. Since the last accreditation self-study, the University of Oregon has invested heavily (in terms of resources, technology, and organization) in campus classrooms. The key challenges for any large campus are adequate coordination among the various stakeholders, efficient utilization of resources, adequate support, and sufficient flexibility and availability to support a variety of teaching needs.

The Classroom Committee meets regularly under the leadership of the vice provost for academic affairs to provide coordination and general oversight of classrooms on campus. Key stakeholders include the faculty, the Registrar's Office, the UO Libraries' Media Services, and Facilities Services. General pool and departmental joint-controlled classrooms are managed by the Office of the Registrar. There are 107 general pool classrooms and twenty-nine jointly controlled classrooms ranging in size from fewer than twenty to 500 seats. A majority of the classrooms range in size from 30 to 39 and 40 to 49 seats. Most departmental classrooms are used to schedule small seminars and discussion sections. In general, the number of

classrooms meets the institutional teaching needs.

Several recent efforts have resulted in significant improvements in classroom availability, technology, coordination, and support. During a period when the Lundquist College of Business was under renovation and temporarily unavailable, the campus devised a scheduling protocol to optimize the use of the remaining classrooms across campus. The teaching day was extended into several time zones, with a recommended distribution of classes across those time zones. Upon completion of that building project, an additional 600 teaching spaces and additional large classrooms were available. The scheduling protocols[175] remain in effect and have effectively spread the teaching day, improved student options, and standardized class beginning and ending times.

The number of general classrooms has also been supplemented through the planning efforts of the residence halls. The Living-Learning Center, which opened in fall 2006, includes three new, well-designed and fully equipped classrooms. The International House also was renovated over the summer to include two classrooms where several foreign language and international studies classes are held.

In addition to the number of classrooms and their effective utilization, another challenge has been to renovate and equip classrooms with appropriate technology to meet today's teaching needs. The Classroom Committee has undertaken the task of trying to renovate one small and one large teaching space each year in addition to the remodeling that occurs as part of a major building renovation project. In FY06, the Educational Technology Steering Committee recommended that a significant allocation, approximately $300,000, be earmarked to improving classroom technology. As a result of this special effort, sixty additional classrooms were upgraded over the summer with standard presentation equipment appropriate for the size and use of the room.

To improve service, in 2006 the UO Libraries' Media Services participated in several conversations with faculty members on campus to identify needed improvements in classroom facilities and support. In various meetings, e.g., Undergraduate Council and the Ed Tech survey mentioned in this section, faculty members expressed concern about the overall condition of classrooms and saw the need for basic infrastructure such as blackboards, sufficient chalk, whiteboards, improved lighting, and improved emergency response to equipment breakdowns. Several changes were made as a result of those discussions, including clear instructions for communicating problems, enhanced training for faculty members using the classroom technology, and an investment in mobile equipment to respond to emergencies. An assessment of both the new technology and the improved services is planned for 2007.

One of the remaining challenges is the design and flexibility of campus classrooms. Most of the rooms function to support one primary style of teaching, i.e., faculty lecture. In spite of recent investments by the Classroom Committee and the Educational Technology Steering Committee, many teaching spaces remain cramped and inflexible. These physical limitations can be a barrier to adoption of pedagogical methods such as active learning.

C.2.c. Staffing Issues

Both the UO Libraries and Information Services have staff members with strong expertise in all areas related to information resources and technology. The university has been able to recruit and retrain exceptional people. Our status as an AAU, ARL, and Internet2 institution, as well as our very livable community, attracts many highly qualified candidates for most

searches. Faculty members in both the UO Libraries and Information Services have played leadership roles in state, national, and international organizations including the Oregon Library Association, American Library Association, EDUCAUSE, Internet2, the International Federation of Library Associations, OCLC, the Library of Congress, and the Scholarly Publishing and Academic Resources Coalition.

Effective use of information resources and technology depends upon adequate support, particularly in the number of skilled professionals available to work with students and faculty members. Staff members in both the UO Libraries and Information Services are able to provide the core services expected by students and many faculty members; however, staffing levels in both the central services (UO Libraries, Information Services) and in IT support in the various schools and colleges are below the levels of our peer institutions. For example, using data collected from twelve peer institutions, the UO Libraries has significantly fewer librarians per student FTE. The professional and support staff within the library is at 76 percent of the mean after adjusting for enrollment and special services offered through the UO Libraries, e.g., campus classroom support. The UO Libraries peer group includes the eight institutions identified by the Oregon University System (OUS) as the UO's comparator institutions: Indiana University at Bloomington, University of California at Santa Barbara, University of Colorado, University of Iowa, University of Michigan, University of North Carolina, University of Virginia, and University of Washington. In addition to these eight, the UO Libraries included four institutions from the "A" list maintained by the College of Arts and Sciences (CAS): Maryland, Massachusetts, Pittsburgh, and Wisconsin.

Staffing levels for information technology support were compared to staffing levels at the same set of OUS-defined peers ref-

erenced above. Data for comparisons on staffing were taken from the EDUCAUSE Core Data Survey, a comprehensive study and analysis that is refreshed each year. The review found that the UO ranked at the bottom (or near the bottom) on every measure that included staffing levels or expenditures. Specifically, the UO was last in the group with regard to central funding for IT, central IT personnel compensation, central IT FTE count, and number of FTE students supported by each IT staff member. The UO was second to last in central IT funding per student FTE and decentralized IT personnel count.

Some of the impact of these staffing levels on the effective use of information resources and technology can be seen through recent surveys. For example, in the LibQUAL+ gap analysis survey on library service quality, the UO Libraries scored lower on questions related to "employees who have the knowledge to answer user questions" and "dependability in handling users' service problems." The UO Libraries scored high on questions related to affect and service ethic, but it is clear that the lack of adequately skilled professionals has had an impact on the effective use of resources. To compensate for lower staffing levels, the UO Libraries relies more heavily on student assistants. Student staff per 1,000 students FTE is 124 percent of the mean of our comparators. To help manage costs, the UO Libraries has become almost entirely dependent on students who are eligible for College Work Study allocations. These allocations have been reduced significantly in recent years, which means that the library is hiring more and more students who are only able to work between five and seven hours per week. Needless to say, the large numbers of relatively inexperienced employees with limited training, combined with the increasing complexity of the information landscape, is a threat to quality service.

C.3. SUPPORTING TEACHING AND LEARNING

Does the university have the information resources, personnel, and technological infrastructure to support the teaching and learning mission of the campus? Both the UO Libraries and Information Services provide facilities, services, and personnel to support teaching and learning. The UO Libraries has made teaching a primary focus and reorganized in 2002 to maximize integration of library reference and instructional services with educational technology support.

C.3.a. Information Technology and Literacy Curriculum for Students

In addition to providing support services for the academic departments, the UO Libraries offers its own curriculum (both credit and noncredit) related to the use of information technology and information literacy. In FY05, more than 11,000 students participated in the program, which includes open workshops, credit classes, presentations targeted to certain course needs, and library components integrated into the first-year programs. Since 1997 (the year we began collecting this data in a reliable way), the number of student participants in the library's program has doubled. In addition to the library curriculum, several librarians teach or co-teach courses related to information resources and research methods in various schools and departments, e.g., Clark Honors College, music, history, English, and education.

Over the past decade, the focus of the library's teaching program has shifted. Before the ubiquity of web resources, the program focused on how to find information using traditional sources. From the mid to late 1990s, the program emphasized the mechanics of searching and included practical workshops on creating websites and producing digital content. Although these skills are still part of the instructional program, the emphasis today is on the evaluation and appropriate use of information.

The library's Assessment Team (formed in 2004) has conducted several general surveys on library services and use, but beyond course evaluations and a few general questions on the LibQUAL+ study, there is no large-scale assessment effort focused on the library's instructional program. The UO Libraries participated in a beta test of ETS's ICT Literacy Assessment[176] program, which remains under consideration. Feedback from the LibQUAL+ study indicated a high level of satisfaction with the library's instruction program. The responses to two questions—teaching one how to locate, evaluate, and use information, and instruction in library use, when needed—show that the perceived service level is very close to the desired level, and well above the minimum acceptable level. Although the participation and general feedback are positive, the goals of information literacy remain challenging, and the methods typically used, e.g., credit courses on the effective use of libraries, do not always scale well. More integration is still needed between our information resources and other heavily used tools and services that constitute the educational experience, e.g., Blackboard™. One new and promising strategy has involved a close collaboration between the UO Libraries and the Freshman Interest Groups (FIGs). The focus of this effort is centered around the design of relevant and effective assignments that help students understand basic research processes, including the evaluation of information resources.

C.3.b. Course and Faculty Support

Many of the instructional support programs provided by the UO Libraries and by Information Services are funded by the educational technology fee (currently set at $90 per student per term). Those services include the course management system

(Blackboard™), the Center for Educational Technology, classroom technology for the campus, microcomputer support services, and streaming media, among others. The library's Center for Educational Technology[177] was established in 2004 with the mission to promote active learning through effective and innovative uses of technology. The department was formed by merging the Faculty Instructional Technology Training (FITT) Center, Interactive Media Group-New Media Center, and the Blackboard™ support function into an integrated service department. CET has a small staff of faculty members and professionals plus several highly trained students. Together, these individuals offer faculty member training, consulting, access to instructional technology tools, and project management as needed to address instructional goals. Areas of expertise include Blackboard™ services, graphics and digital images, digital video and audio, scanning, instructional design, and interactive media design and development.

Course management. Some of the CET's services are extremely heavily used. For example, the Blackboard™ course management system (provided by CET with technical support from Information Services) is used by more than 3,500 courses per year and is generally regarded as a key instructional service. The consistent annual growth in usage—more than 50 percent per year for the past five years—reflects the popularity of the service. Although Blackboard™ staffing is adequate to provide a production-quality service, CET has not had the staffing levels to provide intensive instruction for faculty members on using the more advanced features. As a consequence, some of these more advanced features are not used as heavily as they might be if more training were available. Overall, faculty members have found it valuable to use the course management system to post course materials such as handouts, lecture notes, and grades. Some instructors use computer-mediated communications and collaboration tools, either in-

tegrated into the course management system or separate (for example, externally hosted blogs, wikis, or collaborative information tagging). Use of online assessment tools and of "learning objects" that provide online active learning experiences for students have been more limited.

Faculty training and support. In addition to basic Blackboard™ support, the CET has collaborated with Academic Affairs and the Teaching Effectiveness Program[178] to develop and offer in-depth summer training programs for faculty members that address specific training needs. Of particular note is the annual "Hybrid Course Redesign" workshop. Over the past two years, this workshop has provided extensive support for twenty faculty members to redesign their courses in a blended or hybrid format.

The CET also provides individual consultation for faculty members wanting to use new technologies in their courses. Usage of drop-in consulting has been near capacity, but support appears to be adequate to meet existing demand. Users of the student-staffed consulting services frequently express enthusiasm for the quality of service. This past year, the center began offering "office calls," so that faculty members can learn how certain programs will function on their own equipment.

Providing production and project management support for higher-end instructional projects has presented some challenges. For example, CET has only one person with a strong instructional design and project management background. To date, the CET has been able to keep up with most of the demand, but as more faculty members become interested in redesigning their courses to make heavier use of information technology, resources will need to be added. At present, the primary constraint on the CET's ability to provide these higher-end services has been in the area of infrastructure. For example, although the CET has expertise in

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developing database-driven instructional websites, the university does not provide any central hosting support for such websites. As a result, opportunities to develop significant instructional applications have been limited. Some of the most successful projects have been funded by extramural grants, which have allowed the CET to hire additional support and to create the necessary infrastructure at the departmental level for long-term maintenance and delivery of the application. The faculty members who have used these applications report very high satisfaction with the service the CET has offered.

The library's Media Services[179] offers several services in support of the teaching and learning mission of the university. Core services include on-call support for UO classroom presentation systems, technology training for instructors, equipment for checkout by students and faculty members, videoconferencing and distance education facilities, and broadcast-quality video production and distribution. Media Services staff members also serve as the UO's central source for design of teaching and event facilities; specification, acquisition, and installation of media equipment; and grant proposal and budget development for sponsored projects with media components.

All faculty members who are scheduled to use a heavily equipped classroom are individually contacted by Media Services staff members and offered training and instruction on using the technology. In addition to in-person training sessions, online tutorials are available via streaming video. Students who are trained to use the classroom equipment also can be assigned to a class to help resolve technical difficulties. Contact information is available in all the classrooms, and most of the larger classrooms have "hotlines" that can be used to contact Media Services in case of a technical failure. This summer, carts of replacement equipment

are being placed across campus to improve response time for trouble calls.

In addition to supporting central services provided by the UO Libraries and Information Services, the educational technology fee has been used to support individual faculty members who are interested in redesigning their courses to incorporate technology. There are various programs at the university level to encourage and support faculty members in their use of information technology. The Office of Academic Affairs sponsors summer workshops as well as a Faculty IT Resident Fellowship Award. The Teaching Effectiveness Program and the Center for Educational Technology team up to offer these and other workshops throughout the year. The Educational Technology Steering Committee (ETSC) has issued an RFP for the past few years for faculty members to apply for special grants that will enable them to make better use of technology in the classroom. Between ten and fifteen awards have been given each year the awards were issued. Beyond the faculty member's report on the results of using technology in a particular course, there has been no thorough assessment of the learning outcomes. One of the ETSC's goals is to focus more on assessment in the near future, although actually measuring the full impact of technology on learning has been a challenge for many campuses. The ETSC also has recommended that the campus construct an annual award to recognize faculty members' innovative use of information technology in teaching, but that recommendation has not been acted upon.

Several individual faculty members, particularly in AAA, the Yamada Language Lab, history, physics, geography, and education, have received funding to support experiments in the use of interactive technologies and which have proven to be effective in teaching languages, design and drawing, historical events and timelines, GIS, and more. Many of the more effective uses of

IT in teaching are a product of significant investment, usually over the course of several years. Faculty members who have been most successful have received multi-year awards and significant support in terms of training and website development. A legitimate concern is how well this model scales.

In 2005, the campus restructured the use of educational technology resources around several strategic initiatives. One of those initiatives was to invest more in classroom technology. Another was to encourage a few large-scale proposals, which anchor instructional technology within the context of an academic program. Several strong proposals were received and funded at significant levels, but it is too early to assess whether this approach will result in a greater impact on teaching and learning.

C.3.c. Faculty Use of Technology

As documented in many articles in publications such as *EDUCAUSE Quarterly*, most of higher education has seen modest change in teaching-learning effectiveness as a result of technology. The experience on this campus supports this conclusion. While PowerPoint presentations and courseware systems such as Blackboard™ are prevalent, other technology-enhanced methods such as hybrid courses, video-on-demand, podcasting, and collaborative online learning have not been widely adopted. Although these tools can be used effectively for on-campus instruction, the fact that the university is primarily a residential campus (with relatively few distance education programs) may explain why some of these tools have not been heavily used to date.

In the spring of 2006, the Educational Technology Steering Committee conducted a survey of all faculty members and GTFs on their use of educational technologies. Although the response rate (slightly less than 10 percent) calls into question the reliability of the data, it is the only feedback (other than anecdotal) that is currently available. The majority of faculty respondents express the belief that educational technology has *potential* for enhancing the undergraduate learning experience (88 percent agree, 4 percent disagree). Also, the vast majority of respondents are aware of colleagues at the UO or elsewhere who make effective use of educational technology in their undergraduate education (89 percent agree, 2 percent disagree). The examples, however, refer primarily to basic technologies, which are used frequently by a majority of faculty respondents (66 percent use a computer in the classroom, 62 percent use a data or video projector, 51 percent use PowerPoint). Blackboard™ is heavily used by faculty members in all disciplines, although it is used primarily as a communication and administrative tool.

In the same survey, the majority of instructors report that their assigned classrooms are properly equipped (68 percent agree, 8 percent neutral, 17 percent disagree). As part of a strategic restructuring of the educational technology funds collected through the student fee, a significant portion has been earmarked for classroom technology, and those improvements are happening this summer. It is expected that this approval rate will improve after that investment. However, faculty members have expressed a higher level of dissatisfaction with the physical aspects of many older campus classrooms, e.g., classroom lighting, furnishings, and so forth. Many of our teaching spaces remain cramped and inflexible. These physical limitations do not easily accommodate different learning modalities.

Some survey respondents expressed concerns about education technologies such as online archives of lectures, online quizzes, and wireless capabilities in the classroom. Also, based on the survey conducted in the spring of 2006, it is apparent that some faculty members worry about technology being a distraction in the classroom. Open-

entry comments suggest that concerns about academic integrity may underlie resistance to adopting these technologies. Most survey respondents believe strongly that the appropriateness of technology depends upon the discipline as well as the course.

In preparation for this self-study, academic units were asked about their use of technology in teaching. The responses received mirror the results of the survey mentioned above. Faculty members find discussion groups and listservs to be effective ways of extending faculty-student communication. PowerPoint™ and Blackboard™ are also seen as effective classroom tools. In general, based on the responses, more advanced technologies such as videoconferencing, video-on-demand, and podcasting are seldom used in classroom instruction. The faculty members who seem open to these more advanced technologies are also concerned about the availability of adequate support and the time it takes to use technology effectively.

C.4. SUPPORT FOR RESEARCH

Are we fully prepared to meet the current and emerging research needs of scholars?

C.4.a. Library Collections

In general, scholars measure the strength of a library first in terms of its collections, rather than its facilities and services. The UO Libraries includes 2.6 million volumes, 15,000 journal subscriptions (including e-journals), and a wide range of electronic databases. The UO's collection has many areas of prominence, including East Asian vernacular materials; aerial photographs (one of the largest depositories in the U.S.); twentieth-century political, economic, and labor history; medieval studies; and a wealth of primary source material on the history of Oregon and the Pacific Northwest. Examples of general areas of strength include

the physical sciences, art and architectural history, Russian languages and literature, music (particularly sound recordings), and women's studies and gender issues. Emerging areas of strength include environmental studies, Latin American studies, ethnic studies, marketing, psychology and cognitive sciences, digital media, and GIS.

The university has consistently earmarked a significant percentage of the Education and General (E and G) budget for libraries and information resources. That percentage has remained close to 5 percent for the last decade. However, even though the university's contribution as a percentage of the E and G budget is substantial, the library's key indicators compared to peer institutions are consistently below the mean. The library's resources budget is currently $5,000,000 per year. Compared to our peer institutions, library expenditures (normalized for enrollment) are 84 percent of the mean. While this figure is lower than it should be, the UO Libraries has tried to manage its budget in ways that protect resource expenditures as much as possible. One of the major challenges facing the UO is the number of degree programs coupled with a relatively small enrollment, i.e., 20,000. This condition puts pressure on the UO Libraries to build and diversify its collections without a large resource base to support it. Another factor is the nature of the curriculum and research interests of the faculty. While the University of Oregon campus does not include engineering or many health-related degrees, the natural sciences are a large and prominent feature of the university, and these disciplines cost considerably more to support due to significant journal costs.

For the past decade, annual budget increases for library materials have been 3 percent or less. However, since 1990, journal subscription prices have increased an average of 8–10 percent each year. Book prices have increased 2–3 percent. Since 70–80

percent of the library's budget is spent on journal literature, the inflation factors have been considerable. In addition to inflation, the availability of electronic resources has exacerbated the cost problem. Some publishers have insisted that a library retain a print subscription in order to receive the electronic version; both copies could cost between 10 and 20 percent over the print cost. Other publishers insist that libraries purchase a bundled product in order to get the electronic copy. Consequently, the UO Libraries is being pressured to buy extraneous content to get a key resource, and this has forced us to cancel content that is less aligned with the current research needs of scholars.

Since 1992–93, the University of Oregon has cut $1,500,000 in serial subscriptions, or approximately 3,500 titles. This reduction is twice the rate of attrition of other ARL libraries. At the same time, the UO's journal expenditures have increased 44 percent. The decrease in serial subscriptions has been a major reason why the UO has dropped precipitously in the ARL index.

C.4.b. Resource Sharing

One area where the University of Oregon stands out compared to our peers is in resource sharing. Among the ARL libraries, the UO ranks eighth overall in our requests from other institutions and eleventh overall in what we loan to other institutions. Again, this is a reflection of the overall demand for information resources by our students and faculty members, but it is also a reflection of the high priority the UO Libraries places on convenient access and efficient service. The University of Oregon has not had the resources to invest heavily in building a rich and diversified research collection to meet all the needs of our scholars. As an alternative, we have invested significantly in providing efficient document delivery programs and establishing resource sharing agreements with other universities within

and outside of the United States. The UO Libraries has also joined several consortial programs, e.g., RAPID,[180] which is an attempt to expedite the resource sharing process and provide more desktop delivery of content. It is important to acknowledge that effective resource sharing is highly reciprocal. The UO Libraries is able to rely on other partners because we place a high priority on lending our resources to users outside the institution when they are needed.

The UO's membership in the Orbis-Cascade Alliance[181] has been a huge benefit to both students and researchers. The Orbis-Cascade Alliance is a consortium of academic institutions in Oregon and Washington. (The UO played a lead role in establishing the consortium and currently serves as the fiscal and legal agent.) The mission of the alliance is to enhance library services, share information resources and expertise, enrich and preserve library collections, and develop library staff members to meet the challenges of a rapidly changing information environment. The alliance includes thirty-three institutions. Members include public and private universities, private colleges, and community colleges. The cornerstone of services is the union catalog, which combines all holdings of the thirty-three members. Faculty members and students at any one of the member institutions can easily search the union catalog and electronically request any item from a collection that now exceeds 27 million items. A courier service delivers material within forty-eight hours. At peak times there are more than 1,300 loans a day on the system. For FY05, the University of Oregon was the largest provider of materials in the Orbis-Cascade Alliance system as well as the heaviest borrower. These figures indicate that UO students and faculty members are very heavy library users, our resources serve as an important contribution to the region, and our resource sharing systems are highly efficient. The alliance system has helped to mitigate some of the local deficiencies in the UO collections. But

to date, it functions only for monographs. The UO will be experimenting with a similar system for journal articles in 2007 along with ten other ARL libraries.

The heavy use of resource sharing also indicates that there is a significant gap between what our scholars need and what we have in the collections (either print or electronic). In the LibQUAL+™ [182] assessment, three of the five lowest scores related to the collections: "electronic resources I need," "printed library materials I need for my work," and "print or electronic journal collections I require for my work." The last category was the only one where the UO Libraries failed to meet minimum expectations of scholars. (One could argue that this question is also the most important, from a scholar's perspective.)

The responses to the survey questions that were sent to the academic departments in preparation for this self-study verify the findings in the LibQUAL+ assessment. Faculty members across most disciplines expressed a need for more journal subscriptions and digital media. While many comments were complimentary of the library's ability to stretch its resources, several faculty members expressed frustration with the lack of immediate access.

While resource-sharing agreements can help to compensate for the lack of ownership of print materials, the lack of access to electronic resources presents additional problems. Use of commercial electronic resources is governed by contracts or licensing agreements, and the ability to share content is dictated and often limited by the terms of those contracts. Many of these products are very expensive, e.g., in excess of $100,000 in some cases. Although we participate in many group licenses (which often lowers the costs), the UO Libraries has often been at the tail end of acquiring major electronic packages, such as *Web of Science, Science Direct,* and *Early English*

Books Online. These three collections are part of a core research library system, but the UO Libraries was able to purchase them only after a protracted period of negotiation and assembling funds from different sources across the campus. Many new faculty members come to the UO from larger research institutions and are used to having these resources available. In the survey done of departments, some faculty members reported that they have used their alumni status at those larger universities to gain access to key databases.

C.4.c. Emerging Needs

New faculty members and new frontiers. The emerging needs of university scholars present another set of challenges. Start-up packages for new faculty members are geared heavily toward laboratory equipment, facilities, and salary support. Very few faculty members use their start-up packages for purchasing information resources. As new programs and faculty interests emerge, the UO Libraries has tried to earmark unrestricted gifts to address resource needs. Traditional disciplines and degrees have been at the core of the University of Oregon's curriculum. However, as new interdisciplinary research interests and programs emerge, the UO Libraries needs to be prepared to either shift resources or build our collection endowments to meet these new information requirements.

In addition to funding to support the purchase of resources, library staffing is problematic in terms of supporting the current and emerging needs of faculty members. The lack of professional librarians means that each subject specialist is serving several large disciplines, or in some cases, an entire college. For example, with the exception of AAA, CAS, and law, the other schools and colleges have only one librarian each. Those individuals are responsible not only for building the collections and teaching classes, but also in some cases developing new

courses, creating new digital content, and helping students and faculty members make effective use of information technology.

Large data sets. One key emerging scholarly need that covers many disciplines is the creation of large data sets. Under the leadership of the NSF, funding agencies are concerned with building and maintaining a distributed cyberinfrastructure that helps scientists and other researchers store, retrieve, and reuse data from past experiments. While considerable attention has been given to archiving data from "big science," such as genomics, climate research, and the National Virtual Observatory, data from highly distributed, smaller-scale projects has not been collected and described in a systematic way that enables future research. To some extent, data archives represent the next generation of "special collections," where primary source material provides the foundation for new scholarship. A few research libraries, particularly Purdue and Johns Hopkins, are beginning to play a role in this important emerging need.

Scholarly communication. The UO Libraries and the campus have engaged in several efforts to support alternative models of scholarly communication and access to information. The campus was one of the first among research universities to issue a faculty senate resolution (2001) encouraging the sharing of resources, faculty retention of copyright, and scrutiny of high-cost journals. The campus, through its participation in the Greater Western Library Alliance,[183] has also added official support to legislation promoting open access to federally funded research.

Traditionally, libraries have brought information *into* the university, through the acquisition and licensing processes. Increasingly, libraries are working with both faculty members and students to push content *out* to the scholarly community. This new model involves archiving content generated on campus (both published and nonpublished), making it accessible through open archive harvesting protocols, and providing long-term preservation of content. Scholars' Bank[184] is a successful institutional repository designed to serve this purpose. For students, electronic theses and dissertations create the opportunity to explore and incorporate content beyond text and then have their work visible and accessible over the network. For faculty members, this model provides an avenue for disseminating their research without the time constraints and costs associated with commercial publishing. While the technology has created new and highly productive modes of scholarly communication, the tradition of peer-reviewed, subscription-based journals is still the dominant model. The challenge facing all universities is to promote cost-effective models that address both the need for validation (especially for tenure processes) and affordable access to support future research. Wider conversations are needed on this campus to explore and take advantage of the potential benefits of these new models.

Undergraduate research support. We tend to equate scholars with faculty members, but a distinguishing feature of a major university is the opportunity for many undergraduates to engage in original research. For the sciences, this research may take place in the laboratory or in the field. For the humanities, this research often takes place in the library, particularly in Special Collections, which houses primary source material. Two efforts are underway to help encourage undergraduate research. One is an ongoing collaboration between the academic departments and the UO Libraries to teach classes around these primary sources. The other is the recent Undergraduate Research Award, which recognizes outstanding work by undergraduates through a special scholarship opportunity.

C.4.d. Computing Capability and Infrastructure Support

At the University of Oregon, the current need for high-performance computing is limited to a few research centers and departments. While this decentralized model has advantages, the university could examine possible efficiencies associated with more centralized support. A model where indirect funds along with grant funds support a team of systems and programming personnel might offer certain efficiencies. Funding to provide central support to house research computing servers and storage devices would also be welcomed as current environments in the decentralized model do not provide adequate protection against electric disruptions, fire, and so forth.

In terms of computing capabilities and infrastructure support, a recent survey taken among research center directors began a discussion of possible new service offerings that could be offered to the UO community. Of particular interest were services that provided central infrastructure and systems support for research units. Services such as co-locating equipment in the data center, managed servers, systems and database administration, managed firewall and security services, and backup and disaster recovery services were identified in this category. New services in other areas including videoconferencing facilities and support, collaborative software, and web development and support were seen as having high demand. Input from other campus IT personnel in the schools and administrative offices indicate that the desire for all services listed above extend well past the research center directors.

The need for high-speed networks is a somewhat different story. The University of Oregon has many researchers in various imaging science areas (e.g., astrophysics, neuroscience, geophysics) that move large image files between locations on campus as well as to colleagues at other universities. To do this, they need a high-speed network backbone on campus, as well as the resources offered by Internet2 to work with colleagues at places such as Stanford, the University of Washington, or various data centers that are typically located on the East Coast, e.g., Johns Hopkins or Harvard. A common use of high-speed networking is our growing use of videoconferencing and the potential to expand this with international partnerships. Again, having a solid campus network is critical, as is the new fiber path put in place last winter by NERO.[185] Continued membership in Internet2 will be very important in partnerships outside Oregon. Network support professionals have been highly productive and entrepreneurial in managing a large and complex system with limited resources. As we expand further in our use of high-speed networks and the services they support, however, the viability of these systems could be in jeopardy if we do not adequately factor in upgrade pathways and inevitable hardware replacement costs.

Several projects have been completed or are underway to improve the network connectivity for the campus. A major upgrade of NERO in the winter of 2005 included a fiber path connection between the UO and Portland, connecting the major universities throughout the State of Oregon. As part of the planning team for the new network being developed by Internet2, this fiber path will position us well for the new Portland connection to that national research network. On-campus work has begun on upgrading some campus segments from 1 gigabyte to 10 gigabyte capacity. This upgrade will be especially welcome for researchers moving large files such as those associated with neuroscience. Planning is also underway for a future converged network that will combine voice, video, and data. Besides realizing certain efficiencies, such a network will also offer new services for faculty members and students in support of the

academic program. In addition, the campus is now well served by wireless technologies (802.11g) and we are beginning to plan and implement the new 802.11n standard that will significantly increase wireless through-put to the point that wireless videoconfer-encing becomes possible.

C.5. ROBUST ENTERPRISE SYSTEMS

Do we have robust enterprise systems to support the core business functions of the university?

C.5.a. Overview of Current Systems

The university implemented the Sunguard SCT Banner system in 1989, which supports the student, finance, and human resources administrative applications. In addition, a number of homegrown and third-party sys-tems support the Banner product—housing, student health, printing services, and DARS (Degree Audit Reporting System). Banner web for self-service allows students, fac-ulty members, and administrators to access information and complete administrative functions online: undergraduate applica-tion for admission, acceptance of financial aid awards, registration, dropping or adding classes, e-billing and payment, entering and changing grades online, reviewing degree audits, and applying for graduation. Similar features are available in the finance and hu-man resources modules.

The Office of Resource Management pro-vides management information and ana-lytical support to the university's decision makers, enhancing strategic planning and policy-making processes. This office serves as the chief information clearinghouse for the university and conducts research on the student body, faculty, and staff to promote ongoing institutional self-assessment. Re-source Management also fulfills the univer-sity's compliance reporting requirements at both the federal and state levels.

To assist in planning and analysis, con-ceptual and analytical support is provided for several ongoing activities and reports including performance indicators, finan-cial management reports, program reviews, credit hour reports, and cost and productiv-ity reporting. In the area of human resource management, the systems provide a variety of studies about faculty issues including teaching loads, course enrollments, demo-graphic data, and equity salary studies. In the area of student affairs, the systems provide analytical support for enrollment management including enrollment patterns and trends, enrollment projections, and retention and graduation analyses.

Data warehouse capabilities exist within each of the Banner modules. At this time, it is very difficult to extract data across mod-ules, and this leaves decision makers with incomplete information to assist in the deci-sion-making process. As a result of a recent task force initiative it has been determined that a major redesign of the data warehouse is necessary before the university takes any further steps to acquire business intelli-gence software tools. At this time a funding request has been submitted for the person-nel necessary to take on this major project.

Broad steps have been taken with admin-istrative systems to require security to be in place at the database, application, and network levels. The university is audited on an annual basis by an outside entity. Part of this audit addresses the issue of controls and security measures. While more can always be done to test security, audits have confirmed that what is in place is reason-able and acceptable for our administrative applications. In addition, the Office of the Registrar and Business Office forward a composite list of all student, finance, and human resource module users to the depart-ment heads for review and access re-authorization. All users who no longer have a need to access the data to perform their

job responsibilities have access privileges removed.

C.5.b. Needs and Planning

With the arrival of the new chief information officer, a major review has begun related to the current state and needs of administrative systems. The initial report of findings is documented in a paper titled "Information Technology: Prelude to a Strategic Plan"[186] that is available on the UO-CIO website. In this review the major need identified for administrative systems was the strengthening of systems programming support within the administrative services group. Since the study was published, there have been several key hires that have improved this situation and have allowed substantial progress on projects such as the identity management initiative.

The review of administrative services also identified many desired projects by the UO community. Examples in this area include a campus portal for students, employees, and alumni; a new recruitment and tracking system; business intelligence software for better reporting; a new faculty evaluation system; implementation of Banner workflow modules; replacement of the data warehouse; and digital asset management. The report also identifies many other operational needs requested by the Banner Coordination Group of desired modifications in base code for core administrative systems.

The staffing levels described elsewhere in this document clearly hinder the administrative services group from being able to properly address the needs of the university community in these areas. We are also hindered by a lack of an information technology governance structure to help identify priorities and funding for major initiatives. Recommendations on structure to address this area have been made by the CIO to the provost, and progress is being made in establishing a more senior level

administrative oversight group in cooperation with the vice president for finance and administration.

C.6. CHALLENGES AND OPPORTUNITIES

The University of Oregon Libraries and Information Services have worked both independently and collaboratively to provide resources and technology that meet the teaching, research, and administrative needs of the campus. Our strengths and strategic advantages include the skills and talents of the technical and library staff, a robust and ubiquitous network infrastructure, our ability to solve problems with limited funds, our focus on teaching, and our leadership in building regional collaborations.

Our challenges include creating adequate and sustainable funding models; providing coordination in a decentralized IT environment; assessing technology's impact on learning, scholarship, and business efficiency; managing expectations and resources in an increasingly digital environment; and building and sustaining a research collection that meets the needs of scholars. For example, since 1996, the UO has dropped from eightieth to its current place of 105th in the ARL Index, based on volumes held, gross volumes added, current serials, total library expenditures, and total staff. The cuts in journals and our inability to purchase sufficient access to many of the more expensive research databases have had a negative impact on our scholars' ability to compete for grants. The strength of the library's resources and services is certainly one major indicator of the institution's academic quality. Additional specific challenges in today's information environment include security, user privacy, authentication and digital rights management, information literacy for students, long-term preservation of electronic resources, continuous training and faculty support, disaster recovery, and overall system continuity.

The University of Oregon has made significant and essential investments in both distributed and centralized infrastructure and support services. These investments have come from the realignment of existing resources and the allocation of new resources, e.g., educational technology fee. Over the last twelve years, that fee has generated approximately $40 million. While the educational technology fee has done much to provide IT infrastructure and basic access to computer technology, it cannot address all the needs associated with discipline-specific programs, improved classroom technology, collaborative work environments, and videoconferencing facilities to support a modern university that is growing increasingly dependent on IT resources. In the near future, the UO will need to look at its funding for IT and make adjustments to budget models to adequately staff IT at both the central and school level. Of particular concern will be adequate support for specialized labs and software that support multimedia or discipline-specific programs, collaborative work environments, student multimedia production facilities, and videoconferencing facilities.

In addition to these services, many other areas have been identified that would further the work of the university. These include a common calendaring system, help desk software to better coordinate support for faculty members and students, improved website design and access to IT information, a campus portal for students, business intelligence software for administrators, and groupware software. In the area of academic computing, needs include sustainable hosting of dynamic instructional content and additional central support for research computing. Given limited resources, the UO will need to carefully consider potential service offerings and prioritize needs before major projects are begun.

Many of the students arriving on our campuses are members of an increasingly media-saturated Net Generation, with social perspectives and K–12 experiences very different from those of the faculty. Moreover, their communication styles, preferences, and ability to multitask may be hard for some faculty members to adjust to. Successfully engaging today's students with university-level course work and scholarly content is a significant and critical challenge. It is not clear if traditional methods will continue to be as effective as they have been in the past. New strategies may then include development of interactive and experiential learning opportunities, blending online and face-to-face instruction, peer mentoring, real-world application of student research, and learning outcomes that span across the curriculum. These approaches are transformative and will require the concerted and fully collaborative effort of faculty members, librarians, instructional designers, technologists, and central administrators. Technology cannot substitute for excellent teaching faculty, and in some cases technology may not add measurably to the learning experience. But with good design, preparation, and adequate support, technology in the classroom and in the virtual environment can create new lines of professor-student communication, offer new types of learning, encourage collaboration, and immerse all participants in the scholarly environment of the learning community. These opportunities require the University of Oregon to fully articulate the role that we expect technology to play in our various teaching, research, service, and outreach missions.

Summary: Part II. Educating the Generations

While Part I of this study is concerned with the UO's defining role as a comprehensive research university, Part II focuses on the academic programs and information resources that transform the unique environment of an AAU institution into an education for its students.

"The Present Generation: Undergraduate Teaching and Learning," the first section of Part II, describes both our accomplishments and our challenges in achieving and sustaining our ideal undergraduate program. The last decade includes marked improvements in the academic quality and rigor of programs for beginning students, innovative honors programs, programs that better prepare students for future careers, the opening of the new Living-Learning Center on campus, improved advising tools, greater consistency in advising undeclared students, enhanced opportunities for collaborative, cross-disciplinary teaching, and the initiation of a campus-wide discussion of the difficulties posed by grade inflation for credible student assessment. Challenges remain, of course, including the daunting financial obstacles to providing high-quality first-year programs, a paucity of true capstone experiences, the lack of an effective centralized program to facilitate internships and other participatory learning experiences, and the many corrosive effects of the national problem of grade inflation.

"Education for the Future: Graduate and Professional Education," the second section of Part II, focuses on accomplishments in the academic quality of the UO's graduate and professional programs, the ways in which graduate students are supported in their professional development, and the role of the UO's graduate and professional programs in meeting the current and emerging needs of society. Challenges in this area include the lack of a centralized system for tracking graduate students after they graduate, balancing the efficiencies and compromises implicit in the existing system of 400/500-level classes that serve both undergraduate and master's degree students, the current system of delivering applied statistics training to our graduate students, diversity-related teaching and research, and the need for more systematic training in the responsible conduct of research and professional ethics.

"Sustaining Education and Scholarship: Information Resources and Technology" concludes Part II with the role played by the University of Oregon Libraries and by Information Services in direct support of academic programs, as well as in supporting scholarship and administrative services at the UO. Successes and challenges in these areas have been no less than dramatic at the UO over the past ten years. Success is evident in a highly skilled technical and library staff, a robust and ubiquitous network infrastructure, effective strategies for solving problems with limited funds, a sustained focus on teaching, and a

leadership role in regional collaborations. Challenges include adequate and sustainable funding models, prioritizing needs and providing coordination in a decentralized IT environment, assessing the impact of technology on learning, scholarship, and business efficiency, facilitating the adoption of appropriate technologies in these areas, and building and sustaining library collections that meet the needs of scholars. Additional specific challenges include security, user privacy, information literacy for students, ongoing training and faculty support, disaster recovery, and system continuity.

PART III: INVESTING IN PEOPLE AND IDEAS

Universities are about ideas. The mission of a public research university is to serve and engage society through the creation and dissemination of knowledge. The intellectual core of this mission relies on the talents, ingenuity, and enterprise of a faculty committed to research and creative activity and to teaching and learning. A university's staff, in turn, provides support that is crucial to the institution's mission and to a successful experience for its students. A university's students, both undergraduate and graduate, are themselves significant contributors to the intellectual vitality of the institution, contributors whose university experience profoundly affects both their personal plans and prospects and the world in which they live and work.

The qualities of a university's faculty, staff, and students are therefore critical to its success in carrying out its mission. The challenge to the university is to nurture and inspire these qualities.

A. FACULTY MEMBERS

As a comprehensive research university and Oregon's most prominent institution of higher education, the University of Oregon sets and meets exacting standards of faculty quality. The key ingredients in assembling, sustaining, and inspiring an excellent faculty are not mysterious: hire well. Set high but realistic expectations for performance. Support faculty members in their efforts to meet those expectations. Maintain standards for tenure and promotion that are consistent with those expectations. Link compensation clearly and consistently to regular evaluation. Maintain a high priority on strategies to provide competitive levels of compensation at all ranks.

Beyond these key ingredients, though, we recognize that because universities are about ideas, they are unique. Our most important ideas and accomplishments arise from and rely on the ingenuity, talent, and commitment of individual faculty members. No president, provost, dean, or department head can "direct" greatness or great efforts. Great faculty members are attracted and retained at universities where their ideas and efforts are not only recognized, but also harnessed to shape the university agenda. At great universities, the best ideas come "straight up from the bottom."

Fortunately, Oregon's legacy is strong in this respect. Relative to many of our peer institutions, we are better integrated, with more porous intellectual and bureaucratic boundaries. Our faculty, as well as our staff, is committed to the special character of our campus and its locale. We face many obstacles and hurdles, but these are our strengths.

With these perspectives in mind, we begin this section by identifying some of the most important desired attributes of our instructional and research faculty, and then turn to an examination of the strategies pursued in hiring, supporting, promoting, and retaining faculty members with those characteristics. The ensuing discussion highlights more than a few remarkable successes as well as some sobering challenges.

A.1. ATTRIBUTES

At Oregon, the qualities we seek in the members of our faculty are rooted in our mission as a comprehensive research university. They reflect a strong commitment to both research and education, and the conviction that in many important ways these can be complementary enterprises. At the same time, we recognize the limits of time, energy and resources as well as the importance of managing these limits well.

The desired attributes of our faculty members include disciplinary expertise, significant accomplishments in research or other forms of creative activity, and a commitment to both undergraduate and graduate education. We strive to assemble a faculty that aspires to great intellectual achievement for itself and its students. In addition, as a comprehensive research university that serves a diverse society, we demand from our faculty a breadth of expertise as measured not only across disciplines, but also across national boundaries, cultures, and identities. The distribution of these qualities within our faculty is, of course, varied, and to a degree the variation is intentional. Expectations of achievements in scholarship, for example, are different for tenure-related faculty members than they are for the nontenure-track instructional faculty.

We continue this introduction by providing an informational picture of the UO faculty, with attention to both composition (e.g., tenure-related status, rank, part-time versus full-time, and dimensions of diversity) and measures of faculty quality (e.g., program rankings, chaired positions and professorships, and terminal degrees). Changes in the faculty since the last Northwest Commission on Colleges and Universities accreditation

review in 1997 are, to the extent practical, highlighted. This information provides an important context for the discussions of hiring, expectations, support, evaluation, and compensation that follow.

