Accreditation Self Study

Prepared for
the Northwest Commission
on Colleges and Universities

March 2005

Volume 1:
Overview
through Standard 9
March 21, 2005

To the Commissioners:

On behalf of Oregon Health & Science University, we are pleased to present the enclosed Self Study to the Northwest Commission of Colleges and Universities as a part of OHSU’s 2005 accreditation process.

The development of this Self Study (including the accompanying appendices and exhibits) has involved faculty, staff, administrators and students from the entire campus community. It is the culmination of nearly two years of inquiry and analysis, led by the OHSU Accreditation Steering Committee.

OHSU has changed dramatically since the last comprehensive accreditation self study in 1995. To develop a full portrait of OHSU, the Accreditation Steering Committee engaged the OHSU community in a self-examination that included the most comprehensive analysis of our strengths and accomplishments performed to date. As expected, it also served to focus the campus on the challenges and issues that lie ahead. Perhaps one of the most interesting additional benefits of the procedure itself has been the development of analytical talent and tools that will serve us well as we look to the future.

We are very grateful for the efforts of the dedicated faculty and staff that have worked diligently and collaboratively to produce this report. Planning is already well underway for the next decade. The strategic application of these results will be critical to the accomplishment of OHSU’s ambitious goals of improving the health and well being of its community as it educates the health care providers and scientists required to sustain this vision.

Sincerely,

Peter O. Kohler
President
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*Separate document*

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*Available on site*
Acknowledgments

The OHSU Self Study involved the entire campus. About 100 members of the OHSU community participated as a member of the Steering Committee or on one or more of the Standard Committees. These standard committees included representatives of each of the schools and major research units. They were responsible for collecting and distilling information, analyzing and writing the first drafts and creating the final review of the self-study document. As a result of campus-wide input and review, the OHSU Accreditation Steering Committee believes that it has provided a complete and accurate appraisal of the university as it existed during the 2004-05 academic year.

The work of the OHSU Accreditation Steering Committee and the Standard Committee was aided greatly by the collaborative efforts and supportive assistance of many administrators, faculty, staff and students. Academic deans, department chairs/heads, administrative unit directors, and staff were generous in facilitating the development of data and providing the information needed to complete the self study process.

The OHSU Accreditation Steering Committee gratefully acknowledges the valuable advice provided by Dr. Ronald Baker, Deputy Executive Director of the Commission.

Finally, the committee thanks the following individuals for the generous contribution of their expertise and time: Cherie Honnell, Registrar; George Hamilton, Academic and Student Affairs; Todd Bradley, News and Publications; Anita Stevenson, Academic and Student Affairs; Amy Julkowski, Provost's Office; David Robinson, Academic Affairs; and Jeff Stewart, president of the Faculty Senate. Special appreciation is given to Robert Vieira and Phyllis Beemsterboer for their work as co-chairs, and Nancy Goldschmidt in her role as chief coordinator of the process and editor of the self-study report.

The composition of the Accreditation Steering Committee and Standard Committees was representative of faculty and administrators. Committee members were recruited based on their expertise and relevance of their position to the nine standards. The members of the Steering Committee and Standard Committees are listed on the following pages.
OHSU Self Study Co-chairs

Robert Vieira and Phyllis Beemsterboer

OHSU Self Study Steering Committee Members

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OHSU Accreditation Standard Committees

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Chief Administrative Officer
President, Faculty Senate
Vice President and Dean
Vice Provost

Academic Affairs
School of Medicine
School of Dentistry
Public Affairs and Marketing
Research
Finance
College of Pharmacy
School of Nursing
School of Medicine
President’s Office
Faculty Senate
OGI School of Science & Engineering
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Associate Professor
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Associate Vice President

Academic Affairs
Research
West Campus
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School of Medicine
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Overview

Oregon Health & Science University (OHSU) has experienced significant growth and change during the past decade. The institution's story since its previous 10-year accreditation in 1995 has been dominated by its evolution from a state-run agency to a public corporation. The institution is now positioned to succeed in a complex and competitive market while remaining accountable to the state and delivering its academic programs in coordination with the Oregon University System. As will be explained throughout this document, OHSU’s public-corporation status carries with it a streamlined governance structure that allows OHSU to make independent programmatic and business decisions, and to respond rapidly to circumstances in the marketplace. The statute establishing the public corporation also directs OHSU to fulfill a public mission by providing quality education programs and community services such as the delivery of health care to the state’s underserved residents. This mission can only be fully met through a financial partnership with the state of Oregon.

The shift to public-corporation status has had a profound impact on virtually all of OHSU’s operations, creating in many respects a completely different institution than the one profiled in the previous Accreditation Self-Study. The change has opened the door to unprecedented financial growth, physical expansion, programmatic innovation and national acclaim. Conversely, a public corporation is by definition subject to the dynamics of the national and regional economies, both of which have been in decline during much of the current Self-Study period. External economic factors that pose ongoing challenges to OHSU include reduced federal and state government health care reimbursement rates, rising health care costs, state budget reductions and increased demand for undercompensated care at OHSU Hospitals and Clinics.

The university today is a much different institution than it was in 1995 and, undoubtedly, than the one it will become 10 years from now. We have attempted to capture the magnitude and dynamics of these changes in this self-study report. Critical elements of this rapid and ongoing evolution include:

• Transformation from a state agency into a public corporation.

• Transformation from a single campus with statewide presence into a coordinated, three-campus university with statewide, regional, national and international presence.

• Transformation from an academic health center exclusively focused on the training of health professionals and basic scientists into a health and science university charged more broadly with the education of health professionals, scientists, engineers and managers across a range of disciplines.
Transformation from self-contained schools, research institutes/centers and hospitals/clinics into an emerging integrated interdisciplinary environment optimized to achieve the missions of educating, exploring and delivering health care.

Transformation from stand-alone libraries with walk-in access into an extensive, coordinated online information system with 24/7 electronic access.

Transformation from an institution with focused areas of excellence in health care and the biomedical sciences into a major national comprehensive research university with a focus on translational applications in health, biomedical science and engineering.

Transformation from the primary provider of safety-net health care for underinsured Oregonians into an institution poised to play a leadership and advocacy role in improving the health and well-being of all Oregonians.

OHSU used the accreditation self-study process as an opportunity to review the significant impacts of these transformations and to think deliberately about our ongoing evolution during the next 10 years. The nine standards provided by the Northwest Commission on Colleges and Universities provided the framework for doing so. The university is involved with at least 11 specialized accrediting agencies that accredit more than half of its 40 different academic programs. All degree and certificate programs for which specialized accreditation is available are accredited and in good standing. The university also engages in internal and external processes for the approval of proposed new academic programs that include the school curricular and review processes, the university Faculty Senate, Oregon University System Academic Council, an external peer review, the State Board of Higher Education and the state Office of Degree Authorization. Other components of OHSU such as the University Hospitals, the School of Medicine residency programs, the Department of Comparative Medicine (Animal Care), and Library and Information Services are also subject to review and accreditation by national organizations. Through these processes, OHSU’s basic systems and component parts have received extensive ongoing reviews. To remain in good standing, the university has taken advantage of these opportunities for self-learning and improvement.

Even as it has experienced unprecedented growth, the university has confronted a number of strategic internal and external challenges. Strategic thinking and formal planning processes have helped OHSU assess and address challenges such as the physical capacity needed to achieve its missions; the research infrastructure needed to expand the research enterprise; the workforce shortage of health care professionals in the context of reduced state resources for academic programs and clinical care for the state’s underserved health care population; and the fundraising capacity of the OHSU Foundation. These and other issues permeate the description and analyses of OHSU through the lens of the nine standards. The result is a unique portrait of OHSU that reflects our challenges while attempting to show just how dramatically the institution has changed in 10 years. These key issues are summarized briefly as they pertain to each standard.
Standard 1: Institutional Mission and Goals, Planning and Effectiveness

The expectation for OHSU is to improve human health and well-being through learning, healing and discovery.

The university has revised its mission statement twice since the 1995 self-study. The most recent revision was the result of the self-study process itself and has been approved by the Deans’ Council, the Vice President’s Council, the Faculty Senate and the president. It reflects the dynamic nature of an institution striving for excellence and facing myriad challenges such as the downturn in the national and state economies, Oregon’s slower recovery and the evolving relationship with the state.

Oregon Health & Science University is the state’s only comprehensive public academic health center. Its fundamental purpose is to improve the health and well-being of people in Oregon and beyond. A 10-member Board of Directors nominated by the Governor and confirmed by the Oregon Senate governs the university.

As part of its multifaceted public mission, OHSU strives for excellence in education, research and scholarship, clinical practice and community service. Through its dynamic interdisciplinary environment, OHSU stimulates the spirit of inquiry, initiative, and cooperation among students, faculty and staff.

Setting the example for integrity, compassion and leadership, OHSU strives to:

• Educate tomorrow’s health professionals, scientists, engineers and managers in top-tier programs that prepare them for a lifetime of learning, leadership and contribution.

• Explore new basic, clinical and applied research frontiers in health and biomedical sciences, environmental and biomedical engineering and information sciences and translate these discoveries, wherever possible, into applications in the health and commercial sectors.

• Deliver excellence in health care, emphasizing the creation and implementation of new knowledge and cutting-edge technologies.

• Lead and advocate for programs that improve health for all Oregonians, and extend OHSU’s education, research and health care missions through community service, partnerships and outreach (OHSU Mission Statement, 2005).

The university continues to be guided by the strategic plan formalized in 2000 and the core values and priorities developed during that process: creation of new knowledge, education of high-quality providers, provision of compassionate care, excellence, integrity, collegiality and diversity. Three important goals of the university identified during that process include:

• To be among the nation’s top 20 academic health centers in research funding, with programs of excellence ranked in the top 10.

• To have our academic programs ranked among the nation’s top 10.

• To serve as an economic engine for Portland, the state, and the region.
An annual retreat of the board of directors and executive leadership provides a forum for reviewing, renewing and readjusting directions, performance targets and timelines. Unit-level planning processes are strongly influenced by the strategic vision of the board of directors and leadership, and vice versa. OHSU is a university, but its unique status as a public corporation enables it to operate in many ways more like a business. It therefore has an enhanced ability to grow and adapt to changing circumstances.

The university and its programs enjoy a strong national reputation, which has been enhanced further by the manyfold expansion in funded research activity and exceptional faculty linked to that activity. OHSU’s standing has benefited as well from growth in philanthropy and financial stability, which help fund and sustain the mission components while demonstrating the effectiveness of OHSU’s long-range planning efforts.

**Standard 2: Educational Program and Its Effectiveness**

The educational mission of the university is carried out by its four professional schools (medicine, dentistry, nursing and science and engineering), which offer a total of 40 academic programs. OHSU strives for excellence in all aspects of teaching, research and service. Well-established curriculum review and development mechanisms function in each educational unit to assure that outcomes measures and benchmarks are met or exceeded. All of the programs for which specialized accreditation is available have achieved the highest attainable levels of status.

Each unit carefully assesses and monitors its goals, objectives, outcomes and resources to keep pace with changes in each discipline and the needs of the public. Advances have been made in stimulating and supporting collaborative efforts among schools. This is especially evident with the addition of the OGI School of Science & Engineering to the university. The faculty’s dedication to the OHSU mission is clearly demonstrated by its strong research productivity, high teaching success markers and increasing public service/outreach activities. In 2003-04, the university awarded a total of 895 degrees and certificates across all schools. The challenge for the future will be to balance the needs of the academic programs with the demands of ever-evolving health care systems and the concurrent infrastructure improvements necessary to support this growth and change.

**Standard 3: Students**

Under the university’s more focused and intentional approach to student affairs, academics and student services are now centralized under one vice provost, and integration and collaboration are promoted in support of students across the schools and programs. As a result, new systems and services are in place to support students across all schools. These enhancements include an expansion of international services, services for students with disabilities and the implementation of Web-based tools for admission, registration and online information. OHSU has also enhanced its program and infrastructure for diversity on campus and for activities that expand the pipeline for all students; redeveloped current physical spaces and planned for new spaces that contribute to the quality of student life and promote interdisciplinary approaches; and increased participation in student governance.
Along with these strengths, the self-study revealed several challenges and areas of focus on behalf of students for the next decade. These include the enhancement of financial aid and financial support for critical student services; the integration of student life into the planning for new campus locations on Portland’s South Waterfront; financial support for converting the current fitness center into a student center; fiscal stability of student auxiliaries; and maintaining the momentum toward building a more inclusive and diverse campus. The provost, vice provost, deans, associate deans and student governance structures are all involved in an ongoing planning process to address these challenges.

**Standard 4: Faculty**

Since its 1995 shift to public-corporation status, the university has grown and diversified, and so has its faculty. By the end of this 10-year period, the total number of faculty (including volunteer faculty) had grown by almost one-third to 4,257 in fall 2004. Full-time faculty grew nearly 50 percent during the same period, while volunteer clinical faculty experienced a 40-percent increase. Out of 1,193 full-time faculty holding academic rank from instructor to full professor, approximately 80 percent have doctoral degrees. The clinical faculty are now an integral part of OHSU’s teaching force, bringing highly qualified and veteran expertise to the learning experiences of more than 2,550 professional medical, dental, nursing and allied health students last year. The teaching faculty from the schools of dentistry, medicine and nursing also serve as an important source of cutting-edge expertise and clinical direction for the OHSU health system.

The 2001 addition of the Oregon Graduate Institute of Science & Technology (now the OGI School of Science & Engineering) brought faculty with academic excellence in science and engineering fields new to the university but critical to its expanding programs in computation and information science, biomedical engineering and environmental and biomolecular systems. These faculty are helping the university position itself for a future in which technological advances are an integral part of health care solutions. Interdisciplinary teams comprising academic, clinical and basic research faculty from all four professional schools and the five research institutes have increasingly become the norm over the past decade. Joint appointments of faculty in the schools and research institutes are also now common, reflecting the university’s strategy to foster academic and scientific advancement by sharing knowledge and expertise across disciplinary boundaries. The university has also encouraged research and discovery by providing advanced technologies and improved infrastructure. Amid this environment, OHSU research awards have nearly quadrupled since 1995.

The university has significantly bolstered faculty development in all schools and research institutes. OHSU now offers programs and services at many levels, including invited speaker forums sponsored by the Faculty Senate, increased training opportunities and increased numbers
of faculty development grants. Faculty development is also built upon a solid foundation of institutional policies and processes aimed at rewarding and retaining individuals of the highest caliber in their disciplines and across disciplines within OHSU. In recent years, specialty accreditation bodies for the professional schools have recognized the high quality of our faculty as exemplified by the number of faculty who are considered national experts in their fields, are appointed to prestigious national and international academies, are board-certified in their specialty areas or have achieved success in other categories of faculty accomplishment.

The fast pace of growth has brought with it new faculty recruitment and development challenges with which the university is now grappling. In late 2004, the provost initiated discussions with the Deans' Council and the Vice President for Research on ways to incorporate best practices among schools and research institutes on faculty appointment, rank and promotion guidelines into overarching university policies and guidelines. Similarly, individual schools and research institutes are pursuing competitively based compensation policies and practices to attract and retain faculty of the highest caliber. The university is also responding to the acute need for additional research space to house faculty by constructing major new facilities.

The dynamic growth in the size, quality and physical presence of all of OHSU’s programs is directly related to the extraordinary productivity and quality of its faculty. Shoulering multiple roles as teacher, clinician, scientist and researcher, our faculty have exhibited a strong entrepreneurial spirit and a remarkable ability to simultaneously deliver excellence at the same time they must bring in the resources to support themselves and their programs.

Standard 5: Library and Information Services

The library staff as a whole is highly qualified and trained to use the latest technologies to efficiently deliver the most current information to OHSU’s faculty, staff and students. Delivery of information from the OHSU Library to one’s desktop is a reality to which users have responded positively and enthusiastically. Library users have seamless, 24-hour access to resources at all libraries on the Marquam Hill and West campuses. The entire electronic library is available statewide to OHSU students and — to a lesser degree where resource licenses permit — to all Oregon health professionals. Additional resources have been created as library staff responded to faculty and student requests for journals, databases and books; modern study space; and new delivery models for instructional programs.

Over the past decade, the library staff has worked closely and successfully with the schools to optimize the delivery of information to OHSU’s distance education programs. The library has also successfully integrated the collections of the West Campus libraries into its online catalog. The collection of the local naturopathic college also has been integrated into the catalog.

The library has successfully converted from print to electronic materials, and the staff has responded effectively to the critical challenges of this transformation: determining how best to deliver electronic resources, meeting the rising costs of duplicating a print collection in electronic format and keeping up with the sheer volume of available information. The Collection Development Committee expends the library’s collection funds as prudently and cost-effectively
as possible. Faculty requests, surveys, interlibrary loans and in-house usage data indicate that they are selecting the journal titles that best support the needs of the community.

Library managers are set to begin strategic planning in FY 2005. This process will increase their understanding of electronic resources management and will lead to a reorganization that will concentrate the library’s personnel resources where most needed. The library will continue to increase access to electronic journals and to work toward fulfilling an ongoing user request — to purchase permanent electronic back files of various core health- and basic-science journals.

**Standard 6: Governance and Administration**

When OHSU became a public corporation in 1995, the state legislature approved a new streamlined governance and administrative structure for the institution. In an era of scarce state resources, OHSU was asked to operate more like a business, accountable to its own board of directors rather than the State Board of Higher Education. The new governance system freed the university to make independent programmatic and strategic decisions, enabling it to capture operational efficiencies and access the bond market to make targeted capital investments.

The transformation led to a period of dramatic growth, including a doubling of the institutional operating budget and a near doubling of employees. During this time, OHSU rose significantly in national rankings of educational programs and research awards while becoming very competitive in the local health care marketplace. The streamlined governance structure has clearly been a net positive development for the university. However, it has carried with it the challenge of maintaining public funding for public missions in the wake of OHSU’s well-recognized success.

**Standard 7: Finance**

The financial picture of OHSU has undergone a dramatic change during the past 10 years. The university has substantially grown its clinical and research programs resulting in an increase in total current fund revenues of 86 percent over the course of only six years. Grant dollars awarded to OHSU have quadrupled, contributing to the successful introduction of the Oregon Opportunity, a public-private funding initiative approved by the Oregon Legislature in 2001. Oregon Opportunity funds have helped OHSU recruit world-class scientists and construct a new 260,000-square-foot biomedical research building. These positive steps forward, coupled with enhanced recapture of overhead for all mission areas, have enabled the university to increase its cash reserves by 267 percent, placing it in a very solid financial position. In 2003, OHSU acquired land in Portland’s new South Waterfront district that will pave the way for expansion of its educational, research and clinical programs and facilities.

Financial challenges still facing the institution include the decline in state funding, the need to stay competitive in student tuition and the effort to recruit successful researchers and clinicians. The university’s five-year financial plan addresses these critical success factors.
**Standard 8: Physical Resources**

The institution has grown substantially, both in size and complexity, since the 1995 Self-Study. The institution increased building space by 1.5 million square feet and added more than 300 acres of property, primarily in a new West Campus. Planning is underway for the Schnitzer Campus adjacent to the developing South Waterfront central district. This expansion of physical capacity will accommodate the university’s pursuit of its strategic directions and its ability to respond to emerging priorities. The generous gift of the Schnitzer Campus will allow, for the first time in Oregon’s history, the creation of space and facilities focused on the educational mission and student learning.

During the past five years, the institution’s 30-Year Master Plan was completely revised, calling for expansion of roughly 2.2 million square feet of new research and patient care facilities, distributed among its campuses. The West Campus Master Plan was also updated and approved for extension for an additional 20 years from its 1998 adoption. These major planning efforts form the framework for additions to OHSU’s physical plant. Space planning for the institution has become more systematic over the past five years. The integration of capital planning and the institution’s capital budget has resulted in effective oversight of construction projects and related budgets.

The current Self-Study underscores the challenges facing the university in regard to its physical plant. As three new buildings come online over the next two years, planning activities are focusing on a “backfill” strategy of prioritizing the effective use of both new and existing space. The new South Waterfront development, including both the Central District and the Schnitzer Campus to the north, requires planning for an effective physical plant. Infrastructure improvements are critically needed to alleviate long-standing access and parking challenges, particularly on the Marquam Hill campus. The Facilities Management and Construction Department, the Space Committee and the Vice Presidents’ Council are actively involved in planning in these areas.

**Standard 9: Institutional Integrity**

OHSU’s Integrity Program derives great strength from top-down and ground-up support. OHSU’s board of directors and the executive leadership have made the Institutional Integrity Program a mandate. This level of support enables the director of the program to socialize it successfully throughout all levels of the university and contributes greatly to the OHSU culture of integrity. As new students and employees join OHSU, they learn that all in the OHSU family are expected to play a part in maintaining this culture. OHSU’s Code of Conduct, board-level oversight of the integrity program, integrity education programs, an emphasis on vertically integrating ethics throughout the curricula, and a world-class Center for Ethics in Health Care are emblematic of OHSU’s strong determination to maintain this culture of integrity.
OHSU foresees some challenges to maintaining this commitment to institutional integrity because the university has developed a model that delegates certain integrity responsibilities to the local or departmental level. Departmental budgets are also at risk during times of revenue shortfalls.

The strategies for surmounting this challenge include increased education at the local level, streamlining certain requirements such as outside activity and conflict-of-interest disclosures, continued top-level attention to integrity issues and maximizing the potential for efficiency using information technology.

**History and Overview**

University education of health care professionals in Oregon began in 1867 with the advent of several independent schools in Salem and Portland. Over time, the individual institutions merged into a significant academic health center reaching throughout the state. Physical facilities supporting the university's instructional, research, patient care and community service efforts exist throughout the state and are a continually growing presence to the citizens of Oregon. As such, OHSU has wide geographic scope (96,000 square miles) and cannot be tied to a single postal zip code.

The university's nearly 120-year history reveals an institution responding to its ever-changing environment in the training of health care professionals, increasing access to health care and exploring new basic and clinical research frontiers. By focusing on demand and opportunity, OHSU continues to be an entrepreneurial organization true to its core mission.

In 1887, the University of Oregon established a medical school in Northwest Portland that became the only medical school in the Pacific Northwest until 1946. The Oregon College of Dentistry was founded in 1898 in downtown Portland and merged with the Tacoma College of Dental Surgery in 1900 to form the North Pacific Dental College. The University of Oregon's medical school added courses in nursing to its curriculum in 1919; the nursing education program became the University of Oregon School of Nursing in 1960.

In 1974, the Portland campus separated from the University of Oregon and became the eighth institution of the Oregon State System of Higher Education (OSSHE). As a freestanding institution, the renamed University of Oregon Health Sciences Center brought together the schools of dentistry, medicine and nursing under one umbrella to become Oregon's only academic health center and one of 125 in the nation. The institution was renamed Oregon Health Sciences University (OHSU) in 1981.

One of the unique characteristics of OHSU has been the strength and independence of its research institutes, several of which award their own primary faculty appointments. In recent years, the institution has also merged with other science-focused institutes in the region. This expanded research power has increasingly demanded an interdisciplinary approach. The associated physical and human assets of these institutes (e.g., the Oregon Regional/National Primate Research Center, the Neurological Sciences Institute) boosted the university's capacity in research. The merger with Oregon Graduate Institute of Science & Technology (OGI) in July 2001 resulted in a name change to Oregon Health & Science University to reflect a broadened research
and educational mission incorporating new science and engineering disciplines. A second OHSU campus in the Portland metropolitan area, the West Campus, was established on a 263-acre tract in Hillsboro. West Campus today houses the OGI School of Science and Engineering, the Oregon National Primate Research Center, the Neurological Sciences Institute and the Vaccine and Gene Therapy Institute.

In addition to the opportunity to expand education and research, the growth of OHSU serves as an additional catalyst for Oregon's developing bioscience industry. OHSU’s plans for future expansion will be realized through a unique partnership with government agencies and private developers to transform vacant land along the west bank of the Willamette River into a mixed use community. This new community will include a landmark center for advanced health and medicine. The 16-story, 400,000 square-foot center is expected to open in fall 2006 and will include floors of physician practices, surgery and imaging; research laboratories and educational facilities including pharmacy education, translational research and biomedical engineering; a Medical Wellness Center, numerous clinical programs, and aerial tram access to the OHSU Marquam Hill campus. In addition, private donations will help build the Schnitzer Campus, a major education center in the South Waterfront development based on an interdisciplinary model of education. The South Waterfront development and the Schnitzer Campus will also be connected to Portland State University and downtown Portland by the new streetcar line. A primary challenge of the next 10 years will be to transform OHSU into an integrated multicampus university.

The Past 10 Years

The following section briefly highlights some of the events, activities and decisions that have shaped the past decade of profound change at OHSU and that continue to impact the university today. These developments are highly interrelated. A number of environmental pressures, combined with the decision to seek public-corporation status in 1995, have created a domino effect for OHSU. The overall impact has been overwhelmingly positive.

Environmental Turbulence

The decision to seek independence from the bureaucratic and policy constraints of the Oregon State System of Higher Education (now the Oregon University System) and the Department of Administrative Services (the group that managed the budgets and administration of state agencies) was a response to two pressures: the long-term decline in state support for higher education in Oregon after the passage of a state property tax limitation measure in 1990 and the economic pressures on the university hospitals and clinics from the early penetration of managed health care, and an extremely competitive health care market.

The change in status from a state agency to a public corporation signaled that the university would be conducting business differently. The university now had its own board of directors and was able to focus on its own priorities, to make market-based business decisions and to access capital through the issuance of bonds. This latter capability enabled OHSU to address an enormous backlog of deferred maintenance projects, particularly in clinical facilities.
State assistance, albeit critical to the public mission, now accounts for less than 4 percent of OHSU’s total budget. The university has been successful in securing new fiscal drivers for the university through increases in patient income, federal grants and contracts and philanthropy. The Governor’s Recommended Budget for 2005-2007 would reduce state support for OHSU by 40 percent despite workforce shortages in nurses, physicians, dentists and other health-related workers. The interrelated factors of an aging health professional workforce, an aging Oregon population, population growth and an increasingly diverse population exacerbate these workforce shortages. As this document goes to print, intensive efforts are underway with the 2005 Legislature to attempt to restore at least critical components of this reduction.

Over the past decade, the applicant pool for the professional schools has become even stronger with each successive student cohort entering the university to begin their studies in one of the health professions, or as scientists and engineers. In 2004, OHSU taught nearly 2,600 students; 1,000 interns, residents, postdoctoral fellows and clinical trainees; and approximately 18,000 continuing education participants.

The university has received high rankings in *U.S. News & World Report: Best Graduate Schools 2005*, one factor in recruiting top students:

- The School of Medicine ranked Number 2 among 125 medical schools in the United States for its primary care education program for the fourth consecutive year.
- The School of Nursing’s graduate program is ranked sixth among 350 programs in the United States. All of the graduate programs ranked in the top 10 nationally.
- For the past 10 years, School of Dentistry graduates have had a 98 percent first-time pass rate on the Western Regional Examining Board exam. The average pass rate is 87 percent.
- The OGI School of Science & Engineering tied for 40th in *U.S. News & World Report: Best Graduate Schools 2005* rankings for graduate environmental/environmental health engineering schools — the only Pacific Northwest engineering school to rank in this category.

The increase in demand for health professionals and health care has not been met by corresponding increases in state support for the training of health professionals. Tuition at OHSU is already among the highest in the nation. These factors pose challenges for OHSU to find creative solutions to increase production of health care professionals in Oregon and to increase the diversity of students entering and completing these programs. The university is exploring innovative partnerships to expand program enrollment in nursing and medicine.

As state support for the health care mission has diminished over the past two decades, along with reductions in Medicaid and Medicare reimbursement rates, OHSU’s status as primary provider of safety net care in the Portland area is threatened. Circumstances have created a gradual shift in thinking to the question of how OHSU can provide leadership in creating partnerships to meet the health and wellness needs of uninsured and underinsured Oregonians.

The expansion of the research enterprise has proved to be a successful strategy for growth and for enhancing the university’s reputation in other missions. The faculty have been competitive
in securing federal grants for basic, applied and clinical research. Research funding has nearly quadrupled in the last decade from $86 million in FY 1995 to $260 million in FY 2004. The majority of federal research funding to OHSU comes from the National Institutes of Health (NIH). Our ranking among all institutions receiving NIH funds has risen from 87th in 1986 to 60th in 1995 to 36th in 2003.

Not only have the sponsored research projects increased, a greater proportion of faculty are serving as principal investigators on funded research projects. This trend has helped OHSU improve its national ranking in NIH funding.

The university is currently planning for the impact of the NIH Roadmap on its research portfolio. OHSU is devising strategies to acquire or grow the expertise needed to remain competitive. The university is aware of the changing national political climate and its potential impact on the amount of public funds available and on the viability evolving areas of inquiry. The expansion into environmental and biomedical engineering provides a foundation to explore technology solutions within the health and wellness context that were originally beyond the university’s reach.

**OHSU Vision, Values and Strategic Plan**

The OHSU Strategic Plan 2000 set in motion the goals of financial stability and overall institutional excellence. Institutional planning occurs in the context of an annual retreat attended by the board of directors and the executive team. These retreats include analyzing the environment and developing strategic directions supported by distinctive services and facilities that create competitive value. The academic units and the health system then translate these strategic directions into departmental goals through their respective planning and implementation processes. The OHSU Vision and Core Values have been critical to building a shared understanding among the various units about the future direction of the university.

**Mergers**

The flexibility afforded by public-corporation status enabled OHSU to bolster its education and research programs through three important mergers with private, not-for-profit institutions — the Oregon Regional/National Primate Research Center in 1994 (with the OHSU Foundation, and subsequently with the university in 1996), the Neurological Science Institute in 1996 and the Oregon Graduate Institute of Science & Technology in 2001. These expansions coupled with internal development of programs and faculty have been one of the mechanisms to enhance the breadth and scope of the research program.

**The Oregon Opportunity**

Excellence in research is the basis for the Oregon Opportunity, a $500 million public-private campaign to achieve a major leap forward in OHSU research infrastructure. The Oregon Legislature authorized the sale of bonds in 2001 for the $200 million public portion of the Oregon Opportunity. Almost all of the remaining $300 million has come from individual
donors, foundations and organizations as of the end of June 2004. As a result, it has been possible to recruit world-class scientists, construct a 260,000-square-foot biomedical research building, acquire new facilities on the OHSU West Campus and create new programs to support rural health. At the same time, the capacity and viability of the health system will be substantially enhanced by construction underway of a new 330,000-square-foot patient care tower and the new 16-story, 400,000-square-foot ambulatory care and clinical research building on the South Waterfront.