A.1.a. Faculty Composition

The faculty of the UO is composed of two principal groups: (1) the tenure-related faculty members, who hold comprehensive appointments requiring a profile of national distinction in research or creative accomplishment and an enduring commitment to effective teaching; and (2) the nontenure-track faculty members, who hold appointments focused either in instruction or in research. The UO, like its counterparts nationwide, also employs graduate students in instructional roles. These graduate teaching fellows (GTFs) are not classified as faculty members and are discussed further in section C below.

While the size of the UO faculty has grown since our last decennial review by the NW-CCU in 1997, growth in the student body has significantly outpaced growth in total instructional ranks, and greatly exceeded growth in the number of faculty members listed as full-time equivalent (FTE). Performance indicators[187] provided by the Office of Resource Management show an increase of 17 percent in total student credit hours and an increase of 19 percent in degrees granted between 1997–98 and 2004–5 (the longest period of time over which comparable data on performance indicators is available at our institution). Over that period, the shares of upper- and lower-division student credit hours have been stable, a marked change from the previous ten-year period in which the share of upper-division student credit hours taught at Oregon rose dramatically.[188]

The 17 percent increase in student credit hours over that eight-year period was ac-

companied by an increase in tenure-related faculty members from 560 to 589 FTE, or 5 percent, while the FTE employment of nontenure-track faculty members remained virtually unchanged over the period. The shortfall in faculty instructional capacity has been met in part by GTFs, whose ranks expanded by 23 percent between 1997–98 and 2004–5. Nonetheless, total instructional FTE, which includes all instructional faculty members and GTFs, rose by only 9 percent over the period. These changes reflect, to a large degree, fiscal realities common to a majority of public universities in the United States. It is worth noting that these changes in the composition of instructional FTE have been accompanied by virtually no change in the proportion of lower-division student credit hours taught by tenure-related faculty members, and only modest declines (roughly 5 percent) in the proportions of upper-division and graduate student credit hours taught by tenure-related faculty.[189]

The composition of the instructional faculty at Oregon has seen changes in dimensions such as ethnicity, gender, full-time versus part-time status, tenure-related status, and rank. A somewhat higher proportion of our *regular* instructional faculty (which excludes adjunct, visiting, and postretirement faculty members) were female or belonged to minority groups in 2005 as compared to 1997. A significantly higher proportion were full-time rather than part-time.[190] A smaller proportion of our *total* instructional faculty had tenure-related appointments (as opposed to fixed-term appointments) in 2005 as compared to 1997. And among our tenure-related faculty, a higher fraction was untenured in 2005 than in 1997.[191] These observations are based on head-count data, of course, rather than the FTE data characteristic of performance indicators.

To summarize, since the late 1990s, the instructional staff at Oregon has increased at roughly half the rate that student credit hours and degrees awarded have increased. Addi-

tions to the instructional staff over the period have been predominately GTFs, producing a modest shift in the composition of our instructional staff toward GTFs. At the same time, there has been a shift in the composition of our total instructional faculty away from tenure-related faculty members toward fixed-term faculty members. Our regular instructional faculty members have become somewhat more diverse in terms of ethnicity and gender, and more likely to hold a full-time appointment, while our tenure-related faculty members have become more "junior."

A.1.b. Faculty Quality

The quality of our tenure-related faculty remains competitive among the AAU institutions of which we are a part. A number of objective indicators supporting this assertion are discussed in the chapter of this self-study titled "Inventing the Future: UO Research and Scholarship." The second half of the chapter, in particular, focuses on assessing the quality and impact of the scholarship conducted at Oregon, examining (i) indicators of institutional stature such as the criteria for membership in the Association of American Universities (AAU) and a variety of internationally recognized rankings, (ii) externally sponsored research, and (iii) visibility and impact of scholarly works as measured by outlet and citations.

Evidence of faculty quality can also be seen in the outcome associated with the hiring and evaluation practices discussed later in this section, and in the challenges we face in the area of faculty retention. Each year we compete with other AAU institutions and other research universities not in the AAU for new faculty members, both junior members new to the academy and senior members looking for new opportunities. In general, the university is successful in recruiting excellent scholars and teachers, routinely signing our first choice in national and international searches while competing with our principal comparator institutions.

In areas of particular national distinction—biology, creative writing, mathematics, psychology, and special education, for example—Oregon is a preferred destination for many scholars, junior or senior.

Further evidence on faculty quality is collected by the institution at the time of promotion and tenure. UO standards for promotion and tenure readily meet those of other AAU institutions and research universities. In general, UO faculty members do well during promotion and tenure, having accumulated records of research accomplishment that senior scholars across the U.S. and abroad consistently evaluate as strong to superior. Those evaluations, as described more fully later in this chapter, focus on the extent of research publication or creative accomplishment as well as on the impact of that scholarship in the fields of which it is part.

Faculty quality is also reflected in the frequency with which tenure-related faculty from the University of Oregon are recruited by competing institutions. Each year the university addresses competing offers for as many as twenty senior faculty members who are recruited by institutions like Stanford, Duke, Michigan, Berkeley, or Washington. While the UO is able to retain most of these colleagues, the fact remains that our strongest sibling institutions look to Oregon as a source for high-quality faculty members.

A.2. HIRING AND EXPECTATIONS

Hiring well is not an accident and involves cooperative effort at every level of the university. Setting and communicating expectations, which should begin during the hiring process, is also a responsibility that is shared across departments and programs, colleges, and the central administration. The focus in the paragraphs immediately below is on the hiring goals and criteria of our academic units, university-level goals and support for the hiring of instructors, and the communication of performance

Box A1. "What goals and criteria have guided the hiring of faculty members in your academic unit in recent years?"

"In recent years we have hired with a view to filling particular research areas and teaching areas. . . . Research potential and evidence of teaching success were key criteria in our selection. Our hire also was from an underrepresented group."
(Department of Classics)

"Academic excellence is always our first concern, followed by subdiscipline balance. It is assumed that grants, etc., will accompany academic excellence. In recent years, we have also had some partner accommodation issues—which I view as retention issues."
(Department of Geology)

"The driving goal is that hires must advance academic excellence of the unit and the college, contribute to program quality and diversity."
(Lundquist College of Business)

"Our hiring practices have been guided by a combination of curricular needs and the search for excellent new faculty [members]."
(School of Law)

expectations to new faculty member hires. Challenges in hiring related directly to salary and support are treated in subsequent sections.

A.2.a. Academic Unit Goals and Criteria

Successful hiring is driven at the department and program level. It is at this decentralized level that a university's real business—the creation and dissemination of knowledge—takes place. For this reason, academic institutions typically give individual academic units an extraordinary degree of autonomy in identifying and recruiting the faculty members on whom the success of the larger enterprise depends. Accordingly, the goals and criteria that guide our individual departments and programs in the hiring of new faculty members are of considerable importance to the institution.

As part of the university-wide self-study process, individual academic units were asked to respond to a series of questions dealing with a broad range of issues, including the hiring and support of faculty members.[192] Units were queried specifically about the goals and criteria guiding faculty hires in recent years.

Academic excellence. As one would expect at an AAU institution, the thirty-one responses to the question concerning hiring goals and criteria reflect a strong emphasis on research, scholarship, and creative activity. A clear majority of units with responsibility for hiring name scholarly accomplishment or potential (or the relevant analog) first in addressing hiring criteria. One department's response, for example, consists of the single word "quality," and the dean of one college writes, "Our first three priorities for hiring are excellence, excellence, excellence."

While the focus on academic excellence is underscored in the academic unit responses, almost all units address excellence in the context of one or more programmatic priorities such as quality of instruction and curriculum, fostering areas of distinction, maintaining programmatic balance, and building research complementarities. Other frequently mentioned factors are diversity and, in some areas, grant success and accommodation (e.g., partner hires). The examples of responses provided here (Box A1) and the many others like them[193] are evidence that those most directly responsible for hiring instructors at the University of Oregon have as their central focus its research and teaching mission.

For Oregon, as for many universities, the question arises of the degree to which a focus on academic excellence in hiring is consistent, both in principle and in practice, with other valued attributes of a faculty, such as intellectual and cultural diversity. We touch only briefly on this complex issue here,[194] noting two relevant dimensions of the University of Oregon's faculty—international expertise and minority representation.

Internationalization. To the best of our knowledge, measures of the degree of internationalization of a faculty are not routinely compiled at this university or others. Accordingly, we included on the questionnaire circulated to academic units two questions that address the issue. The first requested examples of the international expertise of the faculty, and the second asked if the existing expertise of our faculty was a goal of the hiring process or a by-product of other hiring priorities.

Some academic units, such as Romance languages, international studies, and Asian studies, are almost entirely international in orientation due to the nature of the program and its implications for the training, research, and teaching of the faculty in the

program. Responses to the first of the two questions, however, indicate an astounding degree of internationalization within Oregon's faculty.[195] Just a few examples are provided here (Box A2).

The responses to the second question indicate that for virtually all programs, the international character of the faculty has been either a by-product of hiring the best instructors available, consistent with the needs of the program, or a natural outcome due to the nature of the subject matter studied in the program.[196] Again, we provide only a few of many examples here (Box A3).

In short, setting hiring goals that emphasize academic excellence at the University of Oregon has produced a faculty that is internationally diverse, intellectually and culturally.

Underrepresented groups. Underrepresented groups within the University of Oregon faculty has been the subject of considerable discussion, and some dissension, on our campus over the past several years. The outcome of that discussion is captured, in part, in the UO Diversity Plan passed by the UO Senate on May 24, 2006.[197] The hiring goals articulated by our academic units also indicate that diversity with respect to ethnicity and gender is a significant concern at the level of individual colleges, departments, and programs (Box A4).

Broad measures of the diversity of the faculty in the dimensions of gender and ethnicity show an increase in women among the regular instructional faculty from 37 percent to 41 percent over the period 1999 to 2006, and an increase in self-identified minority representation from 10 percent to 14 percent over the period (see footnote 1). It is difficult to accurately assess changes in faculty [members] identifying themselves as a particular racial or ethnic group, since the category "multiethnic" is included in the 2005 data but not in the 1999 data. It is

Box A2. "Can you provide examples, as indicated by academic or personal experience, of international expertise within your faculty?"

"Approximately two-thirds of our tenure-track faculty members are foreign nationals or naturalized citizens." (Department of Mathematics)

"As anthropologists are trained in the study of other cultures, each of our faculty [members] has deep research commitments to at least one non-Western culture. . . . Ayres (Pacific Islands and Thailand), Biersack (Pacific Islands, Papua New Guinea), Erlandson (indigenous Americans, Greenland), Frost (Ethiopia, Kenya, Greece), Imada (Pacific Islands), Karim (Bangladesh, India), Kennett (Mexico, Oceania, Peru), Klopotek (indigenous Americans), Lukacs (India, Pakistan, Nepal, Canary Islands), Moreno (Thailand), Moss (indigenous Americans), O'Nell (indigenous Americans), Scher (Caribbean societies), Silverman (Eastern European societies), Snodgrass (indigenous Siberian societies), Stephen (Latin America), Sugiyama (Amazonian cultures), White (Congo, Madagascar), Wooten (western African societies). Imada, Karim, and Klopotek have deep connections with and ethnic heritage in Pacific Islands, South Asian, and Native American societies." (Department of Anthropology)

"Yes. Eighteen of our twenty-six full-time faculty [members] are experts in the history of areas of the world outside the United States. These include four with broad and deep knowledge of the histories of East Asia and extensive professional contacts in that part of the world; one with the same for Southeast Asia . . . , two with the same for Latin America, one with the same for Africa, and eleven [with] the same for Europe (including Russia and the former Soviet Union). . . . Finally, it should be noted that the [research by the] history department's faculty . . . requires an ability to read, write, or speak numerous languages including Spanish, Nahuatl, Lakota, Chinese (classical and modern), Japanese, Tagalog, Swahili, Russian, German, French, Italian, Czech, Latin, Greek, and Dutch." (Department of History)

clear, however, that both the numbers and proportions identifying as Asian-Pacific, Hispanic, and Native American have all increased modestly. Those self-identifying as African American declined slightly between 1999 and 2005, but the comparison may be clouded by the addition of the multiethnic category in 2005.

Data presented in the affirmative-action plans prepared by the UO Office of Affirmative Action and Equal Opportunity provide a different perspective on gender and ethnicity at Oregon. In the 2004 plan, employment of women and minorities as tenure-related and fixed-term faculty members is compared to availability[198] for each of the

UO's six professional schools and the three divisions of the College of Arts and Sciences. Using the "80 percent rule," the data indicate that women are represented among our tenure-related faculty in rough proportion to availability in five out the nine academic unit clusters, and among fixed-term faculty in six out of nine. Minority representation is consistent with availability in seven out of nine cases for tenure-related faculty members, and in six out nine cases for fixed-term faculty members.[199]

By contrast, data in the 1996 plan indicate that women were represented among our tenure-related faculty in rough proportion to availability in four out the nine academic

Box A3. "To the extent that your faculty is internationally diverse, is it largely an intentional result or a by-product of pursuing other hiring, promotion, and retention priorities?"

"By-product of seeking outstanding musicians and scholars." (School of Music and Dance)

"Unintentional, but not unwelcome." (Department of Computer and Information Sciences)

"Mainly a by-product of the hiring goal, academic excellence, described above." (Lundquist College of Business)

"A number of our faculty members were born outside of the United States. This enriches the UO cultural environment. It is the result of looking for the best person in the world each time we make a hire." (Department of Physics)

"Having depth in international topics is an intentional goal of our program." (Department of Geography)

"In large part, it is the natural outcome of hiring in a department that teaches three different languages and the multitude of cultures in which those languages are spoken." (Department of Romance Languages)

Box A4. Hiring and Underrepresented Groups

"Nearly one in four of all faculty hires since 1997 have been [people] of color, roughly evenly divided between domestic and international faculty [members] of color. . . . Two faculty [members] of color and three women have been appointed to endowed positions. . . . Thirteen faculty [members] of color have been appointed since 1997 as heads of departments or programs. A majority of our current heads of programs are women." (College of Arts and Sciences)

"Faculty hiring has been guided by the goals of improving our major areas of specialization . . . . We have also been successful in increasing the fraction of women faculty to about one-third, which is good compared to the national chemistry situation." (Department of Chemistry)

"The Department of Psychology is committed to the goal of increasing the diversity of our faculty, students, and staff. Gordon Hall has been appointed as chair of a new Psychology Diversity Committee in accordance with the suggestions of the UO Diversity Plan. Currently, our faculty members include three Asian Americans, one Native American, and one Hispanic American. Ten of our twenty-eight faculty [members] are women." (Department of Psychology)

"Recruiting to enrich and expand diversity on our faculty is a high priority and we have made important progress in increasing gender, ethnic, and racial diversity." (School of Journalism and Communication)

unit clusters, and among fixed-term faculty in seven out of nine. Minority representation is consistent with availability in five out of nine cases for tenure-related faculty members, and in seven out nine cases for fixed-term faculty members.

Based on this information, we have had some success in increasing the representation of women and minorities among our tenure-related faculty since the mid-1990s, but—at least measured relative to estimated availability—representation among our fixed-term faculty appears to have declined.

A.2.b. Institutional Goals and Support

The efforts of individual schools and colleges and their constituent departments and programs to recruit the best possible faculty members are supported by a number of centrally managed programs and offices. These include the following:

The Office of Institutional Equity and Diversity provides active support to UO commitments to recruit a more diverse faculty. This support includes assistance and training on conducting effective searches, building of community relations to enhance attractiveness of the UO and Eugene community to faculty members of color, and to provide advice and assistance in recruitment of any and all instructors as needed.

The Office of Academic Affairs provides assistance in faculty recruitment. It helps facilitate cross-college faculty appointments by brokering the necessary agreements for the structure and management of cross-unit appointments. It provides critical information on academic appointments at Oregon through its website, especially a website designed for new faculty members. It provides recruitment support for all senior appointments and most candidates from underrepresented groups and any other candidates as requested by departments.

More critically, it provides financial and operational support for dual-career appointments.[200] It provides financial support for departments seeking to diversify the faculty through the UO Underrepresented Minority Recruitment Program, currently under review. It is responsible for the development of family-friendly policies to recruit and support faculty members who have critical family obligations to balance with workplace expectations. The Office of Academic Affairs also works with the schools and colleges to devise appropriate recognition of prior service and incorporate that recognition into the tenure and promotion timeline for newly recruited faculty members.

Finally, as described in Part I.A. of this self-study, the Office of the Vice President for Research and Graduate Studies provides significant start-up resources for new faculty members, primarily but not exclusively, in the sciences. This office also has created a number of programs for new faculty hires, including summer research awards and other summer grant-related training opportunities.

A.2.c. Setting and Communicating Expectations

Setting and communicating expectations is another important area in which responsibility is shared across departments and programs, colleges, and the central administration. Departments and programs, however, take the "point" position on this issue.

Academic units. The questionnaire circulated to our academic units asked departments and programs how they communicate expectations to new hires. About half of the units responding to this question indicated that they send written promotion and tenure guidelines, whether their own or the university's, to new hires.[201] In some cases, the guidelines are provided to job finalists or at the time of offer. In many cases, they are provided after the person arrives on campus. Some units that do not provide written

copies of the guidelines either refer new hires to the electronic versions available on the web or encourage them to attend the new faculty orientation events sponsored by the Office of Academic Affairs.[202]

Following written promotion and tenure guidelines, the most commonly mentioned mechanisms for communicating expectations are annual evaluation, discussion with the department head, and formal and informal mentoring (Box A5).

In several cases, responses mention offer letters as a way of communicating expectations (School of Music and Dance and the Arts and Administration Program). This is an area that warrants more attention. There is only one sample letter presently available on the Office of Academic Affairs website, and it is fairly skeletal in nature. The sample offer letters provided to the steering committee by the School of Music and Dance, for example, could prove useful models for communicating expectations with regard to teaching and student supervision, once stripped of identifying information.

Special issues are presented by our interdisciplinary programs such as environmental studies, ethnic studies, and Russian and East European studies. The tenure "homes" of the faculty in these programs are located in related disciplinary departments. The College of Arts and Sciences, within which the programs reside, employs a "memorandum of understanding" signed by the program and the relevant disciplinary department to define responsibilities and expectations with respect to a new hire. The memorandum addresses the distribution of responsibilities between the program and the prospective home department, and details how decisions about tenure, promotion, and merit raises will be made. It then becomes a part of the formal offer made to the job candidate.

Box A5. "How do you communicate performance expectations to new hires?"

"We provide them with a written Faculty Promotion and Tenure document, help them identify a faculty mentor, hold meetings with the department head, and do first annual performance reviews." (Department of Architecture)

"Tenure expectations are made clear in discussion with the finalists for each position. Copies of University and departmental promotion and tenure guidelines are forwarded to new faculty [members] on their arrival in Eugene. They also receive a five-page memorandum, "Life in the Department," in which expectations are elaborated at greater length. Each new faculty member is assigned two mentors, who are immediately available to answer questions." (Department of English)

"In the first quarter of a new faculty member's appointment, he or she meets with the department head and is given a copy of our document "Promotion Guidelines" and is assigned two faculty mentors, one whose research area is close to the new person's and one whose research area is more distant. The mentors are encouraged to meet with the new person and provide advice, assistance, and information related to the development of new course materials, setting up the lab, and administrative procedures." (Department of Psychology)

Institutional Support. The Office of Academic Affairs provides substantive support to our efforts to establish and communicate university-level expectations for academic excellence:

- Academic affairs periodically reviews school, college, and department promotion and tenure criteria to assure cross-unit consistency and quality.
- Academic affairs provides a series of workshops on promotion and tenure each year, including workshops for new faculty members, for faculty members due for review in the next year, and for department heads.
- Academic affairs has produced the *Faculty Guide to Promotion and Tenure* and the *Faculty Handbook*, both of which need updating and translation onto the web.
- Academic affairs is preparing a comprehensive website for faculty members to review details of both expectations for promotion and tenure and the processes of review we follow, scheduled for completion by June 2007.

During 2006–7, academic affairs is planning to conduct a review of its practices in conveying university-level expectations for research or creative success as well as teaching success with the aim of making those expectations more transparent to new faculty members. This will include development of an information site that is more comprehensive and detailed than our current site and an intranet site for department heads and program directors to access templates for appointments and associated communications about university expectations.

A.3. FACULTY SUPPORT

Cooperative and thoughtful effort at all levels of the institution has paid dividends in terms of effective support for the work done by our faculty. Institutional efforts in this area have had significant and pervasive direct effects on the ability of our faculty

to carry out the university's mission. They have also had important indirect effects in encouraging individual academic units to supplement centralized support with initiatives at the college, department, and program level. Collectively, these efforts have been critical for our institution during a period of continued declines in state support for our mission.

Of course, a university's broad decisions regarding the allocation of resources have a profound impact on all aspects of its mission, including its ability to support the faculty upon whom the success of the institution ultimately rests. A brief history of the financial environment in which the UO has pursued its mission since the last decennial review, and the resource allocation models it has employed, is provided in part IV.C of this report.

A.3.a. Institutional Support

Teaching. Centrally funded support for teaching is located principally in the Teaching Effectiveness Program.[203] It is dedicated to helping the instructional staff maximize teaching success through workshops and tutorials as well as through the use of midterm teaching evaluations requested by the faculty member.

In addition, the UO Libraries provides educational technology training, support, and production through the Center for Education Technology, which is responsible for the university's widely used course management system, Blackboard. The libraries also provide a full range of media-related services, including support for campus classroom technology, as described in more detail in part II.C of this report.

Research. The Office of the Vice President for Research and Graduate Studies provides institutional support to the research programs of UO tenure-related faculty mem-

bers and to members of the nontenure-track faculty holding appointments as officers of research. The opportunities are significant and widespread, as described in part I.A of this report, and include the following:

- Start-up support for new faculty members
- Summer research awards
- Grant workshops
- Office of Research and Faculty Development

Faculty research support is also a central function of the UO Libraries and of Information Services, as described in detail in part II.C of this self-study. It is a factor, as well, in planning for new physical facilities and renovations of existing structures (see part IV.A).

It is noteworthy that the UO provides every faculty member with an individual academic support account (ASA) that provides a modest fund for research support. These funds are typically used for research travel, equipment, and book purchases. Centrally funded ASAs are sometimes augmented by matching amounts from the schools and colleges (as is the case, for example, in the College of Arts and Sciences).

Endowment Support. Private donors have provided valuable support to complement the sources listed above. Several examples of how private giving has allowed the university to invest in prominent faculty, and in areas of existing or emerging importance for the university, through endowed chairs and professorships are included in Box A6. A different kind of example is the Junior Professorship Development Awards program developed by the College of Arts and Sciences. For some time, the college has used foundation funding to support a junior faculty award of approximately $1,000 to most of its untenured faculty members each year. This money supports the scholarly work and development of future senior schol-

Box A6. Building and Sustaining Faculty Excellence: Endowed Chairs and Professorships

Helen Neville
Helen Neville, the Robert and Beverly Lewis Chair in Neuroscience, is an internationally recognized brain researcher and UO professor of psychology. One of the world's top scientists studying brain plasticity, Neville was director of the prestigious neuropsychology laboratory at the Salk Institute for Biological Studies before coming to the UO.

Kyu Ho Youm
The inaugural holder of the Jonathan Marshall First Amendment Chair, Youm is an expert in communications law, and his law review articles on freedom of expression have been cited by American and foreign courts, including the House of Lords in Great Britain and the High Court of Australia. A member of the Communication Law Writers Group, Youm has been involved in writing Communication and the Law, a widely used media law college textbook in the United States. He has been named one of seven scholars producing the "most promising" research in journalism and mass communication. Currently, Youm serves on the editorial boards of a dozen major law and communication journals in the United States and England.

Presidential Chairs
A portion of a $15 million anonymous gift provided funds to establish the university's first two Presidential Chairs. These chairs will allow the university to recruit and retain prominent faculty members to strengthen strategically important academic programs.

ars and distinguished researchers. Finally, examples of ways in which gifts directly support the faculty in providing high-quality academic programs appear in Box A7.

As of November 2006, the current fundraising campaign—Campaign Oregon: Transforming Lives—has raised more than $53.6 million for faculty support, including more than $46 million in endowed gifts. The campaign has created twenty-nine new endowed faculty positions to date. Of equal importance, our donors have recognized the significant challenges the university faces in retaining our best faculty members. The campaign has generated close to $10 million in endowed support (and more than $1 million in current funds) committed to faculty excellence and development. This includes a stunning anonymous gift of more than $5 million earmarked for the creation of a fund for faculty excellence aimed at rewarding exceptional instructors early in their careers for research and creative accomplishment with significant international impact. It is

noteworthy that this program is not envisioned merely as "fighting funds" to help retain faculty members with external offers, but to reward excellence in its own right.

Individual support. The UO has made significant investments in services and practices that support employees and students in balancing family and personal needs with workplace and educational responsibilities. These services and practices, which are described in section B.4. below, help recruit new faculty because they facilitate professional growth and development—to the benefit of the institution and its students as well as its faculty.

A.3.b. Support Provided by Academic Units

Like their counterparts nationally, UO departments and programs support faculty members through a variety of formal and informal mentoring arrangements. In the case of teaching, for example, support of

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Box A7. Academic Programs Supported by Private Gifts

University of Oregon Investment Group
At the Charles H. Lundquist College of Business, students learn about investing by managing two real-money portfolios. The UO Investment Group also takes field trips to Wall Street and participates in national competitions. Their investment portfolios often surpass their benchmarks and exceed the performance of professionally managed mutual funds.

Green Chemistry
The University of Oregon is a world leader in green chemistry, a burgeoning movement to improve teaching and manufacturing methods to develop alternatives to hazardous chemicals, reduce or eliminate harmful byproducts, and improve laboratory safety. The promise of green chemistry is that industry can produce chemicals—and science students can learn—with less cost and less waste in safer conditions.

Journalism in Portland
A $4.5 million anonymous gift prompted a matching gift, allowing the School of Journalism and Communication to launch a new program in Portland in fall 2006. The program serves working professionals in Portland who seek to advance their careers, creating new opportunities for Eugene-based students.

new teachers ranges from entirely informal mentoring in which more senior instructors help new hires as the need arises to deliberate efforts to improve teaching through the use of department teaching committees or formally assigned mentors. A similarly broad array of mentoring arrangements is deployed in support of the research activities of the junior faculty. In addition, teaching and committee assignments are often distributed strategically to promote faculty development, with junior faculty development a common priority.

These traditional forms of departmental support, which depend on commitments of faculty time and goodwill, have been supplemented at Oregon in recent years through revenues earned and controlled at the department level. Securing funding and allocating resources are responsibilities that have typically been managed at the university and college level at institutions of higher education. As a consequence, discretionary funds and the opportunity to allocate them in support of local priorities have traditionally been extremely limited at the level of individual academic programs. By contrast, the UO has employed decentralized revenue methods in select areas and greater local control of budgets as strategies in dealing with the generally difficult financial environment of the past two decades.

We have survived and, in large measure, thrived. Accordingly, we believe there is much to learn from the creativity of our colleges and programs as they have sought to adjust to financial realities that ask them to serve more students with far less than proportional increases in the resources needed to teach them. We asked our academic units about the strategies they have used to raise revenue, and how they have used those revenues to support teaching, research, and service in their unit.

Resource strategies. The most frequently mentioned source of revenue by programs

large and small was summer session "profits"—the revenue in excess of costs generated by teaching summer courses, where costs include overhead charges by the university and other administrative units to cover the costs of facilities use and administration of the programs. Summer session was mentioned as a significant source of funds in thirty-seven of fifty-two responses.[204]

After summer session, the next most important source of discretionary money for academic units appears to be salary savings, an area that is emphasized by the College of Arts and Sciences (CAS) in its college-level response:

> "CAS has pursued a number of strategies, most of which emphasize effective decentralized decision making and an appropriate alignment of responsibility, authority, and resources. For example, CAS is the only arts and sciences college among the public members of the Pac-10 and one of only about three in the AAU that has decentralized 100 percent of leave and open-position savings, with only minor exceptions. . . . Decentralizing leave and other open-position savings to departmental discretion has given them the local authority *and* responsibility for dealing with as many issues as possible locally, prior to seeking financial help from the college. This system has worked very well in enabling our programs to serve students well, support faculty research and teaching, provide matching funds for retention and equity increases, and, perhaps surprisingly, build up nontrivial carry-forward reserves."

Unrestricted gift money is another important source of discretionary funds for many of our departments. A number of the gifts that directly support our academic units are heavily restricted, of course, as in the case of the endowments that fund the chairs and professorships that have been

vital to attracting and retaining some of our best faculty members. (For further discussion of this important source of support, see part IV.C.) But the outreach efforts of our departments and programs result in many unrestricted gifts and are an important source of support to those departments that have systematically engaged in such outreach over the years. Newsletters, in particular, are cited by departments as effective (Box A8).

Some programs, predominately in professional schools, note revenues from courses offered through Continuing Education as a significant source of discretionary money. Fees are also noted as very important for several professional schools.

Finally, a small but growing source of revenue that some departments have begun to pursue is the entrepreneurial export of academic programs and academic expertise outside of the conventional residential university. Similar in structure to activities in Continuing Education, these activities involve departments taking on programmatic efforts in international settings. For example, the Department of Linguistics has established a successful collaborative program with Hanyang University in Seoul that provides a six-month training course for Korean teachers of English as a foreign language. Such efforts are likely to increase over the coming years, though the opportunity costs of such endeavors needs to be carefully monitored.

Uses of funds. What activities do these revenues support? How crucial, by implication, is this discretionary money from the perspective of individual departments and programs? We asked our academic programs.

The most frequently mentioned use of discretionary funds is to support graduate education. It is worth emphasizing that in many programs, most (if not all) leave savings are channeled into GTF salaries and

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Box A8. Department and Program Outreach

"We have been successful in generating donations from alumni and friends; we owe this success in large part to an extensive newsletter we send out annually." (Department of English)

"Since 2000 we have published a yearly newsletter that is our main tool for keeping in touch with donors and people who are potential donors. (Copies of our newsletters are available upon request.) We also have developed a system for tracking the contributions of donors and sending them thank you letters. For larger donors we send more information about the activities of our department and a copy of a recent book authored by one of our faculty members."
(Department of Psychology)

"We send out an annual newsletter that has been quite successful at generating donor support."
(Department of Economics)

"We help facilitate alumni contributions through out Alumni Advisory Committee, the UO Foundation, and our alumni newsletter." (Department of Planning, Public Policy and Management)

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can contribute considerably more to GTF support than do centrally allocated funds. Following GTF support, the most common uses of funds are travel and other forms of faculty development support, including summer research stipends and support for new hires.[205] Other frequently noted uses are (i) computer hardware, software, and support, (ii) conferences, public lectures, and

departmental speaker series, and (iii) "back-filling" the services and supplies budget, a reference to covering day-to-day operating expenses such as telephones, paper, ink cartridges, and copying (Box A9). This latter use of discretionary funds is of particular concern as it points to the continued erosion of state support for the basic mission of academic units.

Several departments emphasize complementarities between support for their faculty and graduate students on the one hand and their undergraduate instructional programs on the other. Two programs, for example, use summer session revenue to provide incentives for its faculty to teach large introductory classes (Department of East Asian Languages and Literatures, Department of Economics). Another example of a strategy deliberately focused on complementarities is articulated by the Department of Philosophy:

> "These revenues have largely been dedicated to supporting GTF salaries. In order to provide the highest-quality un-

dergraduate education, we have committed to providing discussion sections for any course that enrolls over thirty-five students. The result has been very well received courses and a dramatic increase in enrollments and majors. This support for undergraduate teaching parallels our effort to have a graduate program of between thirty-five and forty students. This commitment to undergraduate and graduate education requires that about one-third of our graduate students are funded through these additional resources."

We have committed considerable space here to the financial survival strategies pursued by individual academic programs at Oregon as they have struggled to sustain support for faculty research and instructional programs over the past decade. We have done so, in part, because we suspect that the UO is somewhat unusual in the degree to which control over both revenue and expenditure is decentralized to individual academic units, particularly within its College of Arts and Sciences. This is a statement about the margin, of course—about the incre-

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Box A9. "How have you used those revenues to support teaching, research, and service activities in your academic unit?"

"We use these funds to mount one-third of the sections in composition and lower division courses (approximately 100 sections). . . . We support travel and research with these funds. . . . We use these funds to support a departmental speaker series; in addition we cosponsor numerous lectures and events across the university. We use these funds to cover moving expenses and bridge funds for arriving faculty [members]." (Department of English)

"We backfill just about every category with funds from these sources." (Department of Geology)

"Recruiting and retention funds, research and teaching grants, travel support, computer hardware and software, summer stipends, GTF hires or support, grading support, bridging money for new hires, support specific to new hires, special events and conferences, funding professional visitors, publishing lectures." (School of Journalism and Communication)

mental dollar and its use. But it is often at the margin that success or failure is determined, and understanding the successes and challenges of this institution requires an understanding of how we have adapted to the jarring changes in support for higher education.

Finally, we note that there is considerable overlap between the issue of adequate faculty support in teaching and research and the issue of faculty retention. The latter is addressed toward the end of the section.

A.4. EVALUATION

Are standards of evaluation clear, congruent with the university's mission, and fairly and consistently implemented? This is an area in which effective partnership and communication between the central administration and academic units is absolutely critical. University policy and practice places a great deal of trust and expectation on the interaction of three distinct levels of review, analysis, and, ultimately, academic judgment: department- and program-level evaluation, school- and college-level evaluation, and university-level evaluation. There is an active interplay among these three levels at Oregon.

Departments are afforded a great deal of individual leeway in setting standards and expectations for faculty performance in research and teaching, something we do in recognition of the locus of disciplinary expertise in the academic departments. The school and college deans provide essential coordination and oversight for the academic departments and ensure that departmental efforts collectively reach a high level of performance. The academic deans across the board accomplish this through the direct engagement of department heads and key senior faculty in setting up and carrying out faculty reviews. At the university level, the provost coordinates overall policy and practices for faculty evaluation and review.

These efforts, too, involve the direct engagement of the academic deans and key faculty from the departments and programs. Unlike many peer institutions, the University of Oregon encourages and expects that faculty members will be involved in peer review of performance at every stage of faculty review and development.

This section begins with a review of university policy on faculty review and evaluation, and then moves to an examination of the extent to which actual practice complies with policy.

A.4.a. University Policy

Junior Faculty Members. There are three kinds of formal evaluation of the junior faculty: annual reviews, third-year reviews (contract renewal), and the promotion and tenure review. All reviews involve both a formative component, aimed at providing critical evaluation helpful to the faculty member in furthering their academic growth in scholarship and teaching, and a summative component, aimed at a clear and specific judgment of where the colleague stands on the path to promotion and tenure. Annual reviews focus more on formative evaluation, promotion and tenure on summative evaluation, with third-year reviews falling between the two.

Annual reviews. Each junior faculty member is expected to be reviewed formally once each academic year. Based (typically) on an updated vita and a report of service for the current year, the department head, possibly in consultation with a department committee, prepares a written report. The department head typically meets with the faculty member to go over the review and to discuss both the past year and plans for the next. The faculty member may offer written comments, explanations, or dissenting remarks, and will sign the report, indicating that he or she has read the report. Annual reviews are largely a departmental matter: they are

not filed centrally, and they are often not examined at the school or college level.

Third-year reviews. Junior faculty members hired with no credit for prior service at other institutions initially receive a three-year contract, which may be renewed for another three years. By the end of a second three-year contract, the faculty member will typically have been either granted or denied tenure. It is UO policy and practice to conduct a thorough third-year review in conjunction with first contract renewal. The review looks for a pattern of performance that provides clear and unequivocal evidence that scholarship and teaching are on a trajectory fully consistent with meeting the standards for promotion and tenure. For colleagues whose records clearly show this, the contract is renewed for an additional three years (about 85 percent of cases). If the record indicates a low probability of success at the tenure review, the UO extends timely notice and a one-year terminal contract (about 3–6 percent of cases). In some cases, the record is seen as problematic, though with continuing prospects for success with additional concerted effort. In such cases (approximately 6–10 percent of cases), a one-year contract is extended with the possibility of renewal if specified conditions of performance are met.

Promotion and tenure. As is the case at our AAU peers and public research universities across the United States, tenure is viewed principally as a formal means to guarantee academic freedom for a junior colleague who has demonstrated, through accumulated accomplishments in research or creative activity and teaching, the potential for a career of national distinction in his or her disciplinary field or profession. While tenure confers also a permanent employment contract (subject to modification under conditions of financial exigency), it is for reasons of academic freedom that tenure is offered and supported.

All tenure-related faculty members in their sixth year of service, or a negotiated equivalent for faculty members with prior service at another institution, are reviewed for tenure and promotion to associate professor. The process begins typically in the spring of the year before a decision is due and continues through most of the following academic year, with a final decision due on or before June 15.

In addition to a set of materials prepared by the candidate and his or her department (vita, personal statement, teaching evaluations), the university solicits external letters (typically six) from distinguished senior colleagues located at comparable research universities in the U.S. or worldwide. During the review process, the academic dean and the provost's office, along with the corresponding faculty committees, examine carefully these externally solicited letters and in some cases may seek additional letters if needed.

The candidate's fully assembled file is reviewed at the department level, the school or college level, and at the university level, with reports prepared independently by faculty committees and academic unit heads at each level. The final decision to grant or deny tenure rests with the provost, although there exists an appeal process, first to a faculty appeals committee and finally to the president, if the candidate chooses to pursue it.

Careful hiring, good mentoring, and critical third-year reviews mean that the success rate for promotion to associate professor with tenure is relatively high; 85–90 percent of cases are successful. In the past ten years, the standards for promotion and tenure have remained consistent with our AAU peers and other public research universities. In general, Oregon expects that the successful candidate will have achieved a profile of research or creative accomplishment (concrete publication or its creative or

professional equivalent) that places him or her visibly on the national stage by virtue of the quality and impact of that work as well as a pattern of teaching accomplishment indicative of a likely long career of excellence in teaching at both the undergraduate and graduate levels. Minimal service is expected, and the UO tries to insulate junior faculty members from service at the college or university level until after tenure, though such service is not prohibited.

As described earlier in this section (A.2.c), junior faculty members do not approach any of these evaluation processes without opportunities for learning what is expected. In addition to orientations provided by home departments and the Office of Academic Affairs shortly after new faculty members arrive on campus in the fall, regular workshops on promotion and tenure offered each year by academic affairs and some schools and colleges. Finally, the university maintains several paper and web documents on the promotion and tenure process:

- *Faculty Handbook*[206]
- *A Faculty Guide to Promotion and Tenure*[207]
- Guidelines for the program or department preparing the tenure file[208]

Senior Faculty Members. There are two kinds of formal evaluation of senior faculty members: post-tenure review and promotion to professor.

Post-tenure review. Post-tenure review is mandated by Oregon Administrative Rule 580-021-0140, which states that "tenured faculty members shall be evaluated periodically and systematically in accordance with guidelines developed by each institution." In 1999 the University Senate, in part in response to national and local concerns about accountability and the review of senior, tenured faculty members, passed legislation that created a more formal post-tenure review process. Current UO policy

and practice stems from this legislation.[209] It calls for periodic review of senior tenured colleagues, as follows:

There are two reviews conducted over each six-year period from the point at which tenure is granted, one a minor review and one a major review. The minor review occurs during the third year and is based on a current vita, a report of service, and a discussion of current activities and future plans, all prepared by the faculty member. The major review occurs during the sixth year and includes preparation of the same materials by the faculty member. In this instance, however, an elected faculty committee in the department and the department head also prepare reports, and the entire file is reviewed at the college level. Cases that are fully satisfactory result in a modest salary increase, separate from any other increases. Cases that are partially satisfactory may receive a partial increase. Cases that are clearly problematic can result in a formal plan to recover research or teaching effectiveness, including reassignment in some cases.

Promotion to Professor. Promotion to full professor follows the same protocol as presented above for tenure and promotion cases for junior faculty members. It is most common for senior faculty members to come up for promotion to professor within the first eight years after promotion, with most of these falling within six years. Associate professors who have not been promoted to professor are not eligible for salary increases under the post-tenure review process, as these colleagues are expected to undergo promotion to professor first.

Nontenure-track faculty members. Currently, nontenure-track faculty members, whether serving instructional or research appointments, are eligible for promotion to senior instructor or senior research associate after accumulating eighteen terms of appointment at 0.5 FTE or greater. The process for promotion involves a systematic review of

performance in the area appointed (teaching or research) by the academic department head, the dean of the school or college, and the provost (or her delegate). Unlike the tenure process, there is no use of elected faculty committees. Successful promotions result in longer contracts and the expectation that the appointment will continue as long as funding is available. There is considerable variability in the conduct of nontenure-track faculty promotions at present, and this is an area under review for improvement.

A.4.b. Practice and Assessment

Promotion and tenure. The guidelines and requirements described in university policy set the framework within which evaluation is carried out. Responsibility for implementation rests primarily with individual academic units, although final decisions rest with the provost. Many of our units supplement university policy with statements of expectations particular to the unit. When asked, thirty-one of the forty-three responding academic units with primary responsibility for tenure evaluations (including program, department, and college responses) reported written statements of expectations for promotion and tenure that supplement those of the university.[210] The statements range from brief statements of principle (e.g., Department of Physics, Department of Economics) to detailed descriptions of process as well as expectations (e.g., School of Music and Dance).

The statements we received are available electronically.[211,212] They illustrate the kinds of promotion and tenure standards appropriate to a first-rank research university with a variety of approaches to articulating those standards. One example, dealing with the nature of scholarship in a traditional arts and sciences discipline, is provided below.

"The measure of scholarship is both by quantity and quality. The former is taken as an indication of the consistency of one's production, and the latter reflects whether or not this work meets professional standards and makes a contribution to a field (or fields). Required are either a book published by a scholarly press and two to three articles in major journals, or a number of substantive articles, usually eight to ten, published again in major journals. These articles should come from a cohesive body of scholarship and demonstrate a mastery of a particular area. Normally, articles in books will be treated as the equivalent of a journal article if peer reviewed, but in all cases the quality of the articles and the publication is paramount. The qualification is that, in all cases, these should be refereed publications that indicate the work is recognized and ranked nationally among that of leading scholars in one's field. Electronic publication is equivalent to published articles if its peer reviewed." (Excerpted from the statement provided by the Department of East Asian Languages and Literatures.)