**New Programs and Research Infrastructure**

The mergers made possible by the change in governance structure brought new expertise to the OHSU community. Through focusing on what the university does best in academic programs — professional health and graduate education and training — new programs have emerged such as medical informatics and biomedical engineering, and existing areas of research strength — such as neuroscience, cancer, women’s health, environmental sciences and molecular medicine — have continued to expand. These programs target areas that hold promise for discoveries in disease treatment and prevention, health and well being, and the development of new technologies and devices to lower the cost of and improve health care.

The Oregon Opportunity initiative has been critical to securing new resources to build the research programs needed to support research excellence and competitiveness. The new additions include the Advanced Imaging Research Center, the Developmental Therapeutics Center, the Papé Pediatric Research Center, the Stem Cell Biology Center and the Center for the Study of Weight Regulation and Associated Disorders.

The university has expanded the research infrastructure by establishing an Office of Research, separate from the Office of Academic Affairs, with its own vice president. Additionally, OHSU has designed research support services to assist faculty in securing external funding; enhanced its technology transfer programs; created a fund in the OHSU Foundation to assist faculty with the “proof-of-concept” phase of investigation required before commercial or venture capital investment is likely; and developed new research programs and centers to support research efforts. Despite this significant progress over the past 10 years, the university believes that growing further new research facilities and programs will continue to be a primary strategic area of focus in the coming years.

**Collaborations with Other Educational Institutions**

In light of the budget reductions in the 2001 legislative session, OHSU decided to focus its core strengths in undergraduate nursing, graduate professional health programs in medicine, dentistry and nursing, and graduate biomedical science and engineering programs. This prompted OHSU to seek other education partners to provide undergraduate programs in several allied health fields including clinical laboratory science (CLS) and advanced paramedic programs (EMT). The CLS and EMT programs were transferred administratively to the Oregon Institute of Technology, an OUS institution with a mission supporting engineering, technology and undergraduate allied health programs. The clinical laboratory science program continues to be offered on the Marquam Hill Campus and the EMT program is provided by a three-way collaborative effort between OHSU, OIT and the Tualatin Valley Fire District. OHSU and OIT jointly award bachelor’s
degrees in clinical laboratory science and an associate or baccalaureate degree in emergency medical technology.

OHSU began to offer off-site nursing education on the Eastern Oregon University campus in La Grande in 1979. Collaborative efforts in the early 1990s to maintain high-quality nursing programs in the aftermath of the Measure 5 tax-limitation referendum included the initiative to create a statewide nursing program operated by adding the nursing programs on the OUS campuses in Ashland and Klamath Falls. A total of 32 different degree programs in nursing were offered statewide and in the northwest region in 2003-04. In fact, the on-line doctoral program in nursing offered in Billings, Montana, reflects how the university has realigned the delivery of programs to meet the changing needs of the region. A new initiative under discussion with Oregon community colleges would provide a streamlined, fully integrated baccalaureate degree articulated seamlessly with the associate's degree program. These programs are planned for on-site delivery at the community colleges.

The School of Nursing is not alone in building partnerships to meet statewide needs. If successful, a proposed partnership between the School of Medicine, the University of Oregon and the PeaceHealth system in Eugene, Oregon, would enable a cohort of M.D. students to spend their first and third years in Eugene, completing science coursework at the University of Oregon and clinical work at in the PeaceHealth System. The proposed partnership is designed to address the pending shortage of physicians throughout Oregon and the interest of clinical practitioners in Eugene to help train the next generation of physicians. Other partnerships are being explored to expand capacity in medicine and dentistry by using a community-based model when appropriate.

In sum, the university is committed to partnerships that leverage human, physical and financial assets to meet the current and emerging demands for health professionals. Processes are in place to ensure that the standards for quality and excellence associated with OHSU on its Marquam Hill and West Campuses are reflected in these innovative ways of doing business on the academic side of the enterprise as programs are extended far beyond those geographic sites.

**Interdisciplinary Focus**

The university is responding to the changing health care and scientific environments through a more interdisciplinary focus in teaching and research. This interdisciplinary approach is reflected in curriculum and program planning as well as in the extensive array of joint appointments between the schools, between the schools and research institutes and centers, between the schools and OHSU Hospitals and Clinics, and between schools and other universities.

The OHSU Strategic Plan 2000 stated six goals for the teaching enterprise. One of these goals was to “establish innovative, interdisciplinary courses fostering bridges across academic and clinical specialty areas [to] further reinforce OHSU’s centers of excellence and equip students to work in health care teams.” The integration of a set of core competencies- patient-centered care, interdisciplinary teams, evidence-based practice, quality improvement and informatics—would reform health professions education to enhance quality and meet the evolving needs of patients (Institute of Medicine, 2001). In a clinical setting, the treatment of a patient involves an array of health care providers that requires collaboration and communication among nurse, physician, laboratory personnel, pharmacist, social worker and an increasing number of allied health and
technology personnel. The education and practice environment can train future professionals to pool competencies across disciplinary lines in approaching problems, issues and the delivery of care. Two new graduate degrees reflect the pooling of disciplinary expertise and departments in their design, implementation and delivery — the biomedical engineering program and the human investigations program.

In addition to the inter-professional nature of decision making to ensure the highest quality patient care, today’s scientific discoveries and new clinical treatments often arise from the cross-fertilization of ideas from experts in different specialties. Joint faculty appointments in the schools and research institutes and centers create opportunities for faculty to work together beyond the organizational boundaries of their primary appointments. By adding the capacity of engineering and technology to the university, faculty teams can explore the development of technologies that simplify complex diagnosis and treatment problems. Efforts to foster this interdisciplinary focus in the research enterprise are being piloted in numerous areas.

**Tuition Increases and Financial Aid**

The impact of reductions in state funding is immediately visible in the dramatic tuition increases needed to maintain quality programs for students in dentistry, medicine and nursing. The tuition levels at OHSU are among the highest for public institutions in the United States.

The price advantage given to residents of Oregon in dentistry, medicine and nursing is narrowing and may disappear altogether. This could have unintended consequences for the mix of resident/nonresident students in the near future. Some Oregonians may leave the state to attend dental or medical school and may not return to practice. However, graduates of OHSU training programs, regardless of their state of origin, have a high probability of practicing in Oregon. An interesting aspect of a more level tuition structure is that there would no longer be a financial advantage to accept a nonresident student. Hence policies that simply admit the best-qualified students can be simplified, with consideration given for factors such as residency, diversity and interest in rural practice.

Given modest scholarships and grant awards available to students at the advanced degree level, the strategy for increasing immediate affordability is by deferring payment for professional education through loans. The average debt burden can be quite substantial, but generally can be managed given entry-level salaries and lifetime earning potential for many health care professions. The increasing debt burden, however, may limit career options for some students to those choices (specialties and geographic location) that offer greater financial rewards.

The high cost of educating and training health care professionals is problematic for increasing the diversity among students, faculty and practitioners. The pipeline and outreach programs are designed to eliminate the preparation and expectation barriers to these careers for students of color. Diminished support from federal and state grant programs at the graduate and professional levels make institutional efforts essential to expand existing scholarships and grant aid for students.
Conclusion

Over the past decade, OHSU has focused on the transformations needed to be a highly successful, first-tier academic health center. The 2005 Accreditation Self-Study process has provided an opportunity to consider the important work we have accomplished and our plans to move forward on a much firmer financial and organizational foundation. We have begun numerous exciting initiatives and look ahead to utilizing our resources effectively to fulfill the mission and goals of the university. Over the next 10 years, the university will carry on its mission in a complex environment. Planning for that reality will include a continued laser-like focus on financial stability and overall institutional excellence. The university's current financial stability is the result of many factors, including successful clinical operations, an improved payer mix for health care services and external funding for clinical trials and basic research. We are prepared to anticipate and respond to changes in the national research agenda for which our organizational flexibility and excellent faculty are valuable assets.

The addition of two campuses will change OHSU’s physical presence as it develops and builds out the multi-campus approach. Some of the construction will provide new spaces for interdisciplinary education and new concepts in health care delivery (such as the “Wellness Center”). We will also continue to focus on the research infrastructure. This entails the completion of the planned expansion for research, but it also involves an effective system for managing the acquisition, operation and maintenance of the rapidly changing and expensive research equipment and core services our faculty need to advance their work.

Plans for the future call for OHSU to evolve into a more interdisciplinary teaching model. Students require a high-quality education that includes training at the cutting-edge of science by top faculty. A more interdisciplinary approach to teaching will necessitate faculty development in ways not yet envisioned. Moreover, it is expected that this new model will require unique new physical spaces designed to contribute to teaching and learning. All of this will require continued support for a rich campus life that enhances academic success and support for students and faculty.

In summary, OHSU’s vision has dramatically transformed the university during the past 10 years, but it has not been without challenges. Perhaps one of the most significant challenges has been the institutional realization that each major program, no matter how meritorious, must come with a business plan that generates full cost recovery or an explicit and identified cross-subsidy. At the same time, there is a growing institution-wide recognition that it is the quality of the program that provides the “brand” of health care and biomedical research intrinsic to a great academic health center. The coming 10-year period clearly holds the potential for continued challenges and successes, but the institution’s ability to focus on fundamental principles and to filter all planning through a common understanding of the core mission provides confidence that the next decade will be every bit as exciting as the last.
Mission and Goals, Planning and Effectiveness
Oregon Health & Science University includes the schools of dentistry, medicine, nursing, and science and engineering; OHSU Hospital and Doernbecher Children's Hospital; numerous primary care and specialty clinics; multiple research institutes; and several outreach and community service units. OHSU awards the state's only doctoral degrees in dentistry, medicine, nursing and biomedical engineering; houses many specialized research programs; and educates postdoctoral, doctoral, master's-level, undergraduate and certificate programs in a broad spectrum of health, biomedical science and engineering disciplines. It maintains educational partnerships with the Oregon University System and its individual institutions, the Veterans Affairs Medical Center, and many other educational institutions.

Mission and Goals

Prompted by the 1995 self-study process and the anticipated change in governance structure in that same year, the Executive Committee and Faculty Senate approved a new mission statement for Oregon Health Sciences University in December 1994 to replace the 1990 mission statement.1 OHSU’s mission statement expanded from three to four components as follows: education, health care, research and outreach. The outreach component was added to reflect numerous initiatives that supported the expansion of health and education services into Oregon’s rural and remote areas, increasingly underserved populations.2 (See Appendix 1.1, OHSU Statutory Mission.)

In 1995 the mission statement read:

The Oregon Health Sciences University serves the people of the state of Oregon as the primary institution for education and research in the health professions and as a center for innovative care. The university will provide:

- Educational programs and an environment that stimulates the spirit of inquiry, initiative and cooperation between and among students, faculty and staff,
- High quality health care emphasizing the application of new knowledge,
- Basic and clinical research that promotes health and the prevention and treatment of disease, and

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1 The Oregon State Board of Higher Education approved the previous mission statement in May 1990.
2 The Area Health Education Center was designed to improve the education, training and distribution of health care professionals in rural Oregon by educating these professionals in situ. The Office of Rural Health helps communities recruit and retain practitioners and provides technical support to rural clinics and hospitals. OHSU’s emphasis is on matching OHSU graduates to Oregon’s needs. The Child Development and Rehabilitation Center provides services in every county in the state for children with special health care needs.
Outreach programs in health education, research and patient care that support the university's mission to serve as a statewide resource for health care providers. (OHSU Mission Statement December 1994.)

In 1995 OHSU became a public corporation and separated from the Oregon State System of Higher Education/Oregon University System. The enabling statute for the public corporation (“Senate Bill 2”, now ORS 353) established the OHSU Board of Directors, whose members are appointed by the governor and confirmed by the Oregon Senate. The university maintained its public mission, but acquired the flexibility and tools needed to better serve the people of Oregon. An example of this new flexibility is the ability to go to the bond market to address deferred maintenance in the health system and generate resources to pursue new projects critical to OHSU’s priorities for expansion. (See Standard Six, Governance and Administration.)

This transformation to a public corporation has been central to OHSU’s strategic focus and development of institutional priorities.

Changes in the Mission Statement

Since 1995 OHSU has revised its mission statement twice to reflect the refocusing of organizational strategies. These revisions were undertaken in 2000 and again in 2005. In both cases, the deans revised the institutional mission statements and the OHSU Faculty Senate reviewed and supported the revisions.

As part of the strategic planning process between 1998 and 2000, the university revised its mission statement to reflect the impending merger with the Oregon Graduate Institute of Science and Technology. This merger, approved by the OHSU Board of Directors, the OGI Board of Trustees, the Oregon Health Sciences Foundation Board and the 2001 Legislative Assembly, gave OHSU computer science and engineering capacity needed to increase its competitiveness in the study of functional genomics. In general, it has allowed OHSU to be at the cutting edge of new disciplines emerging at the intersection of biology, computer science and engineering. Following the vetting and approval by the Faculty Senates of OHSU and OGI, the OHSU Board of Directors approved this mission statement, as follows:

OHSU’s fundamental purpose is to improve the well-being of people in Oregon and beyond. As part of its multifaceted public mission, OHSU strives for excellence in education, research, clinical practice, scholarship and community service. Through its dynamic interdisciplinary environment, OHSU stimulates the spirit of inquiry, initiative and cooperation among students, faculty and staff.

Setting the example for integrity, compassion and leadership, OHSU strives to:

- Educate tomorrow’s health and high-technology professionals, scientists, environmental engineers and managers for leadership in their fields.

- Provide high-quality health care emphasizing the development and dissemination of new knowledge and cutting-edge technology.
• Explore new basic and applied research frontiers in health and biomedical sciences, environmental engineering, computation, and information technology.

• Improve access to health care and education through community service and outreach to Oregon’s underserved populations (OHSU Mission Statement, 2000).

The same approval process resulted in a new name for the institution and its Foundation: “Oregon Health & Science University,” to reflect the growing importance of interdisciplinary research in the sciences to the development of new knowledge and cutting edge technologies in the health care field. Over the last three years, OGI School of Science & Engineering has been moving toward increased synergy with OHSU’s institutional mission by creating a program and research niche in biomedical and environmental engineering.

The change in governance structure in 1995 facilitated building program capacity through mergers with the Oregon Regional (now National) Primate Research Center and the Neurological Sciences Institute in 1998 and the Oregon Graduate Institute of Science and Technology in 2001. These mergers have strengthened OHSU’s ability to cope with developments in health care by expanding its research capacity. New resources acquired through the Oregon Opportunity have made it possible for OHSU to expand research and technology by making strategic investments in faculty recruitment and facilities. These changes are critical to moving OHSU toward a more interdisciplinary environment for teaching, healing and discovery that breaks down disciplinary barriers and fosters creative problem solving. The joint faculty appointments in the School of Medicine and the research institutes and centers are examples of OHSU’s direction towards a new vision of educational expertise.

As part of ongoing planning processes and prompted by the occasion of the NWCUU’s reaffirmation of institutional accreditation, we re-examined the mission in 2004-05. The revised mission statement was reviewed and endorsed by the OHSU Faculty Senate in March 2005.

Oregon Health & Science University is the state’s only comprehensive public academic health center. Its fundamental purpose is to improve the health and well-being of people in Oregon and beyond. A 10-member Board of Directors nominated by the Governor and confirmed by the Oregon Senate governs the university.

As part of its multifaceted public mission, OHSU strives for excellence in education, research and scholarship, clinical practice and community service. Through its dynamic interdisciplinary environment, OHSU stimulates the spirit of inquiry, initiative, and cooperation among students, faculty and staff.

Setting the example for integrity, compassion and leadership, OHSU strives to:

• Educate tomorrow’s health professionals, scientists, engineers and managers in top-tier programs that prepare them for a lifetime of learning, leadership and contribution.

• Explore new basic, clinical and applied research frontiers in health and biomedical sciences, environmental and biomedical engineering and information sciences and

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3 The launching of the Oregon Opportunity campaign, a statewide public-private partnership to make Oregon a leader in biomedical research, further enhances these capacity-enhancing decisions. A combination of public and private dollars is funding this $500 million effort.
translate these discoveries, wherever possible, into applications in the health and commercial sectors.

- Deliver excellence in health care, emphasizing the creation and implementation of new knowledge and cutting-edge technologies.

- Lead and advocate for programs that improve health for all Oregonians, and extend OHSU’s education, research and health care missions through community service, partnerships and outreach (OHSU Mission Statement, 2005).

Publication of the Mission Statement

The university’s mission statement is very prominent. For example, the university’s view book, Inside OHSU — comprised of several smaller booklets (OHSU Overview, OHSU Timeline, OHSU At A Glance, Measures of Success, Community Benefit Report and other publications) — uses the mission statement as an organizing theme for reporting on university activities and achievements. The synergy in OHSU’s institutional mission statement is captured in a single tag line: OHSU. Where healing, teaching and discovery come together. This phrase is used on every piece of official communication, including the OHSU Web site (www.ohsu.edu), marketing and publications, and outdoor display banners. (See Exhibit 1.1).

The university’s mission directs admissions policies, selection of faculty, allocation of resources, and strategic planning at the unit level. The institutional mission statement along with the unit-specific interpretations of the institutional mission is included in the online catalogue-type material for the schools of dentistry, medicine, nursing and science and engineering. For example, the School of Nursing’s online catalogue, A Passion for Nursing, begins with the OHSU mission before providing its specific program mission and information. Admitted and prospective students of all four schools can visit the Web site and link to program sites to view and download information about courses and schedules, requirements, and faculty. (See Exhibit 1.2, Mission Statement for Each Professional School.)

Vision and Goals

OHSU’s fundamental purpose is to improve the well being of people and the environment in Oregon and beyond. The vision of OHSU is to be a national and international leader in health care, education, research and technology development. The OHSU community is committed to a set of core values enunciated in the university’s Code of Conduct posted on the OHSU intranet site called O-ZONE.4 (See Standard Nine, Institutional Integrity.) These core values were identified and endorsed through the strategic planning process between 1998 and 2000, a comprehensive effort to define the future for OHSU including the Oregon Opportunity. Together the stated mission and its accompanying goals and core values emphasize a commitment to excellence in education, research and health care.

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4 The university’s Code of Conduct guides the behavior and performance of members of the Oregon Health & Science University community. It applies to all employees (faculty, classified, unclassified and other categories), registered and visiting students, volunteers, members of affiliated boards of directors, visiting health care practitioners, contracted non-permanent individuals, vendors doing business with OHSU, and others who work for or on behalf of OHSU, OHSU Medical Group, OHSU Foundation and Doernbecher Children’s Hospital Foundation (http://ozone.ohsu.edu/hr/resources/code.shtml).
OHSU is a mission-driven and extremely focused organization. The mission provides direction to all educational activities, to its admission policies, selection of faculty, allocation of resources and unit strategic planning. Achieving excellence translates into five interrelated long-term goals:

- To be recognized as a Top 10 university for its academic programs (e.g., as in the *U.S. News & World Report* rankings of graduate programs).
- To be recognized as a Top 20 university for its research programs (e.g., federal rankings by NIH).
- To attract the highest quality of graduate and professional students into programs (e.g., average undergraduate GPA, average science GPA, and average examination scores against national average).
- To be recognized as preparing the best dentists, physicians, nurses, scientists and engineers (first-time pass rates on professional licensure examinations compared to national average, studies of alumni and employers, professional accomplishments and contributions, etc.).
- To be valued as offering quality health care and education programs and services (satisfaction rating of OHSU Hospital by Oregonians, percentage of doctors listed in *Best Doctors in America*, etc.).

OHSU’s mission and goals give direction to all of its education activities. They inform difficult decisions made to enhance OHSU’s stability in light of external forces. These forces include changes in the research roadmap and availability of federal funding; the rising cost of health care coupled with a tattered safety net and increasingly challenged reimbursement system; requirements of federal regulations such as the Health Insurance Portability and Accountability Act (HIPAA) of 1996; changes in professional practice and state budget shortfalls.

In the last 10 years, OHSU has consolidated or eliminated academic programs. For example, as a result of budget reductions adopted during the 2001 legislative session, the dental hygiene program was phased out. Instead, the School of Dentistry has worked collaboratively with other institutions in the state to start new hygiene programs. The university is working with other educational partners to increase the production of health professionals and allied-health professionals to meet workforce needs. These include joint programs with Portland State University (master’s in public health administration) and joint degrees with Oregon State University (Pharm. D.) and Oregon Institute of Technology (bachelor’s degrees in clinical laboratory sciences and emergency medicine technology.) OHSU has selectively added new academic programs aligned with the 2000 and the 2005 mission statements (e.g., biomedical engineering).

**Planning and Effectiveness**

The speed and magnitude of the results achieved in nearly a decade (1995 to 2004) are the consequence of changes in fundamental business processes, redefined relationships with the community, development of communication and technological infrastructures, expanded capacity in research, and team effort required to mobilize and guide the process of change. The magnitude of the change since the 1995 Self Study is captured in some basic facts in Table 1.1.
When Peter Kohler, M.D., became the president of OHSU in 1988, the university community spent the next two years engaged in an extensive strategic planning process. The impact of this planning is best represented in the successful drive to convert OHSU from a state agency to a public corporation. With this change in governance structure, OHSU has been able to respond more effectively to forces that create incentives or pressures for change. This process is guided by the annual fall retreats of the OHSU Board of Directors and by the annual retreats held by each professional school and other units at various times of the year. Each professional school has a strategic planning process and formal plan that interprets the institutional mission at the program and unit level. The other units, such as OHSU Hospital and the Child Development and Rehabilitation Center, have similar processes in place.

**Executive-level Planning**

Executive-level planning process has focused on overall institutional goals, the institution’s short- and long-term financial scenarios and the development of investment and other strategies to achieve the university’s future vision. President Kohler and the OHSU leadership have been responsible for the overall vision for OHSU, subject to approval by the OHSU Board of Directors. The board has provided oversight and guidance to the leadership team as it pursues the vision. For OHSU, not unlike other organizations, the management process is built around an annual and five-year budget and operating plan. Given some of the uncertainties surrounding state funding for public higher education in Oregon, state budget reversals have stimulated discussions that result in the fine-tuning of the longer-term strategic view by the board and the executive leadership.

Revisions in the five-year plan and implementation of the strategic vision have taken place throughout the organizational structure. Important bodies for dissemination include the VPs Group and the Executive Committee. The latter reflects all components of the mission by including the president, the provost/vice president for academic affairs, deans of each school, directors of the research institutes, president of the Faculty Senate, the executive director/vice president of OHSU Hospitals and Clinics and other vice presidents responsible for administrative functions. (See Appendix 1.3, *Executive Committee Membership*.)

A strategic planning process, which was undertaken between 1998 and 2000, secured input from academic, research and clinical leaders, hundreds of employees, as well as community leaders and stakeholders. The process culminated in the *OHSU Strategic Plan 2000*. This document outlined what it would take to reach the university’s goals of financial stability and overall institutional

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**Table 1.1 Magnitude of OHSU Change, FY1995, FY2000, and FY2004**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Operating Budget</th>
<th>State Appropriations*</th>
<th>Grant Awards</th>
<th>Philanthropy</th>
<th>Employees</th>
<th>Students</th>
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<td>$86 million</td>
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</tr>
<tr>
<td>2000</td>
<td>$882 million</td>
<td>6.4%</td>
<td>$168 million</td>
<td>$34.0 million</td>
<td>10,100</td>
<td>1,906</td>
</tr>
<tr>
<td>2004</td>
<td>$1.18 billion</td>
<td>3.6%</td>
<td>$260 million</td>
<td>$75.2 million</td>
<td>11,500</td>
<td>2,553</td>
</tr>
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</table>

*Note: State appropriations as a percent of the total OHSU operating budget.*
excellence. The public/private partnership needed to attain stability and excellence is reflected in the $500 million Oregon Opportunity campaign. The state Legislature and the people of Oregon apportioned $200 million to help support biosciences research. The long-range goal of the OHSU Foundation was to raise $300 million in gifts from corporations, foundations and private citizens by 2007. To date, $287 million has been received or pledged. (See Exhibit 1.3, OHSU Strategic Plan 2000.)

Ongoing planning at the institutional level focuses on expanding physical capacity through land acquisitions, infrastructure development and new construction. Both types of planning are rooted in commitment to mission: OHSU recognizes that an increasing number of Oregonians need the benefits of patient care, health education, scientific research and community service. Implementing OHSU’s strategic plan will mean a significant increase in number of employees and a need for new facilities.

It is estimated that even with modest growth assumptions, OHSU will require an additional 2.2 million gross square feet of physical capacity on the Marquam Hill Campus by 2030. A goal for the Master Plan has been to create a better, more traditional campus environment. The Portland City Council approved the Marquam Hill Plan in 2000 and rezoned Marquam Hill from a residential zone to a central employment zone, and a designated University Plan District. The rezoning and the designation mean that, within the roughly 100 acres of this new plan district, OHSU now is permitted to move ahead with construction and remodels in a streamlined process, pending design approval according to guidelines in the Marquam Hill Plan. (See Exhibit 1.4, OHSU Marquam Hill Plan.)

Because of parking and transportation constraints, OHSU has explored other options for expansion sites including the South Waterfront District on North Macadam Avenue and West Campus in Hillsboro. OHSU has two existing campuses and a third campus under development:

- The 116-acre **Marquam Hill Campus** overlooking downtown Portland is OHSU’s oldest campus. It includes two hospitals, numerous clinics, three schools and several research institutes.

- The 263-acre **OHSU West Campus** includes OHSU’s science and engineering school as well as three research institutes (the Neurological Sciences Institute, the Oregon National Primate Research Center, and the Vaccine and Gene Therapy Institute). The West Campus is in the heart of what is often referred to as “Silicon Forest” for its continuing growth in the area of high technology. (See Exhibit 1.5, OHSU West Campus Planning: Background and Key Planning Indicators.)

- The eight-acre **River Campus** in the South Waterfront district, which historically housed heavy industries such as shipbuilding, lumber mills and steel welding, is in its early planning stages. Today the area is underused and environmentally degraded. It also is the largest block of vacant land within the city’s core, rich in prospects for an extraordinary network of open spaces linking residential and commercial developments.

- In June 2004 Schnitzer Investment Corp. donated 20 acres to OHSU as a site for the health and science education campus of the future, a pioneering center for interdisciplinary education that will set a national standard. This gift strengthens
OHSU’s ability to meet the need for highly trained health care providers and scientists, and to do so with a focus on collaborative instruction that capitalizes on the synergies among the disciplines. A concept paper which is still in draft form, calls for the creation of a broad-based steering committee of the OHSU community and constituents to consider matters related to the development of a vision for the OHSU Schnitzer Campus and issues related to curriculum, budget planning and resources, and the physical plant.

South Waterfront district and the OHSU Schnitzer Campus hold promise as a vital riverfront neighborhood with urban living spaces, a river greenway, a wildlife refuge, creative venues and hotels sharing a bank of the Willamette River with OHSU health care clinics, biotechnology research facilities and educational institutions. An aerial tram linking the OHSU Marquam Hill Campus and Schnitzer Campus will result in a vitally connected and integrated campus.

**Unit-level Planning**

Retreats of the OHSU Board of Directors and executive team provide the focus and “navigation guide” for units to align their resources and activities with OHSU’s strategic directions. Members of the executive team return to their respective units to improve bottom line performance through refocusing programs and realigning resources.

Each professional school has its own ongoing strategic planning process and strategic plans. (See Exhibit 1.6, Strategic Plans of the Professional Schools.) Using the vehicle of an annual retreat, the dean of each school meets with his/her team of associate deans and department heads. Each school sets a schedule for planning activities. The adoption of a new formal strategic plan often coincides with a major change such as executive succession, 1996-97 for SoN and 2004-05 for SoM, or significant program change, 2004-05 for SoSE. In between the episodic planning event, ongoing planning and implementation occurs within the context of the annual retreats. In these retreats, the dean, associate deans and academic administrators in each school discuss the outcomes of the executive-level planning juxtaposed with unique school-level issues and an environmental scan (e.g., strengths, weaknesses, opportunities and threats analyses, or SWOT.) This activity is followed by discussions with faculty in the schools. Each school approaches involving faculty differently.

- The SoD fall faculty conference is the forum at which the outcomes assessments from the previous year and improvement initiatives resulting from the planning retreat are shared with full- and part-time faculty
- The SoN fall faculty conference is the platform for discussing the plans developed in the retreat and also serves as an opportunity for professional development for all SoN faculty, including those at the outreach sites. A major strategic planning process will be launched in 2005.
- The new dean of the SoM initiated a planning process in 2004-05 with a committee structure of associate deans and department chairpersons. Committees focused on clinical service, research, education, development and growth, state and community awareness, and administrative structure and evaluation processes. Some of the issues
discussed include diversity of students and faculty, high tuition levels, faculty incentives to teach, faculty evaluation processes, and promotion and tenure guidelines. Each committee identified two to three priorities that could be implemented in a 12- to 18-month implementation plan. Faculty are involved with developing initiatives to address issues. Some new committees were tasked to explore issues in depth and make recommendations.

- A strategic planning retreat in the OGI SoSE was held in August 2004. The participants included OGI administration, staff and faculty. This meeting represented the first step in revising the strategic plan for OGI to prepare for the next decade. Against the framework of nine goals for building a sustainable future for OGI, the participants began a SWOT analysis of OGI SoSE.

- The Child Development and Rehabilitation Center met for 18 months to explore its unit vision, mission and values. In addition to a focused retreat, a series of town hall meetings with CDRC faculty and staff provided opportunities for broad input. In January 2005 the Strategic Planning Team was disbanded and replaced with teams to focus on concrete fine-tuning and a three-to four-year timeframe for designing and implementing changes. The goal is to replace silo operations of clinical practice, clinical research and basic research with a more integrative structure and increase collaboration with other units.

In addition to the school-level planning, planning processes are embedded in the freestanding research institutes such as the Vollum Institute and the Oregon National Primate Research Center through their external advisory committees. The Neurological Sciences Institute is establishing an oversight group and the Vaccine and Gene Therapy Institute is considering the possibility of forming such a group.