As described in A.4.a above, the promotion and tenure process at Oregon involves both faculty and administrative review at each of the department, college or school, and university levels. Faculty participation at the university level takes place through an elected faculty personnel committee (FPC), which prepares reports and recommendations on tenure and promotion cases for the provost. Likewise, faculty personnel committees typically play a central role in evaluation for promotion and tenure process at the college or school and department or program levels. Within the College of Arts and Sciences, for example, an elected Dean's Advisory Committee prepares college-level reports and recommendations for the dean.

Each year, the FPC prepares a report on its activities and deliberations and includes recommendations on institutional improvements for purposes of tenure and promotion. Past FPC reports, while acknowledging the well-prepared files submitted by many departments, have included complaints about the preparation of files by some departments and pleas for strict adherence to university guidelines. The complaints and pleas are remarkably consistent from year to year, and some are echoed in the annual reports of the dean's committee, which prepares evaluations and recommendations on over half the cases seen by the FPC.

The faculty personnel committee report submitted to the University Senate this past spring[213] departs from past reports in recommending specific changes in process aimed at correcting the issues identified by both the FPC and the dean's committee in recent

Box A10. **Excerpts from "Faculty Personnel Committee 2005–2006 Report to the Senate"**

Use of Computer-Based Technologies to Standardize the Promotion Process: *A Faculty Guide to Promotion and Tenure* is a useful resource. However, its printed form does not really take advantage of new computer technology that might more readily communicate the information and standardize the process. Specifically, an online procedure could likely be developed that would walk departments through the process of completing the file to ensure that all the proper documents are included in the file in the proper order and in sufficient detail. There are examples of such computer-based e-technologies being applied to other complex processes that have been quite effective. For example, the NSF's Fastlane experience that expedites grant writers putting together a grant proposal. Obviously, such an electronic process would have to be done carefully and would have to be sufficiently flexible to account for the heterogeneity in the promotion criteria across schools and colleges. Nonetheless, if done right, such a procedure might well remedy a significant and reoccurring headache of the FPC and the other evaluative participants in the process that some files are not properly prepared.

In addition, the process of creating a computer-based online file preparation process might also provide the opportunity to streamline the process. For example, there is needless and extensive repetition in the files, which might be minimized by an online resource that could remind each participant in the process of their primary role. In addition, it would provide a means of standardizing the presentation of certain data in the file that is often presented in ways that are hard to follow. For example, there are often disagreements in the file about the number of publications, the type of publications, and their timing because vitae differ distinctly across individuals (even within the same department). An online menu could be developed that would permit a more standardized accounting of publications that would eliminate errors and inconsistencies in evaluating the research record. This numerical summary would not replace the vitae, but supplement them. Likewise, numerical teaching evaluations could also be presented in a standardized way (e.g., presenting the candidate's mean course and instructor-quality marks in comparison to the department average, the number of students enrolled in a course, and so forth.).

years. The report notes that "the lack of clarity created by a poorly prepared file is to the detriment of the candidate and harms the integrity and the efficiency of the promotion process." Because past pleas have been ineffective in changing the behavior of units that do not properly prepare files, the report includes "a set of recommendations in regards to possible modifications of current procedures. . . . We believe that such recommendations may be particularly timely in light of the hiring of a new provost."

The centerpiece of the FPC's recommendations is the implementation of a computer-based technology to standardize the preparation of promotion and tenure files (Box A10). The goal is an online system that would guide departments through the process of submitting materials in the proper order and in sufficient detail. Additional suggestions address the specific issue of departments or schools with histories of poorly prepared files, the time commitment involved in service on the FPC, and processes relevant to the hiring, promotion, and tenure of faculty with substantial previous experience.

Annual, third-year, and post-tenure reviews. In general, policy and practice in these areas of evaluation are congruent at Oregon. When asked, virtually all academic units reported full compliance with annual and third-year evaluations of nontenured tenure-track faculty members, though some programs wryly note a tendency to be tardy with the paperwork.[214] Several professional schools, on the other hand, note that compliance with the requirements of post-tenure review is a challenge. In addition, several units express reservations (some quite emphatic) about the value of third-year post-tenure review, and a good number communicate a palpable sense of exhaustion triggered by contemplating the demands of the faculty evaluation. A cross-section of responses appears in Box A11.

The responses contain only occasional references to the review of adjunct faculty members, which reflects the fact that policy in this area is left to individual colleges or programs. Requiring a more uniform treatment of the evaluation of nontenure-track faculty members across academic units is complicated by the fact, evident in the responses, that the burden of evaluation is already very high in those units that employ the greatest number of these instructors (e.g., Department of English, Department of Romance Languages, and College of Education).

Additional reporting and uses. Evaluation beyond the requirements addressed above—annual and third-year review of nontenured faculty, post-tenure review, and review for promotion and tenure—takes place when pay increases are awarded, as addressed further below.

Some academic units go beyond the university faculty evaluation and reporting requirements noted above. This is reflected to some extent in the answers to the question of compliance (e.g., the response provided by the College of Business, quoted above) and also in the answers to a question regarding the use of faculty activity reports by academic units. The responses to the latter[215] indicate that annual faculty activity reports are required of faculty members in all of the professional schools. Updated curriculum vitae are required annually of all faculty members in the College of Arts and Sciences (CAS). Within CAS, however, only the chemistry, physics, anthropology, and economics departments require, in addition, that faculty members submit comprehensive annual faculty activity reports.

A selection of department and college responses is provided in Box A12. These responses indicate that, where faculty activity reports are employed, the information reported is used in salary increase decisions to inform discussions with faculty members about goals and progress, to write newslet-

Box A11. "How successful is your unit in complying with university policy on annual and third-year evaluations of nontenured faculty[217] and post-tenure review?[218] What difficulties have you encountered, if any?"

"We have been completely compliant but it comes at the cost of much of my spring term. I find the third-year post-tenure reviews to generally be a waste of time and I'd favor eliminating them." (Department of Geology)

"Very successful." (Department of Art)

"All reviews are carried out in a timely fashion. They serve to provide an opportunity to discuss faculty work and to set expectations." (Department of Philosophy)

"We comply with all of the required reviews. Of those reviews, the annual and third-year reviews of nontenured faculty and of associate professors are particularly carefully done. The sixth year PTR reviews are also carefully done. Therefore, these reviews are often a few weeks late! The third-year PTR reviews for full professors are a great burden and an almost complete waste of time in the view of the current department head. Currently we staple the annual reports together with a short summary statement by the department head for these reviews to reduce this waste of time." (Department of Chemistry)

"We comply fully with university policy and do not find it overly burdensome." (Department of Mathematics)

"We are very successful. Each untenured faculty member is reviewed by the chair every year and we do all third-year and sixth-year post-tenure reviews as mandated. The chair does third-year PT reviews and a subcommittee of the advisory committee evaluates the sixth-year PT files. We have encountered no procedural difficulties, but these reviews constitute a structural problem. They are an enormous drain on time and senior personnel, especially when there are many more junior professors than senior." (Department of Romance Languages)

"The LCB does an excellent job in this area. To do this properly, the time commitment of faculty and administrators is high. Nontenured faculty [members] and instructors are reviewed on an annual basis. Tenured faculty [members] are reviewed every two years." (Lundquist College of Business)

ters, and to determine teaching assignments. The responses also suggest that most CAS programs do not see a need for faculty reporting and evaluation beyond that already required by university and college policy.

Most of the units that require annual faculty activity reports provided us examples of the templates for the reports. These are available on our website for the interested reader.[216]

The information provided or summarized in this section indicates that faculty evaluation is taken seriously at the University of Oregon, is implemented systematically and successfully in almost all cases, and is supplemented as appropriate by individual academic units to meet particular needs.

There is no doubt that the effort involved is substantial, or that in most dimensions, particularly evaluation of junior faculty members, that the effort is warranted. Some questions do arise, however, about the evaluation of teaching and creative activity in the promotion and tenure process, the burden and value of third-year post-tenure review, and the adequacy of review of non-tenure-track faculty members.

A.5. COMPENSATION

Evaluating compensation at a public university is inherently difficult, a task complicated by the large investments in human capital required during the early probationary years of an academic career and rewarded after tenure verifies that the investment has taken place. Both salary structure (pay differences among the various academic ranks) and the overall level of salaries are important to a university's success in attracting and retaining a high-caliber faculty.

Box A12. "Does your academic unit require faculty activity reports on a regular basis? If so, briefly describe the reporting cycle, the activities reported (or attach an illustration), and the use made of the reports."

"Faculty activity reports are required annually. Annual reports are used to identify activities to be published in our quarterly newsletter, Ledger Lines. *Annual reports are used for evaluative purposes and merit-raise consideration."* (School of Music and Dance)

"All full-time teaching faculty [members] are required to submit an annual portfolio that reports all teaching, research, and service activities for the year and a proposal for the next academic year. The dean reviews the portfolios in consultation with the associate dean and the school's elected Dean's Advisory Council. Portfolios are the basis for determining teaching assignments." (School of Journalism and Communication)

"We ask for an annual report at the end of each calendar year. The reports cover research, service, and teaching. Among other things, our personnel committee uses these for merit pay increase ratings." (Department of Physics)

"Economics faculty [members] are required to submit activity reports on an annual basis. . . . The report includes data on all professional activity, including courses taught, students supervised, research published, research in progress, grants received, grants submitted, conference-professional presentations, university service, professional service, academic consulting activity, etc. These reports are used to administer our teaching load policy." (Department of Economics)

"No, but merit raises occur reasonably often and along with the other required reviews—we have fairly regular reports on all faculty [members]." (Department of Sociology)

"Given the frequency with which annual reviews or third year pre- or post-tenure reviews come around, in addition to reports required for salary raises, our department provides faculty activity reports on a fairly regular basis." (Department of Classics)

We begin with an overview of the past decade's gains and losses in the area of faculty compensation, a record that reflects overall progress in bringing total faculty compensation at Oregon closer to that of its peers. The record also shows, however, that the gains have been focused in the area of increased benefits (e.g., health insurance and pension contributions) rather than in the more visible area of salary increases. And, finally, salary compression continues to be a significant at Oregon relative to its peers.

Within the larger university context, which has included persistently declining state support and a two-year pay freeze, individual colleges and programs have worked to make the most of the resources available to them. The second half of this section looks at the compensation strategies individual academic units have pursued in their efforts to attract and retain the highest-quality faculty possible.

A.5.a. The Record

Faculty salaries at Oregon are well-known to lag behind those of its peers. The average faculty salary paid at the University of Oregon in 2005–6, for example, was 82 percent of the average salary paid at the eight AAU institutions designated as the University of Oregon's comparator group by the Oregon University System.[219] The discrepancy is larger for full professors (79 percent) than for assistant professors (86 percent), with associates in between—a measure of what is referred to as salary compression. This picture is little different than it was ten years ago.[220] The largest change over the period has been in the salaries of instructors, which fell from 80 percent of our AAU comparators to 77 percent.

While salaries at Oregon are relatively low, benefits are relatively high. In 2005–6, benefits as a fraction of salary at Oregon ranged from 38 percent for the average full profes-

sor to 51 percent for the average instructor. This is considerably higher than for our peer institutions, where average benefits run at about 27 percent of salary for all ranks except full, which runs at about 24 percent. This marked and positive discrepancy between Oregon and its comparators in this dimension of compensation has emerged over the past ten years. With the exception of instructors,[221] benefits in 1995–96 were just slightly higher for Oregon than for its peer institutions, at roughly a quarter of salary.

Given the improvement in benefits at Oregon over the past ten years, at least relative to peers, it is not surprising that total faculty compensation is more competitive now than ten years ago. Overall, as indicated in the Figure A1, faculty compensation stood at 91 percent of peer salaries in 2005–6, whereas the figure was 85 percent ten years ago. All ranks have shared in the improvement, including instructors, for whom the figure is the same as for the faculty overall. However, the gap between Oregon and its comparators remains largest for full professors, evidence of the persistent salary compression problem noted earlier.

A factor not accounted for in most institutional salary comparisons is cost of living. The reasons are multiple, including poor data on cost-of-living differences between the relevant geographic areas and the possibility of relocation after retirement. Nonetheless, most salary calculators, regional consumer price indexes, and surveys of home values suggest that the cost of living for home owners in Eugene is, on average, less than in the cities in which Oregon's peer institutions are located. Accordingly, it is likely that the figures in the table overstate the gap between the real value of faculty salaries at Oregon and those of its comparators.

Overall, the university has made significant, though not uniform, progress toward the

Senate White Paper goals for improving academic salaries and compensation at the University of Oregon.[222] The most prominent of the goals, established in 2000, was to raise average instructional faculty compensation to 95 percent of parity with comparator institutions. A subsidiary goal was to reduce salary compression. While there has been little improvement with regard to compression, pay levels at all ranks are considerably more competitive than they were when the Senate goals were set.

A.5.b. Institutional Process

UO faculty salaries are determined in part by the institution's success in finding the resources necessary to support its mission and in part by the university-level policies and practices it follows in allocating those resources to salaries. As at most institutions, the senior vice president and provost sets general guidelines for the salary increases that, over time, determine salary levels and structure. This includes the amounts of the allocations of central funds to individual academic units and guidelines for their distribution among merit, equity, and cost of living bases. In general, salary increases involve some distribution of funds to each of these areas, with the largest share of funds devoted to merit and all funds allocated

to facilitate the goals of the Senate White Paper. For example, in the current academic year the announced average increase of 7 percent is split between merit and equity at 4.3 percent and, consistent with the recommendations of the Senate White Paper, cost-of-living allowance at 2.7 percent.

The provost counts on the academic deans to manage the salary review process in the schools and colleges and to deliver to the vice provost for academic affairs their recommendations for increases for faculty members and officers of administration in their areas. The proposed increases are reviewed in the Office of Academic Affairs, with written explanations required for increases that are unusually high (greater than 10 percent) or unusually low (less than the cost of living) and for any case in which final salary for an individual is below 80 percent of the average salary for their rank and discipline.

While this would be most of the story at many institutions, it is far from the whole story at Oregon. The relatively decentralized budgetary responsibility described earlier in this section extends to the area of faculty salaries as well. In practice, individual schools and colleges have a great deal of latitude in determining the allocation of salary

Figure A1. **Average UO Compensation as Percent of Peers**
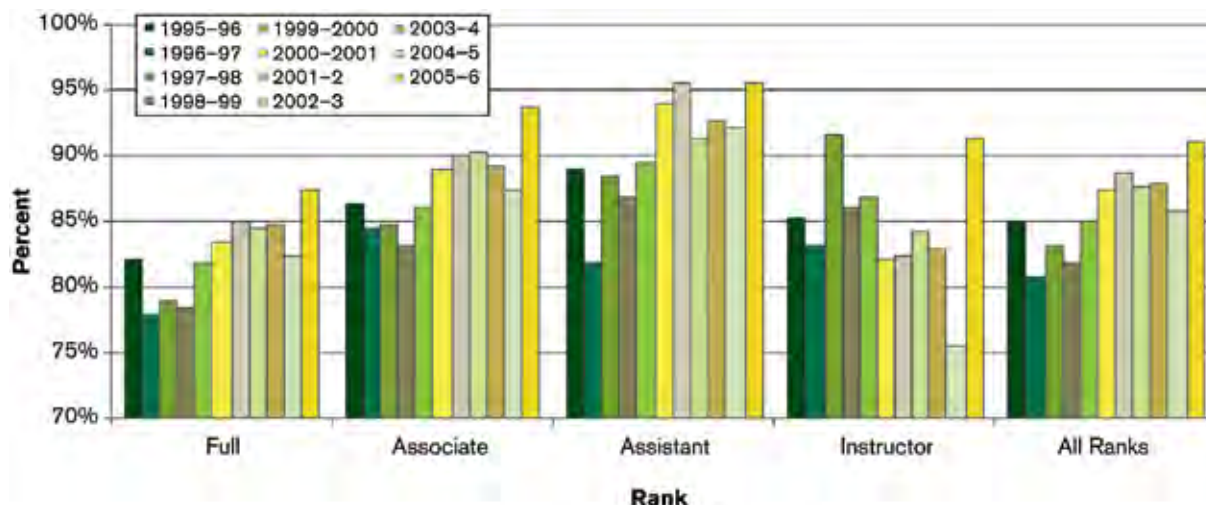
money to address merit, equity, retention, and compression. And in the university's largest college, decisions are further decentralized to individual programs. Accordingly, the practices of our individual academic units are important in shaping the overall level and structure of salaries at Oregon.

A.5.c. Merit and Equity

The questionnaire circulated to academic units as part of this self-study contained two questions relevant to salary determination at the college and program level. The first asked units to describe the criteria used in allocating merit pay within the unit. While the question relates to merit-pay criteria, many units also responded with information on how they handled issues related to equity, compression, and retention.

The responses to this question were, perhaps predictably, highly diverse. Of the six professional schools, two (School of Music and Dance, School of Journalism and Communication) provided written statements of the criteria and procedures used to allocate new salary money. Within the College of Arts and Sciences (CAS), salary recommendations originate in individual departments and programs. The college requires that a written description of criteria and process accompany pay-increase recommendations each time such increases occur. Sixteen CAS programs provided copies of the criteria submitted in the last round of pay increases.[223]

Evaluating merit. Of the eighteen examples of salary-improvement criteria forwarded to our committee, sixteen have in common a focus on rewarding meritorious performance in the areas of research, teaching, and service. There is, however, no single, or even most common, approach to evaluating and rewarding performance. For example, the guidelines vary widely in the degree to which they are quantitative, which tends

to reflect, though not perfectly, how formal a process the unit employs.[224] At one extreme, the School of Music and Dance and the Department of Classics provided two of the least quantitative approaches to performance evaluation in that neither makes mention of explicit measures of performance in areas such as teaching, research or creative activity, and service, or of the relative weights applied to these areas in arriving at an overall evaluation of a faculty member's job performance.

By contrast, a number of CAS programs and the School of Journalism and Communications employ quantitative approaches to evaluation. Typically, a performance score is assigned in each of the areas related to teaching, research, and service, and these scores are then aggregated into a numerical measure of overall performance for the faculty member. The weights applied to teaching, research, and service in arriving at an overall indicator of performance range from equal weights at one extreme (e.g., journalism) to fairly disparate weights at the other (e.g., the Department of Mathematics specifies weights of 35 percent, 55 percent, and 10 percent). Most units, however, occupy middle ground closer to the conventional shares of 40, 40, and 20 percent.

Rewarding merit. Four of the statements deal very directly with a question that is left, perhaps purposely, unaddressed in many of the criteria. That is, should faculty members with higher performance ratings receive larger dollar increments or larger percentage increases to their pay? If the former, the increase is independent of initial salary level. If the latter, meritorious performance translates into larger dollar amounts for those who earn higher salaries. The Department of Philosophy's brief statement is emphatic regarding the answer.

> "Raises will be distributed by score, irrespective of the faculty member's base salary. With regard to merit, one's base

salary is not a relevant variable, and it becomes one when a score is translated into a percentage increase."

The merit pay criteria of the psychology and linguistics departments in CAS and the School of Journalism and Communication also translate merit ratings directly into dollar, rather than percentage, increases in pay. Journalism, for example, allocates merit pay dollars as follows:

"The total of indicator scores assigned to all faculty [members] is calculated. The amount of dollars allocated for merit raises is divided by that total score. This produces a figure that represents the amount (in dollars) assigned to a net indicator score of one. The net indicator score of each individual is multiplied by that sum, producing the merit allocation for the individual. (Example: If twenty faculty members have net indicator scores that total 40, and if $20,000 is available for merit, then each individual merit point is worth $500.)

"Using the net indicator scores as a starting point, the dean will then determine the final merit allocation for each faculty member. Any significant difference in allocation from the total based on the indicator score shall be documented."

The drawback to a pure "dollars per unit of merit" approach is implicitly recognized in the many policies that sidestep the question of dollar versus percentage. In the absence of adequate cost-of-living increases, inflation causes the real value of faculty salaries to decline over time, and merit ratings that translate into dollar increases produce ever-greater compression of real salaries over time. In practice, then, departments have an incentive to use merit pay both to slow the erosion of real faculty salaries and to create appropriate merit-based differentials in real pay. Psychology, which follows a merit pay allocation scheme quite similar to that

of journalism, incorporates explicit adaptations for the effects of inflation in the absence of dollars available for cost-of-living adjustments.

"In years where there are no across-the-board funds, all faculty [members] will receive some merit increase unless their overall rating is zero. When across-the-board funds are available, the funds will be allocated to those with fully satisfactory service."

If cost-of-living increases are chronically inadequate, an alternative adaptation is to reward merit with percentage increases in pay, providing a base-line percentage increase (a cost-of-living adjustment) for satisfactory performance, and higher percentage increases for higher levels of meritorious performance. With some attenuation of the percentage increases at higher salary levels, we suspect that this is what many departments do.

Other observations. In many cases, salary increase criteria take the form of standing department policies that may be reviewed periodically but appear to have been fairly consistent over time. There are exceptions, however, including one large department with criteria that permit wide variation in practice from one round of pay increases to the next. A highly flexible policy is a two-edged sword. The latitude to reinvent the pay increase process with each round of increases also presents the opportunity for re-inventing mistakes, and many are possible.

The tremendous variation in salary increase policies we received, along with the amount of thought and effort evident in the typical policy, suggests another nod to human nature: While there may not typically be a great deal of money to allocate to merit increases, it is clearly very important to our programs that they get to decide how to do with it.

A.5.d. Compression and Retention

That salaries are compressed at Oregon relative to its comparators is documented in Figure A1 above. While similarly objective direct measures of the relative severity of retention issues at Oregon are not available, the evidence on compression provides indirect evidence of retention pressures. To the extent that salaries become less competitive at higher ranks, our difficulties in retaining our most productive faculty members become more severe as they advance through the ranks, producing retention issues even greater than those that challenge our peers.

The chaired positions and professorships funded by the university's major donors over the past ten years have been tremendously helpful in achieving more competitive salaries for some of our top scholars and teachers. Recent gifts totaling more than $10 million devoted to faculty excellence and development represents further acknowledgement by our alumni and supporters that the need to address the competitive salaries for excellent faculty members is critical.

Individual academic units have, in many cases, pursued their own strategies in attempting to deal with the related issues of salary compression and retention. A number of examples appear in the responses to a question on salary compression and retention included in the questionnaire sent to our academic units as part of this self-study.

Measures at the college level clearly set the stage for program-level responses to this questions. The most distinctive strategy, at the college level, has involved the use of promotion increases and matching funds, facilitated by a faculty position management system, within the College of Arts and Sciences (CAS):

"CAS has initiated a number of ways of dealing with salary compression and retention of excellent faculty. These include [the following]:
- Using the self-funding aspects of our faculty-position management system to i) change the promotion increases from the university-minimum flat amount ($1,800 for promotion to associate, $2,200 for promotion to full) to percentages of base pay; and ii) to increase the percentage to 8 percent by fall 2006. To our knowledge, we are the only college to have taken this step, based on an internally self-funded position management system.
- CAS uses the same faculty-position management system to identify and target funds for use in matching departmental recommendations for retention and equity adjustments.
- In many years, CAS has offered matching funds to departments and programs to augment central pay increases to address acute retention or equity issues or to deal with equity issues arising from a particular year's recruitments of new faculty."

Not surprisingly, a number of units within CAS note promotion increases as helpful in dealing with salary compression. There are also a number of references to salary increases made for equity or retention purposes where the source of funds is unspecified. Most of these increases are examples of matching increases from the program and CAS, as described above.

The responses of the professional schools and individual departments and programs collectively catalog a variety of additional strategies that have been deployed in combating salary compression and retaining good faculty members at the University of Oregon (Box A13).

> **Box A13. "What strategies has your academic unit employed to deal with salary compression and to retain excellent faculty members?"**
>
> *"Faculty summer research support (seeking more funding here); named research scholar and professor funding (stipends); internal professional development accounts."* (Charles H. Lundquist College of Business)
>
> *"We have raised money for chairs, professorships, and fellowships to help with salary compression and retention."* (School of Law)
>
> *"Promotion increases, post-tenure review increases, and equity adjustments in most recent raise process; supplements to travel or academic support account (ASA); administrative stipends where appropriate and feasible."* (School of Music and Dance)
>
> *"The school has an endowed a 'Faculty Fighting Fund' that has helped address some compression issues. In recent salary increases, compression has been a factor in determining raises."* (School of Journalism and Communication)
>
> *"Mostly through merit increases, but also through central 'fighting funds,' internal reallocation, teaching assignments."* (Department of Computer and Information Science)
>
> *"Ethnic studies has provided internal resources to support faculty research and efforts at program development. The program has also aggressively supported partner hires, both in our own as well as other units."* (Ethnic Studies Program)
>
> *"We have sought opportunities to address cases of salary compression on equity grounds. We have tried to retain excellent faculty [members], first by rewarding our strongest scholars through taking into account their research in merit allocations and by nominating them for external fellowships (such as the Petrone fellowship) and awarding donor-supported internal fellowships (we have $12,000 per year from this source), and, second, by responding as best as we can given limited resources when faculty have outside offers."* (Department of History)

Despite the energy and creativity committed to issues of compression and retention, the problems remain significant and are clearly a source of considerable frustration for many academic units (Box A14).

A.6. CHALLENGES AND OPPORTUNITIES

The University of Oregon faces many challenges in building and sustaining faculty excellence, the single quality most critical to the success of the university as a whole.

Key challenges and opportunities are listed below.

Hiring and Communicating Expectations
- *Challenge:* We lack a centrally maintained system for *sharing*—not just collecting—information on recruiting strategies and materials; department, program, and college statements of expectations for promotion and tenure; and examples of offer letters and other methods of communicating expectations

Box A14. Salary Compression and Retention: Unresolved

"We have used all available resources to address salary compression: internal resources, promotion, and post-tenure review increases, whatever we can. This is not a problem that can be solved on the departmental level. The university administration needs to provide leadership and funds." (Department of English)

"This is a very difficult problem for our department. We have had to use department funds extensively in the past few years to fund retention packages. Promotion and post-tenure review increases are not nearly enough." (Department of Psychology)

"Salary compression is a huge issue within the biology department, particularly because the salaries that need to be offered to beginning assistant professors have increased at a rate that far exceeds the rate of salary increases provided by the state. We have employed two strategies to try to circumvent this compression issue. First, we have actually sacrificed a faculty line to address compression issues. Second, in the most recent merit pay raise, we used almost all of those funds to address compression issues largely at the associate professor level." (Department of Biology)

to new hires, including both tenure-related and nontenure-related faculty members.

- *Opportunity:* It would not be difficult to develop a centrally maintained system, based on advice and regular feedback from academic units, and plans are currently under way in the Office of Academic Affairs.

Composition of the Faculty

- *Challenge:* In some areas in the university, the number of appointments of non-tenure-track faculty members (NTTF) has increased sharply, exceeding recommendations by the AAUP on the deployment of NTTF. These trends challenge our principal mission of research and instruction and carry both differential and collective budgetary implications for the campus.
- *Opportunity:* We will continue efforts currently under way (endorsed by the Senate and coordinated by academic affairs) to review how NTTF appointments are made and deployed at Oregon, especially in those areas with the highest concentrations of NTTF appointments.

Evaluation

- *Challenge:* Some units lack adequate guidelines and processes for the review, evaluation, and promotion of faculty members, both tenure related and non-tenure related.
- *Opportunity:* Use the development of a centrally available system of information and "best practices" as an opportunity to review the adequacy of unit-level guidelines and processes. Such an effort is already under way for the evaluation and promotion of NTTF.

- *Challenge:* Some aspects of post-tenure review are problematic. This includes concern with the usefulness and efficacy of the third-year review of the six-year post-tenure review cycle.
- *Opportunity:* Our accrediting agency now endorses a five-year post-tenure review cycle if we wish to revert. Alternatively, the university may choose to examine ways to make third-year review more efficient and useful.

- *Challenge:* We lack a university-wide system for sharing information on merit-pay criteria at the department-program and college levels.
- *Opportunity:* Again, it would not be hard to develop one, with advice and regular feedback from departments, units, and colleges.

- *Challenge and Opportunity:* Smaller schools and colleges would benefit from integrated, longer-term strategies for balancing funding for positions, improved compensation, and "risk sharing"—analogous to the CAS faculty-position management system.

Faculty Support
- *Challenge:* Academic unit financial survival strategies have been very effective, but are decentralized, highly diverse, and not well understood outside the individual units. Academic units are therefore vulnerable to decisions made centrally with inadequate understanding of the environment for which they were made.
- *Opportunity:* Begin by facilitating information exchange and sharing of best practices, as discussed above, which will also facilitate better understanding of the likely repercussions on faculty support of decisions taken centrally.

Retention and Competitive Compensation
- *Challenge:* Salary compression for senior faculty members just as they become more valuable and nationally competitive encourages some to look elsewhere and discourages others who would prefer to remain at Oregon or do not wish to spend time looking for external offers.
- *Opportunity:* More aggressive use of post-tenure review increases, especially a systemic shift to promotion increases calculated as a percentage of salary base rather than as a fixed-dollar amount. A review of how schools and colleges are using post-tenure review and associated

salary increases could provide useful background information and ideas.
- *Opportunity:* Continue to emphasize gifts to endow chairs and professorships.

- *Challenge*: Our low salaries are both more visible and more easily compared than *total* compensation, where we are currently more competitive.
- *Opportunity:* Ensure in regular and systematic ways that all parties to the compensation package easily see both the extent of institutional investments in faculty compensation and the comparative standing of Oregon to other institutions across the components of faculty compensation.
- *Opportunity:* Turn the 6 percent UO pension contribution on behalf of the employee into salary; increase the employee pension contribution by an equal amount. The shift would immediately increase salaries by 6 percent, but would be approximately neutral with respect to university budget, total compensation, and employee tax burden. Avoid coupling the change with erosion in this or any employee benefit.

B. CLASSIFIED STAFF MEMBERS AND OFFICERS OF ADMINISTRATION

A university's staff is crucial to a successful experience for both its students and its faculty. Oregon's quality and reputation is enhanced by the caliber of its classified staff members who support the institutional mission in myriad ways. Numbering over 1,200, classified employees contribute to the university by carrying out a broad array of support activities in every department and facility on campus. They maintain facilities, prepare and serve food, provide office and financial support, serve library patrons, and much more. The work of this group plays a major role in the overall effectiveness and efficiency of the institution.

The UO has more than 800 officers of administration (OAs) who play a wide range of varied roles in the organization: supervisors, counselors, advisers, managers, and administrators, to name a few. Regardless of the specific position, the leadership and professional responsibilities of the OAs have a significant bearing on the university's reputation and quality. OAs, especially those who supervise, have the opportunity to advance and communicate the institutional mission throughout the organization.

In this section, we review and assess the practices employed in hiring, supporting, and retaining classified staff and OAs who are effective in advancing the university's mission.

B.1. HIRING

We begin with the programs and mechanisms that support supervisors and managers in making effective hiring decisions. We then ask if there is evidence that we are effective in hiring qualified employees who perform well in their positions.

B.1.a. Classified Hiring

Supervisory support. Oregon has invested substantially in furnishing resources and support for supervisors in classified positions. The employment manager in Human Resources coordinates classified hiring and works closely with hiring managers throughout this process, from developing a job posting through reference checking. Supervisors receive nearly eight hours of training on affirmative action and recruitment and selection during the supervision training course. Classified hiring procedures and information about best practices for the recruitment and selection process are listed on the human resources web page.[225]

The internet has radically altered how applicants learn of job openings. During the 2005–6 fiscal year, 41 percent of new hires reported that they learned of their job opening from the UO Human Resources website. Job openings listed on the website are immediately accessible to applicants both locally and outside the Eugene-Springfield area. In addition, the employment manager advises hiring supervisors about recruitment strategies and assists in writing newspaper advertisements. Because many classified employees are recruited from the local labor market, the university has a block ad in the Sunday issue of the local newspaper to highlight UO vacancies.

The employment manager participates in monthly meetings of Work Net, a group comprising Eugene-Springfield employers, personnel from agencies that provide job search assistance for community members, and job seekers. The employment manager also participates in job fairs and other related events.

Effectiveness of hiring. The university was challenged in identifying ways to assess hiring decisions. The two detailed below provide only part of the picture and do not address a relationship between the hiring

decision and ongoing performance. The two measurements that did emerge in assessing whether or not hiring decisions are effective include i) analyzing how hiring decisions meet the university's objectives in creating a more diverse workforce, and ii) reviewing the number of employees terminated during trial service (probationary period).

Ability to attract a more diverse pool. In the 2005–6 fiscal year, the university hired 136 new classified employees. This does not include employees who promote or transfer to different university positions. Of these, eleven did not indicate race or ethnicity when hired. Thirteen of the 125 employees who did indicate race or ethnicity reported as minority (10.4 percent); 58 percent of the new hires were female.

Between 1994 and 2005, the representation of employees of color among the classified staff increased from 7.85 percent (105) in 1994 to 11.02 percent (141) in 2002, but decreased to 10.65 percent in 2005. The representation of women decreased between 1994 and 2005 from 65.69 percent (905) in 1994 to 64.64 percent (881) in 2005.

As part of this analysis, information comparing the availability of women and people of color for classified job groups by equal-opportunity category was evaluated for 1996 and 2004. Equal-opportunity categories consist of groupings of job titles by occupational type used in reporting employment data for federal reporting purposes. Availability reflects the percentage of women and people of color among those likely to have the requisite skills for jobs in a specific group of jobs in the reasonable recruitment area for those jobs.

In 1996, the classified staff was divided for affirmative-action reporting purposes into eight separate job groups in four equal-opportunity categories—clerical, technical, skilled craft, and service-maintenance. Both women and people of color were under-

represented by at least one person or more in one job group within the skilled-craft category. In 2004, the classified staff was divided more discretely into thirteen separate job groups within the four equal-opportunity categories. Women were underrepresented by at least one person or more in one job group in the technical category. People of color were underrepresented by at least one person or more in two job groups in the technical category and one job group in the skilled-craft category.

These data suggest that although the number of women and people of color increased from 1996 to 2004, their representation as compared to availability in the relevant labor market decreased.

Terminations during trial service (probationary period). In terms of hiring employees who are competently able to perform their jobs, it is possible to examine the number of releases from trial service or probationary period. Trial service (rather than probation) is the term used in the SEIU collective bargaining agreement and is defined as an extension of the selection process, extending for the first six months of employment for a full-time employee. Once trial service is completed, employees are appointed to regular status. Employees removed from trial service may not grieve the dismissal under the grievance article. Supervisors are encouraged to carefully observe and assess employees' performance during trial service to ensure that only those who are fully satisfactory achieve regular status.

Of the 135 new classified employees hired in the 2005–6 fiscal year, nine (more than 6 percent) were released during trial service, an indicator that they were not suitable for the position. This termination rate does not appear to be unreasonably high and it is possible to conclude that supervisors are doing a good job in selection and evaluating during the first six months of employment.

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B.1.b. Hiring Officers of Administration

Supervisory support. Officer of administration hiring is handled in a decentralized fashion, similar to teaching and research faculty appointments. The Office of Affirmative Action and Equal Opportunity (OAAEO) reviews position announcements for consistency with UO policy and offers guidance to help ensure a successful search that meets the needs of the hiring authority. OAAEO provides information regarding underrepresentation and affirmative action goals, and offers suggestions regarding outreach and recruitment plans.
A representative of OAAEO meets with search committees to review the search process, with a focus on affirmative efforts that are consistent with applicable requirements and that support the institutional commitment to diversity. Finally, OAAEO monitors the hiring process for compliance with the university's obligations under pertinent policies and procedures. Guidelines for hiring supervisors can be found on the OAAEO website.[226] In addition to the support provided by OAAEO, the services of the Human Resources employment team are available to hiring departments on an optional basis, and a number of hiring managers regularly enlist HR assistance with announcement preparation, applicant tracking, and other services as needed.

Effectiveness of hiring. As with classified employees, it is difficult to devise a measure that definitively assesses the relationship between the hiring decision and ongoing job performance. In addition, because officer of administration employment does not entail a probationary period (trial service), we cannot use releases during trial service as an indicator of effectiveness. However, it is possible to evaluate our efforts to increase the diversity of applicant pools.

Ability to attract a more diverse pool: Between 1994 and 2005, the percentage representation of people of color among officers

of administration (OA) fluctuated, with an overall percentage decrease from 11.08 percent (forty-seven) in 1994 to 9.19 percent (eighty-one) in 2005, although the number of people of color in OA positions actually increased during that time. The representation of women has fluctuated between 1994 and 2005, but increased overall from 50.24 percent (213) in 1994 to 58 percent (511) in 2005. New hire data for the period of November 2003 through October 2005 show people of color were hired for OA positions at a rate slightly higher than their representation among OAs in October 2005.

The same analysis conducted for classified staff, as described above (comparing the availability of women and people of color for job groups by equal opportunity category in 1996 and 2004), was conducted for officers of administration. Consistent with the analysis for the classified staff, equal-opportunity categories consist of groupings of job titles by occupational type used in reporting employment data for federal reporting purposes. Availability reflects the percentage of women and people of color among those likely to have the requisite skills for jobs within a specific group of jobs in the reasonable recruitment area for those jobs.

In 1996, officers of administration were divided for affirmative-action reporting purposes into seven separate job groups in three equal opportunity categories—professional, clerical (supervisors), and skilled craft (supervisors). Women were underrepresented by at least one person or more in one of the five job groups within the professional category. People of color were underrepresented by at least one person or more in four of the five job groups in the professional category and in the clerical (supervisors) and skilled craft (supervisors) job groups. In 2004, officers of administration were divided more discretely into twelve separate job groups within the three equal opportunity categories. Women were underrepresented by at least one person or more

in four of ten job groups in the professional category. People of color were underrepresented by at least one person or more in seven of ten job groups in the professional category and in the skilled craft (supervisors) category.

Policy and best practice require recruiting for officer of administration positions on a regional rather than local basis. Availability has been calculated based on the area from which applications have actually been received, which in nearly all cases includes areas with greater diversity than is typical of Oregon. As a result of the broader recruitment area, availability for officers of administration is higher than local or statewide population figures in a number of job groups. Higher-level OA position searches have been very effective in attracting applicants from a broader geographical area and frequently result in hires from outside the area. Lower-level OA position searches tend to draw from a narrower geographical area, with less potential for diversity based on the more limited local and statewide population.

The representation of people of color among new officer of administration hires is lower than their representation among other unclassified groups. Although it is but one factor in the complex dynamic of our workforce demographics, the lower representation among new hires has contributed to the stagnant or decreasing representation of people of color among OAs overall. Increasing the representation of people of color among our OA staff requires ongoing attention.

The Office of Affirmative Action and Equal Opportunity has strengthened a number of ongoing efforts and initiated some new efforts in an effort to increase the representation of people of color and women among OA job groups. Those efforts include informing hiring authorities and search committees of underrepresentation of women and people of color within the relevant job group, suggesting avenues for and requiring targeted outreach and recruitment plans, educating committees on affirmative steps and potential bias in the selection process, and focusing training efforts.

B.2. EVALUATION

Basic strategies for promoting and supporting high-caliber employee performance include standards of evaluation that are clearly communicated, fairly and consistently implemented, and accompanied by appropriate recognition.

B.2.a. Communicating Expectations

A comprehensive, effective orientation program sets the stage for effectively communicating expectations. Employees need to understand the institutional mission and activities and how their jobs fit into the institutional and departmental structure in order to fully grasp what is expected of them.

New employees are welcomed to the University of Oregon with a letter that provides information about benefits orientation and general orientation sessions and a formal invitation to New Employee Orientation. Scheduled for new classified employees and OAs every other month during the academic year, this three-hour session includes presentations on topics such as organization structure; affirmative action and equal employment opportunity; the physical plant; safety and health; students; information on classifications, training, and union representation; the promotion and transfer process; and information about the history and buildings on campus.

Supervision training emphasizes the importance of orienting new employees and an orientation checklist is provided on the human resources website.[227] The

checklist includes reminders to review position descriptions, organization charts, and specific examples of the type of information that would be helpful for new employees.

Because position descriptions are a vital element in communicating employee expectations, the supervision course emphasizes the importance of up-to-date position descriptions that accurately reflect essential duties and functions of a position. In addition, one four-hour session of the course is dedicated to effective supervisory communication, with an emphasis on providing ongoing feedback and conducting productive performance appraisals. The following session deals with progressive discipline as the next step if the coaching techniques covered in the earlier session do not produce results.

B.2.b. Performance Appraisals

The collective bargaining agreement with Service Employees International Union mandates that classified employees receive annual performance appraisals. To encourage supervisors to conduct appraisals, human resources staff members remind supervisors prior to the due date of performance appraisals for each classified employee. Periodically, the employment manager calls department managers who are delinquent in submitting appraisals to remind them of the importance of the appraisal process. Information about the importance of accurate and timely feedback for employees, including performance appraisals, is included in the supervisor training course. Information about the appraisal procedures and required forms are provided on the human resources website.[228] Despite these efforts, during the 2005–6 fiscal year, only 617 out of 1,208 (51 percent) classified performance appraisals were completed and submitted to human resources, a disappointing return.

Because OA performance appraisals are conducted and retained at the department

level, no centralized data exists regarding the number of appraisals conducted annually. Anecdotal information indicates that many OAs do not receive regular evaluations and that the number probably lags that of classified employees. Information on OA performance appraisals is available on the Human Resources website.[229]

New university leadership has made performance appraisals for classified employees and OAs a priority, as part of institutional accountability initiatives. In the future, OA pay increases must be justified and supported by a recent (within the last twelve months) performance appraisal. One vice president has asked Human Resources to create a tracking system for OA evaluations in an effort to identify and deal with those failing conduct appraisals. Once established, this system will no doubt be extended to all university OAs.

B.3. PROFESSIONAL SUPPORT

Human Resources staff members advise supervisors and offer a range of training and other programs that target professional development for different workplace needs. The programs and services described here are available to both classified and OA staff members, unless specified otherwise.