Given the importance of funded research to OHSU’s vision, research administration and planning at the central level become more formalized in the last three years. Several new directions include the redesign of the Research Council, using the internal best practices and the National Institutes of Health Roadmap to stimulate research activity, and developing concurrent customer service agreements between Research Development and Administration and departments and principal investigators.

Other units such as the OHSU Hospitals and Clinics and the Oregon Medical Group also engage in extensive planning. Particularly noteworthy is the appointment of ad hoc and standing committees comprised of people from different units to gain the broader perspective needed to solve problems. For example, a recent issue for the School of Nursing involved representatives from Public Safety, OHSU Hospital, Facilities, Logistics and Parking. These evolving structures recognize the complexity of problem solving and serve to build a sense of community.

In sum, all units at OHSU develop plans and use some measurement to report on the past and consider the future. These efforts inform and are informed by executive-level planning on an ongoing basis.
Effectiveness

OHSU’s rankings and achievements demonstrate that OHSU is building a record of excellence, in the spirit of continuous improvement and refining strategic directives. A number of performance measures are used to benchmark performance in teaching, patient care, research, community service, and economic impact. Institutional effectiveness is communicated to the public in various ways, including marketing pieces developed by Public Affairs and Marketing’s Office of News and Publications such as Measures of Success, 2003, OHSU At A Glance, 2004, Community Benefit Report, 2004, Building Business Opportunities (charting OHSU’s growth in technology transfer), OHSU Economic Impact, and online sources of OHSU’s economic impact, research breakthroughs and milestones. Public Affairs and Marketing’s Government Relations office produces biennial reports to the Oregon legislature (OHSU and Oregon in an Era of Opportunity: A Report to the 2005 Oregon Legislative Assembly). In addition, internal communications such as the bi-monthly newspaper, Outlook, in which the May/June2004 issue had a front-page story with running headline, “OHSU schools among top 10 in nation. U.S. News ranks primary care education second in nation, family medicine third.” Bulletin boards throughout the campus post newspaper stories about OHSU and its achievements. The bi-monthly newspaper, Outlook, was recently replaced with weekly online newsletters, sent to all employees. The News and Publications office has 1.0 FTE devoted to crafting and analyzing institutional messages so that OHSU’s key messages reach all constituents, internal and external.

The functions of institutional research at OHSU are distributed through various units to determine and report institutional outcomes, as exemplified by the following:

- The Office of the Registrar maintains data about student demographics and degrees and certificates conferred. (See Standard Three, Students.)
- The Office of Research tracks success in securing competitive grant awards, technology commercialization, and total sponsored research funding. (See Standard Four, Faculty.)
- Specialized accreditation of professional schools by a number of national organizations, each representing a professional area at OHSU, such as dentistry, medicine or nursing, requires the assessment of student outcomes. Each school has adopted systematic assessment and evaluation activities to improve instructional programs, institutional services and activities. For example, the professional programs require that the satisfaction and job placement of recent graduates be tracked as a measure of program effectiveness and graduate success. Resources for these evaluation and planning activities are provided by department-level budgets. (See Standard Two, Educational Programs and Their Effectiveness.)

Specialized accreditations reviews and processes drive the long history of assessment and evaluation at OHSU. Schools and departments are responsible for their own programs and services, which are documented in various accreditation reports. Nearly all of the schools, programs and units have developed their own mission statements, identified both long- and short-term goals and objectives and developed strategies to accomplish them. These stem from two sources — the mission and vision for the university and the mission and standards for the profession.
Strengths, Challenges and Strategies

The president has emphasized vision, the environment and creative problem solving to produce tangible results. OHSU is better off financially than it was 10 years ago. It has spent time refocusing its mission to concentrate on those programs at which it excels. The OHSU community should be commended for its creativity and willingness to take risks in a very turbulent environment. The move out of the Oregon University System has meant that OHSU could focus on its top priorities to make a difference in the lives of Oregonians and take bold steps to be the best. Through the Oregon Opportunity and other efforts, the university has found new or untapped, underutilized strategic capital and they have invested strategically.

There is a shared vision and evidence of planning in all areas of the university. These planning processes are linked together informally. The planning processes over the years have tended to be organic and responsive instead of bureaucratic and cumbersome. This has allowed OHSU to be flexible by creating temporary structures or adjusting goals and programs based on budget scenarios. The initial success with committee structures that incorporate the perspective of various units to the solving of institutional issues could be useful for helping OHSU transform into a more interdisciplinary place.

Over the past several years, the university has focused on developing new resource streams through the research enterprise, and hospital and clinic enterprises to fund education programs. The university will focus on sizing the vision over the next decade and achieving the desired mission balance. The interest and growing experience with interdisciplinary research and teaching will help fuel discussions and planning for the educational programs on the three campuses.

The planning is directly tied to the mission and goals, but the discrete planning pieces, albeit excellent, could be more effective by bringing them into a whole. OHSU might examine the benefits of establishing process for monitoring accomplishments in strategy-focused organization (such as balanced scorecard.) Many of the measures of quality are already high (such as entering GPA of applicants, pass rates on licensure exams), and are only noteworthy for the Board and Executive Team when performance changes in the wrong direction. Greater attention needs to be given to building more capacity in institutional research in support of planning that meets the varied needs of central administration, schools, departments and administrative units. This is needed to address the ever-increasing demands for timely and accurate information that can be applied effectively in the areas of planning, assessment and evaluation.
Standard 1 Resources

Tables:

1.1 Magnitude of OHSU Change, FY1995, FY2000, and FY2004

Appendices:

1.1 Statutory Mission
1.2 Mission of Professional Schools and Other Units
1.3 Executive Committee Membership

Exhibits:

1.1 Tag Line (Where healing, teaching and discovery come together)
1.2 Mission Statement for each professional school
1.3 OHSU Strategic Plan 2000
1.4 OHSU Marquam Hill Plan
1.5 OHSU West Campus Planning: Background and Key Planning Indicators
1.6 Strategic Plans of the Professional Schools
Educational Program and Its Effectiveness

STANDARD TWO

OHSU
Oregon Health & Science University is an academic health center organized and governed as a public corporation. It is an affiliated member of the Oregon University System. OHSU academic programs are located in the Portland metropolitan area, at OUS-member universities in La Grande, Ashland, Klamath Falls and in other Oregon communities, fulfilling a commitment to provide high quality academic programs in health professional and related sciences and engineering fields throughout the state.

OHSU began in 1867 as part of Willamette University in Salem, moving to Portland in 1878. In 1887, the University of Oregon established a medical school in Portland; the two schools ultimately merged in 1913. The institution was granted university status under the umbrella of the Oregon Higher Education System in 1974, and finally became a free standing public corporation with its own board in 1995. Today OHSU accomplishes its mission through its four professional schools of dentistry, medicine, nursing, and science and engineering. The university grants the state's only doctoral degrees in dentistry, nursing and medicine and was recently approved to offer a Ph.D. in biomedical engineering. OHSU offers a total of 40 academic programs.

To accomplish OHSU’s mission, the top priority has been to maintain high quality educational programs. To this end, OHSU dedicates resources to attain the goals and objectives of each program and evaluates programs against these goals and objections. If there are gaps between goals and performance, steps are taken to reduce the gap and achieve greater quality outcomes. The responsibility for assuring quality has been delegated to each of the professional schools.

For professional schools, specialized accreditation processes by a number of national organizations for dentistry, medicine, nursing and allied health programs influence the standards of quality. These have been set to ensure that students are qualified to enter the relevant health and health-related professions. These reviews are completed according to the requirements of each specific discipline; graduation from these professionally accredited programs is generally required to enable students to take the relevant licensure exam. For the programs in the graduate sciences there are no equivalent reviews. All approved programs and courses are listed on the OHSU Web site. (See Appendix 2.1, OHSU Academic Program Inventory.)

Major Changes and Impacts

In fall 2004 slightly more than three quarters of the university’s enrollment was in graduate and professional programs. Health care professionals, scientists and engineers and their disciplines must keep pace with the expansion of knowledge and technology. Albeit this is foremost for the
university, it must be balanced with the changes in the national economy and state resources that support the university's mission.

State budget reductions adopted during the 2001 legislative session affected the university's budget, particularly baccalaureate programs. A few of the baccalaureate programs were impacted. The dental hygiene program was phased out and two allied health programs (clinical laboratory science and emergency medical technician) were transferred to the Oregon Institute of Technology. The School of Dentistry has been working collaboratively with other institutions in the state to start new hygiene programs. The programs in clinical laboratory sciences and advanced paramedics are awarded jointly by OIT and OHSU. In essence, these programs retained the brand identity of OHSU, but OIT is now the provider of the program. Undergraduate programs at the university are limited to bachelor's degrees in nursing and radiation therapy. These changes were made to maintain excellence in the university's educational programs. With these program reductions, the university has been able to redirect resources to the graduate and professional programs.

With the merger of Oregon Graduate Institute for Science & Technology in 2001, academic programs new to OHSU were added and approved by the State Board of Higher Education. Since then, the renamed OGI School of Science & Engineering has added new programs to reflect the niche created by adding expertise in environmental engineering, management and information technology. For example, the State Board approved a new graduate certificate program in health care management and a master's and doctoral program in biomedical engineering in 2004, which is authorized by the Commission to begin awarding graduate degrees in 2005. A list of the aforementioned changes over the last five years is summarized in Appendix 2.2, Academic Programs Added and Deleted.

Overview of Instructional Programs
The effectiveness of our educational programs is essential to the mission and goals of the university. The annual budgeting cycles, external and internal reviews, accreditation outcomes, and markers of graduate success (on-time completion rates, licensure pass rates, employment ratios) are used as benchmarks for program quality. The manpower requirements of the state and region are monitored to identify the capacity needed now and in the future. Following identification of need, innovative strategies are developed. For example, in response to Oregon's critical nursing shortage OHSU is leading the formation of a statewide education consortium. The Oregon Consortium for Nursing Education is a coalition of community colleges and public university schools of nursing intent on dramatically expanding capacity and enrollment to prepare baccalaureate-trained nurses.

The assessment of OHSU educational programs is integrated into the overall planning and evaluation systems within each academic unit. These assessments draw upon several sources of information including student feedback and evaluator comments in the reports of the specialized accrediting agencies to balance needs with available resources.

The addition of new academic programs or degrees within the university is the purview of the OHSU Faculty Senate through a formalized review process with quality checkpoints. The process begins with a perception of need or demand on the part of faculty and/or academic administrators. The process requires approval at a lower level before advancing to the next
higher level and includes both internal and external reviewers at appropriate stages. The written proposal and budget must pass the departmental and school-level reviews before it advances for consideration by the faculty senate. The Educational Policy Subcommittee reviews the proposal and makes a recommendation to the entire faculty senate. If approved by the faculty senate, the proposal advances to the provost for further consideration before it is submitted to the external review processes of the Academic Council of Oregon University System and the Northwest Commission on Colleges and Universities.

A recent example of a newly approved program is the master’s degree in clinical research. This program was designed to support OHSU’s goal of being a national leader in clinical research. This “grow your own” program provides formal training for health care professionals who want to be clinical researchers and fulfills the aim of the NIH-funded K-30 training program. (See Standard Four, Faculty.) Other examples of new academic programs approved through the university process are the master’s degree in clinical nutrition approved in 2002 and the master’s and doctoral degrees in biomedical engineering, approved in 2004.

The Strategic Plan 2000 for the university identified key objectives for sustaining and achieving excellence in the teaching enterprise, including:

- Tie teaching programs with research initiatives.
- Expose students to advanced medical concepts and technologies.
- Link education to patient care.
- Recruit the best and brightest faculty.

The individual units are responsible for addressing these key objectives through the development of policy, general requirements and activities in support of the unique needs of advanced education. Each of the four schools is presented separately.

**School of Dentistry**

The Commission on Dental Accreditation is the specialized accrediting agency recognized by the U.S. Department of Education to accredit programs that provide basic preparation for licensure and certification in dentistry and the related disciplines. All dental programs are examined through the self-study process on a seven-year cycle except the oral and maxillofacial surgery program, which is on a five-year cycle. The last comprehensive site-visits were in 2002 for the predoctoral dental, endodontics, periodontics and orthodontics programs and in 2001 for the oral and maxillofacial surgery program. CODA awarded the status “approval without reporting requirements” to all of these programs. The School of Dentistry offers a master’s degree program in Integrative Biosciences and Biomaterials/Biomechanics not reviewed by CODA. The School of Dentistry Advanced Education Committee is responsible for oversight of this program.

As noted, declining state support for the university in the biennial operating budget in 2001 resulted in a $1.1 million reduction for the School of Dentistry. This reduction resulted in the closure of the baccalaureate dental hygiene program that was guided by a program phase-out plan approved by the Commission on Dental in 2001. The last class of 28 dental hygienists graduated in June 2003.
SoD Assessment

The School of Dentistry has an ongoing formal system of outcomes assessment, which is based on the institutional goals of the school established in 1992. The entire outcomes assessment plan for the School of Dentistry was reviewed and revised in 1999-00 and re-established as a yearly endeavor.

The outcomes assessment management plan assures that planning, evaluation and improvement of educational quality is broad-based, systematic and promotes quality assurance for all aspects of the dental school activities. The dean of the school is the chairperson of the outcomes assessment committee, which is comprised of the goal committee chairpersons. An assessment matrix is used to document the process in the SoD and includes methods, expected results, timeframe, responsibilities, use of results, findings and program improvements. Each goal chairperson is charged with managing their committee, monitoring the assigned goal, preparing the assessment matrix and reporting to the general faculty at our annual fall faculty conference.

The annual fall conference provides the opportunity for the goal chairperson and his/her committee to receive additional input from all stakeholders in the process. The outcomes assessment oversight committee then prepares an action plan for the subsequent year. An annual report with its action plan is produced after the fall conference and distributed to faculty through their department chair. Responsibility for the production and distribution of the annual report rests with the associate dean for Academic Affairs. (See Exhibit 2.1, SoD Outcomes Assessment Report 2003-04.)

SoD Degrees and Certificates Awarded

The production of degrees in the SoD has remained stable. D.M.D. students are admitted by cohort and with the exception of one year are within two to three students of the 70-student high in both 1998-99 and 2003-04. Fewer than a dozen students complete the advanced practice certificate and master’s programs. As noted earlier, the dental hygiene program was eliminated and phased out as evidenced in the decline from 35 degrees awarded in 1998-99 to no degrees awarded in 2003-04. The phasing out was accomplished by not admitting new student beginning in fall 2002 and teaching out the remaining hygiene students until all continuing students graduated.

Table 2.1 Degrees and Certificates Awarded by Dental Discipline

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<td>Dentistry (D.M.D)</td>
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<td>68</td>
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<td>70</td>
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<td>0</td>
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<td>Dentistry Certificate</td>
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<td>12</td>
<td>12</td>
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<td>6</td>
</tr>
<tr>
<td>Dental Hygiene (B.S.)</td>
<td>35</td>
<td>33</td>
<td>30</td>
<td>26</td>
<td>28</td>
<td>n/a</td>
</tr>
<tr>
<td>Total SoD Degrees</td>
<td>117</td>
<td>113</td>
<td>106</td>
<td>106</td>
<td>103</td>
<td>81</td>
</tr>
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</table>

Note: Dental Hygiene program was eliminated due to budget cuts.
Pre-doctoral Assessment

The measures of student achievement for Goal A-Predoctoral Program include:

- National Dental Board Examination scores Part I.
- Western Regional Examination Board (clinical) scores.
- National Dental Board Examination scores Part II.
- Senior student exit interviews including self-evaluation of competencies.

It is the responsibility of the Goal A Committee and the Associate Dean for Academic Affairs to annually monitor student performance on these measures of student achievement. The SoD also surveys graduating dental cohorts three years after degree completion, providing time for recent graduates to establish a practice and/or complete specialty education. In addition, SoD convenes focus groups of faculty and practitioners to identify program strengths and weaknesses every three years.

The School of Dentistry consistently ranks in the top quintile of performance on both parts of the National Dental Board Examinations. The 2004 graduating dental class ranked 11th on Part I and 4th on Part II of these written examinations among the 56 U.S. dental schools. Successful completion of both examinations is required to be able to sit for the clinically based Western Regional Examining Board. For the past 10 years the School of Dentistry has had a 98 percent first-time pass rate on the WREB exam. The regional average passing rate is 87 percent.

**Figure 2.2** OHSU Dental Students Passing Boards on First Attempt

OHSU dental students pass their credentialing exams at a higher rate than the national average.

![Graph showing OHSU dental students passing boards on first attempt]

The School of Dentistry shares the mission of the university to provide the highest quality education for the next generation of health care professionals. The dental school prepares graduates in general dentistry and the dental specialties to deliver compassionate and ethical oro-facial health care in an environment of mutual respect where the free exchange of ideas
can flourish. The overall goals of the school are detailed in nine specific goals, which embody the values of the faculty. Goal A specifically states the desire to ensure the quality of the educational programs offered in the SoD. The remaining goals support the mission in providing a comprehensive, contemporary educational program in dental medicine whose primary purpose is to prepare graduates who possess the knowledge, skills and values to begin the practice of dentistry. The school’s research programs contribute to the biomedical, behavioral and clinical aspects of oral health. Service to the community and the region is aimed at improving the health and well being of its citizens through dental services provided in OHSU’s on-site clinics and outreach programs.

The predoctoral dental curriculum, a four-year program, leads to the award of the doctor of dental medicine degree. The objectives of the curriculum are to educate competent general practitioners of dentistry and preparation for life-long learning and advanced training. Emphasis during the third and fourth years is on clinical practice, supported by lecture and seminar sessions dealing with diagnosis of oral disease, application of dental materials, treatment planning and clinical treatment procedures.

The function of managing the predoctoral curriculum has been delegated to the Predoctoral Curriculum Committee. This committee is responsible for curricular matters associated with the four-year educational program and is chaired by the Associate Dean for Academic Affairs. The committee is comprised of 12 individuals, 7 faculty members who are elected by the faculty body, three ex-officio administration members and two students who are appointed by the Dean on recommendation of the Student Council.

The School of Dentistry has utilized an electronic curriculum software database to manage the predoctoral dental curriculum. Basic information for all predoctoral courses has been entered into this system and has resulted in accurate and usable curriculum information and reports. The program produces summary reports on clock hours by course type, clock hours by year, clock hours by department and clock hours by course to meet the requirements of the Commission on Dental Accreditation.

Students are provided written information regarding the goals and requirements of each course in the form of a course outline or syllabus at the beginning of each instructional term. Each course director holds the responsibility for monitoring, reviewing and updating the content in his/her course.

The assessment of student progression toward competency occurs at many levels within the dental medicine program. Faculty members support the theory that progression toward competency begins at the novice stage and moves toward competency, some students moving more quickly than others. Foundational knowledge is gained in SoD didactic, preclinical and clinical courses of the curriculum while clinical skills, behaviors and attitudes are acquired in the clinical patient care environment.

**Planning for Competency-Based D.M.D. Education**

The planning for the competency-based approach for the pre-doctoral dental program began in 1998. A faculty committee generated statements that were presented to the entire SoD faculty for examination, discussion and revision. Other reviewers included SoD students, external dental
educators and faculty at other dental schools. The standards of the American Dental Education Association (Competencies for the New Dentist) and the Commission on Dental Accreditation (Accreditation Standards for Dental Education Programs), served as beginning standards for this effort. The last step was to have a group of local and state dental practitioners read and comment on the document. The general faculty approved the final document in February 2001.

Through this process, the SoD faculty established 51 competencies to describe the required performance of graduates as they enter dental practice. These statements are divided into four major divisions: ethics and professionalism, patient assessment, establishing and maintaining oral health and practice administration. (See Exhibit 2.2, SoD Predoctoral Dentistry Competency Document.) The competency document begins with a preamble that establishes the basic science foundation courses as fundamental to the practice of dentistry. Progress toward competency is monitored through several mechanisms as well as the established outcome measures of student performance. Prior to graduation students are surveyed as to their self-perception of competency. The most recent graduating class reported attaining competency at or above 91 percent in all 51 competencies.

Assessment in Dental Graduate Programs

The Advanced Education Committee monitors the curricula for the advanced specialty education programs in endodontics, periodontics, orthodontics, oral and maxillofacial surgery, biomaterials, and integrative biosciences. This committee provides oversight for advanced education programs admissions policies and academic standards. All thesis committees and graduate requirements are monitored, reviewed and approved prior to the awarding of the advanced dental education degrees. Each advanced specialty education program monitors its outcomes according to the specific discipline requirements and that information becomes part of the school’s overall outcomes assessment process.
School of Medicine

The School of Medicine is a large, multidiscipline educational unit comprised of allied health programs, medical education (M.D.), graduate programs in biomedical science (Ph.D. and master’s) and graduate medical education residency programs. It also includes a joint program with Oregon State University College of Pharmacy (Pharm. D.).

SoM Allied Health

Six allied programs — advanced paramedic certificate, dental hygiene, clinical laboratory sciences, dietetic internship, radiation therapy and physician’s assistant — have comprised the allied health programs at OHSU. In 2003-04, OHSU awarded a total of 79 degrees in allied health fields when the joint degrees with OIT are included compared to a total of 56 degrees in 1998-99.

Table 2.3 Degrees and Certificates Awarded by Allied Health Discipline

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<tr>
<td>Physician Assistant 1 B.S./MPAS</td>
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<td>Advanced Paramedic Certificate 2</td>
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<td>19</td>
<td>21*</td>
<td>26*</td>
</tr>
<tr>
<td><strong>Total with Joint Degrees 3</strong></td>
<td><strong>56</strong></td>
<td><strong>57</strong></td>
<td><strong>67</strong></td>
<td><strong>65</strong></td>
<td><strong>68</strong></td>
<td><strong>79</strong></td>
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</table>

Notes:
1 Program converted from a B.S. (first 4 columns) to a Master’s degree (MPAS) in 2002 (last two columns)
2 Converted to a joint degree with Oregon Institute of Technology in 2003; advanced paramedic certificate became an associate’s degree in 2003-04. Students enrolled as OIT students with degrees awarded jointly by OIT and OHSU.
3 Excludes certificates awarded in dietetic internship program.

Due to state budget reductions in 2001, three of these allied health programs offered at the undergraduate level no longer enroll students at OHSU. Dental hygiene, already discussed under the School of Dentistry, was eliminated due to budget cuts. Clinical laboratory sciences and advanced paramedic certificate programs are now collaborative programs with OIT. The degrees in these programs are awarded jointly with OIT. The dietetic internship, radiation therapy and physician assistant programs remain in tact. The bachelor’s level physician assistant program was approved as a redesigned master’s degree program in 2000 to reflect the changing national standards for the occupation.

The allied health programs offered are aligned with OHSU’s mission to strive for excellence in education, research, clinical practice, scholarship and community service. A program’s advisory council, faculty members and the Allied Health Council on an annual basis assess instructional policies, methods and delivery systems. Benchmarks and outcomes are reviewed annually to facilitate goals for the next year.
The allied health programs developed and implemented a system of planning and evaluation to determine their effectiveness in support of their mission and goals. The results are used for program improvement. These processes are consistent with the institution's assessment plan. While key constituents are involved in the process, the faculty members play a central role in planning and evaluating the education program. Each of the academic programs in allied health are discussed in turn.

Dietetic Internship Certificate Program

The dietetic internship curriculum utilizes a continuum of care model. This model builds on the most familiar information of disease and progressively moves to acute and chronic care. Didactic information given is directly observed and applied during the following clinical rotation. The radiation therapy curriculum integrates basic science courses such as anatomy, imaging and radiation physics with clinical rotations where the acquired information is applied. Classes in both programs are scheduled at times that permit students to attend clinics. The dietetic internship program is covered in three quarters with 12-credit hours per quarter. The length of our programs and definition of a credit hour is consistent with other programs found in regionally accredited institutions of higher education. The tuition, however, is somewhat higher than other regionally accredited programs due to smaller numbers of students.

The Dietetic Internship Program identifies and publishes on its Web site and in its student handbook, the expected learning outcomes for the dietetic internship certificate. Several evaluation forms are used to track the progress of dietetic interns to assure that all competencies and outcomes are met prior to completion of the program and to identify concerns early in the program so that corrective action can be taken. The most recent report of graduate scores show that 93 percent of our graduates pass the CDR examination on the first try.

The specialized accrediting agency recognized by the U.S. Department of Education to accredit programs that provide basic preparation for licensure and certification in dietetics is the Commission of Accreditation/Approval for Dietetic Education of the American Dietetic Association. The dietetic internship program, which is a certificate program, is examined through the self-study process on a 10-year cycle with a 5-year program evaluation document (PED). The last comprehensive site visit was in 1995. As a result of this review the program was awarded approval for a 10 years. Following the submission of the 5-year PED in 2000, seven additional years of approval were granted.

The assessment of the dietetic internship program curriculum involves both an internal and external review process. The internal review of the curriculum is continuous with assessment data gathered from evaluation forms completed quarterly by interns, clinical preceptors, and faculty and advisory committee meetings. External assessment of the curriculum includes an evaluation of CDR examinations scores and graduate and employer surveys, completed annually and biannually respectively. With this ongoing assessment of the curriculum, revisions are made in reaction to need and to proactively enhance the program. Following the ongoing internal and external assessments, an annual report is submitted to the Vice Provost for Allied Health and chairperson of the Department of Medicine for review.


** Radiation Therapy Program **

The radiation therapy program is an eight-quarter program with each quarter averaging 15 credit hours. The radiation therapy program provides credit for prior experiential learning to radiation therapy technologists who are upgrading their credentials to the baccalaureate level and who have successfully passed the national certification examination. Dietetic intern students who have prior experiential learning may test out of specific clinical rotations. Policies and procedures are in place to review annually programs for course deletions or additions.

The Joint Review Committee on Education in Radiologic Technology is the specialized accrediting agency recognized by the U. S. Department of Education to accredit programs that provide basic preparation for licensure and certification in radiation therapy. The radiation therapy baccalaureate program is examined through the self-study process on an eight-year cycle with a four-year interim report. The last comprehensive site-visit for the program was in 1999 and a four--year interim report was submitted in February 2004 for a spring 2004 review. As a result of this review the program was approved for a seven-year cycle.

The radiation therapy program identifies and publishes on its Web site and in its student handbook, the expected outcomes for the B.S. degree in radiation therapy. Through an annual and systematic evaluation of the programs assessment plan it is demonstrated that graduating students have achieved the action plan outcomes. In the past five years over 90 percent of its graduates have passed the National ARRT certification examination.

Prior to the start of each school year the radiation therapy program faculty, advisory committee members and clinical supervisors from community hospital radiation oncology units meet to review the program curriculum and assessment plan. This review includes mission, goals, policies, procedures and outcomes. Decisions are based on evidence of student comprehension of material through oral and written testing, progression through courses with achievement of intended learning outcomes, and course evaluations completed by students. Surveys from program alumni at 6 and 12 months, and employers also help to determine strengths and weaknesses of the program. These assessment activities lead to the improvement of teaching and learning.

** SoM Physician Assistant Program **

The Physician Assistant Program was established in 1995 at the baccalaureate level with the mission of preparing physician assistants to provide primary care services in underserved communities. It became a master's level program in 2002. The OHSU PA Program is a 26-month, full-time course of study leading to a master of physician assistant studies degree. This is the entry-level program for non-physician assistants. The program is divided between didactic students and clinical experience. The on line Master's Degree Completion Program for practicing physician assistants or PA educators is a part-time program that does not require on-campus residency. The major emphasis of the program is in medical informatics and evidence-based medicine, with additional courses in medical genetics, pain management, and complementary and alternative medicine. The School of Medicine’s master of physician assistant program is ranked 10th in the nation by *U.S. News & World Report.*
Clinical Laboratory Science and Paramedic Education Programs

In 2001 OHSU administration transferred two existing allied health programs, clinical laboratory science and paramedic education to the Oregon Institute of Technology.

The collaborative basis for the transfer agreement was defined as an administrative transfer of faculty, students, student recruitment, academic oversight and financial operations to OIT with the utilization of OHSU physical facilities, adjunct and consulting instructional personnel and selected administrative support. Student transcripts, certificates and diplomas identify both OHSU and OIT as credit granting institutions. The transfer gave OIT full title authority to administer the programs. Students who were enrolled in these programs at the time of transfer were not negatively impacted.

The National Accrediting Agency for Clinical Laboratory Science/Medical Technology is the accrediting agency recognized by the U.S. Department of Education to accredit programs that provide basic support for licensure and certification in CLS. The last comprehensive site-visit for the CLS program was in April 2000. A result of this review included details of the transfer agreement, and the program was awarded approval for a seven-year cycle.

The accrediting agency for the Paramedic Education Program is the Committee on Accreditation of Education Programs for the Emergency Medical Services Professions. The last comprehensive site visit for the program was in June 2000. This review included details of the transfer agreement, and the program was awarded approval for a five-year cycle.

SoM Medical Education

The Liaison Committee on Medical Education is the nationally recognized accrediting authority for medical education programs leading to the M.D. degree in U.S. and Canadian medical schools. The Association of American Medical Colleges and the American Medical Association sponsor the LCME. The School of Medicine conducted an institutional self-study in 2004 and received a status of full accreditation for the maximum period of eight years. The next medical school accreditation survey will occur in the 2011-12 academic year. A consultative visit by the LCME Secretariat will be scheduled during the 2005-06 academic year.

The School of Medicine curriculum is managed effectively under the direction of the associate dean for Medical Education, who works closely with the SoM Curriculum Committee to foster both continuity and innovation in curriculum development. The committee, which includes representatives of all primary faculty units and elected student representatives from each of the four years, is responsible for reviewing and revising the curricular objectives, content, structure and process of each course on a regular basis.

Every year each course is subjected to a detailed review, starting with a student survey and consensus report, and involving the course director, a curriculum committee member and the associate dean for Medical Education. Every third year an oral and written report for each course is presented to the full Curriculum Committee for review and discussion. By reviewing objectives, content, sequencing, teaching methods and materials, faculty, and evaluation methods for each course throughout all four years, the committee is able to ensure that the medical education
program is coordinated and integrated both within and across academic periods of study. Other types of Curriculum Committee reviews encompass larger sections or focused elements of the curriculum. As an example, in 2001 the committee reviewed the clinical curriculum, focusing on content, site placement, time management and evaluation of student performance in all the core clerkships.

The committee recommends curricular changes to the associate dean for Medical Education. For example, in 1998, the Curriculum Committee recommended the development of the SoM Continuity Curriculum. This course runs through the entire third year, consisting of two-day modules every six weeks. All of the third-year students are brought together at these times for seminar, small groups and didactic sessions on various topics integral to all areas of medicine, including emerging topics and career planning.

Methods for evaluating student performance and evaluating the outcomes of the medical education program include:

- Course examinations.
- Objective structured clinical exam quarterly during Principles of Clinical Medicine (first two years).
- Clinical skills exam at the end of 3rd year.
- USMLE Step II and I.
- AAMC Graduation Questionnaire.
- Web-based course and faculty evaluation system (internal).

Students in the M.D. program continue to pass their credentialing exams at a higher rate than the national average.

**Figure 2.4** OHSU Medicine Students Passing Boards on First Attempt

Medical students pass their credentialing exams at a higher rate than the national average.
The Clinical Sciences and Basic Science Subcommittees of the Curriculum Committee include evaluation methods in their reviews of the courses and clerkships. The Curriculum Committee has periodically conducted comprehensive reviews of the evaluation processes, most recently by assigning a task force to examine the third-year student performance evaluation process. The report considered mid clerkship evaluation, evaluation of professionalism and final performance assessment and grade assignment. The committee recommended changes to increase the uniformity of evaluation of student’s clinical skills and grade assignment, and ways to assure that the professionalism referral process (professional development form) is easy and well understood by faculty and students. A by-product of the Curriculum Committee’s scrutiny of the evaluation process is a paper by Fields et al, titled “Early Identification of Students at Risk for Poor Academic Performance in Clinical Clerkships,” published in Academic Medicine (2000). It describes the value of student performance in the Principles of Clinical Medicine Course in the first and second year of the curriculum in predicting performance in the clinical clerkships. It also suggests that there may be an opportunity to identify and change attitudes, skills or other factors early in students’ education that will improve clinical performance. This review process by the Curriculum Committee has been extended as part of the current general learning objectives project.

Specifically, the individual course and clerkships are monitored by the Curriculum Committee to assure that their objectives, evaluations and evaluation methods assure that there is conformity with the general educational objectives for the M.D. education program.

The results of AAMC Medical School Graduate Questionnaires are reviewed annually by the associate dean for medical education and presented for discussion to the Curriculum Committee with attention to particular concerns. Several recent curricular initiatives have resulted from this process, including the introduction of the Continuity Curriculum, content changes of the transitional courses and the decision to restrict the focus of the required core surgery clerkship to general surgery.

The School of Medicine course management model is effective, and is ideal for implementing, monitoring and revising the general educational objectives and for assuring successful articulation of these objectives with those of individual courses. The resources for curricular management are adequate at this time.

Based on consistently favorable results of the AAMC graduate surveys, the USMLE examinations and our own surveys of graduates and residency directors, we are confident that we are preparing our graduates with the knowledge, skills and attitudes they need to begin the next step in their academic and/or clinical medical training. Residency directors give OHSU graduates high marks for their preparation for residency, their potential to be good physicians and for their professional behavior.

The educational program is designed and constructed to provide a good general professional education and to promote self-directed learning. We intend that the graduate will be well prepared to begin the next phase of any clinical residency and/or academic training environment. As the AAMC surveys show, OHSU graduates enter training programs across the breadth of the clinical specialties. They do well in medical licensure exams, in the National Residency Match Program and in their training programs.
The goal of the School of Medicine curriculum is to present a four-year continuum that balances emphasis on the scientific basis of medicine with early clinical experience; offers progressive patient care responsibilities for students; permits students to individualize their educational programs; and enhances a student's independent learning and problem solving skills. The sciences basic to medicine are presented in an interdisciplinary format focusing initially on the scientific principles of medicine and progressing ultimately to disease processes. Some unique features of the curriculum are:

- Centralized responsibility in the Dean's Office.
- Integrated and multidisciplinary basic science courses with enhanced clinical relevance and logical sequencing.
- Lecture and non-lecture learning balanced in half-day sessions.
- Courses scheduled in a series to avoid competing with other courses.
- Instructional objective-based education.
- Early and longitudinal clinical preceptorship experience.
- Core clerkships completed during the third year.
- Ambulatory and primary care strongly emphasized.
- Primary care clerkships linked sequentially.
- Required clinical experience in a rural and/or medically underserved area.
- Continuity Curriculum in the third year.
- Advanced clerkships in fourth year.
- Transition courses bridge curriculum.
- Performance based assessment of students utilizing standardized patients.
- Internet-based course, faculty and curriculum evaluation.

Systematic instructional objectives in the medical curriculum have fostered self-directed learning since 1992. The conjoint course architecture has required that the students play increasingly active roles in their own education in the basic science curriculum since 1994. The small group elements of the basic science courses and the Principles of Clinical Medicine course help to teach the methods and the importance of self-directed learning and to evaluate student progress. In many of these settings the student or small groups of students are responsible for independently finding and synthesizing the information needed to solve problems posed in the classroom. Exercises in the courses are designed to challenge the student to apply independent, critical thinking. Such exercises include the “design a pathogen” segment in the Basic Biology of Disease course, and the self-directed research project in the Systems Processes and Homeostasis course that requires the student to use the tools of scientific literature search. Students participate in formal sessions that address evidence-based medicine and uncertainty in medicine. These sessions include: “The Certainty of Uncertainty in Medical Practice,” “Introduction to Epidemiological Thinking,” “Clinical Epidemiology,” “Descriptive Epidemiology,” “Diagnostic Testing and Screening,” “Study Design and Overview,” and “Recognizing Errors in Medical Literature.” In addition, students participate in formal sessions on the appraisal of clinical trials and workshops in biostatistics and epidemiology.
The clinics and wards provide ideal opportunities to challenge the students and to encourage self-directed learning. We believe, and the students agree, that the medical faculty utilize this resource effectively. These diverse settings require students to demonstrate and refine their communication skills and synthesize and apply information. The students cite the integrative elements of the curriculum as strength of the educational program. The typical OHSU medical student also becomes expert at using Internet resources to help develop plans for patient evaluation and management.

The majority of Oregon’s practicing physicians, 55 percent, are graduates of the OHSU School of Medicine. The school’s innovative, nationally recognized curriculum brings medical students closer to patients earlier than most schools, with a focus that seeks to address societal and behavioral issues in health care. The School of Medicine ranked number two among 125 U.S. medical schools for its primary care education program according to U.S. News & World Report’s “Best Graduate Schools 2005.” This is the ninth consecutive year the medical school has ranked in the top 2 percent nationally and the fourth year in a row it has maintained the number two ranking.

**SoM Graduate Programs**

In accord with its educational mission, the School of Medicine offers research-oriented educational programs that lead to a Ph.D. degree in several areas of biomedical science. The SoM also provides both research-oriented and professional educational programs in the biomedical sciences that lead to master’s degrees or certificates. There also are program options to obtain combined degrees such as, M.D./Ph. D. and M.D./M.P.H.

The SoM Graduate Council, SoM Faculty Council, and OHSU Faculty Senate must approve all SoM graduate degree programs through an institutional process that requires review. Programs approved through this institutional process also must receive approval from the State Board of Higher Education. The SoM Graduate Council is responsible for ongoing oversight and governance of the SoM graduate degree programs. This council, which is advisory to the dean of SoM, is convened by the associate dean for graduate studies and includes faculty representatives from every degree program as well as several student representatives. School policies and procedures related to membership on the graduate faculty, approval of new programs, curriculum, admissions standards, general scholastic regulations, student grievances and other matters related to graduate education are described in the by laws and other policies established by the Graduate Council. Changes in the by laws are subject to approval by the Faculty Council and dean. The Graduate Council assumes primary responsibility for reviewing its by laws and policies on a regular basis. During the last 10 years, major revisions to the by laws have occurred in 1996, 2000 and 2004.

Each SoM graduate program has established its own written policies, requirements and guidelines that describe the standards and procedures for completion of a graduate degree in that program. These policies include a description of the curriculum including required courses and the criteria for advancement to candidacy. Individual degree program policies and guidelines must be consistent with the Graduate Council by laws. All graduate programs are required to evaluate their courses every time they are offered using student and/or faculty course evaluations. Moreover, all graduate programs are required to prepare a written summary of their course evaluations and make a biennial presentation to the Graduate Council.
Although there are no specialized accrediting agencies that examine the SoM Ph.D. programs, most of these programs receive regular external peer review because of their participation in NIH-funded institutional research training programs that support pre-doctoral students (T 32 grants). These multidisciplinary grants support graduate education and research training in a wide variety of areas including behavioral neuroscience, molecular neuroscience, neuroendocrinology, reproductive biology, molecular biology, molecular genetics, molecular hematology, microbiology and immunology. These grants all are subject to competitive peer review every five years. All nine of the currently funded predoctoral grants have successfully passed competitive renewal at least once. Two thirds have been renewed two or more times. This track record provides strong evidence of the high value placed on the SoM graduate programs by external reviewers.

The vice president for research appointed a Committee on Graduate Education to review all the doctoral programs at OHSU in 2003. The report found that the students were well qualified for graduate school, but indicated that growth in the number of students in the graduate programs had not kept pace with the rapid growth in the research mission and number of investigators at OHSU. In response to the report recommendation, the provost/vice president for Academic Affairs and the vice president for Research convened a Graduate Finance Committee to implement mechanisms for increased funding and recruitment of graduate students. In addition, a separate committee was charged with reviewing and revising the common first-year curriculum for molecular and cellular biology programs.

**Pharmacy – Joint Degree Program with Oregon State University**

The OHSU and Oregon State University have an agreement that the OSU College of Pharmacy be affiliated with OHSU as a joint program. The College of Pharmacy is designated as one of the health professional schools of OHSU. The accrediting agency for pharmacy is the American Council of Pharmaceutical Education and the Pharm. D. program is currently accredited for a seven-year cycle. The last site visit was in 1999 and is scheduled for another site visit in late 2005 or early 2006.

The dean of the College of Pharmacy reports primarily to the provost at OSU but meets regularly with the provost at OHSU and participates as a member of the OHSU Executive Committee, the OHSU Dean’s Council and other OHSU committees, councils or groups as warranted. Faculty from the College of Pharmacy based at OHSU hold a joint appointment as OHSU faculty. They also may be nominated for appointment to the faculties in any of the OHSU schools. All such appointments are made in accordance with the school and OHSU academic review and appointment procedures and do not include salary.

**SoM Degrees and Certificates Awarded**

In 2003-04, OHSU awarded 82 M.D. degrees, 32 master’s degrees, 22 Ph.D.s and 41 certificates. Since 1998-99, the number of M.D.s awarded has declined but the number of certificates has increased, while the number of master’s degrees and Ph.D.’s has remained fairly stable.
Table 2.5 Degrees and Certificates Awarded in Medicine

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1 Joint degree with Oregon State University.

SoM Graduate Medical Education Residency Programs

The School of Medicine and the Hospital sponsor 56 graduate medical education programs that are accredited by the Accreditation Council for Graduate Medical Education. The ACGME is a separately incorporated organization, responsible for the accreditation of approximately 7,800 allopathic, graduate medical education programs comprised of five member organizations: the American board of Medical Specialties, American Hospital Associate, American Medical Association, Association of American Medical Colleges and the Council of Medical Specialty Societies. Each program is reviewed on a schedule determined by ACGME and the status for each program is listed in Appendix 2.1.

Graduate Medical Education has developed a strong emphasis on providing global educational activities that focus on the ACGME Core Competencies, for all of its trainees. All GME activities on campus are under the direction of the associate dean for Graduate and Continuing Medical Education.

Each year there are approximately 600 residents/fellows in the programs supported by the GME. These programs are addiction psychiatry, anesthesiology, anesthesiology/pain management, pediatric anesthesiology, cardiology, child and adolescent psychiatry, cardiac electrophysiology, cytopathology, dermatology, diagnostic radiology, emergency medicine, endocrinology, family practice, family practice/Klamath Falls, family practice/preventive medicine, gastroenterology, geriatric medicine, geriatric psychiatry, hematology/oncology, hematopathology, infectious diseases, internal medicine, medical genetics, nephrology, nephrology/transplant medicine, neurological surgery, neurology, Child Neurology, Neurophysiology, Neuroradiology, Nuclear Medicine, Obstetrics & gynecology, ophthalmology, oral and maxillofacial surgery, orthopedic surgery, otolaryngology, pathology, molecular genetic pathology, pediatrics, pediatric cardiology, pediatric endocrinology, pediatric hematology/oncology, pediatric neonatology, pediatric neurodevelopmental disabilities, pediatric pulmonology, plastic surgery, plastic surgery/hand, psychiatry, public health preventive medicine, pulmonary critical care medicine, radiation oncology, rheumatology, surgery, surgical critical care, thoracic surgery, urology, vascular and interventional radiology and vascular surgery.
As required by the ACGME guidelines, there is an active GME Committee, which meets monthly to discuss issues surrounding the training of the residents/fellows, as well as to perform the required internal reviews. The GMEC assures that the training programs, as well as the institution, are in compliance with the ACGME requirements. The GMEC is composed of program directors, residents elected by their peers and administrative representatives from the hospital, SoM and Medical Staff Board. The Office of GME and the associate dean for Graduate Medical Education are supported by the OHSU Hospital through Medicare/Medicaid dollars.

**School of Nursing**

The Commission on Collegiate Nursing Education is the specialized accrediting agency recognized by the U.S. Department of Education to accredit only baccalaureate and master’s programs in nursing. Programs are examined through the self-study process on a 10-year cycle for programs requesting continuing education. Programs may be placed on a five-year cycle if they have not met all of the accreditation standards. The last comprehensive visit was in 2003. As a result of this review, the SoN was awarded full accreditation for 10 years. At this time, there is no specialized accrediting agency to accredit doctoral programs in nursing.

Graduate programs in nurse-midwifery are accredited by the American College of Nurse-Midwives. Programs are examined through the self-study process on an eight-year cycle. The last comprehensive review of the School of Nursing, Nurse-Midwifery Program was in 2003. As a result of this review, the program was awarded approval for eight years.

The School of Nursing assessment/evaluation plan is systematic, comprehensive and dynamic. This plan includes the following program components: administration and resources, curriculum, faculty and students. Three general approaches ensure assessment is both systematic and sufficiently flexible to allow for the changing data needs characteristic of a rapidly changing environment. The general approaches used in assessment are:

- Review and evaluation of the SoN Strategic Plan and directions annually and more frequently as needed. For example, the dean organizes retreats for the SoN Administrative Council to review the strategic plan. Updates and review of progress is presented and discussed with faculty and staff at the dean’s annual ‘State of the School’ address, typically given at the annual SoN Fall All-Faculty Conference.

- Program monitoring through periodic review of existing data. Examples include: NCLEX pass-rates, graduation and employment rates, course reviews, clinical agency evaluations, alumni surveys, and data on outcome behaviors.

- Intensive study of specific program components conducted when issues surface or extensive changes have been made. Examples include reorganization related to budget cuts; revision of the promotion, tenure and review criteria; increase in the use of distance-learning methods in both the undergraduate and graduate programs.

**SoN Assessment**

Assessment and evaluation of curricula involves both ongoing periodic review and more in-depth study as the need arises. The school currently is engaged in re-examining both levels of the curriculum with the goals of moving to a competency-based curriculum to ensure a high quality
nursing work force for the future. At a joint curriculum council meeting in fall 2000, the RN/BS program was selected to pilot a competency based curriculum. The outcome data from the pilot experience was used to look at the further integration across campuses. This curriculum revision has been based on reports calling for reform in the education of health care professionals, data about the nursing shortage and collaborative efforts within Oregon that have been led by the Oregon Nursing Leadership Council. This process of curriculum revisioning and revitalization has been carried forward to the SoN Baccalaureate and Graduate councils.

Faculty members provide feedback to students throughout their courses through evaluative comments about course requirements, mid term evaluations and grades on assigned projects, written papers, presentations and objective examinations. In addition, students participate in their own evaluation. Each quarter students in both the undergraduate and graduate programs complete an evaluation of teaching effectiveness and formal course evaluations. The results of course evaluations are used to change or improve the curriculum. Student outcome indicators include: graduation rates, National Council Licensing Examination pass rates, nurse practitioner certification pass rates, job placement rates, student satisfaction, employer satisfaction, critical thinking, communication and therapeutic nursing interventions.

According to SoN analysis of student progress, the average rate of completion for basic baccalaureate students is 86.9 percent and has been consistent over the last several years. The reasons students withdraw early in the baccalaureate program are either that nursing is not the right major for them or course failure. Withdrawals at later points in time are due usually to financial or personal reasons. The average rate of completion for Registered Nurse students in the baccalaureate program varies considerable among students since R.N. students often attend part-time with periodic “stepping out” for personal or family reasons. Therefore, the average attrition rate of 15.6 percent is more indicative of the percentage of students who remain in the program and eventually graduate. The average rate of completion for master’s students is 87.2 percent and for doctoral students 74 percent. When graduate students withdraw it is most often for financial or personal reasons.

**Figure 2.6** Nursing Graduates Passing Boards on First Attempt

Nursing students pass their credentialing exams at a higher rate than the national average.
Since certification is not required for licensure as a nurse practitioner or a clinical nurse specialist in Oregon, not all master’s program graduates take national certifying examinations. In addition, the data received from the American Nurses Credentialing Center is not always complete. In the last three years graduates from the OHSU School of Nursing nurse practitioner and nurse-midwifery programs have consistently achieved 94.1 percent or better with scores at or above the national means or national scores.

Job placement rates for the baccalaureate and master’s programs include self-reported data in the alumni survey that is sent to nursing students one and three years following graduation. Although the return rate on some of the surveys has been low, the data show that the job placement rates for the alumni of both programs is above the SoN satisfactory standard of 85 percent. Family obligations, graduate study, Peace Corps applications, and other personal reasons were identified as reasons for part-time employment. The alumni survey is used to determine student satisfaction with program quality. However, a low response rate does not provide a high level of confidence in these findings especially for the undergraduate program. A new plan for alumni surveys is in place that is beginning to provide more reliable data.

Since data regarding employer satisfaction is hard to obtain with quantitative surveys, the SoN has used qualitative methods. Employers say they are pleased with the performance of graduates from both the baccalaureate and master’s degree programs.

The School of Nursing has collected data in the areas of critical thinking, communication and therapeutic nursing interventions since 1994. The faculty initiated the use of two outcome instruments: the California Critical Thinking Dispositions Inventory and the Educational Outcomes Rating Scale developed by the SoN faculty. The baccalaureate and graduate councils review the data collected and use it during curriculum revision to ensure that the competencies expected at both levels remain a central focus in the curriculum. Program evaluation has focused on student outcomes as an iterative process that provides not only a measure of program effectiveness but also an opportunity for the curriculum councils and the administration to continuously evaluate the key indicators and measures selected. Faculty accomplishments in teaching, scholarship, practice and service demonstrate program effectiveness and reflect the process of ongoing improvement.

The nursing baccalaureate curriculum builds upon a foundation of the arts, sciences and humanities that are considered foundational for the upper division nursing major and essential to professional nursing. Prior to admission, students are required to take courses in natural and biological sciences including chemistry, anatomy, physiology, microbiology, human development, psychology, sociology, anthropology and math including college algebra and statistics. Students also complete liberal arts requirements for a bachelor’s degree that are considered essential for the development of professional communication skills, for understanding the relationship of individuals and families to social systems and for the development of critical thinking skills. The required nursing courses, beginning with the first summer term, assume knowledge in each of these areas. The course sequencing reflects a learning trajectory that builds on prior learning. Early courses explicitly help students make connections to their prerequisite and liberal education requirements. The curriculum also provides elective credits that give students an opportunity to further their individual interest and appreciation. Students elect from a wide variety of courses in
history, art, music, dance, foreign language, biology, physics, English and political science. The Baccalaureate Council reviews the relevance of the courses in the arts sciences and humanities during its ongoing curriculum evaluation and subsequent curriculum revision.

The courses in the baccalaureate program are sequenced so that: (1) key nursing concepts that build on the arts and sciences are introduced early, then developed further at appropriate points in the curriculum; (2) students are provided the opportunity to reflect on, develop further, and mature their understanding of key concepts throughout the program; (3) assume increasing responsibility for their own learning as they progress through the program, gaining skills in critical thinking and reflection on practice. The baccalaureate-nursing curriculum consists of 186-quarter hour credits; 91 hours are taken in the arts, sciences and humanities; 92 to 94 hours are taken in nursing, and 1 to 3 hours are taken in electives in any area. Total curricular requirements can be found in the School of Nursing Catalog.

Key concepts essential for professional nursing practice identified in the end-of-program competencies are introduced in the foundational courses. These courses must be taken during the junior year. Four theory courses and four-associated practica provide opportunities for in-depth study and practice with clients across the lifespan. Additional didactic courses provide further study of concepts introduced in foundational courses. Two clinical practica, provide students the opportunity to synthesize knowledge and skill learned previously and to be immersed in a practice setting.

It is the intent of the School of Nursing, as a multi-campus baccalaureate program to encourage sites to operationalize the essential constructs, program and common course objectives in ways that optimize the uniqueness of their setting and strengths of their faculty and students as they address the health needs of Oregonians. To that end, specific course content and clinical experiences are not prescribed. In addition, campuses may have slightly different course sequences in order to make best use of faculty and clinical resources.

Students enrolled in the R.N./B.S. program are expected to meet the same objectives and end-of-program competencies as students in the basic program. The School of Nursing has articulation agreements with all associate degree nursing programs in Oregon, which has allowed the school to facilitate the matriculation of registered nurses with an associate degree-seeking baccalaureate nursing education. The school continues to work closely with ADN programs to facilitate articulation through such policies as provisional admission and the use of ADN program facilities for R.N./B.S. classes and pre-R.N./B.S. advising.

At the baccalaureate level, each campus coordinates student advising. A faculty team advising approach is used for undergraduate students in Portland. This is a comprehensive advisement program to assist students to achieve their academic goals. Faculty advisors are assigned to undergraduate students on the regional campuses. They receive support as needed from the program coordinator for undergraduate studies.

The mission and philosophy of the SoN are congruent with those of the university. As part of the SoN mission, the master’s degree programs prepare nurses for advanced practice as nurse practitioners or clinical nurse specialists in a variety of specialties. Doctoral and postdoctoral
programs prepare graduates for scholarly inquiry, independent research, and leadership in the health care arena.

The master's curriculum has been developed to build on baccalaureate education in nursing. Graduation from a professional accredited nursing program with an upper division major in nursing is expected of applicants. The master's curriculum is organized as follows: core courses are taken by all master's degree students; cross-specialty courses are taken by all students in a subset of advanced practice nursing specialties and specialty courses are taken by students in a specific graduate specialty option. Master's core courses build on baccalaureate education in nursing and are foundational to the advanced nursing roles. Master's students in the primary health care and nurse-midwifery specialty options have the choice between a M.S. and M.N. degree. The M.S. is the only option for students in all other Master's programs. All M.S. degree and M.P.H. students culminate in a six-credit course sequence in research design and implementation of practice improvement projects.

The university provides support to the SoN for distance-delivery of its programs. It provided a statewide satellite-based video conferencing system from 1992 to its close in 2001. Since 1998 the SoN’s real-time video courses have been delivered using the services of the OHSU Information Technology Group and the Educational Communications departments. In addition, the OHSU Office of Academic Affairs has supported several remodeling projects in the SoN classrooms in Portland and has facilitated upgrades on the La Grande, Ashland and Klamath Falls campuses to support the increased use of technology to deliver courses. The OHSU Office of Research Development and Administration provides comprehensive research services to faculty and students on all campuses.

SoN faculty, students and staff use the library and other learning resources. These resources include the OHSU Library housed in the Biomedical Information Communications Center in Portland, the Pierce Library in La Grande on the Eastern Oregon University campus, the Oregon Institute of Technology Library in Klamath Falls and the Southern Oregon University Library in Ashland. Graduate students in Ashland, Klamath Falls, La Grande and other distance education sites, are able to access reference and electronic resources by using off-campus accounts administered by the OHSU Library. The OHSU Library provides document delivery services to all distance education students.

The SoN has educational service agreements with over 700 health care facilities used for students in both the undergraduate and graduate programs on all four campuses. The clinical facilities are diverse, reflecting the school's commitment to urban and rural populations as well as to the diversity of the clients in Oregon. Clinical sites for graduate students in nurse practitioner programs are selected to ensure that they are provided with the special needs of all clients they serve. Faculty practices have been developed to provide graduate students with the experience of being in nurse-focused practices. The nurse-midwifery program has developed faculty practices that provide most of the maternity and delivery experiences for first-year graduate students. The faculty in La Grande is in charge of the Eastern Oregon University student health clinic. They also operate the Union Family Health Center and the Elgin Family Health Center that provide clinical placement for students.
SoN Doctoral Program

The doctoral program supports the development of nursing researchers and scholars by awarding the Ph.D. degree. Emphasis is on developing research that contributes to the knowledge base for nursing practice and health care. Research skills are enhanced through the in-depth study of methods related to inquiry, knowledge generation and theory development. Underlying all doctoral courses is recognition of the interplay between the empirical and conceptual in the design and conduct of research. During the course of doctoral studies, students are expected to recognize, analyze and interpret assumptions; discuss trade-offs made in decisions regarding issues in research, theory and practice; place research in the context of prior work, and integrate theory practice and research.

Students are assigned an advisor the first year of the program to assist students with their program of study and other advising issues. The SoN also supports a relationship between faculty and doctoral students based on the concept of mentorship. Students are encouraged to work with their advisors to identify faculty whose program of research matches their research interests. The goals of mentorship are to facilitate the individually constructed portions of the student’s program of study and to create a community of scholars. During their course of study, students may engage in scholarly activities, teaching or community services with a variety of people, including advisors, other faculty clinicians, researchers and other students.

Students may enter the doctoral program as either post-master’s or post-baccalaureate students. The post baccalaureate students take 20 additional credits in courses emphasizing knowledge development, integration and clinical applications to support the evolution of their thinking about research applications for nursing practice. The program of study includes 90 credits of post-master’s coursework. Courses taken by all students include research design, conceptualization, theoretical perspectives and synthesis, statistical methods, and quantitative and qualitative research analysis. Students also take seminar courses to assist them in developing their research topic prior to beginning their dissertation work and during their dissertation research development. These seminars provide for discussion of specific research issues students encounter as they progress in the program. In addition, students select courses on nursing science and knowledge development in several focus areas, including symptom management, family care giving across the lifespan, gerontology, health disparities, interpersonal violence and intervention studies. Students complete additional elective courses in a minor or cognate area relevant to the research interests. The dissertation requires completion of 27 credit hours under the mentorship of a doctoral faculty advisor and research committee. Upon completion of the doctoral program, graduates will be able to:

1. Conduct research that generates, tests refines or extends practice-relevant theory and knowledge for nursing.

2. Evaluate critically and synthesize research findings for building nursing knowledge and use that knowledge for research, practice, advocacy or policy development.

3. Promote continued advancement of the discipline of nursing through leadership, research, and practice.

4. Collaborate with other disciplines in health-related research and practice responsive to the needs and concerns of society.
The SoN delivers the Ph.D. program to distance locations in Oregon, Montana, Washington and Utah. In 2004-05 the Ph.D. program will be delivered to students in Alaska and Wyoming. Since regional Ph.D. students and Portland students are immersed together in one Ph.D. program, regional Ph.D. students have access to the same high quality faculty, as do students at the main Portland campus. Additionally, they have access to regional faculty who are adjunct faculty in the SoN for the Ph.D. program. The school has gained a reputation for sound and innovative programs in education and research and attracts and retains highly qualified faculty. As a measure of the quality of the Ph.D. program and faculty, the SoN is currently ranked eighth in the nation among schools of nursing for NIH research funding received.

The School of Nursing's graduate program is ranked sixth in the nation overall by the U.S. News & World Report, placing it in the top 2 percent of approximately 350 such programs in the United States. The School of Nursing's nurse midwifery program ranked first, tying with the University of Pennsylvania's program. All of the School of Nursing's program programs ranked in the top 10 nationally.

SoN Degrees and Certificates Awarded

The School of Nursing awards bachelor’s, master’s, doctoral degrees and certificates. In 2003-04, SoN awarded a total of 336 degrees compared to 269 in 1998-99 representing an increase of 25 percent.

Table 2.7 Degrees and Certificates Awarded in Nursing

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OGI School of Science and Engineering

School of Science and Engineering was founded as a freestanding, private institute for advanced research and graduate-level education. OGI was initially chartered to improve the state of Oregon’s ability to compete in emerging industries driven by science and technology. At the time no universities in the state’s largest metropolitan area offered graduate degree programs in the physical and materials sciences.

OGI SoSE’s degree programs and areas of research emphasis have changed to keep pace with the demands of the area’s technology-based industries. As the field of environmental science took shape in the late 1960s and early 1970s, OGI introduced one of the nation’s first stand-alone departments of environmental science and engineering. A decade later the field of computer science began to emerge as an academic discipline in its own right. OGI responded by organizing a new computer science department that quickly grew along with the region’s stature as a hub of high-technology research and manufacturing. OGI soon began to produce a significant portion of the state’s Ph.D. and M.S. graduates in the fields most needed by the area’s leading firms.

OGI’s merger with OHSU in 2001 to become OGI School of Science and Engineering has resulted in the introduction of new academic programs to support the state’s changing technology workforce in keeping with its entrepreneurial spirit. The Department of Biomedical Engineering was formally launched in September 2004. The department will produce highly qualified graduates skilled in interdisciplinary problem solving at the interface of technology and human health.

The OGI School of Science and Engineering is dedicated to delivering high-quality, research-based graduate education in selected areas of science and technology.

OGI offers master’s and Ph.D. degrees in biochemistry and molecular biology, biomedical engineering, computer science and engineering, electrical engineering, and environmental science and engineering. In addition, OGI offers a master’s degree in management in science and technology and a master’s degree in software engineering as well as certificates in healthcare management, management in science and technology, and software engineering. In keeping with academic tradition in the science and engineering fields, there are no specialized agencies for professional accreditation or licensing for the graduate degree programs offered at OGI School of Science and Engineering.