B.3.a. Training and Coaching Related to Supervisory Responsibilities

Coaching for university supervisors. In addition to the training described later in this section, Human Resources staff members provide regular and ongoing coaching and consulting advice to supervisors on employee performance and behavior problems, organizational design questions, interpersonal communications needs, contract or rule interpretation, and so forth. These services are delivered in various ways, including phone calls; meetings with union representatives, supervisors, and employees; one-on-one

coaching sessions; and preparation of clarifications and disciplinary memos. In most cases, the advice or information must be interpreted for a specific situation with unique dynamics or organizational needs. The goal of this approach is timely and successful resolution of individual employee problems, resulting in improved productivity. The employee relations manager routinely works with SEIU representatives in creating solutions that work for both the unit and the employee in question. UO employees represented by SEIU filed an average of six grievances over the past three years. Considering a workforce of nearly 1,300 and numerous disciplinary actions, the low grievance number is an indicator that the coaching, advice, and negotiations are succeeding in creating a more productive, less adversarial employment relationship.

Supervision training. Since 1994, the university has offered an eight-session comprehensive course in supervisory skills, available to current supervisors and those classified staff members and others who are interested in becoming supervisors. This course is offered during fall and winter terms every year. Approximately forty employees attend supervision training annually.

The first four sessions of the course (twenty-four hours) are attended by all participants and cover organizational values, ethics, and supervisory styles; legal framework on discrimination; respectful work environment; and communication skills. For the next four sessions, the course participants then divide into two groups, depending on whether they currently supervise or whether they are considering such a position in the future (potential supervisors).

For current supervisors, the additional sessions entail more than twenty hours of training on a range of supervisory responsibilities and skills necessary for effective supervision. Supervision course topics include hiring and new employee orientation;

supervisory feedback and performance appraisal; progressive discipline and the collective bargaining agreement; and a healthy and humane work environment.

For potential supervisors, sessions entail twelve hours of training that provides an introduction to some of the topics found in the supervision course as well as participant self-assessment and career development planning.

Supervising student employees. A three-hour course is offered every term entitled Leadership in Student Supervision. For many classified staff members, supervising student employees is the beginning of their supervisory experience. This course provides a framework for understanding how supervising student employees may differ from supervising nonstudent employees, and reviews both administrative rules and management strategies for working effectively with students.

The leadership course also helps supervisors understand their roles in preparing students for postgraduation employment. Participants are encouraged to provide a meaningful work experience for students by providing accurate job descriptions, orientation, regular feedback and work evaluations. In addition, participants are reminded of the important responsibility they have for creating and maintaining a discrimination-free environment that is respectful and inclusive of all employees. Specific issues that can arise with student employees are examined and realistic case studies are discussed. This course is well attended, with an annual attendance of about eighty employees, and receives high ratings for relevance and practical application to the work of supervising students.

The specific goals of the course include the following:
- To increase awareness of the various roles a supervisor may be asked to play,

particularly in the supervision of student employees

- To discuss the appropriateness of these roles when supervising students
- To review state and federal laws, as well as university policies, as they apply to compensating student employees
- To review the basic components of supervision as they apply to supervising students, including assigning work, providing feedback, and disciplining employees
- To provide models for student employee application processes, orientation, and work evaluation
- To review the responsibilities and liabilities for supervisors of student employees as they relate to providing a respectful work environment free of harassment and discrimination
- To identify resources that can be used by supervisors of student employees to assist them in their work

B.3.b. Software Applications Training

Officers of administration and classified staff members have three different avenues for upgrading and maintaining their software applications skills.

- Vouchers for New Horizons Computer Learning Center courses are available that allow UO employees to attend their workshops statewide for a substantially reduced fee. Additional courses can be arranged when specific training needs arise and a scheduled course is not available. Approximately 150 employees use the vouchers each year.
- Employees can access web-based software training libraries from RAA Training so employees can learn to use specific software using self-directed tutorials. Eighty employees have taken advantage of this training since its inception in April 2005.

- Human Resources staff members have collaborated with the UO Libraries and others to make campus-based software training more available for employees. One example of this is the UO Libraries' Workshops-on-Demand program to set up Dreamweaver and Blackboard for support staff workshops. Thirty-four employees have participated in this program.

A survey conducted of academic departments (discussed later in this section) indicates that training in software applications and business procedures is the area in which employees and their supervisors express the greatest demand for expanded training.

B.3.c. Creating a Positive and Productive Work Environment

The subject matter of the supervision courses listed above emphasizes the need to treat all employees and customers with respect, and to intervene appropriately when that norm is in danger of being violated. Many of the case studies used in their curricula involve responding to the challenges of both preventing discrimination and in creating and maintaining a truly respectful work environment. Additional courses are offered that specifically address the need for training that will promote respectful interactions with all university constituencies (Box B1).

In addition, departments and offices on campus contact the training and development administrator to arrange workshops specifically designed to improve the teamwork and effectiveness of their staffs. For example, supervisors frequently request the Myers-Briggs Type Indicator workshops to improve communication in the workplace. More than 250 faculty and staff members annually participate in on-site training sessions.

Training is offered in conjunction with the Office of Affirmative Action and Equal Opportunity as one tool in responding to informal complaints or formal discrimination complaint investigations.

Human Resources supports and facilitates the efforts of the Classified Staff Training and Development Committee, whose mission is to advise administration on training and professional and personal development needs of classified staff.

B.3.d. Training Effectiveness

As part of the self-study process, a survey of academic units was conducted. One question focused on the value of current training programs and solicited suggestions for future trainings. It read: "Are current university training programs helpful to your classified staff? If so, which ones? If not, what kinds of new training would be helpful?"

Of the forty-two departments that responded to the question, the thirty-three viewed university trainings as helpful; five found them unhelpful; and four gave mixed reactions. Most of the trainings mentioned involved instruction on the Banner systems, processes linked to specific departments (such as the Office of the Registrar or the Office of Research Services and Administration) and offerings on information technology (e.g., software training).

- "My experience has been that the training programs often seem to be taught by people who may know a great deal about the subject, but not much about teaching it."
- "The university programs are of high quality. Unfortunately, many faculty [members] and past department heads have not been strong advocates for those programs. . . . This is more an internal cultural problem within the department."

- "The university training programs are helpful to new staff members and [for] keeping the skills current for existing staff members. [They] are essential because the Banner system is quite complex."

New training suggestions centered on information technology. Responders most frequently mentioned needing help with websites and web editing, e-mail etiquette, and software applications. Others suggested advanced training and refresher courses that help longer-term employees become more efficient and expand on their current experience. Web-based or online training that allows employees to learn at their own pace was proposed. Another suggestion included team building and leadership skills.

- "New helpful training would be: individual help with web editing, individual help with Photoshop [in] working with images, a crash course in modern letter-style basics."
- "It would be helpful to existing employees if there were trainings offered which would assist in making routine tasks more efficient."
- "The staff [members] need courses . . . that will give more 'hands-on' time to tackle the jobs. . . ."

B.3.e. New Professional Development Initiative

As discussed in the departmental surveys described above and in other conversations, expanded training in information technology and university business practices is needed. As a result, the vice president for finance and administration launched a project in 2005 to enhance university training and professional development activities, particularly in the area of business practices. The project is intended to address gaps in service and critical training needs that have been identified in recent years and

confirmed by the comments in the departmental surveys.

A project steering committee was appointed in 2006 and given the following charge: "Like all institutions of higher education, the University of Oregon is operating in an increasingly complex business environment. Faced with the challenge of significant organizational change at both the campus and system levels, [the] UO must respond to increased demands for accountability and transparency in transactions. The ability to succeed in this environment and to achieve self-sufficiency and sustainability within the next five years is dependent on the institution's ability to attract, retain, and maintain a high-caliber workforce prepared to meet these challenges. A key to success is the commitment to train, inform, and sup-

port employees working in an environment characterized by rapid change in technology and business systems."[231]

The training need described in this project is not limited to support staff. It extends to any faculty or staff member who has responsibility for budgeting, spending, and accounting for university resources. The need for accountability and fiscal responsibility is essential throughout the organization and expectations in this area must be clearly defined and established by institutional leadership. The project has just recently gotten under way.

Box B1. Training on Respectful Work Environment

Difficult Communications. Three sessions, for a total of sixteen hours of instruction, that include role-play exercises and case studies to help UO employees improve their workplace communication. Offered twice each year with a total of fifty participants.

Customer Services. Three sessions totaling twelve hours, with each session focusing on a different topic: effectively serving external customers, treating internal customers (coworkers and colleagues) respectfully, and supervising for excellent customer service. Annual attendance averages twelve participants.

Preventing and Dealing with Sexual Harassment. Offered every term, this workshop covers all the laws, policies and procedures for dealing with any kind of illegal discrimination and harassment on campus, with a special emphasis on sexual harassment. The materials are updated regularly as laws, policies, and procedures change. Annual attendance averages forty faculty and staff members.

Creating and Maintaining a Respectful Environment. This course can be adapted for any university office or department to respond to the specific issues and challenges they face.

Food for Thought. These brown-bag lunch session showcase videotapes of conference keynote speeches, documentaries, and training films dealing with issues of race, ethnicity, skin color, class, immigration, sexual orientation, gender, and other areas where stereotyping and prejudice can damage people and distort workplace culture and environments. Annual attendance is sixty.

Information about all training offerings is available on the Human Resources website.[230]

B.4. EMPLOYEE SUPPORT AND RECOGNITION

B.4.a. Work and Family Balance

Work and Family Services, a program of human resources, was established to offer a wide range of services that support employee and student efforts to balance family and personal needs with workplace and educational responsibilities. These services and programs support employees by providing, among other offerings, short-term counseling, child care, wellness, lactation support, and preretirement workshops. The programs are well subscribed and anecdotal reports suggest that they are viewed as quite helpful and valuable to the faculty and staff.

In addition to the programs listed (Box B2), several UO policies and benefits support individuals and their families in the successful management of work and personal life responsibilities: flexibility in the workplace, time off for illness of family members, and stopping the tenure clock for pregnancy.

B.4.b. Recognition Programs

Recognition programs help to create an environment that acknowledges excellence and loyalty to the institution. Understanding the benefits of recognition to individual employees and the institution, Human Resources sponsors several events to formally recognize and honor its employees (Box B3).

B.5. COMPETITIVE COMPENSATION AND RETENTION

At Oregon, the two categories of employees covered by this report are the classified staff (covered by collective bargaining agreements) and officers of administration (professional and management administrative staff). Each has a separate and distinct compensation plan designed to attract and retain excellent employees.

B.5.a. Classified Staff Members

The pay structure for classified staff members is determined by the collective bargaining process.[232] Part of this process includes a comprehensive salary survey covering benchmark positions in Oregon and southwest Washington. This survey is used to determine if the classified pay structure meets the competitive compensation targets identified in the collective bargaining agreement. It also provides a reference point for increasing rates in specific pay classifications (selective increases) where there have been difficulties with recruitment and or retention.

The primary collective bargaining agreement in place at the University of Oregon is an agreement between all seven campuses of the Oregon University System and SEIU. The pay system consists of approximately 250 separate job classifications, each assigned to a salary grade. The content of an employee's position description determines the classification assigned to his or her job. The salary grades consist of nine salary steps, each one approximately 4.75 percent apart. An employee is hired at a specific step in the grade based on relevant experience and moves to the next highest one on an annual basis. The collective bargaining agreement also provides for cost of living increases during the course of the contract. Taken together, these two types of pay increases tend to keep classified grades and rates competitive with the appropriate labor markets. Additional opportunities for classified pay-rate increases at Oregon are special merit increases. These are reserved for exceptional employee performance outside of the general expectations of an employee's position description. Employees receiving special merit increases typically move up one step in addition to the scheduled annual increase.
 Classified employees may also receive pay increases through reclassification and promotion. Reclassification occurs when

Box B2. Work and Family Services Programs

(A comprehensive list of programs can be found on the Human Resources website.[233])

Employee Assistance Program. The university contracts with Cascade Centers Inc. to provide a comprehensive employee assistance program for eligible employees, their dependents, and household members. Offered at no cost to employees, the services include short-term professional counseling, assessment, and referral; child-care and elder-care resource and referral; legal and financial consultations; and round-the-clock services that include a listening library, crisis hotline, and an interactive website.

Promoting a Healthy U. A program coordinated in collaboration with a campus-wide employee wellness committee, Promoting a Healthy U offers resources, workshops, and other opportunities to support the health and well-being of the faculty and staff at Oregon.

Child Care. The UO offers two on-campus child-care programs and a third program located in adjacent university family housing. Each program serves a mix of faculty, staff, and student parents with children three months through eleven years of age.

Family Resource and Lactation Support Rooms. The UO provides three dedicated, private spaces conveniently located across campus for accommodating the needs of nursing mothers returning to work or school after the birth of their child.

Child Care Resource and Referral. The work and family services administrator provides personal consultation to parents seeking information about campus and community child care, schools, and family support services.

Educational Programs, Discussion, and Support Groups. Several annual events are organized and promoted by Work and Family Services addressing issues, information, and support related to children and families.

Preretirement Workshops. University employees may enroll in two workshops designed to help them prepare for retirement. Financial Planning for Retirement provides information for those more than ten years from retirement on the components of retirement income streams, including tax-deferred savings, PERS, and Social Security. Preretirement Planning Workshop furnishes important information to faculty and staff members who are within five years of retirement.

an employee's duties and responsibilities change and no longer fit within the currently assigned classification. In these cases there is a review of the revised position description to determine the appropriate classification based on the increase in the nature and scope of the position. Upon reclassification, the employee receives a one-step increase or the minimum of the new salary grade, whichever is greater.

Promotions occur when an employee is selected through an open search for a position in a higher salary grade. In these cases, the employee receives a one-step rate increase or moves to the minimum step in the new salary grade, whichever is greater.

The SEIU contract contains a separate pay structure for information technology (IT) employees. Each IT position has two levels

of competency, each one with a range that consists of a minimum, a control point, and a maximum rate. IT employees move through these ranges based on merit-increase appraisal scores and their position in the range (below or above the control point). These two factors determine the percentage increase received by IT employees. There is also a provision for one-time cash awards up to 7.25 percent of an employee's base rate to reward IT employees for exceptional performance.

B.5.b. Officers of Administration

When a new or vacant officer of administration position is posted, a hiring salary range is determined using a variety of criteria. These include the level of job responsibilities, external market salary data for comparable positions, and internal equity considerations. The pay rate for the individual selected and hired is set within this range, based on relevant experience and education. Officers of administration may receive pay increases for merit, equity, or across-the-board adjustments. The type and amount of increase is determined by the vice presidents based on the following considerations:

- Legislative and OUS mandates and guidance
- Incumbent performance in position
- Internal equity
- Retention needs
- Market salary data for comparable positions

Officers of administration also may receive one-time, lump-sum merit payments up to 10 percent of annual salary in recognition of outstanding or extraordinary performance on a particular project or effort. These awards may not be granted more than two years consecutively and must be approved by the appropriate vice president and associate vice president for human resources with written justification.

Promotions of officers of administration can occur for two principal reasons: a significant increase in the responsibilities of the current job or an appointment to a higher-level position. Either action is accompanied by a pay increase as determined by the dean, director, or department head in consultation with the appropriate vice president and the associate vice president for human resources.

B.5.c. Compensation Issues

The statewide salary freeze that took place in 2003–5 created a situation in which UO salaries, many of which already lagged market rates, fell even further behind. The collective bargaining agreement negotiated between OUS and SEIU for 2005–7 included provisions to mitigate the salary freeze by granting added compensation for those employees who worked at an OUS institution during the pay freeze. Although officers of administration (OAs) have received pay increases since the salary freeze, for the most part they have not been at the level of classified increases. This has led to salary compression in some cases between classified employees and their supervisors.

Anecdotal information (e.g., failed searches and turnover) suggests that OA salaries are low, creating recruitment and retention problems. More formalized analysis of OA salaries conducted on a periodic basis will provide important information in meeting the goal of equitable pay.

B.6. CHALLENGES AND OPPORTUNITIES

In Hiring
- Continuing and expanding outreach efforts to attract applicant pools for both classified and OA recruitments that will help meet the institutional goal of greater diversity.

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Box B3. Recognition Programs

Additional information is available on the Human Resources website.[234]

Officers of Administration Years of Service Recognition. This annual event pays tribute to officers of administration who have achieved the important milestones of ten, fifteen, twenty, or more years of service.

Classified Staff Years of Service Recognition. All employees are invited to an annual reception for a presentation by the university president honoring classified employees who have achieved milestones of service based on five-year increments.

Twenty-five Years of Service Recognition Luncheon for Classified Employees. This event is for all classified employees who have served the university for twenty-five years or more. Invitations are extended to the recipients' deans and directors, department heads, the vice presidents.

Martin Luther King Jr. Award and Reception. The Martin Luther King Jr. Award and reception recognizes university faculty and staff whose work and achievements uphold and exemplify the ideals of Martin Luther King Jr.

Recognition Award for Outstanding Classified and Officers of Administration. Two recognition programs have been specifically created to acknowledge excellence in officers of administration and classified employees. Colleagues, coworkers, and supervisors nominate those who have made outstanding contributions to the university in the past year. Recipients are honored at an annual reception.

Annual Retirement Reception. The university invites all employees to this annual event to honor their retiring colleagues for their service.

In Evaluation
- Increasing the number of performance appraisals conducted annually for classified employees and officers of administration through heightened tracking and monitoring and direction from top leadership (provost and vice presidents).
- Justifying and supporting merit increase recommendations with recent performance appraisals.

In Professional and Personal Support
- Expanding current training offerings to include more integrated, comprehensive, and professional training on business practices and systems.
- Supporting institutional diversity planning through customized and campus-wide training activities.

In Competitive Compensation and Retention
- Conducting periodic analysis of OA compensation for both internal comparability and market equity.

In Assessment
- Exploring ways to measure effectiveness of hiring, performance appraisal, training, and other programs and their impact on supervisor and employee performance and productivity; examples include surveys of constituencies (e.g., faculty, administrators, and student workers)

C. STUDENTS

As emphasized in Part I of this self-study, the University of Oregon seeks to enroll students who are ready to accept the challenges of a demanding undergraduate education, the expectations of a graduate program that aims to produce the next generation of innovators and leaders in a broad range of disciplines, and are prepared to contribute to the learning environment of which they are a part. What this means in terms of the desired attributes of our student body are addressed in Part I. The present section completes the discussion with a focus on recruiting, on local factors such as the size and residential nature of the campus, on implications of state demographics for the desired composition of our student body, and on special issues in the areas of retention and graduation rates.

C.1. UNDERGRADUATE STUDENT RECRUITMENT

The UO is competing for students with an increasingly strong tier of universities. As described in part I.C, efforts have been made to keep tuition and fees affordable in comparison with the cost of enrolling at our competitor institutions. New and improved buildings (part IV.A), scholarships for students (part I.C), and new student programming (part II.A) continue to make us attractive to prospective students. The emphasis in this subsection is the critical area of recruitment, with particular attention to bringing to campus a high-quality population of students with diverse backgrounds and interests.

C.1.a. Recruiting Top Scholars

Recruiting top scholars to Oregon is a vital continuation of the goals set out in the 2001 Enrollment Management Report. Messages and programs to encourage top scholars to apply and enroll are an important part of

image development. The university has significantly expanded its recruitment efforts targeted at top scholars over the last five years. Five of our most successful programs are highlighted in Box C1.

While recruiting top scholars to the University of Oregon is important, providing them with excellent academic support and programs once they enroll is critical for both recruiting and retaining these students. Other parts of this document detail programs such as the Robert D. Clark Honors College, the Society for College Scholars, Challenge Freshman Interest Groups, and other programs for top scholars. The success of intensified efforts to recruit top undergraduate scholars to Oregon can be seen in the stories of individual undergraduate students such as those profiled in Box C2.

Ad hoc efforts at providing specialized advising and support to top scholars in preparation for graduate school application and applying for prestigious national and international scholarships have shown some initial success. Recently, UO students have been recognized with the award of the Marshall and Jack Kent Cooke scholarships. Recipients of both of these scholarships credit their success in part to the support and guidance of UO staff members, who reached out specifically to help them with their applications and preparation. Most recently, UO graduate Andrew Shipley was named a Rhodes Scholar. To maintain our competitiveness with other schools seeking to enroll top scholars, the UO needs to expand and fund systematic support programs for top scholars.

C.1.b. Image and Access

It is important for the UO to find an effective way to communicate our message of quality in a way that does not discourage students who have not traditionally seen themselves as college bound. We must continue work to define and deliver our

messages of quality and excellence in ways that allow us to better recruit and enroll top scholars, and to cement the image of the UO as the very best in higher education. At the same time, the message must be broad enough that students and families from a wide range of backgrounds see themselves valued as potential UO top scholars. Efforts are under way to identify messages and message distribution methods that allow the university to continue to reaches out to the broad spectrum of potentially great students in Oregon.

Though prospective students and their families are only one audience for UO image development, the recruiting messages are often the kind carried forward most widely throughout the state and throughout the West. Given limited resources and the need for focused image definition, an integrated approach to image development is the only route that makes sense for long-term success.

C.1.c. Diversity

International students. In 2004, the UO was one of eight spotlight schools recognized by the National Association of Foreign Student Advisers in its "Internationalizing the Campus 2004: Profiles of Success at Colleges and Universities" report. More than 800 students study abroad or participate in international internships each year. More than 20 percent of undergraduates study abroad during their time at Oregon.

For the reasons described in part I.C. of this self-study, increased undergraduate enrollment of international students continues to be an institutional priority, and we must address more aggressively the recruitment of international students. The International Recruitment Committee met this year and identified a number of strategic planning initiatives to increase enrollment of undergraduate international students. The committee also made recommendations for

immediate recruitment and enrollment efforts, many of which have been successfully implemented in this academic year. The initiatives put forward from this committee are attached as an addendum to this report.[235]

The arrival of a new vice provost for international affairs and outreach provides new expertise and insight into international enrollment opportunities for the University of Oregon. The university will be more aggressively addressing the recruitment of international students, implementing suggestions from the International Recruitment Committee in collaboration with the new vice provost.

Oregon's demographics and students of color. Demographic projections show the graduating student population in Oregon and the West will be increasingly diverse in the future. Socioeconomic status and secondary preparation will likely continue to shape a student's plan to attend college. For this reason, we will need to learn how to better attract and serve an increasingly diverse population to remain competitive in the marketplace.

Despite the increases in both the percentage of students of color attending Oregon and real numbers of students enrolling, changing demographics of the state's population pose new challenges and opportunities as shown in Table C1.

Both the real numbers and percentages of Oregon high school graduates who are students of color are increasing more quickly than enrollment at Oregon.

Perhaps the largest issue facing the University of Oregon in the next decade is a dramatic change expected in the demographic composition of students graduating from high school in Oregon and the West. In 1997, Oregon high school graduates were 88 percent Caucasian and 11.8 percent students of color. By 2010, projections show

Box C1. Top Scholar Events

President's Reception at Pumpkin Ridge. Top scholars from the Portland metropolitan area who are admitted early to the University of Oregon and will be receiving scholarships are invited to a reception with the university president, current students, the faculty and staff at the Pumpkin Ridge Golf Club. This offers an opportunity to honor student achievement with a reception while they ask questions of current students and staff members.

Scholar Recognition Day. Admitted students from around Oregon and across the nation are invited to attend this daylong event, held on campus. We include mock class sessions representative of our Freshman Interest Group program, talks from the heads of the different honors programs, and lunch with President Frohnmayer. The goal is to demonstrate the academic opportunities available to top scholars on campus and honor their achievement.

Top Scholar Duck Days. We invite top scholars in the appropriate graduation year to come early and learn more about academic opportunities. In some ways, this is the ideal demonstration of life as an honors student at Oregon, wherein most aspects of life are integrated (the afternoon program) but some course work is unique within the UO setting (the morning program). This event includes extra discussion on honors programs, time with students involved in the various opportunities, a scholarship session, and an opportunity in a lab or research setting.

Ducks and Dinos, Ducks in the Round. These are newer programs focused on high school juniors and seniors. Programs are held in Portland to attract juniors and seniors from northwest Oregon and southwest Washington and give high-achieving juniors a glimpse of life at the UO. Unlike the student-focused Pumpkin Ridge night, this program features a faculty member in an interesting location. It is a reception with a mock-classroom experience.

Top Scholar Desserts. These events, designed to reach out to top scholars and their families outside of the Portland metropolitan area, were held in restaurants in Salem, Ashland, Lincoln City, Seattle, and Oakland, California. Each dessert was led by the admissions office territory manager, and was limited to about twenty people.

Table C1. Oregon High School and UO Enrollments of Students of Color

Year	1997	2001	2005
Students of Color as a Percentage of Oregon High School Graduates	12%	14%	19%
Students of Color as a Percentage of UO Undergraduate Enrollment	12%	13%	14%

that high school graduates are expected to be 76 percent Caucasian and 24 percent students of color. The absolute number of Caucasian high school graduates projected for 2010 is lower than the absolute number of high school gradates in 1997.

Other than Asian–Pacific Islander students, Oregon students of color have traditionally attended college at lower rates than Caucasian students. Nationally, Hispanic and African American students attend college directly after high school at a lower rate

Box C2. Profiles in Undergraduate Academic Achievement

Andrew Shipley, a recent UO graduate, has been named a 2007 Rhodes Scholar. Shipley, an Oregon native who received degrees in political science and psychology, hopes his research will help unravel the dynamics that lead to conflict between groups and develop better cooperation in multicultural societies. As an undergraduate, he presented at multiple academic conferences and conducted research in Ghana, the French West Indies, and Ecuador. He is presently involved in research funded by a Fulbright fellowship, studying national identity and ethnic attitudes among Maori and European New Zealander youth. While at Oregon, he founded the Springfield Creative Community Project, a student-run organization that provides free evening painting and creative-writing classes to adults in Springfield, Oregon.

Brian Truong was attracted to the University of Oregon because of the honors college and the opportunity for a liberal arts education. Brian, a biochemistry major, is president of Asklepiads, the pre-med society. Brian says being president has "personally taught me a lot of leadership skills." In addition to serving as president, Brian has volunteered in Sacred Heart Medical Center's emergency room and at Volunteers in Medicine. He says that Sacred Heart's ER showed him a fast-paced lifestyle while Volunteers in Medicine showed him the poor side of health care. Through the biochemistry department, Brian is researching myotinic dystrophy, the most common form of muscular dystrophy and is volunteering at the Muscular Dystrophy Association to see the clinical side of his research. Brian is currently interested in either surgery or pediatrics and looking at medical schools on the West Coast.

Computer and information science major **Anna Cavender's** research, which allows children with severe mobility impairments to draw using eye movements, distinguished her as one of only two U.S. outstanding undergraduates by the Computing Research Association. "The exciting thing about EyeDraw is that children who have never before had the ability to draw will soon have access to a developmentally crucial experience." Cavender's completed project exemplified her dedication to opening up the creative and scientific world to those who are currently locked out. Cavender also was the primary computer programmer for *The Adventures of Josie True*, an online game that aims to get fifth- and sixth-grade girls more interested in the sciences.

than other groups (52 percent for Hispanic, 55 percent for African American, and 64 percent for Caucasian).[236] In the absence of deliberate action, these changing demographics mean a reduction in the pool of college-going Oregon high school graduates from which the UO recruits and enrolls, and continuing challenges in recruiting and enrolling students of color at Oregon.

To meet these challenges, we must intervene more deliberately with students earlier in their education to increase the likelihood that they will graduate from high school and plan to attend college. We must be prepared to both attract and support a changing demographic population if we are to maintain our enrollment. Several existing programs have been useful in meeting this need, and several new early outreach programs are being developed to build this pipeline.

Oregon Young Scholars Program. One new early outreach program is the Oregon Young

Scholars Program (OYSP), a comprehensive preparatory project from middle school to college, designed to increase the academic skills and college preparation of historically underrepresented students—African American, Asian–Pacific Islander, Hispanic, and Native American students—as well as low-income students. In addition, the program is designed to increase the interest of parents and families of underrepresented students in the benefits of higher education, leading to increased communication with teachers and administrators. OYSP merges academic study with the development of critical, analytical, and research skills; assists students in developing an awareness of career paths; and improves the skills and abilities necessary to navigate middle school and high school.

Now in its second year, the program represents new efforts in early outreach partnerships between the university and community organizations serving students who may not traditionally consider college. Other programs include Reach for Success, a longstanding campus-based program for middle school students, and Connections, a series of one-day campus-based programs bringing underserved high school students to campus. By continuing to reach out to younger students and building a series of programs to support students throughout their secondary education, we hope to maintain a pipeline of young scholars who will enroll at Oregon and other Oregon colleges and universities.

Academic unit initiatives. Outreach activities are also initiated and sustained by individual schools, colleges, and academic departments. An example of a well-established program of this kind is the Summer Journalism Workshop. A very recent initiative is the Summer Economics Camp.

Summer Journalism Workshop. The School of Journalism and Communication sponsors the Summer Journalism Workshop, a nine-day, no-cost workshop. Associate Professor John Russial, Dean Tim Gleason, and former dean Arnold Ismach developed the idea for the workshop in 1994. It has thrived thanks to a generous ongoing grant provided by *The Oregonian* through the Newhouse Foundation. Aside from providing students with skills that will help them take on leadership roles when they return to their high school newspapers, one of the program's goals is to introduce minority students to a network of professional mentors.

Students stay in residential dormitories on campus, work with professors from the journalism school, and get tips from professionals at *The Oregonian* and other newspapers around the state. With guidance, the participants use real journalism skills to report, write, photograph, and design a twenty-eight-page newspaper. Students also get a chance to explore the campus and participate in numerous activities off campus. In the months following the workshop, students visit the *Oregonian*'s newsroom. They meet the paper's top editors and other staffers and get an opportunity to work on and produce future stories that actually appear in the paper.

The program also helps students preview college life. For example, one group of students interviewed Assistant Dean Greg Kerber for advice on how to survive the first year of college.

Summer Economics Camp. UO economics faculty members Bill Harbaugh and Bruce Blonigen have started the Summer Economics Camp to encourage high school freshmen to start thinking about college by giving them a taste of the college experience. This free program is targeted for low-income students and recruited participants from Springfield Middle School this past summer.

The camp, run by economics faculty volunteers, is focused on teaching students about

money, how markets work, international trade issues, labor issues, environmental economics, and strategic economic behavior. Staff members from the Office of Admissions and the Office of Student Financial Aid and Scholarships help students understand what they need to do to prepare for college success.

C.1.d. Residential Facilities

Critical to our understanding of who we are and the kind of students we attract is our status as a residential campus. A recommendation of the 2001 Enrollment Planning Report was to "finance and construct a new residence hall in the central part of campus no later than fall 2005." In response, the Living-Learning Center opened in fall 2006. This building contains classrooms and faculty office spaces in an effort to enhance the quality of the student experience by integrating academic functions with the out-of-classroom experience of students.

While this center adds new residential facilities, it does nothing to modernize the existing outdated residence hall stock. However, this issue will be addressed in a new housing planning process established by the Provost. In the fall of 2006, Provost Brady appointed a Housing Strategic Planning Committee (HSPC) charged with the responsibility of developing a long-range housing plan. The HSBC's charge is to determine how housing can best support and enhance the University's academic mission and enrollment management goals now and through the next decade. An important element of the HSPC's activities will include a housing needs assessment to determine the desired amount and type of student housing. The assessment will determine how to best meet defined housing needs through a variety of approaches including renovation of existing stock, new construction, and public/private sector partnerships on or near campus. The HSPC will present its

final recommendations to the Provost by July 2007.

C.2. UNDERGRADUATE RETENTION AND GRADUATION RATES

Discussions of retention often focus on freshman-to-sophomore retention rates—referred to here as first-year retention rates—since attrition is typically much higher between these two years than between any later set of years. In addition, the cumulative effects of later-year retention rates are reflected (along with first-year rates) in graduation rates, which are extensively studied.

C.2.a. First-Year Retention

General patterns. The first-year retention rate for University of Oregon first-time freshmen has steadily improved over the last ten years. This is likely the result of focused attention on the first-year experience and more academically prepared entering freshman classes. Several excellent first-year programs and initiatives have had long-term success, including Freshman Interest Groups (FIGs), Residential FIGS, Diversity-Building Scholarships, Freshman Seminars, and honors college, advising, and orientation programs.

UO first-year retention rates are higher than at any other public university in Oregon, and are comparable to our OUS-defined peers where selectivity and size of the entering class are similar. For example, the University of Colorado and Indiana University are most similar to UO in the academic preparation of entering freshmen and are similar in first-year retention rates.

The fall 2003 first-year retention rate for full-time, first-term freshmen was 86 percent, and remained relatively steady at 84 percent for fall 2004 freshmen. There do not appear to be significant differences in first-

year retention rates based on residency, athletic status, or gender. Recent data indicates that first-year retention rates for students of color, as a group, are comparable to, and sometimes higher than, those of Caucasian students.

As might be expected, students who were less successful academically, as indicated by their UO GPA, were more likely to stop out. This difference may have important implications for possible retention strategies and initiatives, and appear to be consistent regardless of class level.

Students of color. As noted earlier, first-year retention of students of color, considered as a group, is comparable to retention of Caucasian students. No significant differences were found in first-year retention rates for freshman students of color entering in 2004 (85 percent) when compared to White, non-Hispanic students (84 percent). When data on individual ethnic groups is examined, however, more variation is evident: 87 percent of Asian students were retained, 88 percent of American Indian–Alaskan Native students, 80 percent of Black students, and 81 percent of Hispanic students. With sample sizes falling below 100 in three of these groups, caution should be exercised in drawing particular conclusions from the this data. Nonetheless, these retention rates appear to compare favorably with group-specific retention rates found elsewhere, as discussed in the next paragraph. It is also notable that 93 percent of first-time freshmen who were international students returned the next fall.

A national perspective on first-year retention by ethnicity is provided by the Consortium for Student Retention Data Exchange, which reports national patterns for White, Asian, and Hispanic students quite similar to those of UO students, but shows somewhat higher retention at Oregon than nationally for the remaining groups. Specifically, the consortium's data on the first-year

retention rates of 500 four-year colleges finds that, regardless of college selectivity or institution type, Asian students were retained at the highest rate. In the data, the average retention rate for Asian students is 86.9 percent, followed by 80.3 percent for Whites, 74.7 percent for Blacks, 75.7 percent for Hispanics, and 67.2 percent for American Indians (Seidman, 2005).

Seidman also reviews some of the literature on retention and specific minority groups. He emphasizes that no single type of retention program will meet the needs of all students of color; rather, care should be taken to address specific issues that are generally characteristic for that group.

C.2.b. Later-Year Retention and Graduation Rates

General patterns. The 2001 Enrollment Management Council's report[237] identified attrition rates at the sophomore, junior, and senior levels as an important issue. The EMC continues to monitor later-year retention rates, with the most recent UO data showing an attrition rate of approximately 12 percent for students between the second and third year.

The 2001 Retention Subcommittee report identified a number of reasons for students' decisions to drop out, and the subcommittee's research shows that those reasons vary widely across class levels. The most often cited reason for leaving the university is financial. Other reasons frequently cited by those who leave after the second year include personal academic issues, academic issues related to the institution, and nonacademic personal or health issues.

The percentage of students graduating in four, five, and six years has shown a steady increase over the last 10 years. The 1999 cohort is the most recent for which full data is available. In this cohort, 65 percent graduated within six years, and another

2 percent were still continuing in school. Research has not been conducted to identify the factors that differentiate those students who persist from those who leave. The role of academic preparedness, financial need, credit-carrying load, and first-generation college student status in influencing graduation rates needs more exploration.

In 2006, the Enrollment Management Council developed processes to ensure that retention discussions on campus continue to explore the acceptability of both first-year retention and graduation rates. Additional analysis of transfer student retention and graduation rates will also be important in the future, but this council's work focused on other issues related to retention.

Students of color. Later-year retention rates vary by ethnicity and suggest that additional analysis is needed to better understand differential later-year retention and four-year graduation rates for different groups of students. Available data[238] shows differential four-year graduation rates for students of color and white students. More distinct differences are evident when Black, Hispanic, and Native American students are considered separately. Because the number of students in each cohort group is relatively small, it may not be useful to draw conclusions from these data; however, these data do suggest that closer examination of the specific student experience is warranted. Current research is under way on campus to review transcripts and identify academic patterns that may help provide targeted strategic actions to address these trends.

C.2.c. Financial Need and Retention

In 2002, Larry Singell, professor of economics at the University of Oregon, conducted research for the UO and wrote a report that examined the factors determining second-year retention rates for UO students.[239] The report examined the effect of financial aid on retention. The results show that, in general, financial aid improves retention. However, the findings also indicate that, after controlling for the level of aid, the most needy students are less likely to reenroll, and that the retention effects of merit-based aid are smaller for needy students even after controlling for ability.

The report suggests that financial aid can directly improve retention. Nonetheless, financial aid tends to have smaller retention effects as need increases, because needy students are more likely to face greater nonfinancial challenges than more well-to-do students. Because nonfinancial considerations appear to be important with regard to retention of needy students, the report suggests that the University of Oregon may want to monitor the student's college experience and use active interventions to reduce the particular risks that needy students face.

C.3. GRADUATE STUDENT RECRUITMENT AND SUPPORT

It is vital to the interests of the university that it actively recruit high-quality graduate students regionally, nationally, and internationally. In addition, it is imperative that the university provide appropriate and competitive support to its graduate students once they enroll, because this is critical for recruiting and retaining these students as well as for their academic success. Our discussion places considerable emphasis on recruiting a diverse population of graduate students. Accordingly, the questions addressed in this section are as follows: How well are we doing at recruiting a diverse population of high-quality students and supporting them as they move successfully to the next level of academic training or job placement? What are the challenges and opportunities that we face in these areas, and the implied needs for continued support, expansion, or improvement?

C.3.a. General Recruiting Strategies

Within the general category of recruitment, the most common activity was bringing students to campus for a visit, reported by 31 percent (eleven) of the programs. In some cases, this may entail a set time period when all applicants visit together, or it may involve individual visits arranged with each candidate. In general, the use of in-person visits or interviews is one of the most effective ways to see if there is a good match between the applicant and the specific program. Recent research (Council of Graduate Schools Communicator, October 2005, page 3) showed that the most important factor in a graduate student's selection of a school is the match between the student's specific interests and the degree program. The Graduate School has provided a modest amount of funding ($250–500 per program) to help bring a department's top-ranked applicant to campus for a visit. Over the course of the last eight years, approximately $40,000 has been invested in these visits.

Another important recruiting-related factor was the responsiveness of the faculty and staff to queries. In general, providing up-to-date, clear, and sufficient information on the focus of the graduate program will increase the number of applicants who are a good match to the degree program, which is then likely to increase the probability of successfully enrolling those students. There is considerable variability in the extent to which departments actively and systematically communicate with applicants and potential applicants.

C.3.b. Diversity

Departmental initiatives. Of the thirty-five programs responding to the self-study questions, 60 percent reported that they had a focus on diversity in their recruiting efforts. Of these programs, the activities mentioned most frequently were attending recruiting fairs, specialized advertising or mailings,

and making use of the Graduate School's Fighting Fund Fellowship program (see details below). Some programs also identified a special focus on international recruitment (e.g., German, international studies, and anthropology).

One source of potential applicants that was not mentioned by any of the responding programs was the national list of McNair Scholars. This is a source of highly qualified students from underrepresented groups who have already had research experiences during their undergraduate programs. Although the Graduate School reminds departments about this resource and facilitates recruiting McNair Scholars through waiving the application fee, there is more that could be done to take advantage of this resource.

Finally, responses to the questionnaire noted some exemplary initiatives in the area of recruiting a more diverse graduate student body, two of which are highlighted here (Boxes C3 and C4).

Central recruiting initiatives and support. The university provides tuition remission scholarships, with awards ranging from partial to full tuition and fee waivers, through the Diversity-Building Scholarship (DBS) program. This program recognizes both undergraduate and graduate students who enhance the educational experience of all students by sharing diverse cultural experiences. These scholarships are an integral part of the university's effort to meet the educational-diversity need of its students, and they complement other programs in the UO Campus Diversity Plan. The DBS program is an important recruitment tool, but these scholarships are also available for continuing students, which also serves the university's retention goals.

The Graduate School also supports efforts to recruit a more diverse graduate student body through the Fighting Fund Fellowship program. This program provides a tuition

Box C3. Philosophy Department's Minority Recruitment Initiative

The Minority Recruitment Initiative (MRI) began as a pilot project that featured an on-campus conference in 2002. The conference included sessions on graduate student research, faculty research, and individual meetings with the visiting students about the process of applying to graduate school. Virtually the entire philosophy department faculty participated in this weekend conference, held in mid-November. Fourteen students, all of whom were nominated by philosophy faculty members at their home institutions, attended. Of these fourteen students, eight applied for admission to the graduate program in philosophy. In a very competitive admission year, two of these students were admitted to the doctoral program and received financial aid awards. As of July 1, both admitted students chose to attend other universities. While the pilot MRI program did not lead to the enrollment of any students of color, it nevertheless:

- significantly increased the visibility of the department and the University of Oregon as a place where diversity is valued and sought
- contributed to a diverse applicant pool: Of eighty-one applicants to the doctoral program (up from fifty-seven for fall 2002), 19 percent were minority applicants (up from approximately 7 percent for fall 2002)
- provided valuable information for future minority recruitment
- identified financial aid as the most significant problem in enrolling minority students

In order to increase the success of the program after the subsequent conference (2004), the Graduate School partnered with the philosophy department and provided both Fighting Fund Fellowships and an additional summer research stipend for two students of color admitted to the doctoral program in philosophy in fall 2005.

In preparation for the second (2004) MRI conference, the department engaged in a yearlong communication plan that involved a letter to members of the philosophy faculty at other colleges and universities in the Northwest, California, Nevada, and Utah reporting on the outcome of our first conference and announcing the next conference. A second letter was sent in January requesting nominations. Faculty members were asked to nominate students in spring 2004 for the fall 2004 conference. Again, all expenses are paid for participants in the conference. Selected students were notified by May 1, 2004.

The Minority Recruitment Initiative—including the communication plan, on-campus conference, and summer research stipends available to enrolled minority students—could serve as one important way that the University of Oregon can support and foster diversity among graduate students both at Oregon and in higher education. Increased diversity on a graduate level addresses "pipeline" issues among the professorate by increasing the pool of qualified junior faculty members who are persons of color. The third MRI conference will be held in fall 2007.

Box C4. Biology Department's Summer Program for Undergraduate Research

The Summer Program for Undergraduate Research (SPUR)[240] offers research opportunities for undergraduate students from other universities to participate in ongoing research in life sciences laboratories at the University of Oregon during the summer months. Students at the UO also participate in SPUR activities funded by host laboratories. Participation dates are flexible to accommodate the variety of schedules of schools across the country. For a typical student, the program runs from the third week in June through the third week in August. Special consideration for acceptance into the SPUR program is given to students who are also members of a group underrepresented in the sciences (e.g., low income, first generation, Native American, African American, Latino, or Pacific Islander). Areas of research include evolution, development, genomics, structural and molecular biology, bioinformatics, genetics, cell biology, neuroscience, ecology, marine biology, biochemistry, physiology, psychology, and human physiology. Students accepted into the SPUR program participate in weekly seminars, faculty presentations and workshops, and a research symposium in which they present their own research. Finally, they write a formal research project report. Participants are provided with funding for round-trip travel from their home, room and board in university housing, and a monthly $1,200 stipend while in attendance.

In 2005, 43 percent of underrepresented students who were offered admission to this program accepted; in 2006, that percentage had grown to 83 percent. Of the seventy SPUR participants who have been tracked over time, 61 percent are pursuing or have completed a graduate degree in science, 16 percent pursued careers in medicine, while 23 percent are working in science education or still pursuing their undergraduate degrees.

waiver and stipend for the first year of a student's enrollment on campus. In order to be eligible for these funds, the department must commit to a second year of funding at a comparable level and the assignment of a mentor. This program has grown considerably in the last three years, from providing seven fellowships in 2004–5 to an estimated fourteen in 2006–7 for an expected investment of almost $300,000 in tuition and stipends for the coming academic year.

The Graduate School does not send our own staff members to career fairs in other parts of the country. We do participate in the university's Graduate Career Fair, where our current undergraduates are provided with information about graduate programs at Oregon. We are currently discussing a collaboration with the Office of Institutional Equity and Diversity to send representatives to selected career fairs that are designed for students from underrepresented groups. We have also provided matching funds to individual departments that send faculty or staff members to these types of targeted recruitment events. We believe that career fairs or other large-scale recruitment events are most effective and efficient when they focus on specific areas of study, and when faculty members from specific programs are present.

C.3.c. Support for Graduate Students

Financial support for graduate students in the form of graduate teaching fellow awards

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is discussed in Part I of this self-study. While amount and availability of these awards is of central importance in recruiting and retaining the best students, there are other types of "support," both financial and nonfinancial, that help students make progress toward their degree and then transition to additional graduate training or professional employment.

Orientation activities. The initial orientation to a graduate program is essential to help students get a successful start in their programs. The Graduate School holds three different orientations at the start of each fall term. One is an orientation for all incoming graduate students, typically attended by close to 300 new students. At this orientation students are given general information about the university, the Graduate School, and a wide range of services that are available to them. Workshops on funding resources, library and computing resources, and "survival skills" are available during the orientation session. In addition to this general orientation, there is a specialized orientation for international students, held in collaboration with the Office of International Programs; and another for new graduate teaching fellows (GTFs), which is held in collaboration with the Teaching Effectiveness Program (TEP). Current graduate students play an important role in both the "survival skills" and GTF sessions. They provide real-life experiences that may be more credible than simple recitations of policies.

Many departments and programs also have their own orientations activities. Some of these may take place in an hour or two on one day, while others involve a weeklong schedule of events, including such things as rafting trips, camping, or bike trips.

Fellowships and competitions. In addition to activities that help attract and orient graduate students to their programs, the Graduate School provides information about and access to funding opportunities for graduate students.[241] Funding workshops are held at our initial orientation sessions for new graduate students and through additional workshops when they are requested by departments or programs. International fellowships and other financial aid for international students are managed or provided by the Office of International Programs.[242]

The Graduate School also administers a number of fellowships for graduate students. These are funded by the institution or through gifts from private donors. All but one of the private donor-supported fellowships have been developed since the last reaccreditation visit. These awards focus on research activities in general or specific areas, professional development related to an academic program, the development of teaching skills, or the support and development of leadership and contributions to society (Box C5).

External and department-program financial support. External grants and contracts are significant source of financial support for graduate students in some areas (e.g., the physical sciences; the College of Education). As the university's success in this area increases (see part I.A.), more graduate students can be supported. It is also the case that graduate students themselves have been successful in obtaining external, competitive awards. Since 1996 we have had seventeen doctoral students who have received three-year, National Science Foundation Fellowship awards, and we have had sixty-seven Fulbright Scholars studying at the UO.

Individual departments also have a number of research and teaching related awards and fellowships that provide additional funding to graduate students. Some of these awards are described on the graduate school website.[244]

Workshops and training. During the academic year, the Graduate School provides workshops on funding opportunities and also does a twice-yearly workshop on writing a dissertation. The latter has been very well attended since its inception, with fifty to seventy students at each offering. We will shortly be undertaking plans to develop workshops focused on the ethical conduct of research and conflict resolution.

Finally, the Teaching Effectiveness Program (TEP) is a central component of our support for graduate students as they fulfill their instructional or faculty-support responsibilities in undergraduate courses at the university, and as some of them prepare for their future roles in the professoriate. The TEP program[245] has a proven track record of providing high-quality training and support for both graduate students and faculty members. They regularly assess the performance of instructors, provide suggestions for improvement, gather feedback from undergraduate students, and offer specialized trainings on a variety of topics for students teaching large classes (Box C6).

Box C5. Graduate Fellowships and Awards

The University of Oregon Doctoral Dissertation Award: This fellowship is our most prestigious and competitive award. Each department with a doctoral program is eligible to nominate one student, who will be in the final year of writing his or her dissertation. The award carries a full tuition waiver and an $18,000 nonservice stipend. The Graduate School funds from two to five recipients each year, depending on the quality of the nominees.[243]

Betty Foster McCue Fellowship: This award is our most long-standing and was funded by a former faculty member. The endowment provides a $5,000 nonservice stipend and includes a tuition waiver provided by the Graduate School to one doctoral candidate whose dissertation topic is germane to issues of human development and performance.

The Gary E. Smith Summer Research Award: This provides a $3,000 award for as many as three outstanding master's or doctoral students pursuing academic, professional development, or training-enrichment opportunities during the summer months. Successful applicants should be engaged in an activity which provides unique academic opportunities not normally available as part of the student's degree program.

Southeast Asian Studies Grant: Funded by a retired faculty member, this $1,000 grant is designed to encourage graduate research about Southeast Asia. Grants may be requested for educational expenses, including tuition supplements, travel, equipment purchase, books and supplies, and other educational needs.

Margaret McBride Lehrman Fellowship: This award provides a nonservice stipend of $10,000 as well as a tuition waiver, which is provided by the Graduate School. The award is made to a student demonstrating financial need and a strong academic record who is pursuing studies that emphasize communication, especially writing skills.

Dan Kimble First Year Teaching Award: This award provides one or two $500 awards for outstanding teaching performances by graduate teaching fellows (GTFs) in their first year of classroom experience. Applicants must complete the required class interview and videotaping through the Teaching Effectiveness Program (TEP) and submit these items to the Graduate School along with a copy of their departmental end-of-the-term evaluations.

Donald and Darel Stein Graduate Student Teaching Award: This award is in its inaugural year, and provides an award of $1,000 for one or two recipients who have demonstrated outstanding teaching performance as graduate teaching fellows while at the same time excelling in their own academic program. Eligible applicants will have at least five terms of experience as an instructor (sole instructor or lab-discussion leader).

University Club Foundation Inc. Fellowship Award Program: This is a $5,000 award to four graduate students, one from each of the four eligible schools within the Oregon University System, to recognize and encourage scholarship, demonstrated leadership, and potential societal contributions. Each school is eligible to nominate up to three students for consideration.

OUS-SYLFF Graduate Fellowships for International Research: Funded through OUS by the Nippon Foundation of Tokyo to nurture leaders who will transcend geopolitical, religious, ethnic, and cultural boundaries in the world community for the peace and well-being of humankind. Fellowship stipends are awarded for one year of full-time graduate work involving research and scholarly endeavors in programs and projects with an international dimension. The awards are typically $10,000 to $12,000, depending on the project.

Center on Diversity and Community Summer Research Awards: A collaboration between the center and the Graduate School results in ten awards of $1,000 each to support the scholarly work of graduate students from throughout the university for research on topics directly related to the center's mission.

C.4. CHALLENGES AND OPPORTUNITIES

In Undergraduate Student Recruitment
- Continued emphasis on recruitment and enrollment of top scholars is necessary to sustain the growth in the quality of UO undergraduates. Increasing competition for this group of students requires constant improvement of recruitment efforts. Expansion and funding of system-atic support programs for top scholars is critical to enrolling the best students.
- The university's message of quality must be defined and delivered in a way that attracts top students, but is broad enough that students from a wide range of backgrounds see themselves valued as potential UO students.
- International enrollment has declined as a percentage of the student body over the last ten years. With new leadership

in international affairs and outreach and increasing U.S. enrollment of international students, we have the opportunity to explore new avenues for enrolling international students.

- Changing demographics provide the opportunity to increase the diversity of the university, but require new programs and messages to better reach communities of color. More deliberate interventions with students earlier in their education and support for changing campus demographics are needed.
- Integrated campuswide efforts to develop and disseminate the University of Oregon message of quality.
- The UO continues to define itself as a residential university, which calls on us to continue to improve the connection between residential life and academic achievement, to improve the facilities that enhance that connection, and to create a long-range housing plan that supports university enrollment goals.

In Undergraduate Retention and Graduation Rates

- Low later-year retention and four-year graduation rates for particular ethnic groups warrant additional research to determine whether appropriately targeted programs may be useful in reducing time-to-graduation for these groups.
- The UO degree audit system is a new tool that can be used to assess progress toward a degree and may provide data needed to better study patterns of enrollment.
- Both financial and nonfinancial issues related to retention of needy students need to be more fully explored and active interventions implemented.

In Graduate Student Recruitment and Support

- Clear, accurate, and up-to-date recruitment materials, including websites, should be carefully maintained by each graduate program.

Box C6. Teaching Tomorrow's Professoriate to Teach

Beginnings: Insights, Tools, and Strategies for New Teachers. This module covers such topics as teaching for the first time, motivating your students, leading productive discussions, giving effective presentations, lesson planning, testing and grading, promoting critical thinking, and using instructional technology.

Teaching with Technology. This set of modules helps instructors integrate technology effectively into their teaching. The topics covered include blogs, wikis, and podcasts; using Blackboard to get midterm feedback from students; ways to use online assessments in their face-to-face courses to facilitate better discussion and assess lecture clarity; and using technology to provide feedback on student papers.

Teaching to Diversity. This module presents workshops throughout the academic year to help instructors create a classroom environment that is welcoming and conducive to the learning of all students. These workshops focus on various aspects of teaching related to diversity and on different communities within the student population. Examples include topics such as campus climate, creating the inclusive classroom, exploring whiteness and privilege, educating the "net" generation, choices of language and labels when discussing identity, negative reactions to diversity training, and "what does being white have to do with diversity?"

- Programs should have an organized plan for responding promptly and thoroughly to queries from potential students.
- Where possible, campus visits should be a part of recruitment strategies.
- Developing external funding opportunities in areas that have not traditionally had access to these resources (e.g., humanities, performing arts).
- Increasing the amount of summer support for doctoral students.
- Making decisions about how increased investments in graduate student funding can best serve the enrollment goals of the university.
- Involving development officers in the task of raising funds for graduate student support.

Summary: Part III. Investing in People and Ideas

Together, the UO's faculty, staff, and students form the human capital from which springs the creative activity and learning that are the hallmark accomplishments of a first-class research university. The focus of Part III of this study is on the university's human capital.

"Faculty Members," the first section of Part III, describes both our accomplishments and challenges in assembling, supporting, and retaining faculty members, who form the UO's intellectual core. Successes are amply evident in indicators of faculty quality and composition, thoughtful hiring practices, creative support strategies, careful evaluation of tenure-related faculty members, and progress in reaching competitive compensation levels. Challenges include student credit hour growth well in excess of growth in either tenure-related faculty or total instructional staff numbers; lack of a centrally supported system for sharing information of common interest to academic units and the university's administrators; hiring and evaluation of nontenure-track faculty members; inadequate longer-term strategies for balancing funding for positions, improved compensation, and "risk sharing" within some of our smaller schools and colleges; poorly understood and vulnerable academic unit funding strategies; and retention issues driven largely by a degree of salary compression that exceeds our peers, and overall levels of total compensation that, despite recent progress, still fall short of our peers.

"Classified Staff Members and Officers of Administration," the second section of Part III, describes and assesses UO programs that facilitate the hiring, training, and support of our classified staff and officers of administration. Accomplishments include well-organized support and comprehensive training programs for supervisors and managers charged with hiring and performance appraisal, professional support programs that range from training in software applications to workshops on creating positive work environments, programs that focus on creating work and family balance, and recognition programs. Challenges in this area include measuring the effectiveness of hiring, performance appraisal, and training; attracting diversified applicant pools; compliance with institutional policy on performance appraisal; adequate justification of merit-pay recommendations; training in business practices and systems; and systematic analysis of compensation with respect to internal comparability and market competitiveness.

"Students," the concluding portion of Part III, focuses on the UO's efforts to recruit the number and mix of students identified in Part I of this study, and to retain and graduate those students. Successes include programs to attract top scholars to the UO's undergraduate and graduate programs, balanced by careful attention to

recruiting qualified students from a wide range of backgrounds; favorable first-year undergraduate retention rates; ongoing study of the factors affecting undergraduate retention and graduation rates; and creative departmental initiatives to attract students from under-represented groups. Challenges at the undergraduate level include sustaining a message of quality that attracts students from a wide range of backgrounds, recent declines in enrollments of international students, dramatic demographic changes in Oregon, campus residential facilities, and retention and graduation rates among needy students, particularly those of color. At the graduate level, challenges include recruitment materials and strategies, limited sources of external support in some areas (e.g., the humanities, the performing arts, and a number of the social sciences), summer support for doctoral students, and the relatively low profile of graduate student support in development efforts.

PART IV: INFRASTRUCTURE FOR GROWTH

The resources that combine to make possible the work of a university include, of course, more than the human resources discussed in Part III. In this decennial review, the University of Oregon has chosen to focus on three elements of the infrastructure essential to achieving its mission—its physical, organizational, and financial resources. First, we turn our attention to the physical setting of the university and the planning and emphasis on safety that make this setting work for our institution and the human resources we assemble. Second, we describe and evaluate the organizational structure of the university, which affects in myriad ways our ability to accomplish the multiple aspects of our mission. Finally, we review the university's financial side, including budget models and fundraising, and evaluate its financial strategies from the perspective of sustaining excellence.

A. SUSTAINING OUR CAMPUS

Situated in Eugene, the University of Oregon's main campus boundaries comprise some 295 acres, containing more than 4.8 million gross square feet in approximately 264 buildings and, at last count, nearly 4,000 trees.

The university also owns more than 240 acres outside of the main campus boundaries. Most of these are Eugene-based athletic facilities (the Autzen Stadium Complex), off-campus housing, and the Oregon Institute of Marine Biology campus on the Oregon coast.

Other properties throughout the region serve UO programs. The university owns and leases 68,000 gross square feet in Portland to provide facilities for architecture, journalism, psychology, and development programs. An additional 70,000 square feet in the recently leased White Stag building complex will be remodeled to house University of Oregon programs, with anticipated occupancy in January 2008. The university also maintains the Watzek House in Portland, which is deeded, under a life estate, to the UO Foundation as an endowment for programs of the School of Architecture and Allied Arts. The John Yeon Preserve for Landscape Studies, known as the Shire, is located on seventy-five acres along the northern bank of the Columbia River Gorge directly across from Multnomah Falls. It is anticipated that the Shire will become a national and regional center for Pacific Northwest landscape and planning studies and will play an important role in providing opportunities for practicum experience. Additionally, the university leases 9,000 square feet on the Central Oregon Community College campus to provide educational opportunities in the Bend area.

To support the various missions of the university, all university-owned facilities (with the exception of auxiliary functions) are maintained by Facilities Services; the University Planning Office oversees plans for major alteration and expansion efforts and for new structures.

A.1. PLANNING FOR FACILITIES' GROWTH AND CHANGE

For the last ten years the university has undergone unprecedented change and growth in its facilities and has prepared plans for the next several decades. This section provides an overview of the planning activities done by the university to prepare for projected growth and change, as well as how those plans have been or are being implemented.

A.1.a. 2005 Campus Plan

Overview. The University of Oregon updated its campus plan after a yearlong effort from summer 2004 through spring 2005. The Campus Plan is a framework of patterns and policies defining the qualities inherent in a functional, beautiful campus and setting forth how those qualities will be preserved and expanded as new construction occurs.

The update process, which included participation from a wide body of committees, departments, and individuals, achieved its three main objectives:

- A plan that is easier to use and understand
- A strengthening of the most critical plan components (the open-space framework and the planning and review process)
- Increased development capacity to meet known needs

The plan builds on and expands the principles found in previous planning documents, setting the university apart from its peers and establishing it as an innovator in campus planning. Most particularly, the university is nationally known for its pro-

cess-based planning, which makes extensive use of the end users in the process as well as the pattern language. The idea of process-based planning comes from the recognition that the exact nature and magnitude of future changes cannot be predicted with any degree of certainty, and therefore decisions about development should be made at the time the development is needed within a prescribed set of guidelines (the Campus Plan) which articulates who should be involved and the criteria that are to be applied when reviewing proposals for new development.

The Plan[246] includes twelve policies, described below.

1. Process and Participation. Planning decisions are made by following a process rather than an established image of the campus. Plan provisions go well beyond what is typical for meaningful input from students, faculty and staff members, and others.
2. Open-Space Framework. The plan ensures preservation and expansion of the interconnected open spaces that originated with Ellis F. Lawrence in the early twentieth century. Development is prohibited in designated open spaces, open-space improvements are required, and campus edge and landscaping issues are addressed.
3. Densities. The plan defines maximum-allowed densities for each design area to preserve the university's historic character while at the same time accommodating new facilities.
4. Space Use and Organization. The plan ensures preservation of the instructional core and a walkable campus.
5. Replacement of Displaced Uses. The plan ensures all university uses are treated with importance.
6. Maintenance and Building Service. The plan requires a long-term and flexible design approach.
7. Architectural Style and Historic Preservation. The plan ensures preservation and enhancement of the campus's overall visual continuity.
8. Universal Access. The plan is committed to making all new facilities accessible to all.
9. Transportation. The plan reaffirms long-standing, innovative transportation policies that have created a pedestrian-friendly and bike-friendly campus.
10. Sustainable Design. The plan conveys commitment to sustainable design.
11. Patterns. Patterns are design statements that describe and analyze design issues and suggest ways to resolve them. There are twenty-one patterns that must be considered for every project. Many more are used as applicable.
12. Design Area Special Conditions. The campus is divided into smaller design areas. For each of these areas the plan identifies special conditions that should be addressed when construction occurs.

Development of the updated plan was preceded by and significantly influenced by two earlier efforts, one to establish an optimal size for the university and a second in response to presidential instructions about achieving a fifty- to seventy-five-year inventory of land.

Optimal size for the university. In spring 1999 the Faculty Advisory Council endorsed the notion that controlled growth of 2 percent a year on average, leading to an enrollment of 20,501 by 2008–9, would result in the optimally sized university. This assumed that current demographic trends would continue and that a modest increase in effectiveness of recruitment, especially among out-of-state and graduate students, also would occur. Crude estimates indicated that the university would have enough classrooms to handle this projected enrollment and that

the feel of the campus would not be severely altered. As a result, the university would continue to be one of the smallest AAU institutions—one in which students can walk comfortably between classes and that sustains a sense of community, familiarity, and belonging.

The council's endorsement was based on a series of conversations with the University Planning Office about the facilities capacity of the campus and comparisons with other universities. The endorsement was also the subject of a town-hall meeting on May 5, 1999, during which the president led a discussion on the issue of optimal size.

The council also noted factors other than the campus's "feel" that must be considered: information systems; increases in the size of the faculty and staff and associated office spaces; libraries; laboratories; parking; recreational facilities; housing; distribution across disciplines of growth; effects on Eugene and city services; and, finally, changes in the ratios of graduate and undergraduate students, resident and nonresident students, domestic and international students, and racial and ethnic categories.

In the years since 1999 and following the Faculty Advisory Council endorsement of controlled growth, enrollment reached more than 21,000 on several occasions. But as a matter of practice, and in recognition of the council's endorsement of an optimal size, the university has purposefully managed enrollment to maintain the size of the student body in the range of 20,000.

Needs for the next fifty to seventy-five years.
In February 2004, at the request of the university president, the University Planning Office authored a paper titled "University of Oregon Facilities Needs for the Next Fifty to Seventy-five Years." The purpose of the paper was to assist the president in achieving his goal of implementing plans to provide

an adequate inventory of land for the coming years of growth.

One of the fundamental premises of planning for future university facilities is that it is not possible to reliably predict future needs beyond about a ten-year window. Anything beyond that time frame is grossly speculative because of uncertainties related to population, economy, and costs, to name a few.

Given this reality, the paper included two ways to create some flexibility for those who follow us:

- Development policies established by the Campus Plan limit the amount of land that can be covered and the total square footage that can be built. The purpose of these policies is to ensure that, as we provide for programmatic and institutional facilities needs, we safeguard the campus's beauty, which springs directly from the amount and quality of its designated open spaces. Keeping in mind that filling these spaces with buildings will destroy the beauty of the campus, the paper recommends that we examine our development standards with an eye toward creating additional capacity on our current land inventory while preserving the campus's best pastoral qualities.

- The paper recommends the purchase of additional properties, principally focusing on those contiguous to the current campus, but not overlooking those that are not, since they may not be considered distant in fifty to seventy-five years. There are two kinds of purchases: those that will meet our classroom needs in the near future (close enough to the academic core that students can walk between classes during the ten-minute break) and those that may be usable for nonclass purposes or may be usable if we were ever to change the class schedule or institute a transportation

system linking areas within the campus boundaries.

The paper is based on the following assumptions:

- The university will remain a four-year liberal arts institution with an enrollment ratio of graduates to undergraduates that is roughly the same as it is now—approximately one graduate student per three undergraduate students—and with research continuing at its current or slightly increased level.

- The campus will retain its largely pastoral setting by establishing a rigid standard for an ideal ratio of open spaces to built spaces.

- The current number of on-campus residential beds will be sufficient to accommodate a majority of the entering freshman class.

- The university will remain more or less on its current academic path with few or no fundamental changes to the current colleges, schools, institutes, and centers beyond the growth (or shrinkage) that may occur in each.

Because the campus of fifty to seventy-five years from now is likely to be very different from today's campus, the paper does *not* make two assumptions that heavily influence current facilities decisions. It does not assume that enrollment will be capped at or near 20,000 students, the number established in the "optimum size of the university" exercise described above. And it does not assume that the university will necessarily continue to schedule classes with ten minutes between each class, potentially relaxing limits on size of the physical academic core within which the majority of classes are held.

In a May 19, 2004, memorandum, President Frohnmayer agreed with these recommendations and directed the planning office to move forward on them. One result of this direction was the 2005 update of the Campus Plan (both the former plan, the 1991 Long Range Campus Development Plan,[247] and the 2005 revised plan, the Campus Plan,[248] are available online.

A.1.b. Notable Features of Current Planning Documents

Three aspects of the planning documents now in place merit special mention. To some degree they are complementary and as a whole they reflect the values of the institution, its culture, and those of the state.

Sustainability. In fall 1999, the chair of the Campus Planning Committee wrote the following in an effort to urge the administration to begin planning for the adoption of policies that eventually became the Sustainable Development Plan:

> "Future generations may well remember the late twentieth and early twenty-first century as a period of critical, perhaps irreversible, activity that defined the environmental character of the biosphere. The state of Oregon has often been on the cutting edge of environmental policy, and many university faculty [members] are internationally known for their contributions to creating and disseminating knowledge about sustainable structures and processes.

> "Because of its special position within a milieu that values the environment and its concentration of intellectual resources, the university has an obligation to the people of the state to lead the way in the creation of a sustainable world."

Sustainability may be a catch phrase now, but it is nothing new at the University of Oregon. Students and the faculty and staff

have been focusing on sustainability issues for so long that it has become second nature. For example:

The University of Oregon has been actively recycling since the mid-1970s. The recycling program went through many different stages of development (mainly through the leadership of student volunteers) until it was officially established as the Campus Recycling Program in spring 1991. It is an unparalleled success having gained many awards and honors over the last decade, including the 1997 National Recycling Coalition award for Outstanding School Recycling Program.[249]

- The University Planning Office also has gained national prominence since the 1970s when it implemented an entirely new methodology for planning that came to be known as the Oregon Experiment. Considered cutting edge at the time for its innovative way of taking future needs into consideration (see the planning office's website for more information), the Oregon Experiment led to further planning documents such as the Campus Plan (2005) and the Sustainable Development Plan (2000). All of these documents have shaped the way the University of Oregon takes into consideration issues of longevity, resource use, alternative transportation, efficient design, and other sustainability issues.

- The University Planning Office is also recognized for its groundbreaking bicycle plan, which was first established in the 1970s and later revised in 1991. The decision to promote bicycles as alternative transportation was taken seriously, and new, effective, bike-friendly bike racks were designed that subsequently have been copied by higher education institutions across the nation, from the University of Washington to Cornell.

- In 1989 Vice President for Administration Dan Williams recognized the need to establish a body to advise him on environmental concerns. As issues of pesticide use or recycling options or discussions about sustainable purchasing came up, no system existed for dealing with them. As a result, the university's Environmental Issues Committee was established in 1991 through the president's office. The committee meets monthly and acts as a visionary body for university sustainability issues.

- In 1997 the university approved the Comprehensive Environmental Policy Statement, developed by the Community Planning Workshop through the Department of Planning, Public Policy and Management. This policy now guides UO students, faculty, and staff in everything from purchasing paper to discarding hazardous waste from old computers.

These examples are just a sampling of ways that the University of Oregon is leading the sustainability movement.

Open-space framework and density limits.
The University of Oregon campus is organized as a system of quadrangles, malls, pathways, and other open spaces and their landscapes. This organizational framework not only functions well but also serves as a physical representation of the university's heritage. In recognition of this framework as a defining aspect of the campus, the following policy was established in the Campus Plan:

> "As opportunities arise, the fundamental and historic concepts of the university's open-space framework and its landscape shall be preserved, completed, and extended."

Campus Heritage Landscape Plan. In the summer of 2005 the university received a

grant from the Getty Foundation to create a Campus Heritage Landscape Plan covering the historic areas of the campus. The University of Oregon is one of only eleven universities nationwide to receive a 2005 Getty grant.

Both the Campus Heritage Landscape Plan[250] and the process by which it was completed are unique in a number of ways. The plan defines how to preserve the cultural history of the campus's most defining spaces and still allow for the growth and change demanded by institutions of higher education. This goal is especially important to the university because its defined open spaces, which give the campus its unique identity, are often the most overlooked.

The Campus Heritage Landscape Plan focuses both on preservation and future growth needs—how to learn from the successes of historic open spaces and establish a compatible relationship between them and the newer buildings and areas of campus to create a cohesive campus environment. This is essential for universities such as Oregon,

which has reached a stage in its development where little bare land exists, making the thoughtful development of land within its historic core an absolute necessity.

Furthermore, the process used to develop the plan was particularly compatible with the university setting. It was based on a strong educational component that involved students, faculty, and staff. Students enrolled in a landscape architecture course and a historic preservation course worked directly with staff members and consultants to conduct site and building surveys; this information provided the data for analysis and final development of the plan.

The innovative nature of this work illustrates the university's progressive planning philosophy and a commitment to include an educational component, whenever possible, in planning the future of the campus.

Development Densities. Development densities are established to preserve the historic character of the university campus as a setting conducive to thoughtful and reflective

Figure A.1: Deady Hall Walk Axis, c. 1900
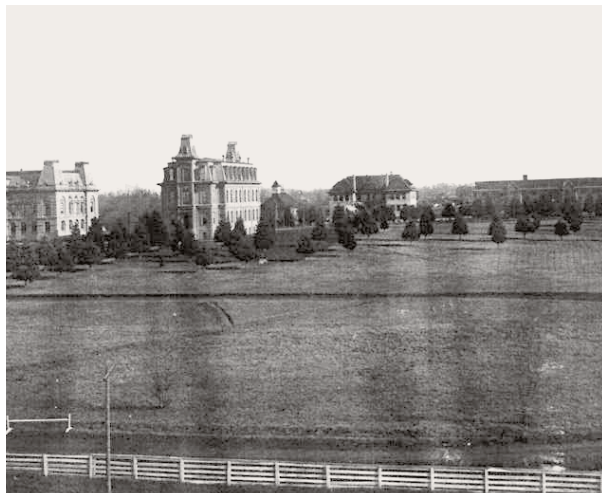
The Douglas firs have grown substantially since they were first planted along this walkway, which leads from "town" to the university's oldest building, Deady Hall (now a national landmark).

Figure A.2: Deady Hall Walk Axis, c. 2005

endeavor, while at the same time allowing for accommodation of new facilities.

The following policy has been established in the Campus Plan relating to densities on campus:

> "To control the look and feel of the campus, no construction project shall result in a density in excess of the maximum established densities."

This section of the Campus Plan includes the requirement that the campus's ultimate maximum capacity be studied periodically and that this capacity be compared to the university's needs to see if the campus can contain the projected growth. This requirement forces the university community to examine its density policies on a regular basis, and if capacity is running short, either to expand its land holdings or change the density standards to allow more growth without compromising the look and feel of the campus. It is an effective and critical component of process-based planning.

Transportation planning. A recent article in the journal of the Society for College and University Planning ("Solving Campus Parking Shortages: New Solutions for an Old Problem," *Planning for Higher Education*, September–November 2004) summarizes the challenges faced by the university with regard to transportation planning:

> "Higher education is an expanding sector, in terms of both student numbers and demand for physical facilities. College construction reached an all-time high in 2002 ($11 billion), and indications are that growth will continue in years to come.

> "These trends have three major implications for an institution's transportation needs. First, more students, staff, and faculty—referred to as campus affiliates in this article—tend to mean greater

demand for parking. Second, growth means greater demand for academic building space, and the best places for new academic construction are often surface parking lots nearest the center of campus. This means that demand for parking is increasing at the same time as supply is being eroded.

> "Finally, as population grows, the housing supply in many campus communities has not been able to keep pace. This alone forces more people to live farther from campus, and it also drives up the cost of local housing, further pushing campus affiliates to live farther away. For these longer journeys, walking and cycling are not options, and transit tends to be less competitive because of lower densities in outlying communities."

Campus parking is a problem in constant search of a solution. To a great degree the satisfaction derived from various solutions is related to how the problem is defined. For example, is there not enough parking on campus—or not enough in the right places? Is it too expensive? Not expensive enough? Should there be more transportation alternatives?

The university's Campus Plan and Long-Range Campus Transportation Plan[251] include policies that encourage the use of alternatives to the car and careful balancing of parking supply and demand. Successful implementation of these policies has resulted in cheaper parking for those who need to use a car to come to the campus, viable alternatives for those who do not need to drive, and a reduction of traffic to and from the campus. Indeed, as noted in the sustainability section above, the university is and has been at the forefront of transportation management for some time.

The particular dilemma facing the university today is the recognition that growth of enrollment and research will lead to greater

demands for parking. At the same time, demands for new buildings will decrease the land available for surface parking. This trend, in turn, threatens the university's ability to preserve its defining features, namely its open spaces. The most obvious solution is to build parking structures. As the journal article notes, however, this solution has a number of disadvantages, including the costs associated with maintaining the ratio of users of alternative modes when new parking is built, the feasibility and extreme high cost of structured parking, which often is not accounted for in the planning for individual projects, and the negative effects the additional traffic parking generates.

These disadvantages suggest the benefit of taking a more comprehensive look at transportation strategies, one that examines the costs by understanding the trip cost rather than isolating the cost of a single parking space.

The university's transportation strategies identified in the 1970s have done a good job so far; however, it may be time for a new look at how to meet the transportation needs of the campus.

A.1.c. Growth and Change Implementation

Major projects completed. Since the 1997 Accreditation Report, the university has completed an impressive array of capital construction projects vital to carrying out the mission of the university. The major projects are summarized below.

- *Research, Education, and General Facilities:*

  Loyd and Dorothy Rippey Library, Oregon Institute of Marine Biology (1999)
  A $600,000 private donation resulted in an expansion and renovation of the OIMB library.

Terwilliger Laboratory Addition, Oregon Institute of Marine Biology (1999)
A combination of state funds and a National Oceanographic and Atmospheric Administration grant constructed a $595,000 lab addition to the Terwilliger Research Building. The facility is managed cooperatively with South Slough National Estuarine Research Reserve through an interagency agreement.

William W. Knight Law Center (1999)
The new 140,000-square-foot, four-story law center at the corner of East 15th Avenue and Agate Street has state-of-the-art instructional technology and innovative functionality. The center creates a strong feeling of community with its spacious, window-encased commons area and comfortably organized library, which now has twice its previous space. The project cost was $24.5 million.

McKenzie Hall Remodel (2000)
This project renovated the former law school building for classroom and office use by the College of Arts and Sciences and other departments. The existing four-floor, 82,000-square-foot building contains additional university classrooms supporting advanced instructional technology for a project cost of $4.2 million.

Zebrafish International Resource Center (2000)
This $3.3 million project created a 12,350 gross square feet structure located on an approximately half-acre site in the Riverfront Research Park, directly north of the University of Oregon's main campus. The facility is a leading resource for breeding zebrafish for use in worldwide research and serves as a central repository for genetic research using the organism.

Lewis Center for Neuroimaging (2002)
The new facility, located in Straub Hall, accommodates a Siemans Allegra, 3-Tesla fMRI machine, which is designed to permit imaging of brain function and brain tissue to allow scientists to better correlate the brain's anatomy with human thought and behavior. This $4.5 million project included a 1,000 square foot addition and remodeling of 2,000 gross square feet of adjacent space.

Jordan Schnitzer Museum of Art Addition Renovation (2003)
The Schnitzer Museum of Art is the state of Oregon's premier academic art museum. Its collections in historic and contemporary works from China, Japan, Korea, and Southeast Asia, Northwest art, and its educational outreach programs serve the students and faculty on the UO campus as well as the Eugene community and the arts community throughout the Northwest. This $12.7 million project nearly doubled the previous size of this distinctive building, which was built in 1932, adding approximately 38,000 square feet and renovating virtually all of the existing building spaces.

Lillis Hall (2004)
Construction of the new 140,000 gross square feet Lillis Hall, with a project cost of $40 million, physically united the elements of the Lundquist College of Business and provided state-of-the-art teaching and support facilities for its students, the faculty and staff. The final design fosters interaction among students and faculty members as well as support teaching and learning in the classroom, in self-directed teams, and in internships.

- *Student Housing, Services, and Activities:*

EMU Food Service and Recreation Facilities Renovation (1998)
The remodel of portions of the basement and ground floors of the Erb Memorial Union building added approximately 3,000 square feet, revising and clarifying the corridors and circulation, and remodeling the recreation and dining areas to meet current students' needs and lifestyles.

Student Recreation Center (1999) and Student Tennis Center (2000)
The University of Oregon recognized the important role of a comprehensive recreation and fitness center in enhancing its students' educational experiences by expanding their recreational activity opportunities. An increase in student participation in recreational and fitness activities highlighted the fact that the university's existing facilities were outdated and inadequate to serve the recreation and fitness needs of the current student population. This $21.3 million project renovated and expanded Esslinger Hall and associated playing fields. New construction included indoor multipurpose courts, an indoor track, expanded weight and fitness facilities, a rock-climbing wall, and strength and fitness areas. Other improvements included new accessibility ramps and other minor repairs. Construction of the tennis center created a six-court enclosed tennis facility for instruction, recreation, and intercollegiate tennis users.

East Campus Graduate Village (2001)
This $4 million, 70-unit residence hall for graduate students is sited on 1.4 acres near the existing Bean Complex on the eastern edge of the campus. The residence hall is composed of two wood-framed structures, each 20,800 gross square feet, built around a shared open

space. The studio and one-bedroom apartment-style units are designed for single occupancy, each including a private bath and kitchen facilities.

Moss Street Children's Center (2004)
The university's child-care programs meet the needs of children by providing an environment in which they are encouraged to be actively involved in the learning process, to experience without limitations or biases a variety of developmentally appropriate activities and materials, and to pursue their own interests in the context of life in their communities and the world. The child-care programs are an integral component of the UO community, providing research, observation, and practicum experiences for faculty members and students from a variety of disciplines. This $3 million, 13,500-square-foot project serves approximately 120 children—infants through school-aged—of university students, faculty, and staff. The center has many sustainable aspects, including "daylighting" (strategically placing windows and reflective surfaces in a building to take advantage of natural light, thus reducing energy consumption) and ground-source heat pumps.

Many Nations Longhouse (2005)
Since 1974 Native American students and community members gathered in an old World War II–vintage barracks building to perform and celebrate cultural bonds. With $1.2 million in funding secured, the old longhouse was retired and construction began on the new Many Nations Longhouse on the same site, adjacent to the Museum of Natural and Cultural History. The structure is a remarkable example of the university's partnership with the nine federally recognized tribes of Oregon. It features a Great Room with huge beams and a fireplace, a large open kitchen, and ceremonial features.

Living-Learning Center (2006)
This unique $27 million project combines instructional spaces and a dining facility on the first floor with about 400 beds of student residence-hall housing on the upper floors, instructional space, associated lounges and support space, and a dining facility.

University Health and Counseling Center (expansion-remodel, 2006)
This $10 million project renovated almost all of the center's existing spaces (39,000 square feet) and built two additions of approximately 11,000 square feet. The completed project unifies the building into a coherently and appropriately designed, student-focused facility to provide primary care outpatient services, health education, and counseling and testing services.

- *Athletics:*

Ed Moshofsky Sports Center and Addition (1998, 2000)
A two-phase $16.6 million project created an indoor practice facility with team medical training and meeting rooms, classrooms, and commissary, a soccer field, and other practice fields for intercollegiate athletics near Autzen Stadium. The indoor practice areas are used by women's softball and soccer teams, men's and women's track and golf, and football; the outdoor natural grass practice and competition facilities provide playing fields for women's soccer and outdoor practice facilities for all teams.

Autzen Stadium Expansion (2001–4)
The stadium expansion design increased seating capacity, improved circulation and accessibility, and added restrooms, concession stands, and press facilities. The phased expansion and renovation project added 12,000 new seats, thirty-two new skyboxes, a three-story luxury suite, and improved existing concession

stands. These improvements produce more revenue, thus helping the athletic department to become completely self-funding. The site master plan addressed the needs for improved circulation, parking, transit capacity, accessibility, and pregame activity amenities.

- *Improvements Other Than Buildings:*

Heart of Campus Plaza (2004)
The Heart of Campus was the first phase of a larger initiative to improve the campus landscape along University Street. This long-planned project, which commemorated the University of Oregon's 125th anniversary, created a pedestrian-friendly, European-style plaza and a much needed face-lift for the area surrounding the intersection of East 13th Avenue and University Street.

Powell Plaza at Hayward Field (2005)
This $1.2 million, privately funded project created a welcoming arrival point for Hayward Field as well as enhancing a significant campus entrance. The plaza incorporates displays telling the story of Hayward Field and UO track-and-field programs. The north terrace includes a handicapped-accessible platform for wheelchairs and companion seats. The design provides for access to these display areas for casual weekday visitors as well as those attending events at the facility.

East 18th Avenue Tennis Courts and Renovated Playing Fields (2005–6)
Relocation of the tennis courts displaced by the Living-Learning Center project was the catalyst of a more ambitious $2 million project to improve the area of the Intramural Field along East 18th Avenue and the adjacent Hayward Field practice track. The improvements included six tennis courts, two sand-based grass playing fields for soccer, football,

and other sports, and a 400-meter warm-up and jogging track.

In progress. Looking ahead, the university has the following funded projects in various stages of planning and execution:

- *Research, Education, and General Facilities:*

Integrative Science Complex, Phase I (2007)
In 2003, a statewide nanoscience initiative resulted in a new entity called the Oregon Nanoscience and Microtechnologies Institute (ONAMI). Nanoscience and nanotechnology, the science of manipulating the tiniest units of matter, promise to revolutionize many areas within science and technology, from electronics to medicine, and Oregon's public and private sectors are well-positioned to be at the forefront of inventing new products and processes. The university received legislative funding that included $4.75 million of general bonds, $4.75 million of lottery bonds, and authorization to raise up to $9.5 million in donations, grants, and contracts for its on-campus component of ONAMI. The facility, which is largely underground, will provide approximately 27,000 gross square feet for nanotechnology laboratory, office, and support space. Construction began in summer 2006 with completion in 2007.

College of Education Additions and Alterations (2008)
The College of Education currently is experiencing growth both in research and in enrollment. Enrollment in fall 2006 reached nearly 1,500 students. Annual research and outreach funding is now at $24 million. As a result of the growth in students and research and of changing professional practices, the college has a near critical need for expanded

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space. The work as currently envisioned consists of a 100,000 gross-square-foot building of three to four stories surrounded by a series of campus spaces and courtyards, with parking below portions of the building and courtyards. Renovation of about 17,000 gross square feet was proposed as well. The project is anticipated to begin construction in spring 2007.

School of Music and Dance Additions and Alterations (2008)
This project is intended to meet the immediate needs of the School of Music and Dance for teaching, practice, rehearsal, recording, faculty studios, offices, and administration, as well as allowing for efficient future additions to the building. The $17.2 million project will renovate 15,000 gross square feet and add 29,000 gross square feet of new construction. Construction is anticipated to begin in March 2007 with completion in 2008.

Miller Theatre Expansion (2008)
The proposed $7.9 million project will expand and remodel the current facilities to create an integrated complex of three theaters with lobbies, shops, studios, and other teaching spaces needed to teach theater arts. Construction is anticipated to begin in Summer 2007 with completion in 2008.

Alumni Center (2010)
This $21.2 million project, authorized by the 2003 legislature, is in the conceptual-design phase to identify design options. As currently envisioned, the facility will provide multipurpose facilities for alumni, students, faculty, staff, and the community at large.

• *Student Housing, Services, and Activities:*

EMU International Area Renovation (2007)
The University of Oregon enjoys a continuously expanding reputation in the U.S. and abroad. More than 1,100 international students from eighty-one countries are enrolled, and more than 15 percent of university students study abroad during their time at Oregon. This pursuit of internationalization is illustrated further by the university's hosting of nearly 200 international faculty members and scholars. This $1.4 million project will renovate 3,600 square feet in the student union to allow use by twice as many international student groups as are accommodated now and will eliminate HVAC and infrastructure problems.