These academic programs and their degree requirements are documented in the school catalog, which is revised annually and is available on the OGI Web site. The various curricula are designed and implemented by the faculty, working through curriculum committees and with the oversight and approval of the School’s Educational Policy Committee.

SoSE Assessment

The OGI School of Science and Engineering routinely assesses its programs and the success of its students in an effort to meet the mission of providing research and education that responds to important social, environmental and industry needs. While faculty play a central role in program assessment and planning, feedback from students, staff and industry is solicited for the purpose of providing a well-rounded, valued educational experience.
OGI maintains an academic catalog that lists the various program requirements and essential academic policies and expectations for student success at OGI. The catalog is updated annually; it is available on-line through OGI’s home page. The annual catalog update affords programs an opportunity to review and revise their curricula in response to changing research interests, industry needs, student feedback and program evolution. The process involves program administrative staff, faculty and department chairs to ensure the catalog is an accurate reflection of the current programs they offer.

Substantive changes to academic programs go through a two-stage review at the school level. First all changes are approved by the relevant faculty within the department. At this stage the faculty are primarily concerned with the appropriateness of the changes in regard to that program and related programs in the discipline, the academic rigor of the changes, the sustainability of such a change, and the technological advancement of the discipline. Next OGI’s Education Policy Committee reviews program changes. The EPC is comprised of a faculty representative from each academic department and a student representative for OGI’s Student Council. The EPC is interested in ensuring the revised program fits with OGI’s overall mission and doesn’t conflict with another program at OGI. The committee identifies any synergies with existing programs and ascertains that the revisions have been rigorously reviewed at the departmental level. From this point depending on the nature of the changes, the revised program goes to OHSU Academic Affairs for review or is implemented at OGI.

Daily program details, including scheduling of appropriate classes, occurs within the departments. Most departments have a dedicated faculty member, or faculty committee for curriculum issues. It is the responsibility of this person or committee to ensure that necessary classes are scheduled to allow students to graduate in a timely manner. In many cases, it is this departmental role that identifies deficiencies in the program and works to craft new course offerings in line with the degree objectives.

It is the department’s role to respond to student issues or concerns regarding academic progress. In support of this role, each program has an academic coordinator to provide administrative support to the academic processes and assist students as needed. The academic coordinator routinely monitors students’ progress toward degree completion and proactively contacts students and advisors when problems occur. Additionally, the graduate education director reviews academic performance on a quarterly basis to identify students performing below OGI’s acceptable standards of a cumulative GPA at or above 3.0. All students with a cumulative GPA below 3.0 are contacted and encouraged to work with their advisors to improve their academic work. Similarly, the programs are contacted and encouraged to provide the needed support to the student to ensure his/her success.

Operational changes within OGI also bring the opportunity to evaluate and revise program content. The 2001 merger with OHSU afforded the opportunity to explore new applications of science and engineering by focusing on human and ecosystem health needs. A notable outcome was the creation of the M.S. and Ph.D., biomedical engineering program and the health care management certificate program. In a similar manner, because of our research-driven educational structure, faculty arrivals and departures stimulate the re-examination of programs to ensure the school is capitalizing on the expertise available through current faculty.
On a quarterly basis students are asked to complete comprehensive course evaluations that include quantitative and qualitative feedback, both about the instructor and the quality of the class. While not mandatory, over 75 percent of registered students voluntarily complete the course evaluations. Beginning summer term 2004 the course evaluations were put on line, increasing the convenience to students and quality of qualitative information gained from this method. After compiling the course evaluation information to protect the identity of individual students, course evaluation data are shared with the instructor, the department chair, and the graduate education director. The school, program and instructor use this information to improve the content of the courses and identify any problems needing resolution.

An exit survey to assess student-learning outcomes was implemented in 1998. The survey collects both quantitative and qualitative data on all aspects of the student's experience of their department and centralized services. The compilation is annually distributed to the dean and department chairpersons for use in evaluation and planning of teaching and learning. Overall, perspectives on the institution generally fall at or above the satisfaction level, although they vacillate considerably by year. More longitudinal data is needed along with more in-depth analysis of the data due to its complexity. The exit survey should be re-evaluated for length and content to ensure that it is collecting relevant information. The institution needs to decide how best to publish the learning outcomes for each degree and certificate program. In addition, OGI needs to identify an owner of the process for ensuring follow through on incorporating the feedback into educational offerings.

OGI also has developed an alumni survey to gather quantitative and qualitative feedback from alumni one, three and five years after graduation. The survey seeks information on topics such as satisfaction with the educational experience, preparation for the job market and relevance of education experience with employment realities. The first survey was available on line and distributed to alumni via e-mail in fall 2002. The results of the survey were compiled and distributed to department chairs, department academic staff, the OGI dean, associate deans, alumni office and others. Unfortunately, due to limited up-to-date contact information for alumni, the survey was completed and returned by only a small portion of alumni. As a result, OGI has implemented an improved data collection process that should facilitate improved survey results in the future.

OGI has an associate dean for industry relations whose responsibilities include liaison with local companies to share what educational services OGI can provide as well as learn what educational services industry needs. The senior level of this position allows for direct contact with senior industry managers in order to tap into the strategic knowledge needs of local companies as they move into the future of science, engineering and management.

OGI offers seven master’s programs, five Ph.D., and three certificate programs. Five of the master’s degree programs are designed to provide skills for professional practice and foundations for lifelong learning and for entering a Ph.D. degree program. The master’s program in management in science and technology and the master’s program in software engineering are designed to prepare students for managerial and professional work in industry. Each of the five Ph.D. programs is designed to prepare students for careers in university’s research laboratories and as leaders in business and industry. The doctoral program requires levels of expectations, curricula and resources that are significantly greater than those required in the corresponding masters programs.
The school envisions building their role at the interface of science, engineering and health. This focus embodies the goals behind the merger of OGI with OHSU in 2001, and reflects emerging trends in both the health care and high-technology industries. OGI specifically seeks to augment its educational programs in traditional disciplines with research opportunities that are problem-based, multidisciplinary and translational. Teaching and research in areas such as medical information retrieval, reliable computing for safety-critical medical devices, medical image processing and 3-D simulation will continue to build on the existing strengths in speech and language technologies, multimodal technologies and collaboration with current ecosystem researchers.

Some of the unique programs and departments housed within OGI SoSE include the following:

- The Department of Environmental and Biomolecular Systems focuses on the multi-level relationships between ecosystems and human health.
- The Department of Management in Science and Technology responds to the growing challenges facing mid-level managers in the health care industry.
- New graduate degree programs in biomedical engineering have recently gained accreditation from NWCCU.
- The Center for Spoken Language Understanding is researching speech technology applications in the health and education sectors.

OGI has 50 full-time faculty members, nearly all have doctorates in their respective disciplines and documented records of instructional abilities and research achievements. OGI also has established a successful distance-learning program for its Management in Science and Technology Program, which also has established satellite classrooms in suburban locations. Funds from the Oregon Opportunity bonds and from the Murdock Foundation provided resources for the start-up phase of this new department and its degree programs.

**OGI SoSE Degrees and Certificates Awarded**

In 2003-04, OHSU SoSE awarded 191 degrees and certificates compared to 152 degrees and certificates in 1998-99. This represents an increase of nearly 26 percent. Of interest is the more than 300 percent increase in the number of graduate certificates awarded. This reflects the growing trend to graduate certificate programs to keep pace with changing technological and workplace demands.

**Table 2.8 Degrees and Certificates Awarded in Science and Engineering**

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Continuing Education at the University

School of Dentistry

The mission statement of the School of Dentistry stresses the commitment of the school to train dental professionals so they may provide high quality care to their patients. This commitment does not end with graduation as emphasized in Goal G of the School of Dentistry's mission statement, i.e., “... to ensure that graduates can rely upon the School of Dentistry as a continuing resource for the improvement of clinical skills.” The major responsibility for the implementation of this goal falls on the shoulders of the School of Dentistry's Continuing Dental Education Program.

The Continuing Dental Education Program is housed in the basement of the dental school building and is comprised of 14 complete dental units, radiology and sterilization areas, a self-contained dental laboratory, two lecture rooms and office space for a full time director, a program coordinator, and a clinic coordinator. The staff is responsible for arranging and facilitating the various types of events that comprise the overall CDE program. Participants of these events are eligible to receive continuing education credits that can be applied toward mandatory CE requirements of their various states or requirements of independent postgraduate dental programs such as offered by the Academy of General Dentistry. The OHSU CDE program is accredited by the American Dental Association, the Academy of General Dentistry and the Oregon Board of Dentistry.

In a typical year the CDE program sponsors approximately 80 one-or-two-day events that cover every aspect of dentistry-related activities. Most of these are in a lecture format but about a third of the events also will include a hands-on clinical component. The CDE program also sponsors state certification courses in oral radiology (four 50 hour courses) and nitrous oxide sedation (a three day course). In addition to these events 35 to 40 study clubs (groups of dental professionals that meet regularly with expert mentors to hone their skills in a particular specialty of dentistry) will use the CDE program's facilities. In a typical year the CDE program will accommodate over 200 meeting times for the study clubs. The study club activities often entail patient treatment in the CDE program's clinic. The CDE program also works in conjunction with dental organizations around the state to cosponsor CDE events at locations more convenient for practitioners than Portland. Total yearly registrations for these activities generally range between 6,000 and 7,000 and include dentists, dental hygienists, dental assistants, dental technicians and dental office staff.

The CDE program also offers four video-based courses and currently one on line CDE course. Participants who use these options can receive CDE credit once they achieve a passing score on the accompanying post-test. Approximately 100 to 200 individuals use this option every year.

The quality of the speakers and mentors affiliated with the events offered by the CDE Program is the responsibility of the director. The director solicits input concerning the credentials of potential instructors from SoD faculty who specialize in the proposed lecture areas, national CDE organizations (such as the American Dental Association's Speakers Series), and directors of other CDE programs around the nation. Further feedback takes place after each speaking engagement when participant responses on evaluation forms are collated and reviewed by CDE program staff.
School of Medicine

The School of Medicine sponsors continuing professional development activities for physicians and other health care specialists in a wide variety of clinical areas. Its efforts reflect the school’s stated mission to support “enhancement of human health through programs of excellence in education.” Activities emphasize primary care and draw on the clinical and academic strengths of OHSU faculty. They are coordinated by the Division of Continuing Medical Education, which is housed in the dean’s office along with departments devoted to medical student education and graduate/resident education. The Associate Dean for Graduate and Continuing Medical Education and Professors of Medicine direct the division.

All activities sponsored by the Division of CME are developed by full-time faculty of the SoM in consultation with the director. For each activity an application is submitted to the CME Advisory Committee detailing needs assessment, proposed target audience, objectives, teaching methods, curriculum and evaluation process. The committee is comprised of leaders in clinical departments throughout the SoM who are appointed by the dean. Committee review assures that activities meet the requirements and standards of the SoM, the American Medical Association Physicians Recognition Award program, and the Accreditation Council for Continuing Medical Education.

The director, division staff, the CME Advisory Committee and the Dean periodically evaluate the overall CME program of the CME Division. In addition, the ACCME reviews the division on a regular basis through a process of self-study and site visits. The ACCME last reviewed the division’s overall program in April of 2003 when a full four-year accreditation approval was granted.

Activities jointly sponsored with other health institutions or organizations undergo the same review and approval process described earlier. A full-time faculty member of the SoM must submit the application and assume responsibility for meeting all requirements. A projected budget is provided with the initial application, and a final income and expense report accompanies follow-up documentation submitted to the division at the conclusion of the course. No distance delivery systems are presently used for activities provided by the division.

Since it was established in 1970, the Division of CME has been partially supported by the SoM. The remaining support is provided by course tuitions, exhibit fees and grants. A budget is developed for each individual activity and the tuition set is designed to cover that portion of expenses not otherwise supported. A refund policy is specified in the registration brochure for each activity and is based on recovery of fixed costs and administrative expenses already committed at the time the refund request is received.

The School of Medicine Division of CME does not offer academic credit or continuing education units. By virtue of its accreditation through the ACCME, the school may designate AMA-PRA Category 1 credits for physicians. Credit for other professional health care providers may be sought from specialty or licensing organizations, depending upon the target audience for the individual activity or program.
School of Nursing

The School of Nursing’s Continuing Nursing Education programs exemplify the mission statement of OHSU to “Improve access to health care and education through community service and outreach to Oregon’s underserved populations.” The School of Nursing’s Strategic Plan has a strategic direction to “Develop an organized system for continuing education to meet the needs of nurses experiencing changing roles and demands.” The school has made considerable progress in this area. During the early 1990s, courses were broadcast via the Oregon satellite network to about 20 rural facilities. Since the satellite network has been discontinued, the school has not offered distance delivery of CNE programs. However, CNE has continued to be offered through workshops, seminars or in a series of courses offered over a period of time.

The lack of a CNE requirement for the licensure of registered nurses in Oregon has provided unique but not insurmountable problems in marketing CNE. The SoN developed a business plan for continuing education, which includes an agreement with OHSU Hospital to transfer all continuing education activities to the SoN. The School’s CNE office has worked with expert RN clinicians in various units of OHSU Hospital to develop and offer CE programs available to nurses statewide.

Academic courses approved and evaluated by the undergraduate or graduate councils (curriculum committees) also can be offered for continuing education credit. At times academic courses arise out of CNE offerings. For example, when the Northwest Nursing Education Institute program was developed, faculty designed an academic course at the doctoral level, which was approved by the Graduate Council. Other examples of CNE offerings include but are not limited to: motivational interviewing, using the Internet to enhance nursing practice, understanding genetics in practice and role preparation in community health nursing.

Full-time faculty are involved in planning, teaching and evaluating continuing educational offerings. Emeritus faculty, faculty from other schools of nursing and practice experts in the field of study being offered may be consultants, part of the planning committee or teach in the program. The SoN provides financial support for the continuing education infrastructure. The CNE program in general, and specific offerings, are offered on a self-support basis. In addition to offering academic credit for selected CNE courses, the school maintains a Continuing Education Provider Number with the California State Board of Registered Nursing and offers continuing education units through them.

The SoN offers a degree completion program for registered nurses. The school has an articulation agreement that provides transcript credit for nursing courses taken during their nursing program. The School also allows students to write portfolios that address the objectives/competencies for upper division clinical nursing courses. The SoN faculty reviews submitted portfolios to determine the amount of academic credit, if any, the applicant will receive.

School of Science and Engineering

The OGI School of Science and Engineering operates a Center for Professional Development that provides high-quality training and development for technology-based organizations in the Portland metropolitan area. Courses are offered in executive education, project management, software and information technology, management and leadership, technology entrepreneurship,
and industrial statistics and quality. The CPD courses are non-credit and taught by qualified instructors from the local and regional communities. CPD maintains extensive records for audit purposes that describe the nature, level and quantity of service provided through non-credit instruction. CPD does offer continuing education units although most participants do not request the awarding of units.

The center has recently introduced a program through which students can earn a certificate in program management for rapid product development, which incorporates coursework with a practical capstone project drawn from students’ own companies. From 800 to 1,000 working professionals enroll in CPD courses each year, making it one of the area’s most respected providers of technology-intensive professional education and training.

**Public Service Mission**

Public Service or ‘Outreach’ takes many forms at this university and includes clinical care for uninsured or underinsured patients, contributed staff for clinics, continuing education programs for nurses, distance learning, and research collaborations and technology transfer to foster economic development in Oregon. This aspect of the university’s mission focuses on making life better in the region. These endeavors are critical to providing a broad range of experience to the health care students and serving the statewide mission.

**Figure 2.9 OHSU Students Serve Communities Across Oregon**
OHSU offers 200 organized programs, gives more than $150 million worth of services and time to the community, reaches 96,000 square miles of Oregon with an expanding reach to neighboring states, and provides health and educational services in all 36 Oregon counties. Outreach cuts across the other three components of the mission (education, research and clinical practice).
Strengths, Challenges and Strategies

OHSU’s educational mission is carried out through four professional schools in collaboration with units in Student Affairs, Academic Affairs, Finance and Administration. The academic programs are supported by the interrelating functions of teaching, research (basic, applied and clinical), health care and public service, and involve people throughout the state of Oregon and beyond.

With respect to the academic programs offered, each school has well-established procedures in place for curriculum development and review through the Faculty Senate, with opportunities maximizing faculty involvement at the departmental level. Evaluating the effectiveness of these programs is essential to OHSU’s mission. Program assessment occurs in a variety of ways, but is driven by the specialized accreditation agencies at the national level.

OHSU has several areas of strength that provide the basis for continued improvement.

- All of OHSU programs for which this accreditation is available have achieved the highest levels of status.
- Outcomes measures and benchmarks from each of the educational units are exceptionally strong and several units are expanding their assessment efforts.
- Schools and departments report a variety of exciting and innovative teaching, research and public service/outreach activities.
- The schools and departments are strong due to high quality faculty and staff, productive research efforts and sustained relationships with alumni, communities, business, industry and other educational partners.
- The addition of the OGI School of Science and Engineering has added breadth and scope to the program offerings of the university.
- The academic technology support, especially for the library, has been greatly enhanced.

During the last several years, OHSU has faced some of the traditional challenges of organizational change and rapid program growth. OHSU has benefited from new resources and fresher directions, but the need for additional infrastructure must be balanced with available resources. Collaborations on research and interdisciplinary course offerings hold promise for building and enhancing the connections between the four professional schools and achieving the vision set out for the university. Faculty and staff are focused on continuing the integration of the OGI School of Science and Engineering into the fabric of the University.

To sustain this forward momentum, OHSU must monitor the needs of academic programs with the demands of evolving health care systems, establish additional mechanisms for faculty development, evaluate the progress of the interdisciplinary basic science ad hoc task forces, and consider establishing an all University Graduate Council for graduate studies.
Standard 2 Resources

Tables and Figures

Figure 2.1 Dental Graduates Passing Boards on First Attempt
Table 2.2 Degrees and Certificates Awarded in Dentistry
Table 2.3 Degrees and Certificates Awarded in Allied Health
Figure 2.4 OHSU Medicine Graduates Passing Boards on First Attempt
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Appendices

2.1 OHSU Academic Program Inventory
2.2 OHSU Programs Added and Deleted
2.3 OHSU Degrees and Certificates Awarded 1998-2004

Exhibits

2.1 SoD Self-Study Accreditation Document
2.2 SoM Self-Study Accreditation Document
2.3 SoN Self-Study Accreditation Document
Students
OHSU is dedicated to providing the highest quality educational experience possible for its students. Critical to that quality is the setting, campus culture and environment of support in which that educational experience exists. OHSU has developed a strong infrastructure to support that experience and is purposeful in continuously monitoring those activities in order to improve the accomplishment and enhancement of the goal of student success.

Dedication to these values and the infrastructure to support them continues to be challenged and reframed as the university experiences enrollment growth.

OHSU’s dynamic growth is mirrored both in the number of students enrolled and their choice of majors. OHSU enrollment reached 2,553 students in fall 2004 compared with 1,757 in fall 1994. In the past five years, enrollment has increased by nearly one-third.

Table 3.1  Student Enrollment Overview

<table>
<thead>
<tr>
<th>Baccalaureate, Graduate and Professional Totals</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baccalaureate</td>
<td>659</td>
<td>624</td>
<td>634</td>
<td>548</td>
<td>508</td>
<td>623</td>
</tr>
<tr>
<td>Graduate (M.S., Ph.D.)</td>
<td>531</td>
<td>605</td>
<td>1,234</td>
<td>1,305</td>
<td>1,240</td>
<td>1,197</td>
</tr>
<tr>
<td>Professional Degree (D.M.D., M.D.)</td>
<td>664</td>
<td>677</td>
<td>667</td>
<td>671</td>
<td>706</td>
<td>733</td>
</tr>
<tr>
<td>Total</td>
<td>1,854</td>
<td>1,906</td>
<td>2,535</td>
<td>2,524</td>
<td>2,454</td>
<td>2,553</td>
</tr>
</tbody>
</table>

Note: Includes enrollment in undergraduate and graduate certificate programs.

The growth in enrollment is due largely to OHSU’s merger with the Oregon Graduate Institute of Science & Technology in 2001, which resulted in the addition of the institution’s fourth school, the OGI School of Science & Engineering. The largest proportion of students in fall 2004 enrolled in advanced degree and certificate courses (75.6 percent) and slightly less than one-third of the students enrolled in undergraduate courses (24.4 percent.) Of the more than two-thirds enrolled in advanced degree and certificate programs 19.7 percent were enrolled in master’s programs, 14.7 percent were in Ph.D. programs, 28.7 percent were in professional programs (D.M.D. and M.D.) and 6.6 percent were in certificate programs. In addition, 5.9 percent of the graduate students enrolled in fall 2004 were not formally admitted into a degree or certificate program.
This student mix is central to developing the mission and principles for student services. Students enter the university in one of two ways: as juniors to complete baccalaureates in nursing and radiation therapy or with a bachelor’s degree or higher to begin professional or graduate studies. The university operates in a highly competitive higher education environment and is committed to being among the “top 10” institutions in the nation on a variety of fronts, including quality of entering students, student success rate in passing national licensure exams, and research dollars won competitively by faculty.

One of the critical components of sustaining high-quality programs and outcomes is a supportive campus environment for students. Although the students enter the university with successful academic records from various colleges and universities, the clinical and laboratory settings in which they will learn to apply their knowledge in solving practical problems and will be socialized into the values and beliefs of their chosen professions are demanding and intense.

Organization and Principles of Student Affairs

The university first created a student affairs unit and appointed an administrator to oversee its activities and programs in 1988. The assistant vice president for student affairs reported directly to the provost. At the time of the 1995 self-study, this unit oversaw the Registrar, Financial Aid, Multicultural Affairs, Student Health Services, Student Government, two bookstores, the Fitness and Sports Center, one residence hall and two cafeterias.

In 2001 the provost combined the functions of Student Affairs and Academic Affairs under one vice provost in order to bring integration between support for academic programs and support for students, and to address the need for a more cogent approach toward student affairs that was identified in the 1995 self-study Evaluation Committee report. In addition to the responsibilities of the assistant vice president at the time of the self study, the vice provost for Academic and Student Affairs has central authority for student and faculty issues that cross all school boundaries including, international services, services for students with disabilities, faculty personnel processes, curricular review and approval, and university accreditation processes (liaison with the Northwest Commission on Colleges and Universities).

The vice provost coordinates student affairs programs, activities and services through advisory structures (e.g., the Council of Associate Deans), the direct supervision of unit directors, and standardization of policies and procedures. To respond to issues raised in the 1995 self-study about the decentralized nature of student services, the vice provost for academic and student affairs created the Council of Associate Deans to advise on the proper placement of decision-making authority for student services in an environment that graduate and professional studies dominate. This council developed a set of principles to analyze the effectiveness of decentralized and centralized arrangements for the delivery of student support services and make adjustments as appropriate. These principles, which are used to guide decisions about programs and services that support student success, are consistent with the university’s mission and core values. They include:

- Foster a campus community and environment that is supportive of student academic success.
• Promote a campus environment that is respectful and supportive of its diverse members, and that promotes knowledge and understanding of diversity in the broader community.

• Work collaboratively to recommend and prioritize the use of resources in support of students across all schools and academic programs.

• Develop centralized university systems that support students across all schools and programs.

• Provide high-quality centralized services that support student learning and development.

These principles provide a focus and framework for how Student Affairs approaches its work to increase the effectiveness of student services. For example, processes that require highly technical knowledge and standardization to comply with external regulations are centralized (such as the awarding of student financial aid.) Services important to providing a supportive climate for students and running an institution, but non-mission critical functions, are also centralized (such as food services, student health insurance and student health care services.) On the other hand, student orientation and career advising are delegated to the individual schools to develop programs customized to their students. Each school conducts an in-depth orientation for new students in which faculty administrators provide specific information about program requirements and services offered at both the school and departmental levels. In these orientation programs, students learn about the library, student health services and insurance, and other centralized student services.

Two standing advisory groups to the vice provost support this structure for Academic and Student Affairs — the Council of Associate Deans and the Student Affairs Leadership Team. A regular monthly meeting of the Council of Associate Deans supports the delegation of responsibility to the units and provides a forum to discuss student issues that cross school boundaries and require either standardization or collective agreement to develop policy. These meetings provide an open communication channel to address the interface between centralized and school-based student services and share best practices. The Dean in each of the four schools has designated at least one administrator, usually an associate dean, to be responsible for and become the staff expert in student services.

Strategic planning and leadership related to student issues are accomplished through regular meetings of the Student Affairs Leadership Team. The leadership team comprises all directors in the Division of Student and Academic Affairs, other key student service administrators and the vice provost for Academic and Student Affairs. This group reviews and develops policy, provides input on budgetary goals and explores collaborative initiatives that can lead to better support for students. University policies and procedures for student affairs are developed with input from students and school representatives and are evaluated regularly to ensure their effectiveness for serving student service goals.

Planning for the implementation of the centralized student information system provides a good example of the usefulness of both the Council of Associate Deans and the Student Affairs Leadership Team for sharing best practices and prioritizing the allocation of centralized resources.
on behalf of students. Other issues that both advisory groups have addressed include tuition and fee policies, student health services and health insurance, housing resources, bookstores and food services. These advisory groups have addressed the lack of clarity around the vision and functioning of services and processes related to students noted by the evaluators in the 1995 self-study process.

In addition to this central support, OHSU’s experience and the nature of graduate education itself, suggest that it is more appropriate for students to receive direct service from their academic school or program for some purposes. As a consequence, in addition to these central resources devoted to students, each school has its own student affairs unit that focuses upon services, policies and procedures that are tailored for their academic program and professional standards. These school-based programs include recruitment, admissions, orientation, academic advising, diversity, career counseling, and student conduct and grievances processes. Each school has an identified associate dean or director responsible for Student Affairs who possess experience and qualifications appropriate for these responsibilities. These organizations are (org charts included in Exhibit 3.7).

School of Dentistry: In the School of Dentistry student affairs programs and processes are organized under the associate dean for Admissions and Student Affairs. The responsibilities of the Office of Admissions and Student Affairs include recruitment, admissions processes, registration, new student orientation, academic advising and tutoring, and student conduct. The Associate Dean for Admissions and Student Affairs works closely with the dean, and associate dean for Academic Affairs to ensure that the school and specific services are organized appropriately to support students.

School of Medicine: In the School of Medicine educational and student affairs functions are integrated under the associate dean for Medical Education. This division of the School of Medicine is responsible for admissions (recruitment, application processing and counseling and selection), education (curriculum management), student affairs (academic and professional conduct, tutoring, career and personal counseling, student organizations, awards and scholarships, and student events) and teaching services (course support, space scheduling, student home base).

In addition, to these support functions, during the 2002-03 academic year the School of Medicine has established the Office of Minority Affairs, under the supervision of an assistant dean for Minority Affairs, with the specific mission of fostering an environment conducive to the recruitment, training and development of ethnically diverse physicians.

School of Nursing: Within the School of Nursing, services and programs in support of students is divided among several units. Both the undergraduate and graduate programs have Admissions offices that support recruitment, enrollment and orientation of students. In addition the Office of Professional and Diversity Development focuses upon student activities, diversity, professional and student development, and support of student’s learning needs. More recently, the dean also has appointed a lead associate dean the school’s point person with oversight for recruitment and enrollment functions.

OGI School of Science and Engineering: Student services and student affairs functions at the OGI School of Science and Engineering are clustered in the Graduate Education Office under
the leadership of the director of graduate education. Major functional areas include admissions (admissions processing, registration, orientation, career services), student services, (student activities and student government), and international services.

Initiatives and Accomplishments

The centralized and school-based student affairs programs share a joint mission of enhancing and supporting the educational experience. OHSU has made significant progress in recent years in centralizing and integrating selected programs and services for students across schools. Over the past several years, the integration of student services and programs has progressed to centralized registration for three of the four schools (with the OGI School of Science & Engineering in 2002 and the School of Dentistry projected for 2005), integration of the two bookstores into one location in November 2004, and the outsourcing of food and beverage services offered in the academic buildings. The 12-mile distance between the Marquam Hill Campus and the West Campus necessitates that the university provide functions such as bookstores and student health services on each campus. Coordinating student services in a multi-campus environment is the grist for future discussions about how to serve all students well.

Human, physical and financial resources for student services and programs are allocated on the basis of identified needs. Since the last self-study, the university has developed initiatives to improve the Student Affairs component of the Office of Academic and Student Affairs through more centralized and collective processes. The initiatives include:

- Streamlined recordkeeping and reporting through the implementation of a common database for maintaining student records, handling school admissions and registering for classes.
- Created a Web-based system for sharing information about affordable housing available for students off campus and partnered with nearby Portland State University to address the problem of lack of on-campus housing.
- Created a vision and plan of action for an Office of Diversity and Multicultural Affairs that included its relocation to a more prominent location and increased funding to develop advising relationships with promising middle school, high school and undergraduate students from underrepresented groups.
- Developed a model to provide accommodation services to support success of students with disabilities.
- Expanded outreach efforts to increase students in the pipeline for health and science careers.

The result of working assiduously to cut costs while maintaining or enhancing service quality is the improvement in centralized processes and services in Student Affairs. In addition, the lives of students are benefited by greater inclusion and the interaction with students from other academic programs.
Table 3.2 Decision-Making Focus of Control for Student Support Services

<table>
<thead>
<tr>
<th>Process</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruiting students</td>
<td>Schools</td>
</tr>
<tr>
<td>Admitting students</td>
<td>Schools</td>
</tr>
<tr>
<td>Registering students</td>
<td>Mixed</td>
</tr>
<tr>
<td>Orienting students to specific program and its requirements</td>
<td>Schools</td>
</tr>
<tr>
<td>Collecting assessment data about student satisfaction with programs</td>
<td>Schools</td>
</tr>
<tr>
<td>Collecting assessment data about student satisfaction with Student Services</td>
<td>Centralized</td>
</tr>
<tr>
<td>Brokering student financial aid (primarily loans)</td>
<td>Centralized</td>
</tr>
<tr>
<td>Advising students on academic progress and careers</td>
<td>Schools</td>
</tr>
<tr>
<td>Developing and enforcing Student Code of Conduct</td>
<td>Schools</td>
</tr>
<tr>
<td>Fostering representation, inclusion and engagement of students.</td>
<td>Centralized</td>
</tr>
<tr>
<td>Facilitating accommodations for students with disabilities.</td>
<td>Mixed</td>
</tr>
<tr>
<td>Supporting international students (e.g., compliance with U.S. immigration)</td>
<td>Centralized</td>
</tr>
<tr>
<td>Developing pipeline programs for middle, high school and college students seeking health care and sciences careers.</td>
<td>Mixed</td>
</tr>
</tbody>
</table>

Source: Office of Academic and Student Affairs, OHSU, September 2004.