Proposed to the OUS. Every other year the university revisits priorities for its future facilities needs. The vice presidents select those projects that (a) are most likely to receive funding from the state, (b) will be funded entirely by gifts or grants, or (c) will be funded by fees. These are then forwarded for consideration by the Oregon University System and eventually the Oregon State Legislature. The current list of projects for the 2007–9 biennium is as follows:

• *Research, Education, and General Facilities:*

Condon Hall Additions and Alterations
This $6.9 million expansion project will provide critical teaching and research space in the anthropology and geography departments. The addition will improve internal interaction among scholars, address the space shortages for graduate students in both fields, and allow for expanded instruction in sophisticated high technology.

Gilbert Hall Addition and Alterations, Phase III
This $11.6 million project will achieve a complete architectural remodel of the historic Gilbert Hall and Peterson Hall buildings, including structural modifications for seismic safety, infrastructure, lighting, and acoustics.

Integrative Science Complex, Phase II
The proposed $60 million Phase II project will build a five-story, 100,000 gross-square-foot science building that will enhance interdisciplinary teaching and research in support of initiatives in the biosciences, neurosciences, learning and behavioral science, and computational sciences. The complex will expand and integrate high-technology facilities available for collaborative research. It will provide critical space needed to promote the further expansion of the Brain, Biology, and Machine Initiative, which is receiving major support from federal and private funding sources.

Museum of Natural and Cultural History Collections Facility
The proposed $2.5 million Collections Storage Facility and Research Laboratory project will allow improved access to research materials by faculty, researchers, and anthropology department graduate and undergraduate students through expansion and renovation of the museum's field and laboratory instruction space. It will create space to house the expanding archaeological materials, as mandated by state and federal law. The museum provides research and curatorial support to the Oregon Department of Transportation and other agencies, including the U.S. Bureau of Land Management, U.S. Forest Service, and U.S. Army Corps of Engineers.

- *Fee-based Auxiliary Projects (Projects for Programs That Generate Fees):*

Riverfront Research Park Multitenant Building
Through the growth of endeavors in the biosciences, increasing need for laboratory space that can accommodate both the university and private companies is forecast. This $19.25 million project will construct specialized lab space not currently available in the local market; it will also provide an opportunity for bringing together strong research programs currently in leased facilities.

Riverfront Research Park Building Purchase
This $14.37 million project will purchase a high-quality, energy-efficient, 60,000 gross-square-foot, three-story building located in the Riverfront Research Park. The university owns the land and leases space in the privately owned building. Purchase will provide ownership and control of a major real-estate asset that houses strong research programs.

New Student Housing
The present housing stock is difficult to maintain and market because of room size and aging infrastructure. This $40 million auxiliary-funded project will provide residential facilities competitive with other campuses, supporting recruitment of a student population that prefers to live on campus in a living-learning environment.

Food Service Upgrade
This $2 million project will update food preparation areas and dining venues, enabling the Office of University Housing to successfully support other UO residential campus programs and remain competitive in the food services area with other Pac-10 universities.

Residence Hall Renewal
This project would establish a $2 million fund to address serious and unexpected problems in the present residence-hall stock in a manner that allows continued basic services for occupancy and enhanced safety for the occupants.

Residence Hall Renewal for Marketability
Aging buildings with a large number of small rooms hamper UO recruitment and retention. This $2 million project would allow university housing to identify numerous prototypes for marketability.

Other projects. Student building-fee projects under $500,000 do not require legislative authorization. For 2007–9, planned projects of this type include the following:

EMU Program Facilities Upgrade
This project will remedy inadequacies in space dedicated to a number of student programs including the Outdoor Program ($405,000), the Club Sports office ($185,000), and the Craft Center ($160,000).

Gerlinger Annex Gymnasium Improvements ($466,000)
Two small gymnasiums will be upgraded to make them more functional for program needs and less prone to cause participant injuries.

Student Recreation Center Accessible Shower and Changing Room Renovation ($101,000)
This project will construct two multigender shower and changing rooms that will provide privacy to individuals in need of assistance by aides of either gender.

University Health and Counseling Center South Entrance Addition ($170,000)
This project will construct a one-story entry atrium at the new south entry to the center; it will clearly identify the entrance and provide protection from the weather and a space where students can pause to orient themselves before entering the main building.

A.1.d. Issues in Campus Facilities

Several issues have surfaced over the last decade of campus development that deserve special note.

Funding sources and priorities. Fee-based funded projects aside, the funding mechanism for projects of the last decade include a heavy dependence on gifts and grant funding. In almost every case, the only state dollars supplied for construction had to be matched dollar for dollar by gifts or grants. The university has been successful at raising private dollars for building projects at unprecedented levels, and the current building boom is a direct outcome of this fundraising success. Of the twenty-four capital projects (over $500,000) listed above, gifts paid 52 percent of the total project cost, while state G-bonds paid 12 percent.

The goal of the university's fundraising campaign, Campaign Oregon: Transforming Lives, is to raise $600 million in private gifts by 2008. Of the current $410.8 million raised, $129.8 million have been used for equipment and buildings. Among the construction projects the campaign has contributed to or will contribute to are as follows:

Allen Hall renovations
Alumni Center
Autzen Stadium expansion
College of Education additions and alterations
Condon Hall additions and alterations
Gilbert Hall expansion and alterations
Heart of Campus Plaza
Integrative Science Complex
Jordan Schnitzer Museum of Art additions and alterations
Many Nations Longhouse

Miller Theatre expansion
Museum of Natural and Cultural History collections facility
Powell Plaza at Hayward Field
School of Music and Dance additions and alterations

The particular challenge of this funding model lies in the state's inability to fund projects unless those projects have a gift match. As a consequence, projects that do not have a strong donor base or that have no donor base at all are not being advanced on the priority list because they will not qualify for a state match. The result is facilities needs, particularly in the humanities or soft sciences, and those in the administrative areas are going without funding. Unless the state begins to fund these needs or the donor pool is expanded to include these needs, this will prove to be problematic. A similar problem exists relating to infrastructure improvements such as central heating and cooling systems.

Deferred maintenance. The university, like many other campuses, faces an overwhelming backlog of deferred maintenance items, most recently projected at $163 million. Funds for deferred maintenance are authorized by project, and for the 2005–7 biennium the University of Oregon was allocated $13.2 million for maintenance on the central energy plan. Of the 2005 legislature's systemwide authorization of $23.5 million for current capital repair, the University of Oregon was allocated $6.5 million. At this rate of funding the university is not keeping up; this in turn magnifies the problem as the longer the needs go unaddressed, the more expensive they become to fix.

Operating costs. With the construction of new buildings comes the added annual cost of operations and maintenance. Current cost allocation models assign resources to each university in relationship to the credit hours each generates. Conceptually this creates a disconnect between the cost of operations

when buildings are added or expanded but enrollment is not increased and resource allocations. As an example, the expansion of a museum is not likely to generate additional enrollment revenues and therefore no additional resources are assigned to the campus to fund its operations. The same is true for a building project that expands an existing building to bring it up to current standards but does not result in increased enrollment.

Transportation. This issue links the need for resources outside of the current model (transportation systems are expensive; who is going to donate money to fund them?) with the previously mentioned dilemma the campus faces: competing needs for land for more parking, for new buildings, and for open spaces. The overriding concern in this case should be whether increasing the parking pool actually addresses the problem or creates new ones. Regardless of the solution, solving the transportation puzzle is directly linked to implementing many of the identified needs of the campus. Our current practice of following the least-cost solution is leading the campus to decisions that threaten the best long-term interests of the university.

A. 2. CAMPUS SAFETY AND STUDENT HEALTH

Sustaining the University of Oregon's quality requires attention and resources from many departments working to ensure that our campus is a safe place and that student and staff health is both promoted and protected. Indeed, for purposes of this self-study, the university has chosen a specific focus on the safety activities that ensure the sustainability of our facilities and, much more important, of the human capital we assemble.

This discussion of safety draws from several units of the university; the breadth of involvement is noted in the paragraph to come on emergency preparedness. The dis-

Box A1. Additional Information on Student Services and Support

For an understanding of the comprehensive programming provided in our student affairs division, please visit our website.[252] For more specific descriptions of individual services, visit the following websites:

Office of University Housing[253]
Office of Student Financial Aid and Scholarships[254]
Physical Activity and Recreation Services[255]
Office of Student Life[256]
University Health Center[257]

(Additional programs that are often categorized as student services, such as the Office of Admissions,[258] Career Center,[259] the Center for Academic Learning Services,[260] the Office of Academic Advising, the Office of the Registrar,[261] and International Student and Scholar Services[262], are discussed in other parts of the self-study.)

cussion of the safety and well-being of our students, faculty, and staff, does not, however, provide an overview of the programming and support services provided by Student Affairs and other administrative units. It does, however, exemplify the breadth and depth of each of these programs.

As UO administrators developed, from the ground up, a list of the key issues facing the university and our capacity to meet our robust institutional mission, the issues of safety and emergency preparedness were

among them. This next section addresses this set of issues.

A.2.a. Emergency Preparedness

Universities today are confronted with challenges to the safety of students, faculty, and staff that are unparalleled in our history. International political events can and do play out on our college campuses. Nearby natural disasters place the dual responsibility for protecting our community and providing critical support and expertise to agencies responsible for city, county, and statewide safety.

More than 20,000 students are enrolled in classes and 4,000 staff and faculty members are employed at the University of Oregon. The main campus consists of more than one hundred buildings situated on nearly 300 acres. Special facilities include residence halls that provide living space for more than 3,000 students, classrooms, studios, science laboratories, a health center, swimming pools, playing fields, stadiums, and large indoor and outdoor gathering spaces. Units with elevated responsibility for campus safety include the Office of Environmental Health and Safety, the Department of Public Safety, the University Health Center, the Counseling and Testing Center, the Office of Student Life, and Human Resources. These offices work together to assess possible health and safety issues, create policies and protocols to address challenges to campus safety, and implement comprehensive student and staff education and prevention programs.

When examining the university's emergency preparedness, it is useful to distinguish between major campuswide emergencies and expected or routine emergencies. Major emergencies are by far the more consequential and rare and may be described as incidents that threaten campus activities on a massive scale, or bring immediate or projected threat to the health and safety of

students and staff members. Examples are significant fires, large-scale natural disasters, major campus infrastructure failures, instances of extreme violent behavior, and outbreaks of pandemic disease. Expected or routine emergencies are locally disruptive in nature, have a less severe impact on the campus, and constitute challenges routine or generally anticipated on a major university campus. Examples include theft, personal medical emergencies, disruptive behavior or conflicts among individuals, crowd management, alcohol and drug abuse, and sexual assault.

Integral to the university's effective response to major campus emergency and safety issues is the Emergency Operations Team. Established in 1996, the team is charged with refining existing campus emergency procedures and identifying risk areas that lack adequate response protocols and campus-community coordination. The Emergency Operations Team membership broadly represents campus response entities.

Recent emergency planning achievements include development of protocol for rapid establishment of an Emergency Operations Center during a major incident or crisis requiring a campuswide response. When functioning during a major campus or community emergency, the center will provide coordination for campus emergency operations, communications, assessment and use of facilities, shelter and food coordination, human resource support, and fiscal management.

A comprehensive manual on emergency operations for Oregon has been developed to provide operational guidance to coordinating staff members during a crisis or disaster. The focus of the manual is fourfold: 1) how to train for a disaster; 2) how to mitigate damage of a disaster; 3) emergency operations during a disaster; and 4) how to recover quickly from a disaster.[263] Subsections of the manual detail individual department

responsibility in emergencies. The complexity of campus endeavors and our changing understanding of health and safety risks require that the operations manual continually evolve. Each section of the manual is written to be broadly inclusive of varying levels or manifestations of a crisis. Scenarios are global in nature, local in impact, and require campus resource coordination and care for students and staff. The current manual is the thirty-third edition. An emergency procedure flip chart (a user-friendly synthesis of the Oregon Emergency Operations Manual for campus staff members who do not have assigned coordination responsibility) is distributed to campus administrators and departments.

Recent sections added to the manual include a campus plan for inclement weather and for emergency evacuation. An appendix on communicable disease, including protocol for pandemic disease, is near completion and will be added to the manual.

The University of Oregon strives to be, when possible, a partner in broad-scale emergency trainings with the city, county, and state agencies. The U.S. Olympic team trials for track and field, to be held on the UO campus in 2008, provides a unique opportunity to coordinate emergency crisis response planning efforts. More study and discussion is needed to create relationships and procedures for the operation of a unified command center that will work seamlessly with city, county, and state emergency response teams.

Incorporating prevention strategy is an important element of the university's emergency preparedness plan. Recent incidents in which students and staff members have tested positive for tuberculosis, mumps, and meningitis have necessitated rethinking strategies to protect the campus and community. These incidents and our emphasis on preparation for major campus health emergencies have brought focus to the Uni-

versity Health Center's role as public health agent for the UO community. Health center staff members were designated the primary university liaison with Lane County health officials. UO medical staff members have taken leadership for preparing and distributing assessment and treatment information to students and staff, and represent the administration to media on inquiries as appropriate.

As an illustration, it is useful to consider vaccination for preventable disease. The U.S. Center for Disease Control now recommends vaccination for mumps, rubella, and measles. Current UO admission policy requires only vaccination for measles. To address this concern and further guard against preventable disease outbreak on campus, the health center staff has begun work to change the admission policy. Proposed new rules will add vaccination or proof of immunity for mumps, rubella, and chicken pox as a requirement for admission. A change in admission policy requires revision to governing Oregon Administrative Rules (OAR).

At the community-regional level, the University of Oregon is a member of the Lane County Mental Health Disaster Response Alliance. The alliance's charge is to plan for mental health emergencies or disasters that affect communities in Lane County. Participating organizations are the American Red Cross, Sacred Heart Medical Center, Direction Service Counseling Center, Lane Education Service District, Springfield and Eugene school districts, Lane County Mental Health Services, and the University of Oregon. The organization formed in the aftermath of shooting deaths that occurred at neighbor city Springfield's Thurston High School. The University of Oregon participates as a community within the larger community, and as a counseling resource for large-scale emergencies. A staff member from the Office of Student Life sits on the team, and two psychologists from the UO Counseling

and Testing Center are trained to assist with mental health crises in Lane County.

Rapid communication is often critical in campuswide emergencies, especially on matters receiving media attention. While a number of mechanisms exist to share emergency information with students and staff, rapid communication with parents is often difficult, especially those living out of the region without benefit of local media. The UO Parents Association, coordinated by the Office of Student Life, facilitates general communication with parents of students, and maintains an up-to-date electronic mailing list of parents. Used as an emergency communication system, it provides a vehicle for rapid communication with thousands of parents regarding health and safety issues of concern to our students. Possible emergency communications might include information about infectious disease, natural disasters, or campus and community emergencies; the system also provides in-depth information on the university's efforts to protect students and give updates on issues covered in the local media.

A.2.b. Campus Safety

Committee oversight for campus safety. Two standing university committees are noteworthy to a discussion of campus safety. The Safety Advisory Committee and the Environmental Issues Committee each has overarching authority for review of campus health and safety issues.

In compliance with OAR 437-001-0765, the Safety Advisory Committee assists university administration officers in providing a safe and healthy workplace for the faculty, staff, and student employees by making recommendations on health and safety issues. Though many departments have staff or departmental safety committees, the Safety Advisory Committee serves as the primary UO safety committee for regulatory purposes.

The Safety Advisory Committee evaluates university policies and rules affecting campus health and safety and makes recommendations for change or adoption of new policy. Committee members maintain a system to obtain information directly from employees, and also conduct quarterly workplace inspections to identify hazards and make recommendations for correction.

The Environmental Issues Committee investigates and makes recommendations on environmental issues that affect the quality of life, safety, and health of the university community as well as those issues about which the university should act as an educational resource.

Both the Safety Advisory Committee and the Environmental Issues Committee are appointed by the university president and make recommendations directly to the vice president for finance and administration. Additionally, the Environmental Issues Committee chair prepares a written annual report submitted to the secretary of the University Senate.[264] Both committees have constituent-based memberships and ex officio members from the Office of Environmental Health and Safety, the Office of University Housing, Human Resources, the Erb Memorial Union, and Facilities Services.

Two examples serve to illustrate the importance of these committees to campus safety and environmental issues:

Following an accident in 2001 in which a student received severe injuries when his hand penetrated wire-glass, the campus Safety Advisory Committee recommended replacing wireglass in all campus buildings. This led to an ambitious safety prevention effort to replace or coat wireglass with other types of approved safety glass materials. Today, with more than $40,000 from Facilities Services, 80 percent of all wire-glass has been replaced in nonauxiliary buildings. Auxiliary buildings similarly are replacing wire-glass using departmental funds.

Concern for the safety of students and staff members working in art department studios resulted in a Safety Advisory Committee review. The committee recommended that University Administration take steps to mitigate safety concerns regarding studio electrical wiring that supported aggressive electrical tool and machinery use as well as the high levels of airborne dust and wood silica. Over the past eight years, more than $150,000 has been dedicated to upgrading studio wiring and installing high-quality dust collection systems.

One indicator of the successful effort by environmental health and safety staff, oversight committees, and other departmental staff to prevent injury and maintain a healthy work force is charted below. This graph shows University of Oregon workers compensation claims decreased significantly between 1994–95 to 2004–5. Medical leave is indicated by "MO"; time loss by "TL."

Figure A.2. UO Workers Compensation Claims
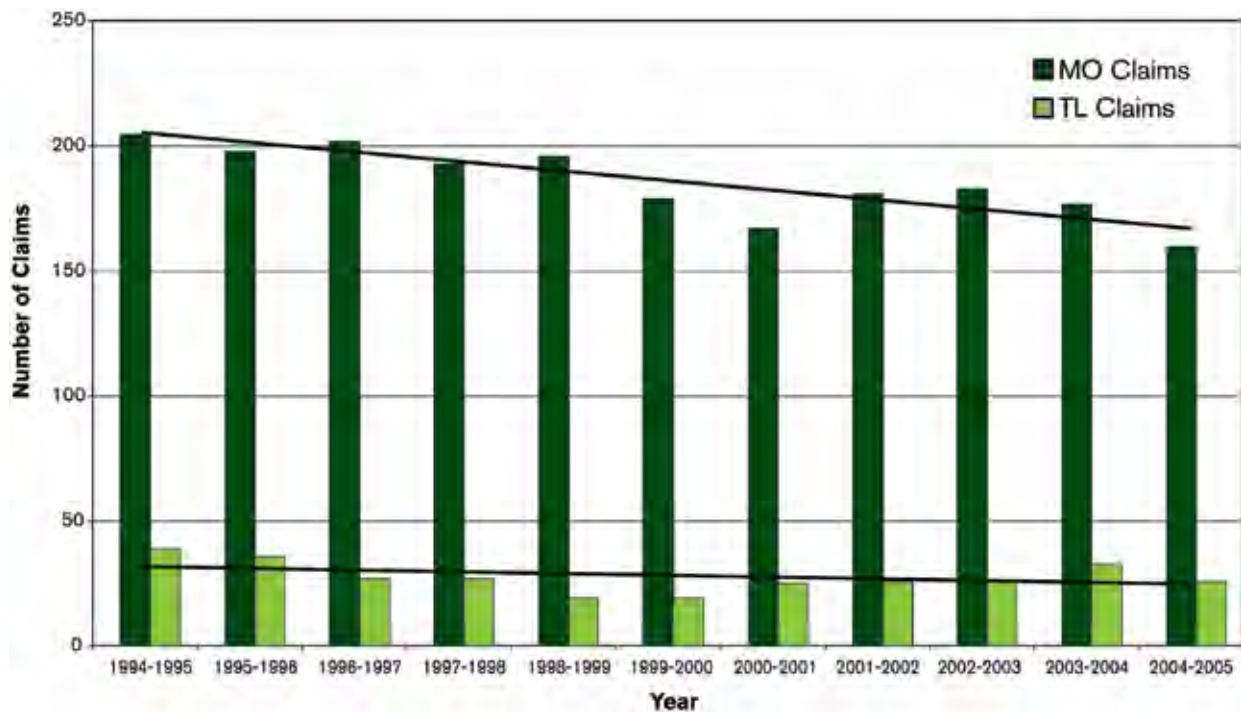
Source: University of Oregon Office of Environmental Health and Safety

Fire safety. The Office of Environmental Health and Safety (EHS) primarily oversees the University of Oregon's comprehensive annual fire safety prevention program. A critical focus of this effort is directed toward fire safety practices in university residence halls. Each year EHS staff members inspect every residence hall room for safety issues. Resident assistants receive special fire safety training including the use of fire extinguishers. Unannounced fire alarm tests are conducted monthly in each residence hall. All university-owned residences rented to students, graduate housing, and apartment complexes are inspected for fire safety annually. The Office of Environmental Health and Safety has initiated staffing of the UO McArthur Court arena by providing an on-duty fire specialist for all events at which expected attendance will be exceed 3,000 attendees.

Fire safety in university-affiliated Greek living organizations is a priority for the university. To maintain affiliation with the university, Greek organizations must confirm compliance with Greek Endorsement Standards[265] established by President Frohnmayer in fall 2002. Among these standards[266] are proscribed fire safety practices. Each Greek house must send two chapter officers, the chapter risk management officer and the house manager, to an annual, daylong Interfraternity and Panhellenic Council–sponsored Fire Prevention Academy. Each Greek living organization must conduct and document one fire drill each term. Effective fall 2005, all Greek chapter facilities are required to have fire-sprinkler suppression systems installed. Annual fire-safety inspections are conducted by a licensed fire inspector, and failure to correct noted code violations will jeopardize affiliation status. These required fire-safety practices and facility enhancements elevate fire-safety management to the highest levels found in the city of Eugene.

Safe use of motor pool vehicles. Safe use of state motor pool and university-owned

vehicles receives special attention from EHS staff members. Thousands of vehicle trips by university staff members and students occur annually. Staffers or students who wish to use a state motor vehicle van, a common vehicle of choice for departments and student organizations, must participate in a two-hour van driver training session. Van driver training is coordinated through EHS, with trainers located strategically in schools and departments with high vehicle use. Van driver training includes a video, presentation, and individual practice driving and parking vans.

Special transportation programs. Two specialized safety transportation programs are sponsored by the Associated Students of the University of Oregon (ASUO). The Designated Driver Shuttle provides free rides home to students who have been drinking at local bars within a defined radius of campus. The program operates seven days a week until 3:00 a.m. and serves, on average, 300 students per night. To prevent students from using the shuttle to bar-hop, rides are provided to home residences only. The Assault Prevention Service, coordinated from the ASUO Women's Center, provides free transportation seven days a week during evenings to students who are concerned about safe traveling after dark.

Campus medical emergencies may require immediate ambulance transportation to Sacred Heart Hospital. In many instances when a student or staff member has been determined to be medically stable, an alternative to expensive ambulance transport has recently been established. The Department of Public Safety has contracted with Medical Express Service. The service will transport individuals to the University Health Center or Sacred Heart Medical Center at no charge.

Campus safety and response. A wide range of notable systems and strategies are employed to address expected or routine emergencies.

As example, the UO Department of Public Safety (DPS) has a direct phone link with the Lane County Disaster Communications Center, allowing rapid response to campus emergencies. DPS has a centralized dispatch and monitoring system that operates twenty-four hours a day, 365 days a year. A direct emergency phone line connects callers with DPS dispatch. University-employed DPS officers are on duty and on patrol round-the-clock.

Oregon Revised Statute 352.385, Section 2, requires that the state Department of Public Safety Standards and Training provide training for Oregon University System campus public safety officers. UO public safety officer job descriptions require that officers successfully complete the safety standards five-week training before commissioning. Commissioned officers carry authority equal to a peace officer. The Department of Public Safety uniformed officer services are augmented through a contract with the City of Eugene Police Department. This contract secures assignment of four full-time Eugene police officers to campus duty throughout the week.

The University is a residential campus housing more than 3,000 students in traditional residence halls on campus. To ensure that our residence halls are safe places for students to reside, university housing and the Department of Public Safety have collaborated to create a special policing effort. Each residence hall is assigned a DPS officer who meets residents in hall meetings and shares safety information. These officers develop positive relationships with students that facilitate constructive interaction about student safety concerns or safety issues discovered during routine patrol of the halls. The program has been characterized as a residence hall version of community policing.

Students are enlisted as well to assist the Department of Public Safety with campus

security concerns. The Student Patrol Service employs students to patrol the exterior of campus buildings including the residence halls. Student patrols are added "eyes and ears" for campus safety. Their function is limited to reporting disruptive behavior and safety issues to a DPS dispatch officer for response coordination. The student patrol operates seven nights a week during the academic year.

The Office of Student Life operates both drop-in counselor-resource staffing during university business hours and round-the-clock on-duty staff access by pager. The after-hours pager staff person plays an important role by catching emergencies early, beginning the process of campus incident coordination and delivery of support and resources to students.

The Department of Public Safety's dispatch operation and the Office of Student Life pager and drop-in staffing services complement each other while serving different functions on a continuum of response and care. The former provides immediate emergency service response and intervention coordination, the latter begins direct personal contact and follow-up. While a campus public safety dispatch is standard at major universities, after-hour counselor pager support is exceptional, replicating at the University of Oregon a level of personal support for student and families normally found only at very small private institutions.

A weekly debriefing group assembles to review a broad range of campus safety and event-related issues. Composed of representatives from the president's office, student affairs departments, facilities, athletics, the Department of Public Safety, and the Eugene Police Department, information is shared and problems identified to be addressed as follow-up issues outside the weekly meeting. Debriefing serves as a weekly assessment of campus climate, helping keep managers broadly informed.

Campus incidents involving crimes and disruptive behavior have increased in recent years. Dispatch officers for the Department of Public Safety receive approximately 35,000 calls annually for assistance by phone or to report fires. Approximately 3,200 calls involve criminal matters such as theft, suspicious persons or behavior, and conflicts between individuals. Approximately 1,500 calls are for emergency alarms, fires, environmental concerns, and calls for medical assistance. In compliance with federal law (the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act), the Department of Public Safety prepares an annual report on campus safety programs and services, publishing crime statistics in annual printed publication and posting them as a link on their website. The report shows that University of Oregon criminal-case statistics are consistently lower than the surrounding communities and neighborhoods.[267]

A.2.c. Mental Health

Among the most challenging issues for campus health and safety managers is responding to students with mental health challenges or extreme and disruptive behavior. College campuses are experiencing dramatic increases in the number and complexity of student mental health concerns. The cause for this increase is difficult to pinpoint but likely includes increased environmental stress, students who ignore prescribed medications, and the absence of available institutional care. Most troubling is the increase in incidents involving extreme levels of violence. Responding to the rising number of individuals requiring mental health assistance and the resulting disruption and alarm to the larger community is enormously time consuming. Campus personnel resources are challenged to meet the rising call for help. Efforts to provide outreach to faculty and staff members to share strategies and resources available to assist them with troubled or disruptive

students has been well received and has resulted in increased student referrals and requests for help.

In extreme cases involving students who are not able to meet the university's standards of responsibility and self-care, the dean of students will assemble a crisis management team of professionals to determine the most effective intervention strategy. The university's Student Medical Leave Policy, OAR-571-023-0000, identifies the steps required to initiate student medical leave for health reasons.

The University of Oregon offers assistance to employees for a wide range of personal and emotional problems. The university contracts with Cascade Centers Inc. to provide confidential assessment, counseling, and referral for UO employees needing assistance with their personal problems. The program is available at no cost to eligible employees with information available at the Office of Human Resources.[268]

Students and the faculty and staff are eligible to receive high-quality mediation and facilitation services free through Conflict Resolution Services. Trained mediators work with individuals and groups experiencing conflict in academic, personal, residential, workplace, extracurricular, and other settings. Conflict Resolution Services also offers workshops focusing on communication, conflict resolution, and mediation.

Students or staff members who believe they are victims or targets of bias can receive support from the Bias Response Team. The role of the Bias Response Team is to gather information about bias incidents and support those who have witnessed bias or been the target of bias. The Bias Response Team provides individuals a safe space to have their voices heard, to promote civility and respect, to effect change in a quick and effective manner, and to ensure a comprehensive response to bias incidents. The re-

sponse team can help introduce individuals to campus and community resources.

As an institution, the University of Oregon is committed to fostering a positive and respectful working and learning environment for all. Its policies regarding prohibited discrimination are regularly communicated throughout the university community. To ensure that behaviors that may be at odds with policy expectations are appropriately addressed, the university has provided a number of avenues for redress. Those include formal complaint mechanisms through the Office of Affirmative Action and Equal Opportunity,[269] Human Resources,[270] the Office of Student Conduct and Community Standards,[271] employee unions, and the Department of Public Safety[272] as well as informal complaint through the Office of Institutional Equity and Diversity,[273] the Bias Response Team, the Office of Student Life,[274] the Office of University Housing,[275] and others. Having multiple avenues through which to raise concerns helps ensure that individuals with concerns can report them in a way that feels safe. Units to which concerns are brought work together to ensure appropriate institutional response and support for individuals who have been adversely affected.

A.2.d. Prevention

Alcohol and drug abuse. Substance abuse among college students presents one of the most troubling and pervasive health and behavioral issues facing campus administrators today. We know that alcohol is linked to property damage and is present in most sexual assaults. Alcohol and drug abuse incidents clog our campus judicial system and strain relations with local enforcement agencies and residents of surrounding neighborhoods. In 2002, Ralph Hingson wrote in the *Journal of Studies on Alcohol* that alcohol abuse is the number-one cause of death for students eighteen to twenty-four years old.

The UO Substance Abuse Prevention Team, with staffing and leadership provided by the Office of Student Life,[276] serves as a University of Oregon clearinghouse for substance-abuse prevention ideas and strategies. The team is charged with developing an overall vision and plan for campus prevention efforts. It monitors and reviews campus prevention efforts and uses their influence to gain support for policies and strategies. The Substance Abuse Prevention Team convenes on a monthly basis and chronicles campus prevention efforts in an annual report, and in federally required biennial reviews of substance abuse prevention activities in compliance with the Safe and Drug-Free Schools Act of 1990.[277]

The University of Oregon strives to take a comprehensive environmental approach to alcohol and other drug-abuse prevention. Prevention efforts may be divided into the following categories: 1) coalition work; 2) policy work; 3) educational outreach efforts; 4) treatment for problem users; 5) late-night activities programming; 6) orientation programming; and 7) involvement of parents in prevention efforts. The success of the university's effort relies on integration of these prevention components into the work of many departments and student programs. The 2004–5 Alcohol and Other Drug Prevention Program annual report[278] documents hundreds of events, presentations, and trainings reaching thousands of UO students. The effort utilizes a variety of publications targeted to different audiences. One example, "Moving Off Campus" is the result of recommendations coming from the joint City of Eugene–University of Oregon task force on the west university neighborhood. The publication, which is distributed door to door by student volunteers, encourages students to know their rights and responsibilities and to practice safe party management. In addition, it offers tips for communicating with police.

Prevention work at the University of Oregon is further supported and sustained by two additional coalitions. The Campus Community Relations Task Force is a town-campus coalition that meets quarterly and focuses primarily on preventing out-of-control parties in neighborhoods in close proximity to the university. The Oregon College and Community Coalition is a group composed of representatives from state agencies including the governor's office (Task Force to Reduce Underage Drinking), the Oregon Liquor Control Commission, the Oregon Office of Alcohol and Drug Abuse Programs, and public and private universities and colleges throughout the state.

Laura Blake Jones, associate dean of students and director of the Office of Student Life, reported the following findings regarding UO prevention efforts in her June 2004 dissertation:

> "The University of Oregon has been utilizing a comprehensive environmental management approach to substance-abuse prevention and was recognized for the breadth and effectiveness of these efforts in 1996 when the University of Oregon was selected as one of the top four prevention programs in the country by the United States Department of Education."

Evidence of the abuse of alcohol and illegal drugs by UO students is available primarily through incident reports forwarded to the university from the Eugene Police Department (EPD), the UO Department of Public Safety, and UO residence hall staff. All reports of use of alcohol or illegal drugs that violate the university Student Conduct Code are forwarded to the director of judicial affairs for review and possible action. During 2005–6, 903 students were found responsible for alcohol possession, 596 students were found responsible for alcohol consumption, and 348 were found responsible for drug possession.[279] Of particular

Box A2: UO Awarded U.S. Department of Education – Safe and Drug-Free Schools and Communities Grant (Amount $236,000)

The New View 2000 project implemented by the University of Oregon was a multi-pronged effort based on social norms theory and environmental management techniques. Beginning at recruitment and extending throughout the students' first year, the project aimed to adjust students' perceptions of campus norms to reflect those that reinforce and enhance a safe and healthy social and learning environment at the university.

A social norms marketing campaign was developed which consisted of messages aimed at correcting students' misperceptions about the alcohol consumption of their peers. Environmental strategies included increasing the number of alcohol-free late night activities available to students. Policies and campus procedures were modified to better address the consequences of alcohol violations on campus throughout the community. In addition, outreach efforts were conducted with offices and departments providing services to first-year students.

Project goals included the following: 1) reduction in binge-drinking rates and 2) reduction in violent behaviors and other harmful health and social consequences related to alcohol use by first-year students during the academic year 1999–2000. Objectives for accomplishing these goals included increasing the accuracy of student perceptions of their peers' alcohol use, decreasing student perception that the social atmosphere on campus promotes alcohol use, and increasing student perception of the enforcement of alcohol policies on campus.

concern is the apparent normalization of binge drinking by students, with underage students representing a majority of reported violations. Reported incidents of extreme intoxication requiring medical intervention has also increased dramatically in recent years.

The university's Substance Abuse Prevention Program, offered through Continuing Education, is recognized for its efforts to increase awareness in the areas of alcohol and other drug prevention, intervention, treatment, and recovery. In 2000, the program became a national training center for Beginning Underage Successes through Educational Diversion (BUSTED). This diversion project aims at decreasing underage drinking behavior by increasing awareness of alcohol risk factors. In 2005–6, the Office of Judicial Affairs referred 217 students into BUSTED seminars as part of sanction for misuse of alcohol.

Suicide prevention. Suicide among students on American campuses continues to rise and is the number-two cause of death among college students. The UO Counseling and Testing Center, an American Psychological Association–accredited postdoctorate internship site, has made suicide prevention a focus for new initiatives. Counseling intake interviews include questions about suicide ideation, providing psychologists with important information when beginning client relationships. In spring 2005 Suicide Prevention Week was established, making workshops, trainings, and information resources available for students and staff members. Counseling staffers meet with new students and parents in orientation sessions, and with students who live in Greek

living organizations and residence halls, to discuss suicide as a mental health issue for college students.

In an effort to develop new campus strategies to address college student suicide, the Oregon University System Suicide Prevention Project was created. A consortium of the eight Oregon public colleges and universities made application and received a Department of Health and Human Services Campus Suicide Prevention Grant. Robin Holmes, Interim Dean of Students and Director of the UO Counseling and Testing Center, acts as principal investigator for the grant. The money-match grant provides $75,000 for 2005–7.

Each consortium school selects "gatekeeper" staffers who are trained to serve as suicide prevention trainers. Each trainer sponsors several departmental trainings annually. Through this mechanism an expanded staff on each campus is trained to recognize and begin intervention for students who may be at risk for suicide. At Oregon, twenty gatekeeper staffers from both academic and administrative units provided eighteen trainings, reaching more than 300 faculty and staff members in 2004–5.[280]

Sexual assault prevention. The University of Oregon is committed to reducing and preventing occurrences of unwanted sexual behaviors on campus and in the larger campus community. A number of campus departments and programs provide services to assist, support, and refer students with medical, legal, and academic concerns associated with sexual assault, dating violence, domestic violence, and stalking. Leading these campus efforts is the Alliance for Sexual Assault Prevention. The alliance consists of departments and organizations from campus and the City of Eugene who join in a coordinated community response to mitigate sexual violence.

The guiding principles of the Alliance for Sexual Assault Prevention are as follows: 1) To develop education and prevention strategies to broaden the awareness of the rape culture and to decrease the incidence of sexual assault harassment, relationship violence, and other forms of unwanted sexual behavior on the UO campus; 2) to provide a networking system for alliance members to work effectively with each other on campus and for coordination with other colleges and universities; 3) to work to create a safer campus environment through participating in policy development, advocacy, and lobbying efforts; 4) to serve as a referral source to support and counseling services for sexual assault survivors and concerned others; 5) to encourage active involvement in prevention efforts by UO students and faculty, staff, and community members.[281]

In 2002 the Alliance for Sexual Assault Prevention received a Department of Justice grant for $189,000 to strengthen violence against women prevention programs on campus. In 2004 the grant was renewed for an additional $299,000. The alliance's goals for the extended grant were twofold: 1) Strengthen the peer education internship program and develop new ways for peer educators to deliver sexual assault prevention programs, and 2) enhance community engagement, targeting students at risk and historically underrepresented communities. The focus of the grant is community engagement, but not prescriptive involvement or outcomes. Alliance members and peer educators work with student groups and constituencies, querying them about prevention efforts that suit them.

An especially well-received program is the Sexual Wellness Assault Team (SWAT). Peer educators comprise the membership of the team. SWAT employs the technique of peer theater to explore sexual assault prevention issues. For 2004–5, the team made twenty-three presentations to more than 500 individuals, including presentations to more

than 3,000 new students and parents in summer IntroDUCKtion programs.[282]

University Health Center nurse practitioners are now certified Sexual Assault Nurse Examiners (SANE). Nurse practitioners located in the health center provide a range of services to students who have been assaulted. Before SANE certification, health center staffers referred students who were sexually assaulted and wished to press charges to the Sacred Heart Medical Center emergency room. Nurse practitioners can now engage students directly and develop rapport, and are certified to collect assault evidence and arrange for its pickup.

Tobacco use. Use of tobacco products continues to be alarmingly high among college students. The 2004 Student Health Survey conducted annually by the University Health Center found that 22 percent of UO students reported using tobacco products. Often students express their intent to stop smoking after stressful college days are behind them, or dismiss the harmful effects of tobacco use or risk for dependency when they perceive their use to be moderate or irregular.

Beginning in 2002, the Health Education Program, a unit within the University Health Center, took part in a study conducted by the Fred Hutchinson Cancer Research Center in Seattle. Fifteen colleges served as control groups and fifteen college campuses served as intervention schools. Control schools received no assistance with tobacco cessation while intervention schools received staffing assistance from the research center, free educational materials, and tobacco cessation products including nicotine patches and gum. At the conclusion of the two-year study, UO peer health educators made presentations on tobacco use to more than 500 students, more than any other intervention school in the study. Peer health educators, working with the Erb Memorial Union Board of Directors, were

able to eliminate sales of tobacco products from the union's convenience store. Health educators are now working to increase the minimum distance smoking can occur near campus building entrances from ten to twenty-five feet. The 2005–6 annual report from the university's Environmental Issues Committee provided a full set of campus policy recommendations related to tobacco use.

The University Health Center now includes tobacco use as vital sign information collected during intake interviews for all patients. Information about patient tobacco use, like blood pressure and respiratory rate, is available when nurses and physicians talk to students, providing an easy segue to share educational information and inquire about a students desire to quit smoking.

A.2.e. Challenges in Campus Safety and Student Health

Emergency preparedness. The campus emergency operations plan has evolved dramatically in recent years. A great deal of good work has been achieved and, in doing so, a significant number of campus staff members have become engaged in campus emergency response issues. Campus emergency planners agree that much work still needs to be done, and have begun to identify some important steps that will help minimize disruption of critical university functions during a major incident.

Establishing an organizational framework for maintaining a dialogue with planners in the City of Eugene, Lane County, and state and federal agencies is needed. It is important to explore what capacity the University of Oregon has to address major campus emergencies and to define what role the university will play during city or regional emergencies. In the latter case, what will be expected from university staffers and what resources can we contribute? Recent table-

top emergency scenario exercises conducted in collaboration with City of Eugene and Lane County planners have helped prepare the staff for efficient management of large-scale incidents. A cyclical calendar for holding mock-crisis training will help regularize and maintain necessary expertise. Fall 2006 FEMA trainings on the establishment of incident command systems and incident management, which involved more than forty UO staff members, began to expose available resources and critical needs. The university is now beginning to frame emergency command structures and necessary protocols for operations, planning, logistics, and funding during emergencies.

Substance abuse prevention. UO substance-abuse prevention efforts on campus have become very sophisticated and well coordinated in recent years. Through decades of work, prevention efforts are now integrated into the programmatic offering of quite a few departments. Student services staffers and student paraprofessionals are increasingly well trained to identify possible problem use and, if needed, set in motion appropriate intervention efforts. Annual prevention reports document hundreds of education and resource information programs each year that directly reach thousands of UO students. Still, serious challenges remain. Use by the general student population is alarmingly high, and abusive use, which results in medical emergencies and a constellation of collateral damage to person and property, are on the rise. While it is true that federal grants can invigorate staff members involved in campus prevention work and can result in new prevention strategies, grant funding has proven to be intermittent at best and elusive at worst. Substance abuse prevention work takes its toll on staffers as well, both for its intensive nature and limited tangible results.

Careful consideration of basic questions about the institution's expectation and responsibility to provide substance-abuse prevention and education is needed. Misuse of alcohol and drugs is deeply imbedded in American youth culture and expectedly manifests itself in the college demographic. What is the goal or outcome for UO substance-abuse prevention work? What measures can the staff use to guide campus prevention efforts and evaluate if they are successful? More important, what organizational structure and funding model is needed to achieve agreed goals? Without answers to these questions, staffers committed to campus prevention work will struggle for philosophical grounding, and by default rely on discretionary funding and the voluntary efforts of colleagues and student programmers.

B. LEADERSHIP AND GOVERNANCE TO SUSTAIN EXCELLENCE

The University of Oregon has a foundation of shared governance that goes back to the original charter of 1876. In its 130-year history, the university has been well-served by a collegiality that supports a widely understood mission and a broad consensus on core values. Participatory governance, based on good communication, has provided for institutional strength and growth and has sustained us even in difficult fiscal times. To sustain and further strengthen governance structures of the university, and thus to help make sustainable the values of the university itself, periodic evaluation and analysis is of clear value; our analysis proceeds with broad questions, then proceeds to specifics within areas of our mission.