General Responsibilities Related to Student Support

Ongoing functions related to students are performed at OHSU mostly by units providing centralized services in the Office of Academic and Student Affairs. These eight units, which report to the vice provost for Academic and Student Affairs include the Office of the Registrar and Financial Aid, Center for Diversity and Multicultural Affairs, Joseph B. Trainer Student Health Services, Fitness and Sports Center, Office for Student Access, OHSU Bookstore, Office of International Services, and Office of Science Education Opportunities. In addition, the vice provost is responsible for auxiliary food services and manages the contracts outsourced to vendors for the Mac Hall Café, and food and beverage vending machines placed throughout the academic buildings (Marquam Hill Campus — see Appendix 3.2, Organizational Chart for Student Affairs.)

The directors and staff for student programs and services are highly qualified individuals whose academic preparation and training are appropriate for their responsibilities. Directors and staff are regularly evaluated based on mutually established performance standards and goals. Budgetary decisions in relationship to support of these programs are made with significant input from directors, with the final determination concerning allocation of support made by the vice provost and provost. (See Appendix 3.3, Appendix 3.4 and Exhibit 3.1.)

Student Characteristics

During the application, financial aid and registration processes, the university collects a variety of data pertaining to the characteristics of students. Student data include applications and admissions, enrollment by school, level of study, program, gender, race/ethnicity, residency and
degrees conferred. General descriptive data are summarized in *OHSU at a Glance*. The university has selected a set of key measures to use in tracking its competitiveness for students, including the diversity of students, the academic ability of new students and first-time pass rates on professional licensure examinations.

**Selectivity**

Information on OHSU’s admission and enrollment statistics illustrates not only the selectivity and competitiveness of the university’s programs, but demonstrates the general improvement in the demographic mix of OHSU students since fall 1999. The proportion of applicants admitted into professional programs, which compete in a national market, continues to be very selective with about one in 27 applicants accepted into the M.D. program and one in 11 applicants accepted into the D.M.D. program. The competitiveness of the nursing program (B.S.), which operates in a statewide and regional market, has increased from about 1 out of 2 applicants admitted in 2000 to about one in five in 2004. For the OGI School of Science & Engineering, which operates in a Portland-based market, about 1 in 5 applicants are admitted into graduate programs. (See Table 3.3, *Proportion of Applicants Admitted* and Appendix 3.6, *Applications, Acceptances and Admissions for Programs 2002-03 - 2004-05*.)

**Table 3.3 OHSU Proportion of Applicants Admitted: Fall 1999 to Fall 2004**

<table>
<thead>
<tr>
<th>School of:</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Dentistry (D.M.D.)</td>
<td>70</td>
<td>9.2</td>
<td>70</td>
<td>9</td>
<td>72</td>
</tr>
<tr>
<td>Medicine (M.D.)</td>
<td>96</td>
<td>3.6</td>
<td>101</td>
<td>4</td>
<td>104</td>
</tr>
<tr>
<td>Nursing 2</td>
<td>180</td>
<td>52.5</td>
<td>222</td>
<td>52.1</td>
<td>179</td>
</tr>
<tr>
<td>Science &amp; Engineering 4</td>
<td>197</td>
<td>22.5</td>
<td>165</td>
<td>20.5</td>
<td>124</td>
</tr>
</tbody>
</table>

Notes:  
1. All 2004-05 data represent estimated applications, acceptances and admitted students as of Feb. 18, 2005.  
2. Excludes students enrolled in graduate programs.  
3. Excludes OGI School of Science & Engineering prior to merger.  
4. Source: Individual school reports to the Office of Academic and Student Affairs.

Another measure of selectivity and competitiveness is reflected in both the average GPA of entering students and the scores on examinations required for admission of admitted OHSU students to the D.M.D. and M.D. programs compared with the respective national averages. The average GPA of entering OHSU students in comparable programs is higher than the national average. (See Table 3.4, *Average College GPAs for Entering Students 1999-2004*.)
Table 3.4 Average College GPAs for Entering Students 1999 to 2004
Dentistry, Medicine, and Nursing

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentistry (D.M.D.)</td>
<td>3.48</td>
<td>3.52</td>
<td>3.57</td>
<td>3.59</td>
<td>3.59</td>
<td>3.64</td>
</tr>
<tr>
<td>Medicine (M.D.)</td>
<td>3.59</td>
<td>3.61</td>
<td>3.61</td>
<td>3.73</td>
<td>3.65</td>
<td>3.63</td>
</tr>
<tr>
<td>Nursing (M.S.)</td>
<td>3.74</td>
<td>3.71</td>
<td>3.63</td>
<td>3.95</td>
<td>3.83</td>
<td>3.82</td>
</tr>
<tr>
<td>Nursing (Ph.D.)</td>
<td>3.76</td>
<td>3.86</td>
<td>3.89</td>
<td>3.86</td>
<td>3.86</td>
<td>3.88</td>
</tr>
</tbody>
</table>

Note: Nursing data include Portland students only.
Source: Individual school reports to the Office of Academic and Student Affairs, Jan. 2005.

Applicant scores on the Dental Admission Test (DAT) and the Medical College Admission Test (MCAT) for the D.M.D. and M.D. programs continue to be higher than the national averages. (See Table 3.5, Average Applicant Scores Compared to National Averages: Fall 1999 to Fall 2004.)

Table 3.5 Average Applicant Scores Compared to National Averages: Fall 1999 to Fall 2004

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentistry 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OHSU</td>
<td>18.8</td>
<td>19.1</td>
<td>19.3</td>
<td>19.5</td>
<td>19.3</td>
<td>19.4</td>
</tr>
<tr>
<td>National</td>
<td>16.8</td>
<td>16.8</td>
<td>16.8</td>
<td>17.2</td>
<td>17.3</td>
<td>Pending</td>
</tr>
<tr>
<td>Difference</td>
<td>2.0</td>
<td>2.3</td>
<td>2.5</td>
<td>2.3</td>
<td>2.0</td>
<td>Pending</td>
</tr>
<tr>
<td>Medicine 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OHSU</td>
<td>30.7</td>
<td>30.0</td>
<td>29.9</td>
<td>30.4</td>
<td>30.7</td>
<td>31.0</td>
</tr>
<tr>
<td>National</td>
<td>29.7</td>
<td>29.7</td>
<td>29.7</td>
<td>29.7</td>
<td>29.6</td>
<td>29.9</td>
</tr>
<tr>
<td>Difference</td>
<td>1.0</td>
<td>0.3</td>
<td>0.2</td>
<td>0.7</td>
<td>1.1</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Notes:
1 Out of a possible total score of 30 on the DAT (Dental Admission Test).
2 Out of a possible total score of 45 on the MCAT (Medical College Admission Test).
Source: Individual school reports to the Office of Academic and Student Affairs.

Demographic Mix

The number of women enrolled in OHSU programs has increased overall from 1,145 in 1998 to 1,542 in 2004. This represents not only a numerical increase, but it also represents a 1.6 percentage point decrease in women as a proportion of the total enrollment. OGI experienced declines in the number of women enrolled in recent years. Additionally, the elimination of the dental hygiene program in 2002, which tends to be a female-dominated field, attributed to a decline in the number of female students. The proportion of women in nursing remains high and is consistent with the image of a female-dominated occupation. On the other hand, the proportion of women in medicine (M.D.) is rising as the result of recruiting efforts and pipeline development in the medical school. (See Table 3.6, Student Population % Female.)
### Table 3.6: Student Population: % Female

<table>
<thead>
<tr>
<th>School</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentistry</td>
<td>25.1</td>
<td>25.3</td>
<td>27.4</td>
<td>30.3</td>
<td>31.4</td>
<td>32.8</td>
</tr>
<tr>
<td>Medicine</td>
<td>48.0</td>
<td>47.7</td>
<td>51.1</td>
<td>51.9</td>
<td>55.2</td>
<td>56.8</td>
</tr>
<tr>
<td>Nursing</td>
<td>89.9</td>
<td>91.1</td>
<td>89.5</td>
<td>89.3</td>
<td>90.4</td>
<td>90.6</td>
</tr>
<tr>
<td>Allied Health</td>
<td>72.9</td>
<td>73.8</td>
<td>73.5</td>
<td>78.6</td>
<td>58.8</td>
<td>62.5</td>
</tr>
<tr>
<td>Science &amp; Engineering*</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>22.8</td>
<td>22.7</td>
<td>25.4</td>
</tr>
</tbody>
</table>

*School of Science & Engineering joined OHSU in 2001.

Students of African American, American Indian, Asian/Pacific American, and Hispanic/Latino descent currently represent 15.1 percent (excluding international students and students whose ethnicity is unknown) of all OHSU students. OHSU has undertaken several initiatives at both the institutional and school levels to increase the diversity of OHSU students. These initiatives focus on enhancing the representation of underrepresented students in the university's academic programs and require the collaboration of the Center for Diversity and Multicultural Affairs, Office of Science Education Opportunities, and the schools to create a pipeline of future graduate and professional students. These efforts are needed to prepare practitioners as well as faculty role models.

### Table 3.6a: Student Population: % Minority

<table>
<thead>
<tr>
<th>School</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentistry</td>
<td>12.1</td>
<td>15.4</td>
<td>15.4</td>
<td>15.4</td>
<td>16.1</td>
<td>13.5</td>
</tr>
<tr>
<td>Medicine</td>
<td>16.6</td>
<td>16.3</td>
<td>17.4</td>
<td>17.1</td>
<td>16.1</td>
<td>16.9</td>
</tr>
<tr>
<td>Nursing</td>
<td>9.2</td>
<td>9.2</td>
<td>10.3</td>
<td>11.5</td>
<td>11.0</td>
<td>9.4</td>
</tr>
<tr>
<td>Allied Health</td>
<td>16.2</td>
<td>16.0</td>
<td>14.3</td>
<td>12.2</td>
<td>25.0</td>
<td>31.3</td>
</tr>
<tr>
<td>Science &amp; Engineering</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>30.3</td>
<td>25.8</td>
<td>29.4</td>
</tr>
</tbody>
</table>

2000 Oregon minority population equals 13 percent.

Minority includes African American, Asian, Hispanic and Native American and excludes International and Unknown.
Table 3.7 OHSU Enrollment: Fall 1999 to Fall 2003

<table>
<thead>
<tr>
<th>Enrollment Trends</th>
<th>OHSU Enrollment (Fall Term)</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentistry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Degree</td>
<td></td>
<td>276</td>
<td>275</td>
<td>277</td>
<td>277</td>
<td>284</td>
<td>288</td>
</tr>
<tr>
<td>Graduate</td>
<td></td>
<td>27</td>
<td>29</td>
<td>26</td>
<td>23</td>
<td>28</td>
<td>26</td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Degree</td>
<td></td>
<td>388</td>
<td>402</td>
<td>390</td>
<td>394</td>
<td>422</td>
<td>445</td>
</tr>
<tr>
<td>Graduate</td>
<td></td>
<td>314</td>
<td>374</td>
<td>444</td>
<td>497</td>
<td>508</td>
<td>564</td>
</tr>
<tr>
<td>Nursing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baccalaureate</td>
<td></td>
<td>471</td>
<td>464</td>
<td>498</td>
<td>506</td>
<td>491</td>
<td>607</td>
</tr>
<tr>
<td>Graduate</td>
<td></td>
<td>190</td>
<td>202</td>
<td>205</td>
<td>197</td>
<td>216</td>
<td>233</td>
</tr>
<tr>
<td>Allied Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adv. Paramedic Cert(^1)</td>
<td></td>
<td>26</td>
<td>27</td>
<td>25</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Dental Hygiene(^2)</td>
<td></td>
<td>69</td>
<td>60</td>
<td>58</td>
<td>27</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Clinical Laboratory(^1)</td>
<td></td>
<td>36</td>
<td>37</td>
<td>39</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Radiation Therapy</td>
<td></td>
<td>12</td>
<td>14</td>
<td>13</td>
<td>15</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Physician’s Assistant(^1)</td>
<td></td>
<td>45</td>
<td>22</td>
<td>1</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Science &amp; Engineering</td>
<td></td>
<td>n/a</td>
<td>n/a</td>
<td>559</td>
<td>588</td>
<td>488</td>
<td>374</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,854</td>
<td>1,906</td>
<td>2,535</td>
<td>2,524</td>
<td>2,454</td>
<td>2,553</td>
</tr>
</tbody>
</table>

\(^1\) Joint program with Oregon Institute of Technology; enrollment tracked by OIT after 2001.
\(^2\) Program has been eliminated due to budget cuts.
\(^3\) Became a master’s program in 2001-02; included in graduate medicine thereafter.

**Part-Time Students**

The majority of professional and graduate students are required to enroll full-time, but part-time enrollment is permitted in some undergraduate and graduate programs. The M.D. and D.M.D. programs are not offered on a less than full-time basis, with the exception of occasional accommodations approved in advance.

Some nursing students begin an associate’s level R.N. program at a community college and transfer to OHSU to complete a bachelor’s degree. Many of these students are single mothers who attend part time to balance the demands of work, family and school. These programs require collaboration with the community colleges to ensure program articulation and appropriate student advising to help students be successful.

OGI School of Science & Engineering’s student population includes approximately 114 full-time students and 260 part-time students (fall 2004). Students may take a limited number of credit hours before matriculating into a formal degree program. Many full-time students also are international students. In addition, many part-time students are working professionals from the surrounding area whose tuition is paid by their employers. Most of the classes at OGI are scheduled in the evening hours and on weekends to accommodate these part-time students and to enable full-time students to pursue their research during the day.
Student Participation in University Governance

Students have had a strong and continuing tradition of participation in institutional governance at OHSU. The OHSU Student Council established processes for nominating students to boards and committees at the highest levels of university governance, including the university board of directors. Student members are nominated to serve a two-year term on the board, serve on board committees and have full voting rights.

Collectively, students are involved in institutional governance through the OHSU Student Council (previously All Hill Council.) Made up of student representatives from all four schools and the Allied Health programs, the council continues to be the primary vehicle for students to address their issues with university administration about student life and the campus community. The vice provost for Academic and Student Affairs acts as the primary adviser to the council and attends monthly meetings.

Many students volunteer to serve on task forces and committees examining university programs and issues. Typically nominated by the OHSU Student Council, students serve on the Faculty Senate, ongoing student services advisory committees (e.g., Student Health Services Advisory Committee, Fitness and Sports Center Advisory Committee) and on task forces that might examine specific topics that have an impact upon the student experience. A good example of this participation was the significant contribution by students to the Multicultural Affairs Task Force organized by the provost in 2000 to address issues of diversity and inclusiveness on campus.

Students also organize and participate in school-based student councils, policy committees related to educational program planning and professional standards, and on grievance and judicial committees. Examples of student participation on school-based policy committees include the Student Curriculum Evaluation Committee in the School of Medicine, the Graduate Council in the School of Medicine, Student Conduct and Diversity committees in the School of Nursing, and the Dental Curriculum Review Committee in the School of Dentistry.

Policies on Student Rights and Responsibilities, Academic Dishonesty

Policies related to student rights, conduct and professional behavior are articulated and communicated to students through school orientations and school Web sites, as well as the Web site of the Office of Academic and Student Affairs. Each school posts electronically catalogue-type information including requirements for admission, coursework and degree attainment, tuition and fees charges, relevant academic policies, and a student handbook. School Web sites are linked to the central Academic and Student Affairs Web site, providing students a second portal to this important information.

When OHSU became independent of the Oregon University System/Oregon State System of Higher Education, the university required each school to develop its own student judicial and grievances processes within the framework of the general standards incorporated in university policy. (See Exhibit 3.2, Student Judicial and Grievance Processes.) The vice provost and the university’s legal counsel reviewed these school-based policies and procedures to ensure they met standards for due process, fairness, equity and consistency. Associate deans report that the
delegation of these processes to the schools is working well. A school-by-school review by the vice provost and legal counsel is planned for fall 2005. The School of Medicine is developing a student conduct framework for Ph.D. students, as the standards of the School of Medicine Student Progress Board are appropriate only for students in the M.D. program. The School of Science & Engineering is drafting its first Student Code of Conduct to comply with the university framework.

Safety and Security on Campus

The protection of persons, property and facilities on campus is essential to providing a safe and secure learning environment for students and other community members. The Office of Public Safety provides both emergency and preventive services 24 hours a day, seven days a week. With a staff of more than 40 trained officers, dispatchers and administrative support staff, the Office of Public Safety responds to emergencies, distributes information concerning crime prevention and safety, provides campus escort services, assists motorists with car problems, responds to office door lockouts, and supports campus events with security staffing.

The need for strict security of information and the protection of sensitive and valuable research and clinical resources led Public Safety to develop an ID badge system for personal safety and protection of property at the university. Public Safety maintains crime statistics that are published in the yearly report required by the Clery Act. Public Safety maintains a database and Web site that are linked to other primary communications Web sites for students. Both the Marquam Hill Campus and West Campus have very low crime rates. (See Exhibit 3.8, Clery Act.)

Information Resources

The university has not published a comprehensive general catalogue for some time, depending instead on customized information prepared by each school. Each school produces the equivalent of a catalogue that is available electronically for current and prospective students by accessing the university’s official Web site (www.ohsu.edu). The link to each school provides the school mission, admissions requirements, degree requirements, a student handbook and information concerning rights and responsibilities of students. This is linked to, and supplemented by, the Web site hosted by the Office of Academic and Student Affairs that describes all university student services and policies and procedures related to students rights and welfare (www.ohsu.edu/academic). Students now have network access to important information about programs and student services tailored to their needs and at a time and place of their choosing.

Evaluation and Assessment of Student Service Programs

OHSU conducts periodic and systematic assessment of the adequacy and use of student service programs through assessments conducted both centrally and at the school level. School-based assessment of student support functions is typically part of the professional accreditation required for the M.D. program in the School of Medicine, B.S. in the School of Nursing, and the D.M. D. program in the School of Dentistry. These processes require an assessment of student experiences and its subsequent analysis and evaluation to inform program adjustment and improvement. The
full description of these evaluation processes is contained in the individual accrediting documents of each school. (See Standard 2.)

The Division of Academic and Student Affairs conducts evaluation and assessment of centralized activities against standards established by the Council for the Advancement of Standards in Higher Education for student service departments. Some services have ongoing advisory committees of students, staff and faculty involved in assessing program or service value (e.g., Student Health Services and Fitness and Sports Center.) These committees are involved in evaluating whether the services offered meet the needs of students. From these evaluations, each director with input from the advisory committee decides where to focus improvement efforts. Various departments such as housing, dining services, and vending use customer satisfaction surveys or track data about the number of users to identify critical features and specifications for their services and decide what products and services to offer. Other sources of data include more informal feedback gathered in group settings and individual interactions. A task force recommended a comprehensive evaluation of student services in spring 2006.

**Academic Credit and Records**

Each academic program develops and maintains its own criteria for evaluating student academic achievement and awarding credit. These criteria are provided during orientation sessions, contained in course syllabi and available on-line at each school’s Web page. For students in the health sciences programs, clinical settings also provide opportunities for faculty members, various preceptors, and students to assess competencies and progress.

As tomorrow’s scientists, researchers and clinicians must be educated in an increasingly interdisciplinary environment to be successful in the health care sector, students are encouraged to take courses in other disciplines. This interdisciplinary aspect of the future is reflected in the merger with OGI and the development of the doctoral program in Biomedical Engineering. The lack of consistency in grading practices may thwart student exploration. The Registrar is working with the schools to determine if more consistent grading practices are needed.

**Student Services and Programs**

OHSU hosts a number of programs and services that are designed to provide both personal support to students and to create a campus community that is conducive to academic success. The Office of Academic and Student Affairs provides administrative oversight to those activities, which serve students across all schools and academic programs. Admissions, orientation and career advising, occur at the school level and are managed individually by each school.

**Admission and Orientation**

Traditionally at OHSU a number of student services — admissions, orientation, academic advising and career counseling — have been provided directly by individual schools for their own students. National admissions processes in the School of Medicine (AMCAS) and the School of Dentistry (AADSAS) justify this delegation of responsibility. School-specific specialists and faculty also review applicants to ensure that students who pass through this initial screening have the potential for success before advancing for further review. Each school, with the exception of
the School of Nursing, manages individually all of these processes. The registrar and the nursing school are discussing moving admissions processes back to the School of Nursing.

Orientation sessions are also specific to each school due to the volume of school-based information that new students in professional programs require. Given the different academic calendars for different programs, representatives of centralized student services provide information about the Sports and Fitness Center, student health center and health insurance, student governance, housing and immigration services at the times that are convenient for the schools.

Finally, academic advising and career counseling are also managed at the school level, reflecting the close and intensive nature of graduate and professional programs. In the School of Nursing, faculty advisors or faculty advising teams provide academic advising. In the School of Medicine students meet individually with the associate dean of Student Affairs, and participate in “Mednet,” a student advising program in which small groups of students meet with faculty in a seminar setting to discuss the process of medical education. Students in the School of Science & Engineering meet with student planning committees, and/or have specific faculty advisors. Dental students have several avenues for advising and counseling managed by the student affairs office in the School of Dentistry.

Office of the Registrar

The mission of the registrar’s office is to serve as the custodian of student academic records. This mission includes establishing and facilitating registration functions, ensuring the accuracy of student academic records, providing student information to university departments to assist in tracking student progression and academic advising, collaborating with OHSU’s four schools to regularly review administrative policies and procedures, timely processing of student requests for academic transcripts and conducting audits for awarding degrees and certificates.

Since the 1995 self-study and the 2000 interim self-study, the registrar’s office has re-conceptualized the information infrastructure by implementing a powerful system for enrollment management (SCT Banner database). The registrar has focused on consistency in the keeping of educational record data. The university has successfully moved the responsibility for official academic recordkeeping from three of the four schools to the Office of the Registrar. The registrar is responsible for maintaining the permanent and official academic record for students from all OHSU schools except the School of Dentistry. When the university merged with OGI in 2001 to create a new school within OHSU, the registrar’s office successfully incorporated its academic records into OHSU’s student information systems in 2002. The migration of student data from the School of Dentistry to the registrar is scheduled for 2005, signaling the complete implementation of centralized record reporting.

The registrar’s office has also implemented several new processes to provide more online access to information. A student can “go online” to view his/her academic record (including demographic information, grade information and student account information) and register for classes. The adoption of integrated software products has enhanced productivity and service to students and is part of a university-wide information technology strategy. The university has enhanced its ability to provide an accurate, consistent, common records repository for all OHSU schools. At the same time, paper records are maintained in safe, secure and fireproof conditions.
Financial Aid

The mission of the Financial Aid Office is to help students secure the best financial aid package to attend the university while simultaneously maintaining compliance with all federal and state rules and regulations. Financial assistance to OHSU students is primarily in the form of loans for students in graduate and professional programs (about seven in 10 OHSU students.) Over the past decade, tuition has skyrocketed to balance the loss of state general fund support for advanced degree programs. Tuition charges are differentiated among programs based on market demand, different pricing strategies, and lifetime earnings potential.

Table 3.8 Student Tuition for OHSU Programs, 1990-2000 through 2004-05

<table>
<thead>
<tr>
<th>Program</th>
<th>Residents</th>
<th>Nonresidents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999-00</td>
<td>2004-05</td>
</tr>
<tr>
<td>M.D.</td>
<td>$14,688</td>
<td>$21,840</td>
</tr>
<tr>
<td>Graduate Medical Education</td>
<td>$4,698</td>
<td>$6,993</td>
</tr>
<tr>
<td>D.M.D.</td>
<td>$9,573</td>
<td>$16,440</td>
</tr>
<tr>
<td>Nursing (UG)</td>
<td>$5,172</td>
<td>$7,092</td>
</tr>
<tr>
<td>Nursing (Graduate)</td>
<td>$6,399</td>
<td>$8,154</td>
</tr>
<tr>
<td>Science &amp; Engineering (Graduate)</td>
<td>$14,715</td>
<td>$16,875</td>
</tr>
</tbody>
</table>

A financial aid management system automatically analyzes application information and requests additional needed information based upon eligibility standards. This requires less manual intervention and also provides information to students in a much more timely fashion. In addition, direct deposit of financial aid funds to student bank accounts provides added value in uninterrupted service and convenience for on-campus students (Marquam Hill and West campuses) as well as students in off-campus sites and those on clinical rotations in various locations around Oregon.

Student Health Services

OHSU students on the Marquam Hill Campus are served by an outpatient clinic located in Baird Hall. The clinic provides primary care and counseling services for all full-time students on Marquam Hill. Services are funded through student fees, which are currently $170 per term for 2004-05. The committed partners and dependents of students have access to services on either a prepaid or fee-for-service basis. Each year a student advisory committee meets with Student Health Services staff to choose a major medical health insurance plan and integrate its services with those of the SHS to minimize unforeseen out-of-pocket costs to students and their families. For students to opt out of the student health insurance plan, they must provide proof of primary coverage by another provider.

Current staffing in the clinic includes board-certified physicians in general internal medicine and pediatrics. Two clinical psychologists and a psychiatrist work in tandem with primary care physicians to provide mental health services. In addition to primary care and counseling, preventive medicine services also are provided, including immunizations, and lifestyle counseling. Students can access physicians and specialists in any other OHSU clinic, as needed.
Regular surveys of students, conducted by the SHS staff as part of the School of Medicine specialized accreditation, reveal a high level of overall satisfaction with accessibility of health services. Students indicate a need for expanded hours of operation and a reception area conducive to maintaining patient confidentiality. SHS staff responded by opening the clinic during the noon hour and developing plans for redesigning the reception area to provide greater patient confidentiality. These initial improvements are part of a larger systematic review of services planned by the new SHS director, who began in August 2004.

**Center for Diversity and Multicultural Affairs (CeDMA)**

Since the 1995 self-study the university has made a substantial investment in its effort to support and enhance diversity at OHSU. As a consequence of a 1999 strategic plan developed by a committee of faculty staff and students, the provost created a new vice provost position to be responsible for diversity and multicultural affairs, and provided resources that have resulted in the creation of both the program and physical space that have become the Center for Diversity and Multicultural Affairs. (See Exhibit 3.5.) As a consequence, CeDMA has become the university’s central resource for programs designed to create a diverse pipeline of students, an inclusive campus environment, and a key collaborator with school and department entities who also are involved in those activities.

In 2002 the Center for Diversity and Multicultural Affairs redesigned its space to provide an environment conducive to all students. The new space houses a computer lab, study rooms, conference facilities and student lounge. CeDMA staff routinely provide academic advising to high school and undergraduate students from OHSU and many surrounding high schools, colleges and universities. CeDMA encompasses community outreach by providing several in-house programs geared toward enhancing the representation of students of color at the college and pre-college level. Many of its programs serve as an introduction to health career professions for prospective students interested in careers in health and science profession and are designed to provide hands-on research, mentorship-training programs and various levels of academic preparation and enrichment opportunities. (See Appendix 3.5, Selected Programs in the Center for Diversity and Multicultural Affairs Programs and Exhibit 3.6, Multiculturalism and Diversity Defined.) Since the 1995 self-study, the university made a substantial investment in the CeDMA, both in physical renovations and programming initiatives to reflect the vision and enhanced resources devoted to provide focus to diversity issues (for more detail, refer to Standard 8, Physical Resources).

In addition to, and in collaboration with, the work of CeDMA, other OHSU academic programs are undertaking their own activities to enhance diversity. For example, since the last self-study the Schools of Medicine and Nursing have created specific organizational units, which have responsibility for diversity in their schools. In the school of Nursing the Office of Professional and Diversity Development has worked to develop a strategic plan for diversity in the school which identifies specific strategies and activities to help the school reach its goals for diversity. Similarly the Office of Minority Affairs, led by an assistant dean in the School of Medicine, is charged with the mission of increasing the numbers of diverse students graduating from Medical school and graduate medical programs. The schools early successes include receiving funding for a health careers opportunity grant, and the development of the graduate program equity summer research program, both designed to help expand the pipeline for diverse students at OHSU.
Along with these programs the Office of Science Education Outreach conducts activities to enhance science literacy in K-12 education, and most recently has developed relationships with two Gates Foundation supported high schools that will result in the selection of two underrepresented minority students for summer research internships.

These activities and the evolution of CeDMA form a strong core for support of diversity that has evolved at the university since the 1995 self study.

**Services for Students with Disabilities**

Since the last accreditation visit, the university appointed a committee of faculty and staff from the schools, the Office of Affirmative Action and the Legal Department to develop a model for services that supports the academic success of students with disabilities and complies with the requirements of the Americans with Disabilities Act (ADA). The model was developed with the expertise of faculty and staff of OHSU’s Center on Self Determination, who are nationally recognized for research and scholarship regarding effective strategies for training health sciences university faculty about the needs and rights of students with disabilities.

The model appoints faculty as Program Accommodation Liaisons who work with a central director to ensure students with disabilities receive appropriate accommodations. In addition, common policies and procedures for students are in place for schools, which has promoted consistency and quality of services. These new procedures are communicated through student orientations and faculty and staff meetings in each school.

The university appointed the director for Student Access at .25 FTE based on projected formal requests for accommodation and available resources. Data collected in 2001 revealed that formal requests ranged from zero to eight per school, averaging 17 total requests per year for the four schools. In 2004 total formal requests for accommodations increased to 45 requests and the university increased staffing to .75 FTE. Typical accommodations requested and provided include extended time for test taking, testing in a quiet or distraction-free environment, extending assignment deadlines, and adjusting clinical placements. Clinical placement adjustments include selecting sites based on wheelchair accessibility or geographic proximity to student, adjusting clinical hours (two, four-hour shifts instead of one, eight-hour shift), or providing additional time to complete clinical requirements. Accommodations at this level are very individual, program and site-specific.