Broad questions of governance involve addressing issues of communication, procedure, and values. These questions are relevant at many institutional levels. In the process of gathering the issues that the faculty, staff, and students saw as salient for this unique self-study addressing sustainability, several themes and issues emerged. At the broadest level, the question can be posed as "Is there clarity regarding the authorities of the Oregon University System as a state agency?" In a slightly narrower context, the question would be, "Is there clear definition of authorities reserved for the Oregon University System and its board and a clear delineation of authorities delegated directly to the president and to the faculty of the university?" At the institutional level, the questions become more specific: "Is there a general understanding of the roles that student and faculty governance organizations play in relation to administrative decisions?" "Is there broad understanding of real resource constraints and financial limitations within which decision-making occurs?" "Are the campuswide governance structures and procedures broadly understood and are the opportunities for input

and participation widely known?" Each of these enumerated issues relates directly to "sustainability"—our ability to sustain for future generations our capacity to meet our mission.

In addition to the institution-wide aspects of governance issues, these matters have relevance in each of the three broad areas of the institution's mission—teaching, research, and service. Typically a decennial accreditation self-study that addressed specifically—and in order—the commission standards would contain organization charts and descriptive prose of governance structures. We begin our discussion with such charts and descriptions, but do so specifically to provide the basis for our ability to address some salient issues in the sustainability of the institution's capacity to meet its mission while adhering to values that have been its strength.

B.1. STATEWIDE GOVERNANCE RELATIONSHIPS

The University of Oregon is one of seven institutions within the Oregon University System and it is, as described by the university's mission statement (approved by the Oregon University System Board in 1995), "the Association of American University's flagship institution" within that system. Governance structures within the OUS have been the focus of significant change in the last few years. The OUS Board, consisting of eleven citizen members who are appointed by the governor with confirmation by the Oregon Senate, provides oversight and broad policy guidance to the system. The chancellor's office provides administrative leadership for the system.

Unlike some statewide systems of higher education, the OUS comprises institutions with vastly different missions and profiles. As is the case with most systems of multiple institutions, a dynamic interplay exists within the OUS between centralizing and

Box B1. The Legal Context of the University of Oregon and the Oregon University System

The legal foundation and of the Oregon University System as well as the authorities of the OUS Board, the OUS chancellor, and the presidents of the OUS institutions are best described in chapter 352 of the Oregon revised statutes.[283]

Additional information on the chancellor's office,[284] is available online, as is information on the structure and work of the Oregon University System Board.[285] Information on the individual members of the OUS board are also available at that site.

Box B2. Statutory Context of the University

A clear description of the statutory authorities of the individual institutions within the Oregon University System is contained in sections 500 and 580 of the Oregon Administrative Rules.[286]

decentralizing tendencies and agendas. To provide focus specifically to the university's relationship within this system and to its communications with the OUS Board, the vice president for advancement designates within the Office of Public and Government Affairs a specific administrator to coordinate institutional communications with the board. This individual meets regularly with the president and vice presidents to discuss systemwide initiatives and the role that the University of Oregon can most effectively play within them.

A significant change within the Oregon University System within the last four years has been the replacement of the position of vice chancellor for academic affairs with a provosts' council comprising the chief academic officers of the seven OUS institutions that reports to the OUS Board. As the provost's council (www.ous.edu/about/provcouncil/) has emerged as the body that provides coordination of academic affairs throughout the system, there has been a parallel increase in reliance on the system's most prominent institutions, the University of Oregon and

Oregon State University, for leadership. The University of Oregon plays a central role within the system and places significant emphasis on relationships with the board and with statewide constituencies. Its involvement extends from purely administrative matters through curricular and statewide educational policy matters. As the State of Oregon has sought better coordination among the seven OUS universities and the two-year community colleges, which are not a part of the OUS, the University of Oregon has taken a leadership role. The university's leadership in these curricular challenges and opportunities has been focused within the portfolio of vice provost for undergraduate education, who, in order to link with other members of the teaching faculty on these matters, has consistently involved the university's Undergraduate Council.

Complementing these distinctly administrative relationships within the OUS is an important faculty-led structure, the Interinstitutional Faculty Senate (IFS), composed of members from the seven OUS universities and Oregon Health and Science University. The UO's three senators are elected to three-year terms by the University of Oregon Senate; this works well, although it should be noted that other OUS universities conduct elections from among the faculty for the senators. The IFS president is elected by the senators and presents reports at all state board meetings. The IFS meets five times during each academic year to deal with matters of importance to faculty governance. In

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recent years, questions related to personnel matters (medical and retirement benefits), educational policy (Oregon Transfer Module), and other items have been discussed.[287]

B.2. UNIVERSITY GOVERNANCE RELATIONSHIPS AND STRUCTURES

B.2.a. University Administrative Structure

The university's administrative structure reflects what has become an increasingly common pattern in comparable Association of American Universities institutions. The president serves as the chief executive officer with a direct reporting relationship to the chancellor of the OUS. Much of the emphasis of presidential leadership is in governmental relationships and with stakeholders in the public. Reporting to the president, and second in the order of leadership, is the senior vice president and provost, who serves as the institution's chief academic officer and the person to whom the other vice presidents, with the exception of the vice president for advancement, report.

University President. Presidential leadership at the UO is based on communication and consultation. The president of the university convenes on a weekly basis a President's Small Executive Staff (PSES) meeting that consists of all the vice presidents as well as the general counsel, the executive assistant president, the special counsel to the president, the vice provost for institutional equity and diversity, and the associate vice president for public and governmental affairs.

The PSES serves as both an advisory body to the president and a context for coordinating work among vice presidential areas and for articulating and shaping administrative initiatives. Further, the PSES has a defined, specific function as one of the two bodies—the Faculty Advisory Council being the other—that formally makes recommendations to the president on policy development and revision.

Just as important as the administrative communication among those with "line relationships" reporting to the president is the communication and consultation with the faculty, staff, and students, who are the

Figure B1. Senior Administrative Organization of the University of Oregon
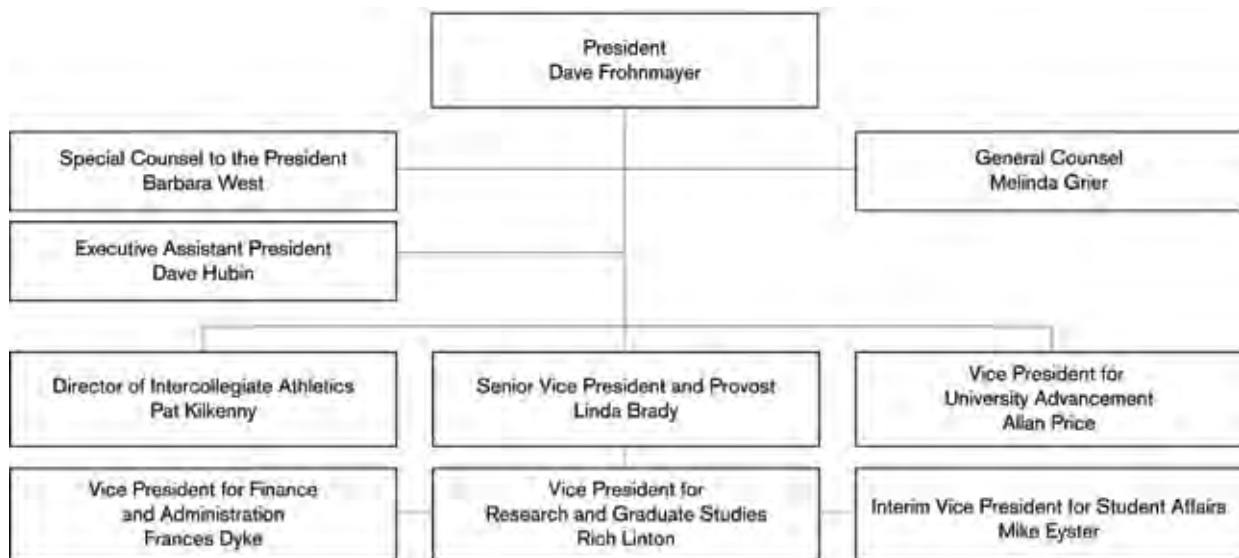
heart of the university. Here—in presidential communications with the broad campus—there are several structures, traditions, and patterns that are worth highlighting.

At Oregon, the president is a regular participant in the University Senate with a consistent pattern of reports to that body. Further, the president and provost meet weekly with an elected Faculty Advisory Council, meet every two weeks with the senate leadership and the chair of the faculty council, and meet twice per term with an elected student council—the Associated Students Presidential Advisory Council.

Senior Vice President and Provost. Serving as both the "second in line" behind the president and as the university's chief academic officer, the senior vice president and provost structures her office around several councils and working groups. The Vice Provost's Council, comprising the provost and all of the vice provosts, assembles biweekly to coordinate the work of the individual vice provosts and to ensure communication that maximizes the ways in which senior academic leaders with varying portfolios can complement and support each other in their work.

A second major administrative body led by the provost is the Dean's Working Group. Recently renamed, at the request of the academic deans, from the Dean's Council to the Dean's Working Group, the seven academic deans and the three academic associate deans of the College of Arts and Sciences assemble weekly with the provost.

A third communications and consultation body led by the provost is the university's Leadership Council, which meets twice each term. The council includes members of the President's Small Executive Staff, the vice provosts, and the deans and senior leadership of each of the schools and colleges. The key to success in the work of the provost is her close and direct involvement

with the faculty leadership, including the Faculty Advisory Council, which she—like the president—meets with weekly, and the senate leadership. Indicative of this close involvement is the creation by the new provost of the Provost's Advisory Council on Academic Excellence. This body includes senate leadership and broad faculty representation.

Vice Presidents. In addition to the senior vice president and provost, the university has four vice presidents.

Vice President for University Advancement. The university advancement division serves the university by building and strengthening relationships with the university's many and diverse constituencies, with the ultimate goal of encouraging investment in and support of the University of Oregon. The vice president for university advancement, like the senior vice president and provost, reports directly to the president. As indicated on the following organizational chart, university advancement consists of four functional units, each headed by an associate vice president reporting to the vice president for advancement: the Office of Development, the Alumni Association, Institutional Affairs, and the Office of Public and Government Affairs.

These units assist the university in creating, refining, and delivering messages to the public. These messages include, but are not limited to, the presentation to potential students of the ample opportunities offered by a premier comprehensive research university, the case for public support—local, state and federal—and investment in university initiatives, the many and unique avenues for continued involvement by our alumni and community members, and the compelling case that generates private investment in the university and its programs.

Vice President for Research and Graduate Studies. The Office of the Vice President for

Research and Graduate Studies provides administrative support for sponsored programs, including identification of funding opportunities, proposal submission, and contracts and grant administration as well as the translation of basic research into commercial products or services through technology transfer and Riverfront Research Park activities. The vice president for research and graduate studies reports to the senior vice president and provost. His work is integrally entwined with the broad array of academic units as he provides direct supervision to the numerous interdisciplinary research institutes on campus as well as providing support to departmental research activities.

Advising the vice president for research and graduate studies are numerous elected and appointed faculty committees and councils. Most notably, the Graduate Council works closely with the vice president for graduate studies on policies and practices in graduate education; the Research Council, consisting of faculty members, provides guidance on research-related matters.

Vice President for Finance and Administration. The UO vice president for finance and administration is the institution's chief financial officer. Within her portfolio are broad areas of campus operations, personnel, budget, and campus safety. The VP's leadership is advised by multiple campus standing committees, including, for example, the Senate Budget Committee,[288] the Campus Planning Committee,[289] and the Campus Safety Advisory Committee.[290]

Vice President for Student Affairs. The vice president for student affairs is the institution's chief student affairs officer. His responsibilities include areas of student life and health, recreation programming, career services, and the student union with liaison to the Associated Students of the University of Oregon. This portfolio also includes the offices of the registrar, student financial aid and scholarships, and admissions.

Like the personnel in each of the university's divisions, the professionals engaged in the work of student affairs are advised continually and effectively by university standing committees.

The administrative structure just described is complemented and advised by structures that ensure that governance at the University of Oregon is participatory and shared. These include the University Senate, a number of standing committees and administrative advisory groups, the Student Senate, and the Associated Students Presidential Advisory Council.

B.2.b. Faculty Governance

University Senate. The University Senate, formed by the university Academic Assembly in a major governance restructuring in 1996, includes thirty-seven officers of instruction, two librarians, three officers of administration, and five students.[291] The University Senate is the legislative body to which the faculty's authorities and responsibilities in governance are assigned. It is the body that oversees the curriculum, courses of study, academic policies, educational standards, and the codes of conduct for the students at Oregon. As designated by the university's charter and reinforced by a tradition of effectiveness, the faculty of the university is specifically charged with responsibility for the curriculum and for the oversight of the conduct of the students at the institution.

To accomplish its work, the University Senate has a structure of specific senate committees. These committees include the Senate Executive Committee, the Senate Rules Committee, the Senate Nominating Committee, the Senate Budget Committee, and the Committee on Committees.

Figure B2. University of Oregon Office of Senior Vice President and Provost Administrative Structure
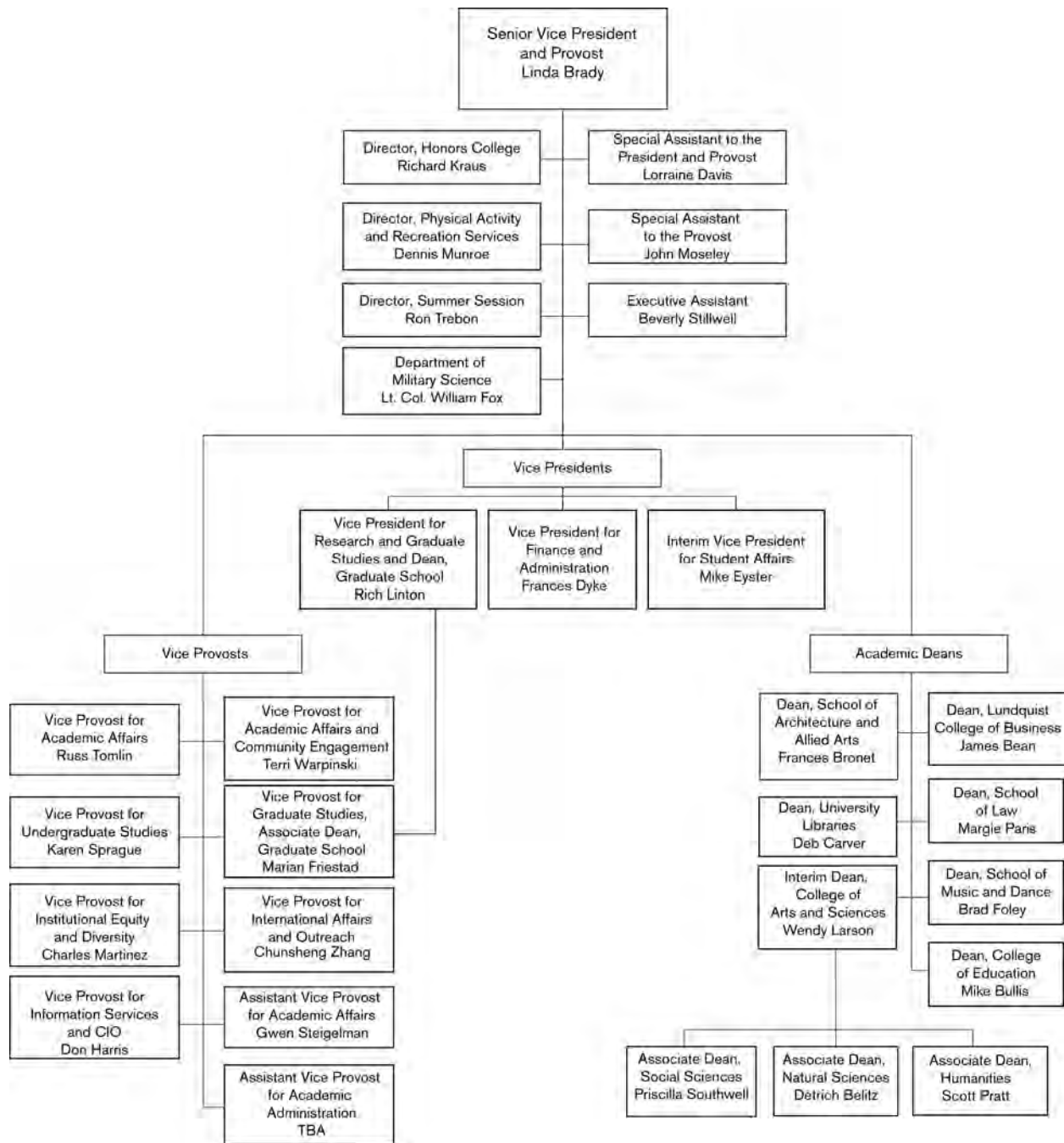
Figure B3. Administrative Structure of the Office of the Vice President for Advancement

UO President
Dave Frohnmayer

University Advancement
Allan Price
Vice President

Greg Stripp
Assistant Vice President
for Advancement

Barbara Moore
Director of
Advancement Projects

Development Office
Shane Giese
Associate Vice President

Alumni Association
Dan Rodriguez
Associate VP for Alumni Affairs

Institutional Affairs
Jan Oliver
Associate Vice President

Public and Government Affairs
Michael Redding
Associate Vice President

Public and Media Relations
Phil Weiler
Senior Director

Creative Publishing
Guy Maynard
Director

Trademark Management
Matt Dyste
Director

Federal Affairs
Betsy Boyd
Director

Development Comms
Ann Mack
Director

KWAX
Paul Bjornstad
General Manager

Central

Constituencies*

Special Events

Corporate and
Foundation Relations

Research and
Prospect Management

Regional Program

Donor Relations

Gift Planning

Annual Giving

Architecture and
Allied Arts

Arts and
Sciences

Oregon Bach
Festival

Knight Library

Museum of Art

Journalism and
Communication

Law

Lundquist College
of Business

Education

Music

Museum of Natural and
Cultural History

Athletics

Constituency Development Officers report jointly to the dean or director of the designated academic unit and the Associate Vice President for Development.

Figure B4. Office of the Vice President for Research and Graduate Studies
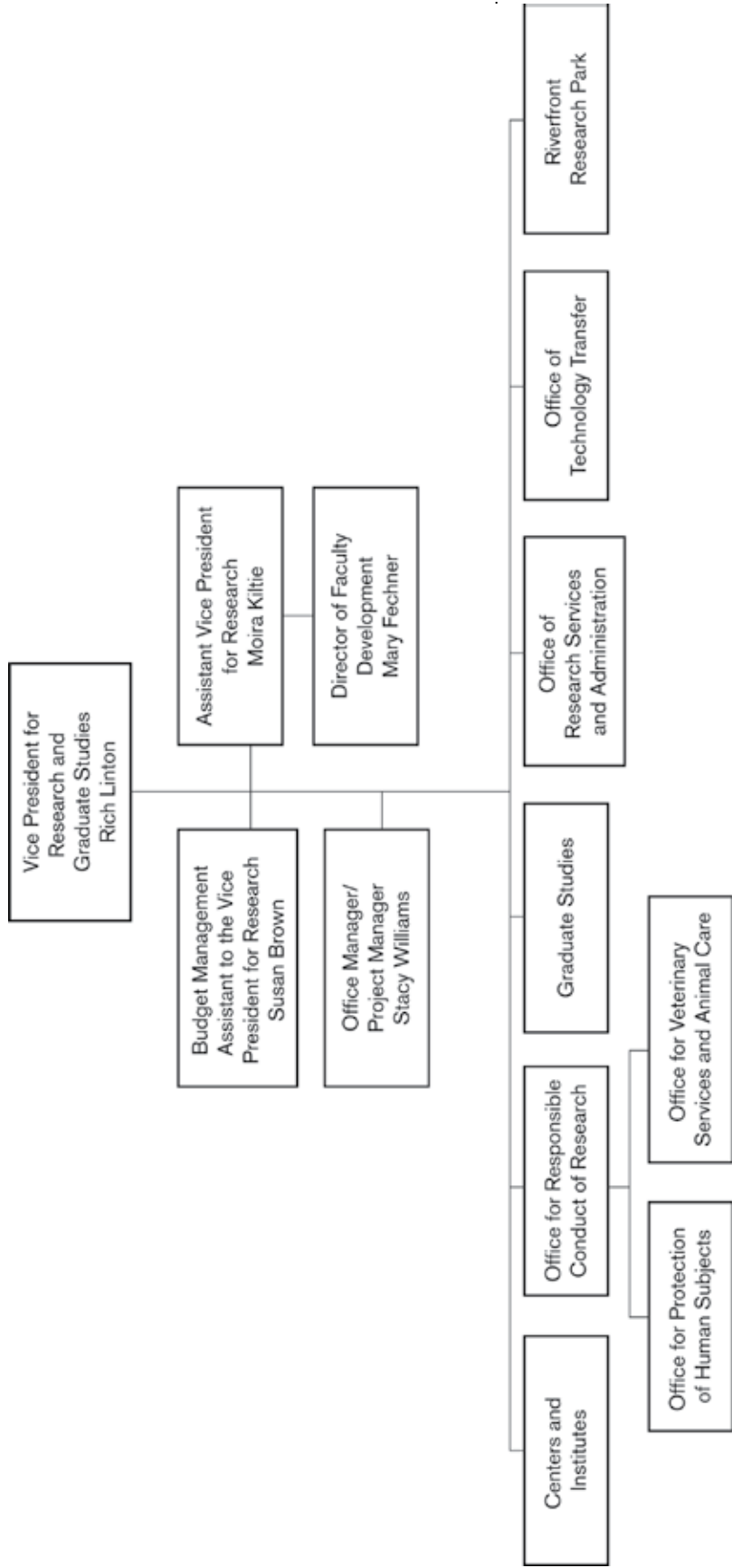
Vice President for Research and Graduate Studies
Rich Linton

Assistant Vice President for Research
Moira Kiltie

Director of Faculty Development
Mary Fechner

Budget Management Assistant to the Vice President for Research
Susan Brown

Office Manager/ Project Manager
Stacy Williams

Centers and Institutes

Office for Responsible Conduct of Research

Office for Protection of Human Subjects

Office for Veterinary Services and Animal Care

Graduate Studies

Office of Research Services and Administration

Office of Technology Transfer

Riverfront Research Park

Figure B5. Finance and Administration Division

Vice President for Finance and Administration
Chief Financial Officer
Frances Dyke

Associate Vice President
for Institutional Affairs
(joint appointment with University Advancement)
Jan Oliver

Quality Assurance Program
Assistant Director
Betty Nielsen

Assistant Vice President
for Administration
Brian Smith

Network Management
Administrative Support
Network Manager, Tim Miller

Executive Assistant
Colleen McKilip

Budget and Finance
Associate Vice President
Laura Hubbard

Campus Operations
Associate Vice President
George Hecht

Human Resources
Associate Vice President
Linda King

Institutional Research
TBA

Public Safety
Director, Tom Hicks

University Planning
Senior Director and
Architect, Chris Ramey

Affirmative Action and
Equal Opportunity
Directory, Penny Daugherty

Business Affairs

Facilities Services

Work and Family
Services

Safety

Budget and
Resource Planning

Environmental Health
and Safety

Parking and
Transportation

Purchasing and
Contracting Services

Capital Projects

Printing and
Mailing Services

Figure B6. Administrative Structure of the Office of the Vice President for Student Affairs

Mike Eyster
Interim Vice President
and Director of Housing

Student Affairs Council

Donna Leavy
Assistant to Dean of Students/
Office Manager

Cleven Mmari
Network Services Administer

Brad Biehl
IT Specialist

Kathie Stanley
Budget and
Personnel Administrator

Michelle Brown
Web and Database
Specialist

Dennis Munroe
Director, Physical Activity
and Recreation Services

Dusty Miller
Director, Erb Memorial Union

ASUO

Elizabeth Bickford
Director, Student Financial
Aid and Scholarships

Herb Chereck
University Registrar
Office of the Registrar

Martha Pitts
Assistant Vice President for
Enrollment Management and
Director of Admissions

Robin Holmes
Interim Dean of Studies and
Director, Counseling and Testing Center

Deb Chereck
Director, Career Center

Tom Ryan, MD
Director, University Health Center

Laura Blake Jones
Associate Dean of Students
and Director, Office of Student Life

Brandy Ota, Director
Women's Center

In some cases, these senate committees have direct and consistent relationships with the university's administrative leadership. The Senate Budget Committee[292] evolving from an earlier committee and reinvigorated in 1996 by the senate leadership as a forum to explore and consider the way resources are distributed across the institution, has played an important role in addressing a consistent concern that university salaries for faculty members were lagging behind those at comparator institutions. It meets regularly with the senior vice president and provost and the vice president for finance and administration.

The Committee on Committees, chaired by the senate's vice president–president elect, works directly with the president's office to oversee the work of all university standing committees and to make faculty appointments to those committees and to advisory boards. In providing oversight to the committee processes at Oregon, the Committee on Committees has, with subsequent senate approval, engaged in major initiatives to streamline the committee structure, to ensure that committees have clear charges, and to increase the likelihood that the work of committees will play a role in administrative decisions and senate legislative actions.

In order to clarify areas of responsibility and reporting relationships among various committees on the campus, the university's Committee on Committees initiated a major revision to the institution's committee structure in 2001. The Committee on Committees is nominated by the Senate Nominating Committee and elected by and responsible to the University Senate. It is charged with the oversight of the committee structure within the system of shared governance. Further, this committee designates the faculty membership of all appointed university standing committees established by faculty legislation. A part of the Committee on Committee's work in 2001 also involved rewriting the charge and the criteria for

membership for all campuswide committees as well as "sunsetting" committees that no longer had defined and useful roles.

University committee structure.[293] The university now has three categories of institution-wide committees. First, university standing committees are those that are directly approved—both in their charges and in their membership—by the University Senate. University standing committees have a direct reporting relationship to the University Senate. Second, administrative advisory groups are those campuswide advisory bodies that serve at the discretion of the administration and provide advice on administrative functions. Third, externally mandated committees are those that are prescribed by external governmental or regulatory agencies. Typically, the responsibilities and the composition of these bodies are prescribed by entities outside the university.

B.2.c. Shared Governance

Shared governance at the University of Oregon is based on administrators and university standing committees working effectively together. Central to shared governance is the Faculty Advisory Council (FAC). The FAC is the institutional faculty voice by which the president and other administration officials receive direct communication from the faculty, unfiltered through the elected legislative deliberations of the Senate. This alternative communication channel is an important element of the governance structure of the university, and is central to fulfilling a goal of productive shared governance. The mandate of the FAC is broad. While a committee of the University Senate, with members elected by the faculty—including both officers of instruction and officers of administration—the committee serves the president and responds to requests for advice on particular matters. At the same time, the FAC can question and advise on issues raised by its members. To link the FAC with the University Sen-

ate leadership, the president and the vice president of that legislative body serve as ex officio members of the council.

In addition to the FAC's unique relationship to the president and provost, there are other committees that have formal and informal relationships to key administrators. For example, the faculty's formal responsibility for the curriculum of the university is exercised not only in the University Senate but also in standing committees, such as the Undergraduate Council,[294] that report to the Senate. While exercising its responsibilities to the Senate, the Undergraduate Council—an elected body of faculty members from across the College of Arts and Sciences and the professional schools and colleges—works consistently and directly with the vice provost for undergraduate education, who serves as an ex officio member. Sitting on the Undergraduate Council are, additionally, the chairs of the Committee on Courses, the Academic Requirements Committee, and the Scholastic Review Committee. This composition places the vice provost for undergraduate studies in direct and consistent communication with the faculty leadership of committees that have a profound impact on the undergraduate program.

In a manner that parallels that of the Undergraduate Council, the elected Graduate Council[295] links directly with the administrative leadership of the Graduate School. Here, too, an elected faculty body that has, among its authorities, the approval of graduate programming is in a position also to advise and inform the work of the administrative team.

Another example of the close relationship of administrative leadership with key faculty committees is the Campus Planning Committee.[296] That standing committee has a dual reporting relationship, in that it is a creation of the University Senate and its membership is designated by the Committee on Committees and is subsequently ap-

proved formally by the Senate. The Campus Planning Committee's work, however, is to advise the administration on decisions that relate to the physical setting of the institution. The Campus Planning Committee has a very close working relationship to the University Planning Office and to the university's vice president for finance and administration.

The communication necessary for effective shared governance is enhanced at the university by a consistent annual pattern of caucuses. For example, shortly after the close of the academic year, the President's Small Executive Staff holds a planning and coordination retreat; this is followed later in the summer by a dean's and vice provost's caucus. As faculty and department heads return for the fall, the senior vice president and provost holds a daylong department heads caucus. The retreat pattern extends beyond administrative leadership to faculty leadership with an annual leadership retreat sponsored by the Senate that includes key faculty leaders and central university administrative leadership.

B.2.d. College, School, and Departmental Governance Structures

The seven colleges and schools comprising the University of Oregon have their own individual governance structures. Common to these, however, is the presence of elected faculty bodies in advisory roles to the dean.

An overwhelming majority of the more than seventy academic departments have committee structures as part of their administrative structures. In larger departments—e.g., English, history, physics, chemistry—it is common to find elected advisory committees to the department head. In most departments, committees are formalized to address agendas in undergraduate affairs, courses and curriculum, and graduate studies.

As is common in America's major research institutions, the role of department head occupies a unique position at the interface of the teaching and research faculty and the academic administrative structure of the institution. At Oregon, significant energy and work is put into engaging the department heads in college-level and institution-level leadership.

B.3. STUDENT INVOLVEMENT IN GOVERNANCE

The tradition and practice of student involvement in governance at Oregon is well established. Formalized in the early 1970s by President Robert D. Clark, who promulgated the Clark Document that addresses student governance, this commitment, broadly evident across academic and administrative areas, is one such signature element of the University of Oregon. Student participation in governance at Oregon is ensured by inclusion of students on all university standing committees and advisory groups. These students are nominated by the leadership of the student government, then formally appointed by the university president. Student participation in governance is also formalized in authorities delegated by the president to the Associated Students of the University of Oregon (ASUO).

Further, in addition to regular meetings with the executive of the ASUO, the president of the university convenes, on a regular basis, an Associated Students President's Advisory Council that, in a manner that parallels the president's Faculty Advisory Council, provides advice and consultation to ensure that student perspectives are reflected in university operations.

B.3.a. Oregon Statute-Protected Student Governance

While the tradition of student involvement in governance matters can be traced back many decades, a number of factors exist today that continue to foster a campus culture valuing and supporting student participation. Several State of Oregon statutory mandates ensure that the University of Oregon administration consults with students on matters specifically related to fees. Recent UO presidents have embraced the spirit of such legislation and have broadened it, adopting campus policies and procedures that further institutionalize student voice.

Recognition of student groups. As an example, the ASUO is the official governance body for students at Oregon. All students who have paid current term or semester incidental fee are members of the ASUO. Oregon Administrative Rule 571-11-015[297] proscribes delegation of authority to the ASUO to formulate general policies related to university recognition of student organizations, and development of criteria to guide the UO scheduling officer in scheduling campus student events and programs. The authority to recognize student groups gives the ASUO an institutional purpose and an important tool to achieve its mission. The ASUO Constitution[298] states that its purpose is to "provide for the social, cultural, educational, and physical development of its members, and for the advancement of their individual and collective interests both within and without the university."

Recommend student fees. Perhaps foremost among such examples is the ASUO's statutory authority to recommend student incidental fees. Oregon Administrative Rule 580-010-0090 provides that the university president and representatives of student government consult to formulate guidelines and procedures for budgeting, allocating, and recommending incidental-fee

income. The 2006–7 incidental fee budget is $10,946,130 *(ASUO Budget Book 2006–7)*. The UO's incidental fee guidelines (or Clark Document) provides further recognition of student government, detailing fee authority delegated to the ASUO and prescribing processes for recommending and transmitting fee allocations. Fee processes engage hundreds of students in budget hearings each year. The programs and services funded on mandatory student fees affect every University of Oregon student and include, as example, funding for ethnic student unions, free Lane Transit District public bus transportation for all students, sexual assault prevention services, and free University of Oregon sporting event tickets.

Student building fees. The Oregon legislature reviews for approval recommendations for construction of student buildings funded from student building fees. Oregon Administrative Rule 580-0100 provides that the student government on each OUS campus establish a Student Campus Planning and Construction Committee. Committees are charged to recommend to university presidents capital construction projects to be funded on student building fees. Recent examples of approved UO recommendations include the EMU food service renovation ($4 million), construction of the Student Recreation Center ($10 million), construction of the Moss Street Children's Center ($4 million), renovation of the University Health Center ($10 million), and contribution to the construction of the Many Nations Longhouse and the International Resource Center.

B.3.b. Additional Student Involvement

The university's administration and faculty governance bodies have taken a number of additional steps to involve students in university governance. These include ASPAC, the annual Clark Document meeting, representation on university standing committees, and the formation of various student boards, councils, and associations. Each of these is described briefly below.

ASPAC. The university president meets twice each term with the Associated Students President's Advisory Council. The president appoints the eighteen-member student advisory group in consultation with the ASUO president. Members are selected as representatives of constituent student groups. The meeting agenda, which is created by the attendees, provides an opportunity for the university president to hear and address student leader concerns in person.

Clark Document Meeting. Each fall term, representatives of student government, including the executive, senate, fee committees, comptrollers, and justices of the Constitution Court, are invited to meet with the university president, university legal counsel, and staff members of the Division of Student Affairs to discuss delegation of authority to allocate incidental fees. This annual Clark Document meeting provides a useful model for consultation between the university president and student leaders very early in the year. Legal concepts regarding mandatory fees as well as institutional processes are reviewed, providing guidance to student leaders early in their term of office.

Representation on University Committees. The University Senate is the sole governing body of the university in all matters of faculty governance. The Senate membership is made up of forty-eight seats, of which five are students. Through University Senate legislation, university standing committees are established. All standing committees except those relating to personnel matters and selected administrative directives have a minimum of two students appointments. The university president solicits student nominees for committee assignments from the president of the ASUO. Final appointments to standing committees are made by the university president. There remains

inherent in the current process for appointing students to university committees two often-discussed challenges—the timely appointment of student members to committees fall term, and ongoing concerns that student-member class schedules are not always considered in establishing committee meeting times.

Student Boards and Councils. Increasingly over the past two decades, advisory boards and committees, whose membership is wholly or largely students, have been established to seek student input on departmental or campuswide issues. In the schools and colleges, a number of student advisory boards exist including the College of Education Student Advisory Board, Lillis School of Business Dean's Undergraduate Student Advisory Council, College of Education Student Advisory Board, Law School Dean's Student Advisory Council, Architecture and Allied Arts Student Advisory Committee, and the School of Music and Dance Student Advisory Board.

In administrative units, department heads seek to formalize consultation with students. Examples include the Student Health Center Advisory Committee and the Student Recreation Center Advisory Board. The Department of Public Safety's Public Safety Advisory Group comprises students and staff members who advise the director on campus safety issues. Student membership is integral to successful functioning of the Campus Community Relations Task Force meetings held each term. The task force is charged with engaging campus, city, and community representatives on issues and incidents of concern that cut across constituencies. University child-care centers utilize parent councils to formalize parent input on child-care issues.

*EMU Board of Director*s. The Erb Memorial Union (EMU) serves as the university community center, provides conference and food services, and houses student govern-

ment and student activity programs. The EMU is governed by the EMU Board of Directors. The sixteen-member board includes thirteen students and three faculty or staff members, all elected or appointed. The EMU governance document states that the board has "responsibility for making general policy decisions and long-range plans for the EMU."[299]

Residence Hall Association (RHA). This group is the designated voice of residence hall students. RHA advocates resident's interests and concerns on policy, programming, and quality of residential life issues to staff members of the Office of University Housing All UO students who reside in a residence hall are members (3,100). More than fifty residence halls elect presidents who select representatives to participate in weekly RHA General Council meetings.[300]

Involvement in campus leadership roles is a source of student pride. Students are actively engaged and make substantive contributions through out-of-classroom campus activities including committee appointments, service on advisory boards, and appointment or election to governance bodies. This commitment serves the dual purpose of ensuring that student voice is brought to bear on institutional matters while providing students valuable preparatory experience. Students learn how to work effectively in groups, practice oratory skills, and seek agreement on difficult issues. They learn policy interpretation and hone decision-making skills. Students gain experience planning and implementing programs and strategic initiatives.

B.4. CONCERNS IN GOVERNANCE

Communication and consultation have been a foundation of the University of Oregon's effectiveness and its special collegial "sense of community." A challenge for the university will be to retain the horizontal and multidirectional consultation and commu-

nication among faculty, administrators and students even as the complexities of functions grow and as administrative specialization increases.

B.4.a. A Mutual Understanding of Roles

Is there an understanding of the roles that student-faculty shared governance play in relation to administrative decisions?

The words of the 2001–2 Faculty Advisory Council are directly relevant: "The FAC initiated, but because of limited time did not pursue in depth, a discussion of the delineation between faculty and administrative responsibilities for decision making at the university. This is an important unfinished topic for review that the 2002–3 FAC might wish to pursue further. An especially important aspect of this discussion relates to maintaining the tenor of constructive collaboration between faculty and administration that is necessary for shared governance at the University of Oregon to work effectively."

At any institution of higher education, the dynamics of the interaction between an administrative structure and the faculty and students is complex—more complex than any organizational chart could convey. At a recent meeting of the Provost's Leadership Council, President Frohnmayer noted that communication and consultation within a university does not follow a linear path; rather communication moves through a university in a helical sphere pattern.

Although there are occasional issues that test the effectiveness of shared governance, and there are instances where constituencies assume that consultation and advice is not being heard if a specific decision is not made, there are innumerable instances indicating that shared governance is quite healthy at Oregon. An example from 2000 is illustrative.

After campus demonstrations against racism followed an incident of racial tension between students within a class, all components of university leadership began working together on what ultimately became an "Affirmation of Community Standards."[301] Initially student leadership called for a pledge of respect that students would individually endorse. There were aspects of the initial pledge that some felt did not properly emphasize academic freedom. In a series of meetings that involved the president's office, the Senate president, the president of the American Association of University Professors, and the ASUO Student Senate, the campus ultimately embraced—with overwhelming enthusiasm—an affirmation of community standards that properly emphasizes respect for other individuals and ideas as well as the academic freedom and intellectual integrity that are hallmarks of American higher education at its best. The Student Senate endorsed it unanimously as did the University Senate, which also recommended that the president promulgate this as a policy. A response to a racist incident that could have been divisive instead became a unifying action that reinforced communication and sharing among the faculty, administrators, and students.

B.4.b. Institutional Memory

Is there adequate institutional memory regarding the work done by committees? Is there adequate communication between committees?

Communication between university standing committees in a given year and communication within a committee over time is a critical element to effective governance. At Oregon, the pattern of such communication has been uneven. The impact of this uneven pattern of communication is magnified by an inconsistent understanding of where records of committee work are made available. However, this pattern is changing. The leadership of the University Senate, includ-

ing the secretary of the faculty, has made significant strides in codifying committee work and in conveying to committee chairs the importance of written records.

In the case of the Faculty Advisory Council, that body, in 2003, recommended specific ways to enhance institutional memory: "The administration should take steps to chronicle the work of the FAC and the contribution that it makes to shared governance. The success of its discussions and their influence on the university should be documented in a way that will allow future FAC members, and perhaps a broader audience, to learn from the past and capitalize on the hard work that has been a hallmark of the FAC. As it now functions, each year's FAC is limited to anecdotal evidence as to the work of its predecessors, and thus, beyond the previous year's term of continuing members, must start from scratch. This limits the effectiveness of the body, and costs the faculty valuable institutional memory." These recommendations have been implemented with regular reports.

A couple of clear examples of best practice provide a model that might beneficially be applied to all committees:

- Senate archives, now available electronically,[302] provide a wealth of information concerning reports by previous committees. For example, reports by the Faculty Personnel Committee are available from 1978 through 2004 with only two years missing. Faculty Advisory Committee reports are available for the same period with only one year missing.

- Reports from the Undergraduate Council are available from 1998 to 2006.[303]

- Reports from the Graduate Council are available from 1993 to 2006.[304]

- Reports from the University Library Committee are available from 1995.[305]

- The Senate minutes are available from the archives page—abstracts are also available from 1992 to the present.[306]

- Assembly records go back to 1959 in electronic form (and back to the 1920s in hard copy).[307]

Despite the existence of a substantial body of online records, there is evidence that more work must be done to introduce this institutional memory to the broader faculty and to enhance a culture where committees, administrators, and individual faculty members rely with confidence on documentation of earlier work.

B.4.c. University Committee Structure

Is the university committee structure formulated optimally to support the differing roles of faculty members, administrators, staff members, and students in matters of university policy and operations?

This topic has been a recurrent theme within reports from the Committee on Committees (see, for example, University Senate minutes, April 1996, where the chair reported that "it has been difficult to recruit faculty [members] to work on committees for a number of reasons." She cited several significant deterrents for committee service, especially among junior faculty members, including the following: "1) faculty members are overburdened with other duties related to teaching, research, and departmental responsibilities; 2) committee service is generally unrecognized and unrewarded, i.e., committee service is not a profitable use of one's time. The hours put into committee service are more profitably spent on teaching and research, especially for junior faculty [members]."

The 1997 Senate Task Force on Committees addressed this matter directly:
"In order to improve the effectiveness of the university committee structure,

the task force proposes that an annual joint meeting be held during Orientation Week, or the first week of classes of fall term, each year with the Senate Executive Committee, the Committee on Committees, and the chairs of all faculty (academic) committees."

Although this recommendation, like other parts of the report, has not been systematically or fully implemented, parts of its purpose have been incorporated in an annual faculty leadership meeting at the beginning of the year. This gathering, that includes, by invitation, key central administrative leaders, is designed to anticipate the issues and agendas of the academic year and to link faculty and administrative leadership in a shared agenda.

The committee structure, with its three distinctions—standing committees, administrative advisory groups, and externally mandated boards—attempts to make the most productive use of the time and expertise of the faculty and staff, administrators, and students. However, despite efforts in the last decade to make this optimal, there are shortcomings. One possible cause is the sheer number of committees appointed on the campus. The committee structure previously reported represents only a portion of the committee work that takes place on campus. Individual departments all report multiple internal committees.

An increase in sharing of information across committees—in the form of agendas, minutes, and compilations of topics addressed—will allow for consideration, perhaps within the next couple of years, of refinements to committee structures. By clarifying even further the committees on which we specifically need to call on the services of the teaching faculty from a broad array of disciplines, we will ensure that we have those faculty members available to us. To do this, the university will need to examine the composition of all committees

with the goal of further eliminating those that are of limited value and further refining the prescribed composition of those that are retained.