**Housing**

A recent survey of students indicates an unmet need for housing close to the university. (See Exhibit 3.4, *Housing Survey.*) The University demolished a 122-student capacity residence hall to construct the new clinical tower of the OHSU hospital. To alleviate the housing shortage, the university has taken a multi-pronged approach. A newly developed interactive information system brokers landlords with rooms, apartments and houses to rent and students looking for housing. In addition, an agreement with Portland State University allows OHSU students to compete on equal footing for new one-bedroom and studio apartments developed by Portland State University. The River Campus is being considered as a future site for affordable one-bedroom and studio apartments (www.ohsu.edu/academic/acad/housing) for 200 students.
### Student Food Service Auxiliaries

The university has outsourced noncritical mission functions of food service to improve efficiency. These include the Mackenzie Hall cafeteria, contracted by Chartwells Corporation, School of Dentistry Food Service, coffee service in the School of Nursing, BICC and Vollum Institute, and all campus vending. In partnership with the food service contractor, OHSU invested over $500,000 to modernize the dining and service areas to provide espresso and coffee service, Internet and wireless Internet service, and outside spaces for eating and gathering (Mac Hall Café) as well as coffee service in academic buildings and another cafeteria in the School of Dentistry. Space and investment capacity limits the extent to which kitchen areas can be expanded which in turn limits product offerings in these locations. Currently, the university is reviewing all food service contracts to consider efficiencies gained by reducing the number of contractors and utilizing the central Mac Hall cafeteria kitchen for expanded services to other locations on the Marquam Hill Campus.

### Fitness and Sports Center

The OHSU Fitness and Sports Center provides a place for students to enhance and supplement their otherwise stressful academic lives by participating in structured recreation programs or informal exercise workouts. The Fitness and Sports Center has served as one of OHSU’s primary integrators for students from all schools, in addition to networking with OHSU faculty and staff in a more informal setting.

Student fees are the primary source of funding for the FSC with faculty, staff and community memberships also available. The 25,000 square-foot facility includes a gymnasium, natatorium, two racquetball/squash courts, weight room, exercise machine room, fitness class space, reception and offices. The facility is open seven days a week for a total of 96 hours. Structured programs offered by the Fitness and Sports Center include fitness classes, intramural programs, massage therapy and personal training.

Planning is under way to merge the FSC with the proposed School of Nursing’s Wellness Center in Building One of the new South Waterfront campus in July 2006. The new medical wellness center will be dedicated to enhancing the health of the community through the promotion of lifestyles that incorporate regular physical activity, sound diet, stress management and relaxation. Programs and services include rehabilitative services, health improvement classes, problem-solving programs, fitness classes, individual consulting and organized team activities.

As part of the overall master plan, OHSU plans to redevelop the existing FSC facility into a much-needed student center. Many student services could be relocated into a one-stop center for bookstore, food service, student health services, student activities, and student organizations. The consolidation of the dental and medical/nursing bookstores into one bookstore located in the FSC facility is the first phase of this transformation. Prior to final approval, the OHSU Student Council reviewed the proposal for the Wellness Center and voted to approve an increase in student fees in 2006 to support the new Wellness Center and the redevelopment of the Fitness and Sports Center into a student center. In addition to the OHSU Student Council, the proposal received review and feedback from the advisory council to the Fitness and Sports Center.
**Bookstores**

The mission of the bookstores is to serve as a convenient resource for students and faculty in relationship to providing products that help support academic success, teaching and research. The bookstores focus upon high quality customer service, and providing specialized expertise in relationship to health sciences textbooks and instrumentation. Until very recently, OHSU had operated two bookstores, one serving the medical and nursing schools located in Mackenzie Hall and one serving the dental school in the School of Dentistry building. Both stores are open to students, faculty and staff with limited service to licensed professionals and the general public.

Severely constricted by space, as noted by the 1995 self-study Evaluation Committee, and with no dramatic change in student enrollment, the volume of sales in the bookstores has not changed substantially during the last 10 years. Sales in the medical/nursing bookstore for 2003-04 were $1.5 million (compared to $1.3 million in 1993-94), and $575,702 in the dental school bookstore, which reflects the transfer of approximately $900,000 in sales to the School of Dentistry for student equipment issue.

Surveys of students conducted by the schools suggest overall satisfaction with the bookstores. However, the current retail environment of online book sales and “big box” stores make change in the OHSU campus bookstores inevitable. Though the previously mentioned sales figures have grown slightly, costs (especially salaries) have increased resulting in the bookstore operations to be “break even” or money-losing propositions in some years.

The university launched several initiatives to address the financial situation of the bookstores. The two bookstores merged in November 2004 and reopened in a new and larger space renovated in the Fitness and Sports Center. The bookstore expanded its hours of operation and enhanced its online sales capability as an added convenience for students, faculty and alumni. This is the first step in refocusing of the FSC facility into a functional student center by beginning to cluster student services in this location.

**Summary**

To help serve students more effectively and efficiently, OHSU developed an underlying philosophy to improve the organizational arrangements and the cocurricular services. This underlying philosophy is based on the appropriate division of responsibility for student services that support students’ educational development in the environment of an academic health center. Student Affairs is now guided by a set of principles that did not exist at the time of the 1994 Self Study. Despite improvements, several critical areas will be addressed in the near future:

The following represents both areas where OHSU has made great strides since our last self-study, and those areas where there are challenges yet to face.
Strengths, Challenges and Strategies

Student Affairs has noted success in integrating student and academic affairs, promoting the appreciation of diversity, serving students with disabilities, centralizing the student information system, revitalizing spaces that contribute to campus life and a sense of community, and reinvigorating student opportunities for contributing to university governance.

Integrating Academic and Student Affairs under one vice provost has provided more central administrative support to student initiatives, and increased collaboration among the schools on behalf of common student issues and problems. Moreover, the schools have invested significant resources into personnel and processes that support students at the school level. Together these efforts have given the university a more intentional philosophical and organizational approach to the provision of programs and services that support student learning and success.

OHSU has made significant progress towards enhancing its diversity infrastructure and initiatives on campus. Evidence of this progress is represented by both the program and newly built centrally located facility of the Center for Diversity and Multicultural Affairs. CeDMA has greatly enhanced the student pipeline in order to grow diversity on campus, and the schools have been successful in increasing diversity among students in several programs.

OHSU is pursuing a more focused approach towards being compliant with the American with Disabilities Act, and supporting the academic success of students with disabilities. This has been initiated with the addition of a qualified staff, and the development and implementation of a model for providing services to students with disabilities. For the first time, there are common policies and procedures for students to ensure quality and consistency across schools. We will be monitoring the effectiveness and the value of these programs for students.

After several years of implementation, much of OHSU schools’ student information now resides in the same student information system. In addition to providing direct online access for students to their own academic information, several schools now offer online registration, and two schools now provide online admissions. Next stages of implementation will include online services for faculty in addition to expanding other on-line services for students.

Several initiatives have been undertaken to enhance the quality of campus life by the redevelopment of spaces in which students and other members of the OHSU community commonly come together. Mackenzie Hall Cafeteria (the main food service outlet for the educational facilities of OHSU) has undergone a complete renovation. In addition to updated seating space, the food service program has been expanded and diversified to include more variety in food and espresso service. Wireless and plug-in Internet connection
has also been added to provide easy access to the OHSU Web site for students, faculty and staff. Also, as mentioned earlier, significant resources were expended to develop a new facility for the Center for Diversity and Multicultural affairs. This has provided a sense of place for students and faculty, which is expected to contribute to the sense of community for OHSU’s students, faculty and staff. Planning for redevelopment of the Fitness and Sports Center as a student center is also under way. The two bookstores separately serving medicine/nursing and dentistry have been integrated as businesses and relocated to a larger newly remodeled space in the current Fitness and Sports Center. It is expected that this move will lead to a new vision for, and eventual remodeling of, the FSC as a student and community focused center.

Student representation and participation in campus governance has been enhanced through the reinitiating of meaningful student involvement in the allocation of the student fee, and providing students with more input on how that fee is budgeted. Moreover, the importance of student involvement in campus governance has been reemphasized by central administration and is reflected by a more active student government (OHSU Student Council) and student representation on Faculty Senate; ongoing student services advisory committees (e.g., Student Heath Services Advisory Committee, Fitness and Sports Center Advisory Committee); and on task forces that have an impact on the student experience, such as the Multicultural Affairs Task Force organized by the provost in 2000.

Despite improvements, there are several challenges that warrant our attention including (a) financial resources in support of student affairs and student services, (b) planning for student support in new campus locations, (c) dedicated physical space for enhancing student life (d) fiscal challenges for student auxiliaries, (e) student diversity and (f) ongoing assessment of student satisfaction with the array of student services.

Financial support for programs in student affairs is currently adequate for the services and programs offered. The analysis of comparator institutions suggests that OHSU might benefit from additional FTE support in key service units, including the Office of Financial Aid and the Office of the Registrar.

Planning for efficient and effective student services is needed as new campuses and programs come online. Several new initiatives require creative solutions to deliver important student services beyond the Marquam Hill Campus. These initiatives include building a new campus along the south waterfront in Portland, developing the curriculum for an undergraduate nursing degree program on several community colleges, entering into an agreement with PeaceHealth and the University of Oregon to expand the cohort of medical students by identifying Eugene as a site for clinical rotation in the M.D. program.

Planning for converting the current Fitness and Sports Center into a student center holds great promise. However, the financial resources needed to make this conversion are not yet firm and will have to compete with other capital projects. Close collaboration between
administration and students will be necessary to facilitate this important renovation designed to bring students from the four schools together. We believe this is critical to create the feeling of “a university” instead of separate academic programs from the students’ perspective and to bring students together across the disciplinary lines and levels to enhance communication, team building and problem solving. A student center should reflect the university’s strategic directions that support a more interdisciplinary curriculum and research programs.

OHSU’s bookstores and contracted food services face serious fiscal challenges in today’s business environment. Ongoing analysis will be required to ensure that the business models of these operations are sustainable and in the best interest of students and the university.

OHSU continues to be challenged in its efforts to increase the diversity of its student bodies. Pipeline programs are in place to attract more students and continue to provide promise for the future, but there will be an ongoing need to ensure that our admission, enrollment management and financial aid processes are well designed to achieve this goal.

Centralized student service departments have begun the process of instituting assessment that will lead to quality assurance. In order to realize the long-term value of assessment, his initiative needs to become embedded in the culture and organization of each of these units over time.
Standard 3 Resources

Tables

3.1 OHSU Student Enrollment Overview: Fall 1994 to Fall 2004
3.2 Decision-Making focus of Control for Student Support Services
3.3 OHSU Proportion of Applicants Admitted: Fall 1999 to Fall 2004
3.4 Average College GPA's for entering Students 1999-2004
3.5 Average Applicant Scores Compared to National Averages: Fall 1999 to Fall 2004
3.6 Student Population % Female
3.6a Student Population % Minority
3.7 OHSU Enrollment: Fall 1999 to Fall 2004
3.8 Student Tuition for OHSU Programs 1999-2000 through 2004-05

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3.1 Organization of the Division of Academic and Student Affairs
3.2 Organizational Chart for Academic and Student Affairs
3.3 Student Affairs Staff Profile: Centralized
3.4 Student Affairs Staff Profile: School-based
3.5 Major Programs in the Center for Diversity and Multicultural Affairs

Exhibits

3.1 Professional Staff Resumes
3.2 Student Policies and Procedures
3.3 Financial Aid Reviews
3.4 Housing Survey
3.5 1999 Strategic Plan for Diversity and Multicultural Affairs
3.6 Required University Notifications
3.7 Student Affairs Org Charts: School-based
3.8 Clery Act Statistics
Faculty

STANDARD
FOUR
The mission and goals of Oregon’s only academic health and science center are anchored in service to the state’s people and economy. Putting it succinctly, because OHSU is in the knowledge business it requires faculty of exceptional quality. Over the past decade, the number of faculty increased more than 30 percent with full-time faculty increasing nearly 50 percent, and volunteer clinical faculty increasing by 40 percent. During the same time period, sponsored R&D expenditures nearly quadrupled. This productivity is the result of the vast and consistently impressive competencies and talents of our faculty directed toward achieving the mission and goals of OHSU.

Table 4.1 Growth in Faculty and Research Enterprise

<table>
<thead>
<tr>
<th></th>
<th>Total Faculty</th>
<th>Full-time Faculty</th>
<th>Part-time Faculty</th>
<th>Clinical-volunteer Faculty</th>
<th>Sponsored Project Awards</th>
<th>Dedicated Research Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994(^1)</td>
<td>3,256</td>
<td>799</td>
<td>847</td>
<td>1,610</td>
<td>$ 86 million</td>
<td>253,777 sq. ft.</td>
</tr>
<tr>
<td>2004</td>
<td>4,257</td>
<td>1,193</td>
<td>806</td>
<td>2,258</td>
<td>$ 260 million</td>
<td>674,550 sq. ft.</td>
</tr>
<tr>
<td>10-year Difference</td>
<td>1,001</td>
<td>394</td>
<td>-41</td>
<td>648</td>
<td>$ 174 million</td>
<td>420,773 sq. ft.</td>
</tr>
<tr>
<td></td>
<td>+31%</td>
<td>+49%</td>
<td>-5%</td>
<td>+40%</td>
<td>+202%</td>
<td>+166%</td>
</tr>
</tbody>
</table>

Notes: Total faculty includes regular faculty, basic scientists, adjunct faculty and clinical volunteers and others. Excludes graduate teaching and research assistants.

Faculty Roles, Selection, Development, Evaluation and Welfare

OHSU’s four schools train the next generation of health professionals, environmental scientists, biomedical researchers and engineers. Nearly three-quarters of the instructional effort is directed to post-baccalaureate and advanced degree students and programs in the SoD, SoM, SoN, and OGI SoSE. (See Standard Two, Educational Programs.) In addition, the School of Nursing sponsors a major baccalaureate program for registered nurses that is available to students statewide under the aegis of our four campuses.
OHSU continually aims for world-class excellence in the quality of its educational programs while growing and diversifying its scientific research base. This vision necessitates a strong commitment to attracting, developing and retaining faculty who are or who will become nationally and internationally renowned scholars, educators, clinicians, and research scientists dedicated to the pursuit of knowledge and discovery.

The selection, support, development, evaluation and welfare of faculty are paramount to attracting and retaining faculty who are exemplary.

**Faculty Roles and Responsibilities**

OHSU employs professionally qualified faculty who have a primary commitment to the university and its mission and goals. University-wide and school-based policies and procedures address how faculty should carry out their responsibilities. Policies and procedures are in place to ensure equitable treatment, periodic evaluation and feedback, and opportunities for support and development. OHSU faculty carries out the unique mission of an academic health university by contributing to OHSU’s three enterprises:

- Teaching and advising undergraduate and graduate students in the four professional schools;
- Conducting basic research and clinical trials in these four professional schools, five research institutes and numerous interdisciplinary research centers; and
- Providing high quality health care for all Oregonians.

Outreach activities crosscut all three enterprises and are directed toward spreading the benefits of healing, teaching and discovery to underserved urban and rural Oregonians, as well as identifying and mentoring students in the pipeline for careers in the health professions. OHSU promotes an environment in which the best research involves teaching and the best teaching involves research.

Responsibilities in each of these areas are identified in individual faculty position descriptions. These descriptions are updated as appropriate and serve as the basis for making decisions about faculty workload, faculty performance and promotion and tenure. Roles and expectations for faculty work vary according to the appointment status. These major categories include (1) professors and research scientist faculty; (2) clinical volunteer faculty; and (3) other faculty (Appendix 4.1 provides a current institutional profile of OHSU faculty.)

1. Starting with the rank of instructor, faculty members achieve academic “rank” based on their qualifications and their contributions in teaching, research and service according to the expectations of the professional school or research institute in which they hold a primary assignment. Faculty members with rank represent forty-five percent (N=1,924) of 4,257 faculty appointments. The relatively low percentage of OHSU faculty with tenure (15 percent) reflects the university’s movement toward annual or multi-year contracts.

2. The designation “clinical volunteer faculty” is applied to practicing health care professionals who volunteer in the OHSU hospitals and/or clinics primarily affiliated with the SoM, SoD, and SoN. They are an integral part of the teaching force, hold academic rank and expand OHSU’s capacity to train future health professionals. These appointments are part-
time and represent 53 percent of all OHSU faculty, both full- and part-time (N=2,258 of 4,257), and 74 percent of all part-time faculty at OHSU (N=3,064).

3. Other faculty appointments vital to the mission include instructors, lecturers and staff scientists employed on a recurring contractual basis to perform a discrete set of duties. The positions are unranked and represent less than 2 percent (N=75) of all faculty.

Each unit has policies in place for faculty, consistent with the appropriate institutional human resource policies. These policies include qualifications for employment as teaching faculty, employment practices and use of part-time and adjunct faculty/instructors. These school-level policies are reviewed to ensure consistency with the intent of institutional human resource policies.

Although the aforementioned faculty groups suggest discrete categories, schools actually vary in the use of practicing health professionals and adjunct faculty. These differences reflect long traditions and expectations for how community practitioners participate in the training of future health professionals. For example, the SoD, SoM and SoN incorporate practitioners, many of whom are board certified in their specialty areas, into their respective curricula. The SoM appoints physicians in the community to serve as clinical volunteer faculty on a part-time basis (e.g. “Clinical Assistant Professor”). The SoD appoints dentists in the community as part-time assistant professors and provides remuneration for their contribution to the clinical setting. The SoN appoints nurses in the community as adjunct faculty.

The SoSE, on the other hand, appoints business executives, engineering professionals or consultants with specific expertise as “adjunct faculty” to teach master’s level courses or professional development seminars. Although three of the four schools (but none of the research institutes) hire faculty as “adjuncts,” the majority are found in the SoM and SoSE. In contrast to SoSE, SoM designates someone “adjunct faculty” either when they hold a joint or courtesy appointment with another OHSU unit (or another university) as their primary appointment, or as a temporary status for a recently hired faculty member pending the review and approval for a regular faculty appointment by the SoM Promotion and Tenure Committee. Regardless of how the schools determine adjunct status, nearly all 157 adjunct faculty serve under part-time appointments.

These slight variations in policy are a result of the decentralized authority of the schools and research institutes to make faculty appointments, so long as they are consistent with overall university hiring and promotion policies. One of the prevailing norms in the OHSU culture is to allow merged entities to retain some of their distinctiveness while encouraging joint appointments and funded research activity to build connections across the units. This flexibility is critical to faculty and unit productivity.

**Faculty Workloads**

Each professional school has the authority to establish standards for appropriate faculty workloads. Faculty workloads are adjusted as necessary to accomplish the school’s and the university’s missions. Given the unique mission of OHSU as an academic health and science center, the institution does not measure faculty workload according to a traditional notion of “credit load.”
Guidelines set for instructional faculty permit the dean or designee (i.e., the associate dean or department heads) to distribute teaching assignments that meet course demands each term for each academic discipline and permit sufficient time for faculty development and renewal each year. The unique attributes of the curriculum in each school underscore the flexibility needed to manage faculty workload and each school has specific formulas for determining workload. For example, the teaching environment in the M.D. program includes faculty as lecturers in front of a group of students, small group didactic sessions, and hands-on learning in clinics and hospitals in Portland, as well as in primary care clinics in rural Oregon where clinical practitioners provide student supervision and feedback.

**Faculty Salaries**

“Excellence” is one of the university’s core values. The competitiveness of faculty salaries is one of the benchmarks for determining an institution’s ability to attract and retain excellence among the faculty ranks as well as increase success in attracting competitively awarded research dollars, such as NIH funds.

OHSU’s 1995 change in status from a state agency to a public corporation allowed the institution to deal directly with the observation that the salaries of faculty were not competitive. This issue was raised in the Evaluator’s Comments for 1995 Self Study. Under the new corporate structure, the university adopted a more market-driven approach towards faculty resources and academic programs. The overarching policy of the OHSU board and senior administration encourages schools and research institutes to develop competitive compensation policies and practices that attract and retain the highest quality faculty in their respective disciplines and markets. (See Exhibit 4.2, *Determining Market for Faculty Positions*.)

The university’s growth in faculty appointments over the past decade can be interpreted as evidence of making progress in this domain. All four professional schools have improved their respective faculty salary structures and overall competitiveness among their peers nationally. Several have developed or are tailoring compensation models to provide incentives for improved productivity and to meet standards set by their colleagues, unit leadership and senior administration. In recent years, the deans have used survey tools as well as models available from professional associations to improve the competitive position of faculty salaries. In short, this decentralized philosophy for management of faculty compensation has been successful by many counts, including having faculty that individually and collectively enjoy national and international stature by traditional measures of professional publications and presentations, participation in professional associations, rankings and others. (See Exhibit 4.2, *Determining Market for Faculty Positions*.)

The median annual salaries for regular, full-time faculty by rank for the 2004-05 academic year range from nearly $71,000 for assistant professors to $134,000 for full professors. (Table 4.2.)
Table 4.2  Median Salaries of Full-time Faculty by Rank
2004 Headcount

<table>
<thead>
<tr>
<th>Professor</th>
<th>Assoc. Professor</th>
<th>Assist. Professor</th>
<th>Instructor</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>$133,744</td>
<td>$92,500</td>
<td>$70,967</td>
<td>$60,332</td>
<td>$51,563</td>
</tr>
</tbody>
</table>

Each unit is aware that unique markets determine relative competitiveness in faculty salaries. This is reflected in the range of faculty salaries by professional school. (Table 4.3) At this time we believe the university’s total compensation offered (salary and benefits) is relatively competitive, and the goal is to sustain this competitiveness.

Table 4.3  OHSU Average Faculty Salaries by Professional School Fall 2004

<table>
<thead>
<tr>
<th>Professional School</th>
<th>Full Professor</th>
<th>Associate Professor</th>
<th>Assistant Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Dentistry</td>
<td>$129,628</td>
<td>$94,264</td>
<td>$84,188</td>
</tr>
<tr>
<td>School of Medicine</td>
<td>146,303</td>
<td>104,447</td>
<td>70,847</td>
</tr>
<tr>
<td>School of Nursing</td>
<td>108,587</td>
<td>81,502</td>
<td>75,580</td>
</tr>
<tr>
<td>School of Science &amp; Engineering</td>
<td>150,425</td>
<td>97,303</td>
<td>86,885</td>
</tr>
</tbody>
</table>

Faculty Development

The university’s commitment to faculty development is demonstrated through centralized and decentralized opportunities for enriching and advancing faculty skills in teaching, research, advising and administration. The professional schools have guidelines for faculty development in the By-Laws (SoD) or their respective Faculty Handbooks (SoM, SoN, and SoSE).

Institutional faculty-development efforts include special events and activities that bolster an array of university resources, which are available throughout the year. These efforts include:

- Departmental seminars and lectures reflecting cutting-edge science and health research and issues are weekly topics available to the OHSU community from OHSU faculty, visiting scholars and graduate students. Those events enrich the intellectual environment of the school, university and broader community.
- The OHSU Faculty Senate provides opportunities to discuss timely issues such as how young faculty can balance clinical, teaching, research and development activities.
- EduTech provides training in computer technologies and the OHSU’s Staff Fee Privilege program reimburses faculty for credit courses offered by Portland State University and other Oregon University System (OUS) universities.
- The Center for Diversity and Multicultural Affairs (CeDMA) fosters and encourages multicultural diversity in all aspects of university life. For the past two years, the center has sponsored a monthly cultural competency lecture series that is open to all faculty, students, administrators and patients.
For nearly a decade, the National Institutes of Health has been an important source of faculty development funds for faculty serving as principal investigators on research projects. The “K Awards” are faculty development grants that generally fund up to 0.75 FTE of a new faculty member's position/salary for a three-year period. Since 1995, a total of 234 K-awards amounting to more than $27 million have supported faculty starting their research careers at OHSU. In 2004, 37 K-award grants totaling nearly $5 million were awarded to OHSU faculty. Examples of multi-year K-awards include:

- Oregon Building Interdisciplinary Research Careers in Women’s Health (BIRCWH) Development Program grant for $2.47 million over five years, beginning in September 2002. The goal is to create a stimulating and nurturing environment for junior faculty to develop into leading physician scientists in the field of women’s health.

- The Human Investigation Program (HIP), funded at $200,000 per year, is designed to help faculty and fellows learn how to write fundable grants and how to conduct clinical research. More than 130 clinician scientists have participated in the training. Faculty who complete the program earn a Master’s in Clinical Research, a new degree program recently approved by the Oregon State Board of Higher Education (OSBHE).

**Figure 4.5 NIH Awards for Faculty Development FY 1995 to FY 2004 (in millions)**

Qualified Faculty

The high quality of the OHSU faculty serves as an important underpinning to the university’s record of success in achieving high rankings for its professional graduate school programs, as reported in the *U.S. News & World Report: Best Graduate Schools* ranking and in other publications. These high rankings are attributed to several factors including having a vision and hiring talented academic staff, innovative curricula and a higher caliber of students and graduates. OHSU’s reputation as an institution of excellence is also demonstrated by its creativity in serving Oregon. Examples of this creativity are found in the statewide nursing programs, the mergers with various research institutes and with the Oregon Graduate Institute, and the Oregon Opportunity. Mergers within the past three years resulted in a net gain of 113 full-time faculty (10 percent of all full-time OHSU faculty) and 126 part-time faculty (16 percent of all part-time OHSU faculty, excluding volunteers.) As would be expected, the vast majority of OHSU’s faculty have advanced degrees:

- Ninety-four percent of full-time faculty have an advanced degree and almost 80 percent of all full-time faculty (927 of 1,193) have doctoral degrees.¹
- Ten West Coast institutions granted 25 percent of the degrees held by OHSU faculty (University of Washington, Washington State University at Pullman, OHSU, University of Oregon, Oregon State University, Stanford University and the University of California campuses at Davis, Los Angeles, San Diego and San Francisco.)
- Other U.S. institutions granted nearly 60 percent of faculty degrees. Major sources of advanced degrees include Harvard University, Northwestern University, Ohio State University, the University of Iowa, University of Pennsylvania, University of Rochester and University of Wisconsin at Madison.
- Foreign institutions granted approximately 14 percent of all doctorates for full-time faculty, bringing global expertise to many specialty disciplines at OHSU.

A vision of excellence is also driving the development of new academic programs. The Oregon State Board of Higher Education (OSBHE) recently approved the SoSE’s academic program in biomedical engineering (BME). This program has attracted top faculty in their disciplines from around the country including 10 full-time members and 25 faculty appointed jointly through other units in the university. The biomedical engineering department is also emerging as an important source of NIH funding for the university.

An important part of OHSU’s culture is the recognition of the faculty excellence in their achievements and accomplishments. Examples of these awards and recognitions include OHSU Faculty Senate Awards and School Awards at graduation. In addition, emeritus faculty members are honored in an annual luncheon and program to sustain their connection to and interest in the university.

Faculty Diversity

Diversity is one of the nine institutional core values at OHSU. The Board’s policies pertaining to affirmative action goals and employment, as well as equal opportunity are contained in HR Policy Nos. 03-05-025 and 03-05-030, respectively, and reiterated in the OHSU Code of Conduct. Institutional resources assist departments in the recruitment and hiring process. The Department of Affirmative Action and Equal Employment Opportunity department also works actively with departments during this process.

Race/Ethnicity

An important part of the faculty recruitment and hiring goals in every unit is to improve the diversity of the faculty. In 2004, nearly 12 percent of faculty members were underrepresented faculty (N=225).

Table 4.6  OHSU Faculty by Rank and Racial/Ethnic Group

<table>
<thead>
<tr>
<th></th>
<th>African American/Black</th>
<th>Asian/Pacific Islander</th>
<th>Hispanic/Latino</th>
<th>White</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>0</td>
<td>10</td>
<td>6</td>
<td>365</td>
<td>1</td>
<td>382</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>3</td>
<td>20</td>
<td>3</td>
<td>289</td>
<td>1</td>
<td>316</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>5</td>
<td>82</td>
<td>25</td>
<td>602</td>
<td>5</td>
<td>719</td>
</tr>
<tr>
<td>Instructor</td>
<td>4</td>
<td>16</td>
<td>12</td>
<td>312</td>
<td>3</td>
<td>347</td>
</tr>
<tr>
<td>Lecturer</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>37</td>
<td>0</td>
<td>39</td>
</tr>
<tr>
<td>Adjunct Faculty</td>
<td>1</td>
<td>11</td>
<td>2</td>
<td>140</td>
<td>1</td>
<td>155</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>9</td>
<td>2</td>
<td>24</td>
<td>0</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>149</td>
<td>51</td>
<td>1,769</td>
<td>11</td>
<td>1,994</td>
</tr>
</tbody>
</table>

Note: Includes ranked academic staff (professors and scientists) and excludes part-time volunteer faculty. Missing racial/ethnicity data for five faculty. “Other” includes Staff Scientists and other.

Source: OHSU Office of Human Resources

The university’s commitment to increasing diversity among faculty ranks is firm, yet challenges remain in achieving our objectives. As noted in recent accreditation reports by the professional schools, we understand that a lack of racial and cultural diversity represents missed opportunities to enrich our personal and professional lives, and to better serve the people of Oregon.

Providing an increasingly diverse corps of health care professionals is critical to addressing health disparities among different ethnic groups. OHSU’s pipeline programs in the Center for Diversity and Multicultural Affairs (CeDMA) and the individual schools are designed to motivate and prepare talented minority students (middle school, high school and college) for careers in the health professions and are discussed in Standard Three, Students. The Office of Science Outreach
Opportunities works with CeDMA to facilitate faculty participation in efforts to increase the number of minorities interested in sciences and their awareness of career opportunities. The importance of faculty diversity in providing role models for OHSU students is addressed by individual school initiatives. (See Exhibit 4.3, School Initiatives to Increase Faculty Diversity.)

Gender

Of the full- and part-time ranked faculty, 43 percent are women (859 out of 1,999).

Gender balance among faculty improved steadily over the past decade. Women make up nearly one-fifth of full professors, one-third of associate professors and more than two-fifths of assistant professors. As women increase in numbers at the beginning of the academic pipeline, it will be critical to track their progress up the ranks and to monitor other critical success factors.