B.4.d. Reward Structures

Is the reward structure for faculty service in governance functions appropriate and adequate?

The reward structure for faculty service in governance roles presents an uneven profile across departments and colleges. The query of departments associated with this self-study revealed that departments frequently provide direct support for administrative roles assumed within the department itself, but they do not provide departmental support for service rendered more broadly within the school, college, or the university.

The provost's office provides the senate president and president elect (vice president) with a "course release" as a partial compensation for the extraordinary and intense work that these individuals engage in. Centrally funded support for other governance activities is not typically available.

Committee service and leadership within departments is treated differently among the many departments on campus. One academic unit (law) spoke perhaps for many departments when it reported that "service is rewarded by collective gratitude and to some extent by merit pay adjustments. We do not compensate faculty [members] for unusually heavy service." Some departments report a system in which heads of departmental committees are given a course release; art history provides a one-course reduction over a two-year period; history provides a two-course reduction to the director of graduate studies, and the director of undergraduate studies receives a one-course reduction. No departments provide compensation for services outside of the specific department.

Over the last decade, there has been consistent interest and recurrent activity within the Committee on Committees on the question of how better to recognize and reward committee services.

The question of appropriate recognition and reward for service has been a consideration of the Faculty Personnel Committee (FPC), an elected faculty committee that advises the provost on all matters relating to promotion and tenure matters. In almost every year, the committee comments on the role that service plays in such matters. In particular, there is one rather alarming report by the 2003–4 committee that relates to the differential impact that service requirements can have on diversity retention and recruitment: "The FPC was alarmed by the apparently routine expectation that minority faculty members will shoulder service burdens that are heavier than those of other faculty members." The importance of service in tenure and promotion decisions is documented by almost every committee.

During summer 1997, the University Senate's Task Force on the University Committee Structure spoke directly to the question of how service relates to the other professional duties of a faculty member. In its report, the task force conveyed the following:

> "The task force discussed the importance of faculty involvement in the governance of the university and identified a need to enhance the recognition faculty [members] receive for their service. Noting in many cases a shift in balance toward a greater percentage of faculty time devoted [to] service as faculty members gain tenure and longevity at the university, the task force supports the inclusion of statements regarding service to the university in guidelines for post-tenure review, especially. It also recommends that a statement of policy be included in the *Faculty Handbook* that clarifies this progressive increase in

service to the university, proportional to a faculty member's longevity at the institution. Thus, a junior faculty member may choose to undertake no service during the first three to five years of teaching, enabling the faculty member to focus on excellence of teaching and research. However, a tenured associate or full professor should be expected to engage in some degree of service, depending upon the individual and the department. It was suggested that department heads meet annually with individual faculty members to outline a plan for balancing teaching, research, and service for each upcoming year, including the concept of a progressive increase in service."

The task force also recommends that a new procedure be implemented whereby at the end of each academic year university committee chairpersons shall fill out a form indicating the active members of their respective committees. These forms shall be submitted to the Senate president, who shall forward them to the university president. The university president shall send a letter of recognition to each faculty member who served. Copies shall be sent to deans and department heads for inclusion in each faculty member's personnel file.

In its 2002 report, the Faculty Personnel Committee further addressed the matter of rewards and expectations for service:

> 1. Service can be delineated across departmental, college, university, community, and professional dimensions. Both in the candidate's vita as well as in the various summaries of the candidate's service, it is quite useful for the unit to respect these dimensions along with an evaluation of the level and quality of service provided by the candidate.

2. Research and teaching tend to be focal points in cases of promotion to associate professor with tenure. In cases of promotion to full professor, service is also a critical component. We strongly recommend academic units pay more attention to standards for service and document carefully the candidates' quality and level of service.

In a 2005 report,[308] the committee continues the theme: "Service (including university service) is an important component for promotion to full professor and it should be understood that the FPC (who is engaging in a high level of service) will unlikely be sympathetic that the persons making the argument were busy in research and teaching."

The recommendations of these recent reports from the FPC have not been implemented. Therefore little information on the extent of individual faculty member's active involvement in committee work reaches those who would be making decisions on rewards for involvement in governance.

There are several noteworthy points in an individual's career where information on service could be put to significant use. Post-tenure review is an important point at which service contributions can be recognized and rewarded; indeed, the university's policy on such review emphasizes this:[309]

"The focus of a faculty member's professional activities may shift over time. The nationally recognized criteria for obtaining indefinite tenure place approximately equal emphasis on demonstrated excellence in teaching and research, and considerably less emphasis on service. As tenured faculty [members] progress through their careers, however, some may redirect their energies. Some may, for example, devote proportionately more time to teaching, advising, administration, and university service than

they did as assistant professors. Consequently, expectations for, and the goals of, individual faculty members may also change. For the purpose of post-tenure review, the fundamental criterion is demonstrated excellence in meeting the expectations and goals established jointly by the faculty member and his or her department or program. If, for example, it is in the department's and university's best interest to have a tenured faculty member focus more on teaching and service than upon research, post-tenure review for that faculty member should emphasize, acknowledge, and reward demonstrated excellence in those areas."

If the university were to develop clear and consistent mechanisms for conveying information on committee service to those making decisions within the post-tenure review procedures, significant potential rewards for service exist. The policy on post-tenure review states: "A positive evaluation at the sixth-year major review of a faculty member holding the rank of full professor or tenured senior instructor shall result in the recommendation to the provost of an increase to the base salary of that faculty member comparable in amount and funding source to that given for promotion."

B.4.e. Interinstitutional Relationships

Are the interinstitutional organizations connecting optimally with stakeholders around the state? Are we structured to be certain that the University of Oregon's unique mission and operations are understood?

In addition to the formal structures that connect the University of Oregon with the Oregon University System—structures that include the Interinstitutional Faculty Senate administrative and academic reporting relationships—the University of Oregon is active on a statewide basis working to make certain that the university's unique mission is understood.

The American Association of University Professors (AAUP) has an active chapter on campus. In addition to dealing with purely local matters, the AAUP, through the state conference, deals with questions of academic freedom. The association president is elected for a three-year term by all the members of the association on campus.

The Association of Oregon Faculty (AOF) deals with political matters. Dues are collected from members on campus and on the campuses of other universities in the state.

The Interinstitutional Faculty Senate is an official organ of the Oregon University System. The AAUP deals primarily with questions of academic freedom. The AOF deals with political questions. This division of labor among the three bodies seems to be working well.

B.5. CHALLENGES AND OPPORTUNITIES

The charter of the University of Oregon established a foundation of shared governance that has served the institution well; it is working. A challenge for the institution is to sustain the principles and values of consultative processes while functioning in an increasingly complex political, economic, and managerial setting.

C. THE ECONOMICS OF A SUSTAINABLE UNIVERSITY

C.1. OVERVIEW OF REVENUES AND EXPENDITURES

The past ten years have seen significant shifts in the pattern of revenues supporting the missions of the university. The failure of state appropriations to keep pace with current service level funding requirements has resulted in a heavier reliance on tuition and fees. The pressures created by inadequate state appropriations have been mitigated, but certainly not eliminated, by the University of Oregon's successful research and fundraising efforts. Significant emphasis on expanding and strengthening the university's research enterprise has resulted in record levels of grant- and contract-supported activities and thus a parallel increase in indirect cost recoveries (see research discussion). The success of Campaign Oregon: Transforming Lives[310] has brought another wave of significant funding into the university — funding that will support student scholarships, faculty excellence awards, and capital projects. Perhaps the strongest increase has been in funding available for capital construction, with a record number of buildings under way, completed, or planned for the foreseeable future and supported by a combination of state, federal, and private funding.

It is worth noting that during the past decade both the amount and number of fees charged has increased significantly and the uses to which fee revenue is applied has shifted in a troubling way. The university has moved to a tuition-and-fee model that, in effect, differentially charges students based on the course of study in which they have enrolled. All programs have now implemented resource fees to cover costs that can no longer be supported through base tuition and state appropriation. In addition, the university as a whole has implemented a utility fee, a registration fee,

and a matriculation fee. The utility fee and the registration fee raise needed revenue to offset spiraling energy costs and to cover essential enrollment services. On the whole, the one-time matriculation fee substitutes for a series of service charges made during the course of a student's career. The university has also reassigned the reserves created by excess summer session revenues from funding of innovative educational programs to base funding for core university functions in all areas. During the past six years, more than $1 million per year has been derived from this source to help the University of Oregon maintain a balanced budget. In the past these funds would have been applied to jump-start new programs.

The limits on our ability to sustain service levels through tuition revenues and state appropriations have been particularly telling in an environment of greatly increasing costs that are largely outside the control of the institution. Annual increases in costs for both health insurance and retirement benefits have quickly reached nonsustainable levels. Monthly costs for health insurance coverage paid by the university on behalf of employees are approaching $1,000 per month and retirement contributions paid on behalf of employees are currently 22.7 percent of gross pay. For employees at the lower end of the salary schedules, other payroll expenses (OPE) may be 100 percent or more of salary. As a state agency, the University of Oregon, like the OUS as a whole, has little if any say in the selection of health insurance plans and in the determination of the amount of premium paid by the employer.

Further, the university is subject to significant state assessments that often represent costs for services that add little value to the institution.

1) A recent example in which the university prevailed was the assessment of cost for services provided by the Department of Administrative Services centralized com-

puting services. The university received no benefit from these services by statute and received no services. In October 2006 the OUS succeeding in reaching agreement that we would no longer be charged for these services.

2) As a member of the OUS, the University of Oregon is required to subscribe to the state risk management pool and is prohibited from seeking its own risk coverage. Currently this pool charges back double the cost of any claim. This amount varies over time but in this biennium is structured to reduce an existing deficit in the statewide pool.

3) The University of Oregon is currently prohibited from seeking cost-effective health coverage outside the Public Employees Benefit Board. The OUS subsidizes health-care premiums for other state employees and this charge is passed along to the institutions. The university and the system recognize that these costs are real but believe they should be shown as explicit costs for the other agencies.

4) The system and the university are making slow progress on managing legal services and costs in a manner that is responsible to our business environment. During the past four years we have received permission for one additional special attorney general (UO legal counsel is appointed through the attorney general's office) and we are waiting to hear whether we will be allowed to open a search for a much-needed third professional position in that office.

During each legislative session the state system of higher education works to encourage passage of legislation reducing these assessments as well as for much-needed relief from cumbersome policies and procedures that inhibit our ability to conduct business in a rational, effective, and efficient manner. These efforts have yielded some progress in past sessions and will continue to in the current session.

We also share the challenge of controlling utilities, construction, and library-collection costs with other universities, regardless of their location. One aspect of meeting this challenge is actively working with other libraries within the state to better manage collections and serials, which we are well positioned to do as the lead institution for the Regional Library Service Center (see section on the library). Another is careful attention to renewable energy and sustainable design and construction in capital construction. Yet another is careful management of energy purchases including the purchase of futures and the resale of energy back to the local utility.

The university has worked hard to bring coherence and transparency to revenue-generating activities, although work remains to be done in this area. Strategic planning for everything from allocation models for operating budgets to fundraising priorities for the development campaign has resulted in broad participation in setting priorities for financial investments. Efforts have continued to create the same level of consultation around the allocation of these resources. These efforts have met with variable success over the years. Because of its importance to the university's educational mission, recent experience with methods of allocating base operating funds are described in more detail in the next subsection.[311]

C.2. BUDGET MODELS EMPLOYED SINCE THE LAST REVIEW

C.2.a. Background

During the ten years following the last accreditation review in 1997, the university radically changed the distribution method for financial resources generated from tuition and state appropriation (general fund revenues). This followed several years of sharp decline in the contribution of state resources to the overall university budget,

and in particular to the ratio of state funds to student-provided funds. In 1991 the ratio of state appropriation to tuition and fees was 1.38 to 1 ($63.2 million in state appropriation as compared to $45.8 million in tuition and fees). By 1996 this had declined to 0.45 to 1 ($44.8 million to $100.3 million); by 2006 the ratio was 0.37 to 1 ($59.7 million to $162.9 million). The changes in distribution methodology on the UO campus paralleled those made within the Oregon University System. Those changes were made as part of systemwide response to the governor's request that the Oregon State Board of Higher Education evaluate and realign the allocation of state resources to institutions within the system.

OUS Resource Allocation Model (RAM). Key components of the new allocation model at the system level included design of a matrix model to distribute approximately 65 percent of state appropriation on a per-full-time-student basis according to the calculated relative cost of the disciplines in which the students are enrolled. The balance of funds (approximately 35 percent in the first year) was distributed to universities for specifically designated programs, including research, public service, and engineering, and also as explicit subsidies to the smaller universities within the system. Some of the targeted programmatic funding was mandated by legislative initiative (engineering) and some was designed to acknowledge distinct missions within the system (engineering and public service programs, for example). In addition, a funding component was proposed that would specifically address the overall level of funding for each institution relative to its national peers. There was never specific funding designated as peer funding, but the OUS has made an effort to keep this issue before the governor and the legislature as one part of the rationale for improved funding for higher education.

In the end, each major component of the OUS Resource Allocation Model created

challenging issues for the University of Oregon and for other institutions, but its primary advantage was seen, then and now, as being a more understandable and transparent model than the preceding one. That model was generally seen as one of byzantine decision rules that gave some universities an unfair advantage over others' interests.

There were never sufficient resources to fully fund the model at the system level, and different accommodations were implemented by the chancellor's office to mitigate the impact of declining state resources while preserving the funding for undergraduate education and certain targeted programs seen as state priorities. Two issues became particularly problematic for the University of Oregon—the funding of enrollment growth and the redirection of resources to the four smaller universities in the system to ensure their viability. While funding enrollment growth in universities would seem a reasonable goal, with limited resources it was not possible to do this in a way that allowed institutions to preserve the quality of instructional programs. Similarly, while maintaining access for less-populous regions of the state by supporting remote campus locations is certainly in the public interest, the redirection of the resources needed to do this well would have severely constrained the major research universities. The University of Oregon successfully argued that undertaking either of these decisions would irreparably damage an already fragile system. While there was no resolution to these challenges, an uneasy agreement was reached that held the line against sudden and damaging shifts in funding. Other decisions made by the system, to some degree in collaboration with campuses, could not be as readily resolved, including one to restrict the funding of graduate students by imposing a cap on the number that would be funded in order to preserve resources for undergraduate education. While this had a more substantial impact

on the research universities, it had a particular impact on the University of Oregon since our cap was set a level significantly lower than the number of graduate students served. We managed to offset this by shifting more costs to tuition funding.

UO resource allocation model. At the time the University of Oregon allocation model was being designed, the state funding problems could not have been reasonably anticipated and the provost directed the design and adoption of a model parallel to the model being developed by the OUS. This work was accomplished by an advisory group working closely with the provost and the deans. This group included the budget officer, the associate dean for finance in the College of Arts and Sciences, the assistant dean in the College of Education, and the associate academic dean in the College of Business. As needed, other experts such as the associate dean (then vice provost) for the Graduate School were included in focused work groups.

The basic goals of model design were to create a simple and understandable model that endorsed the principles used in the OUS model, including state funding following student enrollment and differential funding for disciplines based on expected costs, simplicity, and transparency. From a state political perspective, it was important to parallel the OUS funding model. This demonstrated the University of Oregon's willingness to be a team player and offered public evidence of our commitment to the goal of a better funding model for higher education in the state. It also was consistent with the institution's belief that a core level of funding was required by all programs, but differential funding was needed to recognize costs associated with particular disciplines and that quality should be encouraged and rewarded. It was believed that this new model would provide accountability and transparency in the distribution of funds.

The university adopted a model with the cornerstone belief that funding followed the student. It also attempted to create a mechanism that would permit the provost to distribute funds in order to bring particular units into a competitive position with their peers. The primary mechanisms for doing this were allocation of state appropriation through a twelve-cell matrix that rewarded full-time-equivalent enrollment based on the status of the student (lower division, upper division, master's, or doctoral) and the relative cost of the discipline (low, medium, high) and the allocation of tuition dollars as a fixed amount per full-time student. This meant that units deemed higher-cost programs in a twelve-cell matrix received proportionately more state appropriation on a per-full-time-student basis than those deemed lower cost. The revenue generated from tuition was allocated as a fixed amount per full-time student based on the student's course enrollment. Further, by creating a substantial reserve at the provost's level, funds would be available to bring units closer to a competitive position with their peers.

Both the provost and the deans endorsed the fundamental principle that the new UO model should reward university priorities, including the very significant need to rebalance the ratio of funding between instruction and support services to approximately two-thirds instructional and one-third support services. In addition, it was anticipated the adopted model would provide incentives to encourage greater productivity on both the academic and administrative sides. During the first years of model implementation the ratio did stabilize at the expected ratio, but in recent years, as funding has again become restricted, the ratio has drifted away from the goal.

As with the OUS-designed model, each of the components of the UO resource allocation model has caused some concern on campus and each element has been revisited

in conversations with the deans and with the advisory committee. To formally address these concerns, the new provost has appointed a task force to consider alternatives to the existing model. In particular the provost has asked the task force to develop a revised model that is not susceptible to erratic fluctuations when the ratio of state-to-tuition funding shifts, that adheres to the principles that funding recognizes effort and cost, and that provides incentives for appropriate innovation. The first phase of this group's work is expected to conclude prior to the end of spring term 2007.

This is also a legislative year in the biennial cycle. The budget request submitted to the governor by the OUS would increase general fund support by 25 percent above 2005–7 levels. Included in the OUS request are budget priorities critically important to the University of Oregon. These are detailed below.

Enhance faculty salaries. As discussed in other sections (see section III.A.5), faculty salaries are well below market, and even when total compensation—including the substantial benefits package—is added, faculty members at every rank and in almost every discipline are below the average of their peers. This is not a sustainable situation if the university is to ensure the quality and integrity of its instructional, research, and public service programs in the future, raising serious questions about our ability to continue as an economic engine in the state.

Reduce student-faculty ratios. Growth in the tenure-related faculty has not kept pace with growth in student enrollments. This has resulted in both increased class sizes and an increased reliance on adjunct and part-time faculty for teaching. Without additional funding to increase the size of the faculty, the university will remain in a position where it is unable to meet the expected increased demand from in-state students.

Fund need-based aid for middle-income students. Federal financial-aid guidelines do not adequately address the real needs of middle-income students, who are squeezed in their ability to finance their education through loans, family contribution, and work and cannot tap into much-needed grant aid to balance the load. This funding request is based on a shared-responsibility model that attempts to more realistically balance the contributions from the state, the student, and the family.

Fund projected enrollment growth. Since 1998 the university has supported a growing number of resident students without additional funding from the state and without the combination of the shrinking state appropriation per student and the increasing tuition per student covering the true cost of education. In fact, the primary way the university has been able to meet the demand from in-state students is to set out-of-state tuition at a rate that more than covers the cost of education on a per full-time-student basis and thus provides a subsidy for the overall instructional and support programs that benefit all students.

Address deferred maintenance and fund capital debt service. The backlog of deferred maintenance is enormous, as discussed earlier in this section. This budget request is comprehensive for all campuses but is presumably large enough to make a significant impact on the backlog at the UO. In the short term, the university continues to cobble together funding from a variety of sources in order to maintain the facilities in a way that provides a workable environment. Obviously this trades off investments in other programs that are themselves not well funded by the state.

Provide targeted funding for Engineering and Technology Industry Council. The original investment in this council by the state has leveraged enormous projects for the University of Oregon. This portion of the

budget request reaffirms the system's commitment to the state economic priority in traditional and emerging fields in technology and allied sciences.

On December 4, 2006, Governor Ted Kulongoski released his budget recommendations for the 2007–9 biennium. The governor's budget calls for a 17.1 percent increase from the 2005–7 legislatively approved budget. With the additional funding provided in the governor's recommended budget, tuition and fee increases are limited to 3.4 percent per year during the 2007–9 biennium. The governor's budget for the Oregon University System includes $8 million to increase faculty salaries, $6.9 million to reduce the faculty-student ratio, and $14.6 million for projected enrollment increases. Obviously the submissions of these budget requests both to the governor and to the legislature do not guarantee successful funding and require sustained effort and diligence from all partners who support higher education in the state.

C.2.b. Consequences

Under the model implemented in fiscal year 2000, all additional resources generated above those needed for salary and benefits increases were assigned to academic units either through the University of Oregon matrix model or as enrollment and peer-comparison funding at the discretion of the provost. In some years there were insufficient funds for any discretionary budgetary increases or for the full amount of approved salary increases. In those years all units received across-the-board cuts and available funds were redirected through the model to cover the necessary salary increases, except for fiscal years 2004 and 2005, during which the governor imposed a salary freeze.

Impact of fund shifts. The shift in the ratio between state appropriation and tuition disadvantaged disciplines in higher-cost categories, since only the dollars generated

from the appropriation flowed to the units based on relative costs in the disciplines. Further, as the total amount of revenue from the combined sources declined below sustainable levels, there were few if any discretionary funds for the provost to award for enrollment growth or for peer competitiveness, since almost all funds had been distributed to support basic operating budgets. Once these revenue sources diminished, the UO model was no longer sustainable. All programs suffered except higher-cost programs; those with enrollment growth suffered disproportionately. In addition, the majority of programs in the midrange of discipline costs were no longer provided incentives for either growth or quality improvements. To help offset this decline, the provost supplemented tuition and state funds with resources drawn from overhead assessments to auxiliaries and from excess summer session revenues. The overhead assessments had been committed to creating strategic reserves for program innovation early in the 1990s, but within the past two bienniums these reserves were needed primarily to help balance the university's operating budget. The reserves themselves were not depleted, but in general no additional revenues were deposited into them. Further, the administration constrained budget growth in administrative and support units in order to invest as much as possible in maintaining the quality of the instructional program.

In conclusion, in fiscal year 2006 the budget model was frozen at prior-year levels and, with the exception of increases in salary and other payroll expenses and a limited amount of one-time funding provided by the provost's reserve, no budget augments were allocated.

Current situation. The University of Oregon ended fiscal year 2006 with a $3.1 million excess of operating revenues over operating expenses. This excess will be applied toward backfilling an expected operating

deficit of $1.8 million in fiscal year 2007, creating an anticipated net balanced budget of $1.8 million for the biennium. The University of Oregon has been acknowledged by the OUS board as being the only university within the system operating within its means for fiscal year 2006. This is an important acknowledgment, but should not mask the reality that even the University of Oregon is operating very close to a financial edge. Careful allocation of resources, strategic use of tuition policy, and astute management by deans and vice presidents in a decentralized environment has kept us solvent.

C.2.c. The Future

A review of the budget model was initiated in the Budget Advisory Committee during fiscal year 2005. By this time the assistant dean for finance in the law school had also become a member of the committee. The committee acknowledged that due to the announced retirement of the provost in fiscal year 2006 it was advisable to wait until the arrival of the new provost in fiscal year 2007 to recommend significant change. However, the committee continued to explore the consequences of continued use of the existing model in a time of significantly constrained resources, shifting enrollments, and the inability to collect and process consistent peer data in a broad range of disciplines.

The issue of peer comparisons is a significant one. Various attempts have been made to create protocols for collecting and analyzing the costs of instruction at universities. The most notable is the Delaware Study of Costs and Productivity. While in the aggregate this yields useful benchmarks for instructional costs, the need to balance the empirical data on cost with a qualitative assessment of the quality of programs either on this campus or at peer institutions presented complexities into the decision-making process that could not be resolved.

In the end, the overriding concerns for deans were the model's lack of predictability, the failure of the model to provide incentives for new programs and particularly for those that cross college boundaries, and the lack of funds to support unexpected growth in enrollment during particular years. The deans have also asked for a more transparent model. The concern about transparency is multifaceted. The model outputs were always available to the deans, either through materials and discussions at regular meetings, by special request, or through information available on the various websites. However, it is not clear that the right vehicles were chosen to deliver this information. There was also a strong sense among the deans that the decisions for how resources were divided between academic and non-academic units and how the provost made decisions regarding specific allocations from reserves to deans were not transparent.

The current provost has carefully considered the operating results of the existing allocation process, including the recent modifications to the existing model, and has convened a task force to recommend changes in how general funds are allocated to academic departments. The timeline for the work is prior to the end of the current fiscal year. This new task force is cochaired by the dean of the Lundquist College of Business and by the vice president for finance and administration. Membership includes the university's chief budget officer, the associate dean for finance in the College of Arts and Sciences, the assistant dean for finance in the School of Law, the dean of the School of Journalism and Communication, and one representative from the faculty who is also a professor of mathematics.

On a prorated basis the state appropriation supports 23 percent of the overall budgets for schools and colleges, with the balance coming primarily from tuition and programmatic resource fees, plus gift and endowment funds.

Table C1: **Summary of State Budget Allocations (Annual), General Fund Only**

FY 2000	Base Budgets Allocated 2% Across-the-Board Budget Cut Peer and Enrollment Funding Awarded Specific Augment for Salary and OPE increases
FY 2001	Base Budgets Allocated Specific Augment for Salary and OPE increases
FY 2002	Base Budgets Allocated Specific Augment for Salary and OPE increases 0.6% Across-the-Board Budget Cut
FY 2003	Base Budgets Allocated 2% Across-the-Board Budget Cut Additional 1% Across-the-Board Budget Cut Additional Base Budget Awarded through Model (includes amount for salary and OPE)
FY 2004	Base Budgets Allocated 3% Across-the-Board Budget Cut Additional Base Budget Awarded through Model (includes amount for salary and OPE)
FY 2005	Base Budgets Allocated Peer comparison funding augments awarded
FY 2006	Base Budgets Allocated Specific Augment for Salary and OPE increases
FY 2007	Base Budgets Allocated Specific Augment for Salary and OPE increases Peer comparison and enrollment growth funding augments

During any biennium, mandates from the governor, legislature, or the state board of higher education may negatively affect the university's ability to generate revenue or allocate resources. In Oregon, ballot initiatives may also dictate a constraint. Already mentioned was the recent salary freeze imposed by the governor, which prohibited the university from increasing any salaries even when funds were available. It is not uncommon to see restrictions imposed on the amount of tuition increase allowed for in-state students, on the total amount of fee remissions that can be used for any or all purposes, or on the ability to use general funds for travel.

The university has been successful even in the face of these obstacles for several reasons. In particular it has pursued an aggressive strategy of recruiting nonresident undergraduate students and providing high-quality programs and degrees that

justify the premium prices charged. The full tuition for each nonresident student provides full coverage of their own cost of instruction plus an important subsidy for other students. This is not dissimilar to tuition pricing in private institutions. The university has also been successful in persuading the state board that thoughtful use of programmatic resource fees, which in itself is a form of differential tuition, is appropriate, and it requested and received the ability to depart from the tuition plateau model, which had operated in this state for several decades. Under this model, tuition was frozen between 12 and 18 credits, so that part-time students were effectively subsidizing the carrying loads of full-time students. By switching to a per-credit model that is unique in the system and providing discounts for carrying loads between 14 and 17 credits, the university was able to rationalize its tuition policies and continue to provide incentives to students to make timely progress toward degree.

The university has also decentralized management and decision-making to the level of the schools and colleges. Enforcing responsibility for financial decision-making at this operational level has empowered deans to make responsible decisions regarding use of fiscal resources. One example of the discretionary use of this authority is seen in patterns of salary increases. In the College of Arts and Sciences, the dean allocated college-level reserves created through careful resource management to provide additional salary dollars for individual faculty members where retention and recruitment have been particular challenges.

The provost adopted a policy where positive year-end balances remained with the academic units generating them. Deficits were reviewed and individual repayment plans created. In most cases units were expected to work off any year-end deficits in a fixed time frame. In practice, two academic units with significant deficits also experi-

enced the appointment of new deans and agreements were reached regarding disposition of the inherited deficits. These agreements were accompanied by a mandate to live within future budget constraints.

The challenges of constrained resources have required a multifaceted approach to financial planning and budget management. To a large extent this has worked well for the university in the past seven years. However, as the relative contributions from different funding sources have shifted and the effects of directing every discretionary dollar toward the academic program have resulted in a relatively thin administrative infrastructure, the university must step back and reassess not only the way in which resources are allocated to schools and colleges but also the sustainability of its support systems.

C.3. ONE GENERATION TO THE NEXT—FUNDRAISING

C.3.a. Why a Campaign?

As stated earlier in this section, the sources of funding for the university have changed dramatically over the past ten years. The need to raise private gifts has always been a priority at private colleges and universities; now, with growing pressures on the uses of public-sector funds, public colleges and universities are also relying heavily on private gifts. The University of Oregon is no different. At the time of our last accreditation, we were in the final stages of a six-year, $150 million campaign—a campaign that was at that time the largest in the history of the state of Oregon.

That campaign, the Oregon Campaign, eclipsed its goal of $150 million to raise more than $255.5 million in private gifts between 1992 and 1998, providing much-needed funds for student scholarships, endowed faculty positions, academic programs, and campus building projects. This

campaign was successful on two fronts: first, it provided funds to support the initiatives of the Oregon Model, the university's operating goals in the early- and mid-1990s (and referenced elsewhere in this report and in our previous accreditation report); second, and equally important, this campaign demonstrated to the university community—the faculty, staff, and students, as well as alumni and friends—the power and potential of a sustainable and well-articulated development program. While the Oregon Campaign enjoyed success, it was largely the product of a young and still immature development program.

As the university entered the twenty-first century, it was clear that building an efficient, effective, and sustainable development program was critical to the university achieving the vision articulated by its strategic directions; indeed, this vision could not be realized on the backs of state investment and student tuition alone.

As stated in the university's strategic directions, the University of Oregon is committed to improving overall institutional quality by investing significantly in the recruitment, retention, and recognition of nationally competitive faculty members, by attracting stronger students to our undergraduate and graduate programs, and by developing distinctive excellence in academic programs. In order to meet these ambitious goals, we outlined the following series of imperative objectives:

- Continue to increase faculty salaries relative to our peer institutions
- Significantly increase the number of endowed faculty positions to allow for the recruitment and retention of the most academically distinguished scholars
- Significantly increase the financial support for faculty research
- Sustain academic excellence where it has already been achieved

- Promote academic excellence where it has prospects for rapid emergence
- Acknowledging that tuition will be an increasingly important source of revenue to the university, significantly increase need- and merit-based financial aid opportunities
- Construct new campus facilities and renovate existing facilities to provide students with a rich educational, cultural, and social life that consistently encourages engagement with new ideas
- Excel in the creation, transmission, and application of knowledge in ways that foster economic development and improve the quality of life
- Improve the on-campus student experience by enhancing programs inside and outside the classroom including those that foster leadership, ethical behavior, and social responsibility

C.3.b. Constructing Campaign Oregon: Transforming Lives

In preparation for our current campaign, President Frohnmayer appointed the twenty-member Internal Campaign Advisory Committee (ICAC) to guide the campus in creating campaign priorities. This committee, consisting of faculty and classified staff members, administrators, and students, is still active today in guiding Campaign Oregon. The ICAC is chaired by the vice provost for academic affairs and community engagement, the vice president for research and graduate studies, and the vice president for university advancement. The ICAC engaged the entire campus community in a bottom-to-top planning process, identifying those initiatives most crucial in furthering the strategic initiatives of the university. This process resulted in more than 700 funding proposals totaling more than $2 billion. The ICAC then further refined this list, consulting with university academic and administrative leaders as to those priorities that both have the greatest impact on the university and its students and are consis-

tent with stated objectives, while simultaneously being attractive to potential donors. This priority-setting process culminated in a goal of $600 million for Campaign Oregon: Transforming Lives. The resulting priorities reinforced our strategic directions and established the four cornerstones of our campaign—opportunity, inspiration, discovery, and connection.

The university kicked off the seven-year campaign in January 2001. Specific goals of the campaign include raising $600 million in private gifts; raising $100 million for student financial aid; doubling our endowment; increasing alumni giving from 12 to 18 percent; and doubling the university's sustainable fundraising capacity.

The university also engaged volunteer leadership in guiding Campaign Oregon. The Campaign Leadership Committee (CLC) is a national committee made up of twenty-two volunteers. The CLC meets three times a year and is charged with setting campaign policy and advising staff members and volunteers on specific campaign initiatives. Campaign leadership is further complemented by the University of Oregon Foundation trustees and, specifically, its Development Committee. Foundation trustees and members of the Development Committee have been engaged throughout the campaign in developing, implementing, and evaluating specific strategies, engaging friends and alumni of the university, and assisting staff members in securing private gifts.

In order to reach these ambitious goals it was imperative to invest in a solid development infrastructure. The university conducted a thorough analysis of successful development operations, specifically targeting our peer institutions and select private institutions noted for fundraising prowess.

As a result of this study, and with the agreement of university academic and adminis-

trative leaders, the university ramped up investment in its development program, implementing a cohesive central-decentral model reflecting the best practices in the industry. This model has proven very effective in marrying central support services—corporate and foundation relations, gift planning, donor relations, regional fundraising, and research and prospect management—to a team of major gift fundraisers representing and working out of the schools and colleges. This investment in staff and resources has yielded a program that continues to spend approximately ten cents to raise a dollar, a measurement attesting to staff productivity.

C.3.c. Results to Date

By any measurement, the campaign has already been a success. Currently on pace to meet our goal, the campaign has raised more than $445 million, already the largest sum raised for any public or private cause in the state's history. The market value of the endowment has grown more than 160 percent since June 1997, from $140.2 million to $365.9 million. The current campaign has already added $122 million in new endowment gifts.

Of the $445 million raised to date (as of October 2006), more than $48 million has been raised for faculty support, including $42.1 million in endowed support. Thirty new endowed chairs and professorships have been created during the campaign. In addition to the more traditional endowed chairs and professorships, we have increasingly secured endowed faculty support that provides "fighting funds" for the university and for specific schools and colleges. These funds allow academic leadership to target vital funds to attracting and retaining faculty in critical and emerging areas of study, providing the university the flexibility to respond to new opportunities.

Figure C2. Growth in Annual Donors and in Annual Giving

Number of Donors

Annual Giving (Millions of Dollars)
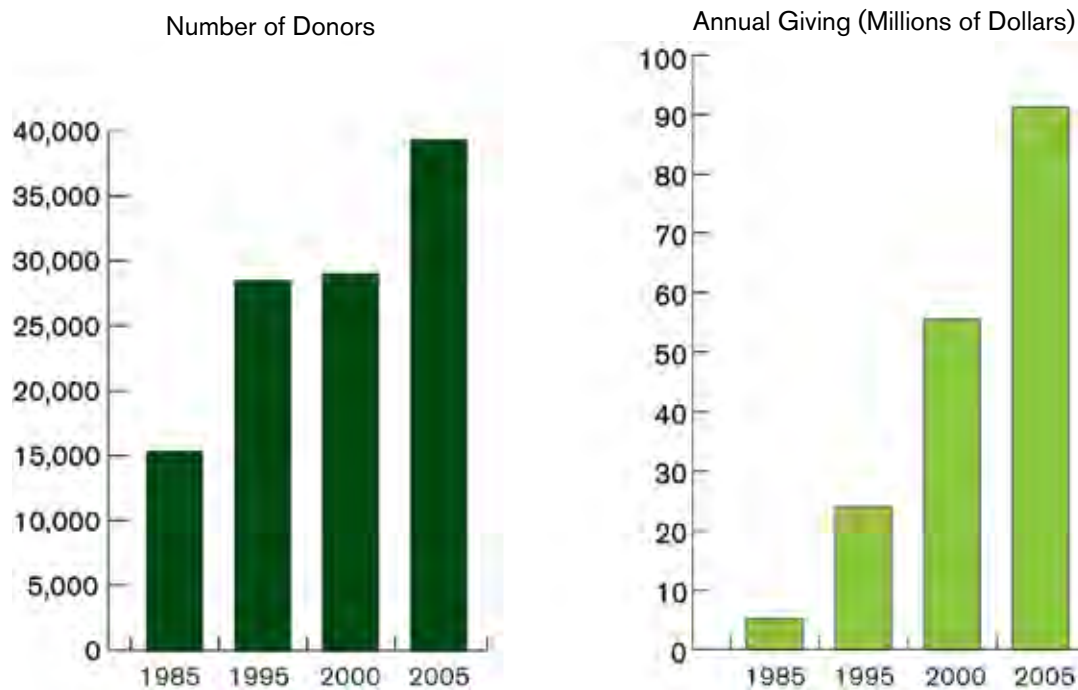
The campaign has also generated $189 million in program support. Much of this support is earmarked for our academic centers and research institutes, as well as our library and cultural centers, including the Oregon Bach Festival, the Jordan Schnitzer Museum of Art, the Museum of Natural and Cultural History, and the Many Nations Longhouse. In addition to providing wonderful and varied opportunities for our students, this support has enhanced many of the university's centers that provide direct outreach to the community.

We have raised $66.2 million in gifts supporting student financial aid, including more than $46 million in endowment. These gifts provide much-needed resources that enable the university to attract the best students regardless of financial circumstance and to compete for the brightest students from across the country and the world. (See Section III.A.3.a)

The campaign has generated $141 million in capital gifts, allowing for the construction and renovation of facilities that provide students with a rich educational, cultural, and social life that encourages engagement. These private gifts, in turn, leverage public investment in our physical plant. Indeed, in most instances state support for our capital projects is contingent upon raising at least 50 percent of the total project cost in private gifts. As detailed elsewhere in this review, new construction has taken advantage of the latest in educational theory and practice, creating learning environments that enable students and faculty members to excel. The Campaign Oregon website[312] demonstrates the campaign's physical impact on our campus and provides detailed information about specific capital projects.

A critical goal of this campaign was to demonstrate to our campus community and to our alumni and friends that the university could articulate a set of priorities that could take it—the students, faculty, staff, academ-

ic programs and learning environment—to the next level . . . and to gain the support of partners in making these priorities a reality. Campaign Oregon has demonstrated to all that this is possible. Beginning with the broad, deliberative process utilized to establish priorities, the campaign has engaged the entire university community. Equally important, our vision has resonated with our alumni and friends as demonstrated by the charts below:

The discussion in the previous section makes clear the need for ongoing private support. Although one of the primary goals of the campaign—to double our sustainable fundraising capacity—cannot be fully evaluated for many years, our early signals indicate success. The pipeline for future major gift donors is growing: our annual giving program receipts have grown 88 percent since 1997; and our alumni donors have grown 61 percent during the same period, reflecting a leap in our alumni giving rate from 12 percent to 17 percent. Clearly our message, both of our successes and of the tremendous opportunities still ahead of us, is being heard.

C.4. OPPORTUNITIES AND CHALLENGES

OPPORTUNITIES:
In addition to raising private gifts to leverage public support of capital needs, the campaign has also achieved tremendous success in using this same model to leverage public support for other key university initiatives that take advantage of emerging opportunities and existing excellence. Examples of this success are highlighted elsewhere in this study and include the Brain Biology Mind and Oregon Nanoscience and Microtechnologies initiatives. It will be imperative that we continue to attract donors to invest in our strategic initiatives, and to use this support to secure additional public support and funding.

The investment in our corporate and foundation relations and in our planned giving programs has produced significant growth in our annual fundraising. Continued growth in these programs is projected and will be vital to sustaining increased levels of annual fundraising.

CHALLENGES:
The university will need to continue to create and communicate to our partners a compelling case for philanthropic support. Although growth continues in overall charitable giving, the number of organizations seeking private support has grown at a much quicker pace, resulting in a "crowding out" scenario for many organizations and sectors. The university will also need to continue to provide excellent stewardship of gifts, demonstrating that private support is clearly transforming the quality of the educational experience.

During the next decade, more than 50 percent of our faculty will reach retirement age. This is not unique to the UO and is, in fact, a national trend that will create fierce competition among research universities for the next generation of faculty members. Private gifts will be needed to enhance our success in the recruitment and retention of the very best faculty in an increasingly competitive marketplace.

Summary: Part IV. Infrastructure for Growth

The fourth and final segment of this self-study considers three important elements of the infrastructure within which the University of Oregon pursues is mission as a comprehensive research university—the campus setting, the university's organizational structure, and financial management strategies and resources. The University of Oregon's physical setting is one its greatest assets, while its organizational structure and finances pose some of its greatest challenges.

"Sustaining our Campus," the first section of Part IV, describes the University of Oregon's unexcelled physical setting, our efforts to craft development strategies that preserve the beauty and residential nature of the campus, and successes and challenges in constructing and maintaining facilities essential to the mission of the university. A second emphasis in this section is campus safety and student health, where the major challenges identified are emergency preparedness and substance abuse prevention.

"Leadership and Governance to Sustain Excellence," the second section of Part IV, provides an overview of statewide governance relationships as well as a description of university governance relationships and structures, including the university's administrative structure, the University Senate, the university committee structure, and student governance. Concerns in this area include clarity in, and a mutual understanding of, the roles of faculty members, administrators, and students in university decision-making; adequacy of institutional memory; efficiency of the existing committee structures; and the difficulty of recruiting adequate numbers of senior faculty members to serve on critical university committees.

The final section of Part IV is "The Economics of a Sustainable University," which provides an overview of the university's recent financial history, budget models, and fundraising efforts. At the moment, the university has reasons for optimism—a governor's budget that builds for future strength and a fundraising campaign that demonstrates the commitment of the institution's private friends and benefactors—but it also has reasons for concern. Founded in the tradition of great public universities that recognize the benefit to the public of an educated citizenry, the UO, like its counterparts across the country, has endured a decades-old pattern of state disinvestment in higher education. This pattern of disinvestment shifts costs to individual students and families and, if not reversed, threatens in a profound way the capacity of the university to sustain excellence and access for future generations. While the current governor's budget is a visible and important step in the right direction, a sustained commitment to higher education by the State over several biennia is needed to fully address the critical needs of the system and the individual institutions.

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Faculty head count data show that, over the period 1997-2005, the proportion of this population belonging to minority groups rose from 10 percent to 14 percent, the proportion of women rose from 36 percent to 41 percent, and the proportion of full-time instructors rose from 76 percent to 89 percent.

[191] The proportion of our total instructional faculty on tenure-related appointment fell from 62 percent in 1997 to 54 percent in 2005.

The proportion of the tenure-related faculty without tenure rose from 25 percent in 1997 to 30 percent in 2005.

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[220] Overall faculty salaries at 82 percent, fulls at 80 percent, associates at 84 percent, and assistants at 84 percent.

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