<table>
<thead>
<tr>
<th>Table 4.7</th>
<th>OHSU Full- and Part-Time Faculty by Rank and Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004 Headcount</td>
</tr>
<tr>
<td></td>
<td>Professor</td>
</tr>
<tr>
<td>Male</td>
<td>306</td>
</tr>
<tr>
<td>Female</td>
<td>76</td>
</tr>
<tr>
<td>Total</td>
<td>382</td>
</tr>
</tbody>
</table>

Source: OHSU Office of Human Resources

Faculty Participation in Academic Planning, Governance, Curriculum Development and Advising

In general, OHSU faculty members in every academic unit are charged with the fundamental responsibilities of formulation, revision, review and execution of the academic programs and policies of the unit. Details of these faculty roles are contained in the faculty handbooks developed by each school (SoM, SoN and OGI SoSE) or Faculty By-laws (SoD). As noted previously, each school has standing and special committees to address academic policies and procedures within the unit. The university has institutional policies and procedures that encourage the development of communities to address matters affecting faculty life. In addition, each of the schools and research institutes has its own policies and procedures pertinent to faculty participation. (See Exhibit 4.4, Faculty Committees and Memberships.)

Faculty Governance

As members of the university community, faculty members participate in the governance of the university primarily through service on various university committees and as elected representatives to the University Faculty Senate. The Faculty Senate represents the entire faculty of OHSU and, as such, has the authority and responsibility to act for, and on behalf of, the faculty in all matters encompassed by its stated functions.
In 2001-02, the OHSU Faculty Senate completed comprehensive revisions to the Senate By-Laws and Standard Operating Procedures. These documents outline the various structural and functional changes that now characterize the current OHSU Faculty Senate. One of the major goals of the reorganization of the Senate was to increase the level of communication and linkage between existing university standing committees and the Faculty Senate. The Senate believes that considerable progress has been made in this area as the Faculty Senate President is now a member of the Executive Committee. (See Exhibit 4.5, Faculty Senate By-Laws and Standard Operating Procedures.)

The Educational Policy Committee, an important standing committee of the Faculty Senate, reviews administrative policies pertaining to educational policy; proposals to establish new academic programs; and proposals to revise or terminate curricula, school or other academic entities. This committee reviewed and approved the proposed new biomedical engineering (BME) program at the OGI School of Science & Engineering before it was reviewed and approved by the State Board of Higher Education.

In addition to the OHSU Faculty Senate, every school and research institute has its own faculty governing body. Rules governing the composition of the unit-level Faculty Senates, voting rights of its members, and other structural and procedural details are contained in the Faculty Handbook for each school, or its equivalent document for the research institutes.

Faculty members participate in the academic planning and curriculum development as members of the Baccalaureate Council and the Graduate Council at the unit level. The curriculum committees are charged with oversight and review of the undergraduate and graduate curricula, respectively. Curriculum and teaching-learning practices are reviewed on regularly scheduled intervals to foster continuous improvement. A systematic review of both undergraduate and graduate courses occurs according to a predetermined schedule. For example, the SoM Graduate Council is comprised of representatives from departments and graduate programs and chaired by the associate dean for graduate studies. The Graduate Council administers the graduate programs in an advisory capacity to the SoM dean. It studies and recommends policies for academic standards, appointments to the graduate faculty, qualifying and thesis defense examinations, stipend levels for students and other matters pertaining to the completion of degree requirements.

**Faculty Evaluation**

OHSU has institution-wide policies pertaining to faculty appointments and promotion and tenure, including evaluation of faculty performance. These policies are accessible to faculty on-line through the OHSU O-Zone (intranet for employees) and in hard copy through the Office of Human Resources or individual unit. (See Exhibit 4.6, OHSU Human Resource Policy, Chapter 3, 03-10-005 through 03-10-090 and 03-20-001 through 03-20-020.)

As noted, the administration has devolved responsibility for employing, evaluating and compensating faculty to the operating units. Criteria and procedures for carrying out these important functions are described in a variety of documents produced by the units. (See Exhibit 4.1, Faculty Handbook, Faculty Bylaws [SoD], Policy and Procedure Manual [SoN], Policies for Scientists & Veterinarians [ONPRC].)
Similarly, most units have developed their own Promotion and Tenure (P&T) guidelines. (See Exhibit 4.7, Promotion and Tenure Guidelines.) All unit-specific guidelines must be consistent with OHSU institutional policy. The provost and deans through the Deans’ Council, are reviewing all of the promotion and tenure policies and the faculty appointment processes to ensure consistency and equity within the decentralized authority model for unit administration. The undertaking of this review at this time is related to the recent merger of separate entities with OHSU, each of which came with its own set of policies.

Procedural elements of the Promotion and Tenure guidelines that the units have in common are:

1) Department chairs are responsible for initiating and supporting the nomination for appointment, promotion and tenure status;

2) Departmental P&T committees advise the chair on nominations for appointment, promotion, and indefinite tenure;

3) The deans are ultimately responsible for recommending promotion and indefinite tenure of faculty in the department, typically above the ranks of assistant professor or scientist, to either the school’s P&T Committee or to the university’s P&T Committee (in the SoM, the department P&T committee makes the recommendation through the chair to the SoM P&T committee);

4) Criteria for faculty promotion to the next rank includes demonstrated achievement in areas specified in the appointment guidelines with higher standards for appointments to associate professor and professor and equivalent research ranks; and

5) Under OHSU administrative rules, the president or provost of the university is responsible for the appointment, promotion and tenure status of all faculty members having academic rank.

Final authority in the promotion process differs for the faculty with primary appointments in the research institutes. The director of a research institute makes a promotion and tenure recommendation to the vice president for research in contrast to the dean making a recommendation to the provost for faculty with primary appointments in one of the professional schools.

**Faculty Recruitment and Appointment**

Recruitment and retention of the full-time faculty are aided by a variety of very favorable factors at OHSU. The institution’s reputation for excellence in the health professions, and the growth of its research programs, continue to attract medical educators and preeminent scientists to all of the schools. The clinical programs are highly successful and clinical departments have been able to attract excellent new chairs, who themselves attract talented clinicians and clinical scientists.

All faculty appointments at the rank of assistant professor or below are made at the discretion of the department chair. Adjunct, volunteer, and part-time faculty must adhere to the policy and procedures outlined by each school and institute in their respective faculty handbook, faculty by-laws or their published equivalents.
**Academic Freedom**

The tradition of academic freedom for academic staff is valued and honored. University policy 03-30-001 in the OHSU Policy Manual protects academic freedom for OHSU faculty. All schools rely on the university’s policy statement on academic freedom for faculty. The policy reads in part:

1.A. **All academic staff are entitled to freedom in the educational setting in discussing subjects, but they should be careful not to introduce into their teaching controversial matter that has no relation to the subject.**

1.B. **As a matter of policy, the university does not attempt to control or sway the personal opinion of any person on the faculty or otherwise on the payroll of the university, nor the public expression of that opinion. In the exercise of this freedom of expression, employees should manifest appropriate restraint, should show respect for the opinions of others, and should make clear the fact that they are not institutional spokespersons.**

The university published a second edition of its Code of Conduct in March 2003 for all employees, students, volunteers, board members and other associates. The OHSU Board of Directors, the OHSU Foundation and Doernbecher Children’s Hospital Foundation boards of directors and the OHSUMG board of directors approved this Code of Conduct. The updated Code of Conduct demands a standard of behavior that demonstrates collegial respect within the context of academic freedom. Employees who violate the Code of Conduct are subject to disciplinary action. The OHSU Faculty Senate has served as the central forum for the discussion of issues pertaining to academic freedom that have emerged from time-to-time. Some of the schools include academic freedom policies in their faculty handbooks.

**Research and Scholarship**

**Overview of the Research Agenda**

OHSU faculty members conduct basic and clinical research that promotes health, disease prevention and treatment and the general well-being of Oregonians and others. Health sciences research includes basic laboratory and environmental research, as well as the use of new innovative treatments in the hospital, clinic, home and workplace. Faculty members all across the university cover a broad range of research activities, including:

- Fundamental biological processes as well as the mechanisms of how diseases and dysfunctions occur and may be prevented;

- Epidemiologic and community based research

- The composition and complex functions of human DNA, as well as how genes and the environment influence health, disease and well-being;

- The development of high technology devices, as well as improved ways of nurturing patients; and

- The most basic elements of life, as well as the ethical issues of death and dying.
For these reasons, the scientific investigations of OHSU’s faculty schools, centers, institutes and other units are increasingly interwoven and interdisciplinary and often do not fit into an organizational structure neatly described by discipline, focus or disease. The joint appointments of faculty facilitate building relationships needed in a more interdisciplinary and multi-campus environment.

Collaborations with colleagues in the basic science departments at OHSU, and with other investigators around the world, have made many of OHSU’s clinical departments internationally renowned. The university is continually looking for opportunities for the sharing of knowledge and expertise across its schools and research institutes. A key feature of the OHSU enterprise is the joint faculty appointments in schools, research institutes and research centers that create synergies needed to make discoveries of fundamental importance to human health at the intersection of research, instruction and patient care. These joint appointments are a critical factor to OHSU’s success as cross-discipline collaborations foster flexibility, integration and innovation needed to be competitive in research and technology transfer.

A strong and thriving research program can be measured by the strength of its faculty and their ability to acquire competitive grants from agencies such as the National Institutes of Health and the National Science Foundation. At OHSU, grants have tripled in the past decade. This expansion is exemplified by the results of faculty effort in the SoM and ONPRC:

- SoM annual sponsored projects awards have grown by almost $100 million over the past 10 years.
- Researchers at OHSU’s Oregon National Primate Research Center brought in nearly $120 million to support research and animal services over the past five years.

Highly capable, intellectual faculty members have been the critical part of this effort. For OHSU to fully achieve its goal of being a World-class research organization, it must continue to attract new intellectual talent. The unprecedented growth in the research and sponsored program enterprise” noted in the 1995 Self-Study has not abated.

Approximately 1,500 scientists are working on 3,195 different basic and applied research projects in FY 2004. These scientists include principal investigators, other faculty, research associates and graduate students. Of the projects, the Office of Sponsored Projects Administration (SPA) in FY 2004 manages about 1,600 funded projects (which represents 1,320 different awards.)
### Table 4.8 Funded Projects Managed by Sponsored Projects Administration FY 1995 through FY 2004

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Principal Investigators (N)</th>
<th>Research Projects (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>365</td>
<td>118</td>
</tr>
<tr>
<td>2000</td>
<td>552</td>
<td>1,233</td>
</tr>
<tr>
<td>2004</td>
<td>712</td>
<td>1,603</td>
</tr>
<tr>
<td>Difference FY 1995 to FY 2004</td>
<td>95%</td>
<td>1,258</td>
</tr>
</tbody>
</table>

*Source: OHSU Office of Research, Sponsored Research Administration, November 2004*

The exponential growth of OHSU’s funded research effort is demonstrated by highlighting progress made in the past 10 years. The number of faculty serving as PIs doubled between FY 1994 compared to FY 2004 (365 faculty in FY 1994 compared to 712 faculty in FY 2004). Likewise, the number of funded research projects increased considerably in the same time period.

As a testimony to the caliber of the faculty, the tripling of funding for research (most of which is peer-reviewed) over the last 10 years has taken place under severe space limitations — an astonishing accomplishment that has propelled the university ahead of many other academic health and science centers nationwide. OHSU research groups now maintain multimillion-dollar, multi-year training and research grants in many diverse areas of emphasis.

### Figure 4.9 OHSU Sponsored Project Awards FY 1995 through FY 2004

Dollars in Millions

*Source: OHSU Office of Research, Sponsored Project Administration, November 2004*
Among these sponsored projects include basic research and clinical protocols that address a wide array of human health issues.

- Competitive research awards have increased from $86 million in 1995 to $260 million today.
- OHSU now ranks fifth in the nation in growth of NIH funding to medical schools; fourteenth among U.S. public institutions of higher education; third in the category for individual school of medicine department funding; and thirteenth in anesthesiology.
- OHSU received 542 NIH awards in 2003, totaling more than $157 million. An additional $58 million in federal awards were granted by other federal agencies including the National Science Foundation (NSF), National Aeronautic and Space Administration (NASA) and Department of Education (DOE).

The institution has bolstered the growth of a multi-disciplinary research effort through mergers with unique entities that complement and strengthen existing activities as well as through the Oregon Opportunity, a $500 million public-private partnership. To date, OHSU has nearly achieved its goal of raising $300 million in private donations to match the state’s commitment of $200 million in bond funds to expand research capacity.

**The Oregon Opportunity Initiative**

Senate Bill 832 in 2001 authorized OHSU to create the Oregon Opportunity initiative to usher in a new era of breakthroughs in health care and biotechnology for Oregonians. Through the public and private portions of this initiative, the university is investing in facilities, endowments, research infrastructure, scholarships, programs and recruitment of scientific investigators. (See Standard Six, Governance and Administration.)

As part of its overall strategy, OHSU is focusing its research energies in areas that mirror and enhance excellence in clinical care. The OHSU Opportunity Plan completed in 2002 called for the recruitment of approximately 70 of the world’s leading scientific investigators and their teams. To meet this goal, the Oregon Opportunity will provide $65 million for recruitment and support of scientific investigators, plus $15 million for indirect cost support for research infrastructure. A direct reflection of this investment is demonstrated in the recruitment of a group of anesthesiology researchers from Johns Hopkins University. OHSU vaulted from being “unranked” for NIH funding for 54 anesthesiology programs in the U.S. to thirteenth.

Oregon Rural Practice-Based Research Network, which was funded by OHSU as an Oregon Opportunity activity, is dedicated to improving the health of rural populations in Oregon by promoting health services research and access to clinical trials in partnership with rural practitioners. Eighteen Oregon communities have already signed up to participate. The ORPRN will focus on how to deliver health services most efficiently to geographically isolated populations without requiring frequent patient travel to Portland.

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2 These communities include Coos Bay, Reedsport, Lincoln City, Pacific City, The Dalles, Hood River, Union, Elgin, Halfway, Baker City, John Day, Burns, LaPine, Lakeview, Ontario, Condon, Siletz and Klamath Falls.
Organization of Research

The research activity at OHSU is accomplished through the professional schools, research institutes, and research centers. The actual execution of research at the university crosses these boundaries through joint appointments; collaborations and partnerships; and attention to facilitating an interdisciplinary research approach to solving myriad health care issues.

Research in the Schools

Research at OHSU is increasingly collaborative and interdisciplinary, with faculty crossing the organizational boundaries of schools, institutes and centers to conduct the work of discovery. All four schools have an active research agenda, but the SoM is the largest contributor because of its size and scope.

School of Dentistry: There is a strong emphasis on dental biomaterials, as well as major research efforts in developmental biology of both vertebrates and invertebrates, and an international reputation is being built in the area of eye-protein alterations during aging. The school recently established the Dental Clinical Research Center with the support of several funding partners (A-dec, Inc., Oregon Dental Services insurance company, the National Institutes of Health and industrial funding) to expand clinical research in dentistry. This facility provides opportunities for dentists to explore the efficacy of new dental materials, treatment drugs and procedures using volunteer research participants. Research programs in the SoD lead to cutting-edge advancements in oral health that affect the lives of patients and allow dentists to provide excellent oral health care. One such advancement based on faculty research in biomaterials and biomechanics increases the longevity of dental restorations.

During the past several years, the SoD’s commitment to research has included: (1) recruiting more than a dozen new full-time faculty members who are active in research (including several dental degree/Ph.D. clinical faculty); (2) spending approximately $5 million for laboratory renovation and start-up costs; and (3) converting more than 7,500 square feet into research space (bringing the total research space to approximately 18,000 square feet.) As a direct result of this activity, the school’s extramural research funding has nearly doubled in seven years. The SoD currently has a research portfolio of nearly $5 million in extramural funding originating from NIH, National Science Foundation, and numerous foundations and industries.

School of Nursing: The mission and philosophy of the SoN require that faculty members be or strive to become nationally and internationally renowned scholars, educators and clinicians dedicated to the pursuit of knowledge and discovery. The overall goal of nursing science is to improve the care of people across all ages and conditions of health, illness and disability and to help people cope with their illnesses and disabilities to enhance their quality of life.

The SoN model for generating sustainable programs of research includes a multi-year commitment to individual faculty members who demonstrate a high level of potential for success in research. During the initial years, a faculty member’s primary responsibility is to develop a program of research and to obtain external funding to sustain the research over the longer run. Eighteen new faculty members have been hired into research-intensive positions by the SoN since the beginning of 2000 on multi-year contracts to provide opportunities for research development. In recent years, Oregon Opportunity funding has played a key role in providing the support
necessary for such research start-ups. The OHSU SoN is in the top 20 NIH-funded nursing schools in the country, and has earned a reputation as a leader in both family care giving and symptom-management research.

**OGI School of Science & Engineering:** The merger of OGI with OHSU has created a unique institution with new capabilities that broaden the traditional scope of science and engineering and will allow OHSU to become a key player in the technology-based health care revolution of this century. OGI’s strengths in information technology and the environmental and biological sciences, as well as its emerging biomedical engineering program, complement the significant-life science research base at OHSU to create a multi-disciplinary research and graduate institution. Combining the two entities has produced a critical mass that will attract new funding sources and generate greater research distinction, while enhancing services to OGI’s and OHSU’s separate and combined constituencies.

An example of this approach is the “sensor-arc” concept at OGI SoSE. Development of biological sensor networks requires expertise in biology plus expertise in device engineering at the nano, molecular, and micro levels. In the future, these devices will be embedded in humans, other species, home and work environments, and will also be useful for surveillance of public venues and environmental systems such as rivers and forests. A primary goal of OGI SoSE is to collaborate effectively on research projects in areas of environmental and human health that require the involvement of research scientists and engineers from multiple disciplines. It is anticipated that research of this nature will be attractive to NIH, Homeland Security and other funding agencies.

**School of Medicine:** Researchers in the SoM explore nearly every aspect of health, illness, and injury. In collaboration with other researchers, medical school scientists are making major strides in the areas of cancer, heart disease, vision and hearing disorders, trauma and emergency medicine, mental health and illness; infectious diseases; neurological disorders (such as Parkinson’s, Alzheimer’s, multiple sclerosis and stroke; transplantation; medical informatics and outcomes research; and numerous other fields.

The SoM generated $155 million in research awards in FY 2004. This represents approximately 60 percent of all sponsored projects revenue at OHSU. NIH ranked programs in U.S. medical school, based on research funding in FY 2003. Rankings for SoM programs underscore their progress towards excellence. They include:

- Anesthesiology ranked 13th out of 54 departments;
- Ophthalmology ranked 19th out of 64 departments;
- Neurology ranked 12th out of 75 departments;
- Otolaryngology ranked 5th out of 42 departments; and
- Basic Science ranked 3rd out of 23 departments.

Faculty in the SoM are principal investigators on approximately 720 extramural grants; have authored more than 2,000 articles in peer-reviewed publications and authored 440 books or book chapters; and are members of 500 national study sections or committees.
Basic Science: There are six basic science departments located within the SoM. These departments include behavioral neuroscience, biochemistry and molecular biology, cell and developmental biology, molecular and medical genetics, molecular microbiology and immunology, physiology and pharmacology. The research varies from the cellular and molecular underpinnings of health to the clinical innovations that bring new knowledge directly to patient care. Each of the basic science departments is an academically robust enterprise with excellent faculty, strong leadership and an outstanding research program. Individually, and as a group, they have greatly increased their extramural research funding with a high percentage of NIH-funded investigators, many of whom have multiple grants.

Clinical Science: In the SoM, 19 departments are involved in both clinical activities and research, and many discoveries of fundamental importance to human health are made at this intersection of research and patient care. Investigators in clinical departments utilize a spectrum of research approaches, including basic laboratory methods, animal models, clinical trials of new diagnostic or therapeutic approaches, and large epidemiological and outcome studies. Collaborations with colleagues in basic science departments at OHSU, and other investigators across the world, have made many of OHSU’s clinical departments internationally renowned. Examples of important research advances include the development of a successful therapy for leukemia (Gleevec®), a blood brain barrier disruption to treat intracranial neoplasia and the discovery of genes that regulate skeletal development.

In the past 10 years the number of faculty in clinical departments increased by nearly 30 percent. They have developed highly diverse and specialized clinical programs and have more than doubled the total professional fee revenues from $55 million to more than $120 million per year.

Research Institutes

Four research institutes play a prominent role in the research capacity of the university. The Vollum Institute and Center for Research on Occupational and Environmental Toxicology were part of OHSU prior to the 1995 Self-Study. Since then, two research institutes, the Oregon National Primate Research Center and the Neurological Sciences Institute (NSI)-merged with OHSU in 1998. OHSU welcomed these research institutes because they represented many new areas of expertise to further OHSU’s research agenda.

The Vollum Institute opened in 1987 as a special research unit of OHSU devoted to the study of brain function at the molecular level. Current research interests include studies of gene regulation; characterization of hormone and neurotransmitter receptors and transporters; elucidation of second messenger systems involving G proteins; protein kinases and protein phosphotases and determination of ion channel function. Notable research advances have included the first molecular cloning of the dopamine receptors involved in schizophrenia and Parkinson’s disease; the isolation and characterization of voltage-gated potassium channels that regulate the excitable properties of neurons and muscles; the cloning and expression of the dopamine transporter, a key site of cocaine’s action; and the cloning and characterization of the melanocortin hormones and receptors, and learning their importance in the determination of coat colors in animals and obesity and homeostasis in all mammals, including humans. In recent years the publishing record...
of Vollum scientists in the two leading international journals, *Science* and *Nature*, has equaled that of any other neuroscience program in the United States.

The **Center for Research on Occupational and Environmental Toxicology** was formed in 1988 with base state funding from Oregon’s workers’ compensation system. CROET focuses on health and safety in the workplace through the prevention and amelioration of occupational disorders. CROET brings in approximately $2.5 federal research dollars for every state dollar invested. The center pursues both basic and applied research as well as outreach and education pertaining to factors that affect workplace performance; damage and repair of the nervous system and muscles; occupational/environmental exposures and their consequences; and DNA damage, genetic alterations, and disease. The Toxicology Information Center provides the general public and workplaces with access to information about the availability of safety and health resources.

The mission of the **Oregon National Primate Research Center** is to support programs in basic and applied biomedical research, using the nonhuman primate as the model for studying important aspects of human health and disease. Much of their research activity focuses on areas supported by research funding from National Institutes of Health. These important areas include AIDS, aging, stem cell biology, women’s health, and neurological diseases. Their basic research findings form the groundwork for pharmaceutical and preclinical studies, and become shortcuts to medical breakthroughs. The research programs at the ONPRC are organized into three research divisions: neuroscience, pathobiology and immunology, and reproductive sciences. The majority of ONPRC scientists have faculty appointments in the School of Medicine.

The mission of the **Neurological Sciences Institute** is to advance the understanding of the brain and neurological disorders. NSI, established in 1959 as the Laboratory of Neurophysiology at Good Samaritan Hospital and Medical Center by Robert S. Dow, M.D., Ph.D., is supported by federal research grants and investigates nervous and sensory systems from the level of molecules to the level of human behavior. Research by NSI scientists has led to a number of innovations including detecting early cellular changes in Alzheimer’s disease, better understanding of the consequences of head and spinal cord injury, new insight into rehabilitation methods for stroke and a new patented drug that suppresses the immune system and prevents tissue rejection following transplant surgery.

**Research Centers**

In addition to research associated with the school and research institutes, OHSU research centers are designed to foster interdisciplinary activities in pursuit of basic and clinical research, patient care and instruction. These various entities permit faculty to collaborate across disciplines, attract external funding, share state-of-the art equipment and core facilities and create wide-ranging opportunities that further research and scholarship. Among these are 16 research centers that capture the range of research being conducted by OHSU faculty.

The **OHSU Cancer Institute**, designated as a Clinical Cancer Center by the National Cancer Institute in 1997, is the only such center between Seattle and San Francisco. Created to provide a multidepartmental program of “translational” cancer research, the OHSU Cancer Institute brings together fundamental laboratory research on the molecular nature of cancer, clinical research in
cancer and research in cancer prevention and control. For the fiscal year ended June 30, 2002, the OHSU Cancer Institute received more than $71 million in funding for 320 projects.

The OHSU Cancer Institute is recognized nationally for having established the proof of principle that molecularly targeted therapies offer more effective and less toxic strategies for the management of patients with cancer and leukemia. Researchers at the Cancer Institute contributed to the development of the new anti-leukemia, anti-cancer agent Gleevec®, believed to be one of a number of agents that can be developed for a variety of cancer types.

The Vaccine and Gene Therapy Institute is one of only a handful of biotechnology centers in the United States dedicated solely to vaccine development and genomics to attack some of the world's most deadly diseases. A team of the nation's top scientists is researching vaccines and infectious disease processes to fight AIDS/HIV, tuberculosis, hepatitis C and CMV, a major cause of birth defects. VGTI researchers recently secured a $10 million grant from the National Institute on Aging to develop vaccination methods for those most susceptible to bioterrorist attacks or natural diseases.

The General Clinical Research Center’s primary mission is to provide a research infrastructure for OHSU clinical investigators who receive their primary support from various components of the NIH, as well as other federal agencies. The General Clinical Research Center, a multidisciplinary patient-oriented research facility, is part of a national network of approximately 75 clinical research centers usually located in units within hospitals of academic medical centers. These resources include specialized research nurses, research dietitians, biostatisticians, computer hardware and software systems for data management and analysis, and sophisticated laboratories for both inpatient and outpatient research.

The General Clinical Research Center, which is in its 36th year of funding at $4.2 million this year, supports clinical research and training. Major areas of investigation have included endocrinology, nutrition, sleep and mood disorders, aging and Alzheimer's disease, cognition, Parkinson's disease and osteoporosis. Recent expansions in its research portfolio include oncology, genetics and infectious diseases. Over the past five years, the number of protocols submitted to the General Clinical Research Center has doubled, as has the number of outpatient visits.

The Board of Higher Education established the Dotter Interventional Research Center in 1990, as an independent, freestanding division of the OHSU School of Medicine. The institute was charged with developing a multidisciplinary program in interventional therapy with emphasis on education, research and patient care. The primary missions of the Dotter Interventional Research Center include educating nurses, technologists and physicians in selected techniques of vascular and interventional therapy; educating referring physicians, other healthcare providers and insurers about the cost-effective advantages of minimally invasive interventional therapy; educating the public regarding the availability and advantages of minimally invasive interventional therapy, especially those related to minimizing costs and decreasing time of recovery; and research to develop clinical tools and techniques in interventional therapy.

The Center for Human-Computer Communication is dedicated to advancing the science and technology of human-computer and human-human communication through a program
of basic research, graduate education and technology development. Projects include designing next-generation multimodal and mobile interfaces for dynamic conversational speech and team communication and new interaction technologies suitable for 3D virtual reality environments.

The **Center for Spoken Language Understanding** focuses on speech recognition, speech synthesis, signal processing, natural dialog and neural speech enhancement. Projects include development of diagnostic tools for diagnosing children with apraxia of speech, and a new model of human hearing within a “talking” computer to make computer sounds more natural.

The **Center for Coastal and Land-Margin Research** conducts research, graduate education and advanced technology development that directly addresses the need for better scientific understanding of coasts, land margins and estuaries and their relationship to human and environmental health. Improved knowledge of these complex systems is necessary to preserve and enhance the environment, maintain the economic viability of communities dependent on them and protect human populations from natural and man-made hazards. CCLMR projects involve advanced observational and prediction systems in diverse fields such as hydrodynamics, sensor development and networking, microbial genetics and ecology, and metal cycling.

The **Center for Healthy Aging**, created in 2000 in the School of Nursing, combines research on successful aging, education for health professionals caring for older adults and selected health services to people in their 40s, 50s and beyond. The focus of the center is on aging well by promoting health and preventing illness and helping people deal with chronic medical conditions when they do occur.

The **Center for Geriatric Nursing Excellence** is part of a major initiative by the John A. Hartford Foundation, Inc., to build academic geriatric nursing capacity. One of five centers funded nationally, the CGNE is dedicated to preparing nurse leaders who are committed to improving the health and health care of older adults. The center integrates practice, education, research and policy through three programs, including a best practices initiative, B.S. to M.S./Ph.D. fast track program and summer postdoctoral fellowship programs.

The goal of the **Center for Research on Symptom Management in Life-Threatening Illness** is to advance the state-of-the-art in symptom management in life-threatening illness. Although the value of symptom management is widely recognized, the research base supporting practice is best characterized as uneven with extensive research on symptoms like pain and relatively little attention to problems like thirst and itching. The experience of life-threatening illness is especially relevant to the science of symptom management because symptoms are a key element of the illness experience.

The mission of the recently established **Center for Health Disparities Research** in the School of Nursing is to use sustainable community-academic research collaborations to create new knowledge and enhance our understanding of strategies to eliminate health disparities. This collaborative effort will ultimately benefit Oregon’s and the nation’s racial and ethnic minorities and other underserved populations.
The Center for Family Care in Oregon supports multidisciplinary and multi-institutional research in family care. The CFCO received a $200,000 grant from the Oregon Opportunity initiative to develop research focused on strengthening family care for children, adults and elders. Over the next two years, the CFCO plans to submit at least three researcher-initiated grants and develop the Oregon Family Panel — a representative sample of Oregon families — for longitudinal studies of family care across the life course.

The Advanced Research Computing Core and High Performance Computing Facility provides advanced computing resources for OHSU investigators in a collaborative effort through the Oregon Opportunity Fund, ITG and a sizeable equipment grant from Sun Microsystems. The High Performance Computing facility consists of $600,000 of computer hardware with computing power equivalent to 75 desktop computers and four terabytes of data storage that can be backed up onto a 15-terabyte tape resource. At the core of the facility is a 34-processor supercomputer.

ARCC also includes a developing Scientific Visualization Lab located in the School of Dentistry. The lab's high-end graphics workstations enable users to visualize confocal images, MRI, and 3D ultrasound data, large complex datasets, and conduct simulations dynamically in stereo 3D using stereoscopic displays. Applications include visualizing protein folding and modeling medical devices such as vascular stents, dental and orthopedic implants. Such technology could be used in the future for clinical diagnosis, pre-operative planning and the examination and manipulation of medical imagery.

The newly created Center for Biostatistics, Computing and Informatics in Biology and Medicine provides a venue for interdisciplinary research and education as an academic center while offering critical research infrastructure through a campus-wide service unit within the center called the Biostatistics and Bioinformatics Shared Resource. The service unit supports the research needs of OHSU investigators related to biostatistics, analysis for genomics and proteomics, and informatics support for translational research. The unit provides consultation services on study/experimental design, sample size and power analysis, assistance on grant or protocol submission, data analysis and statistical software training.

The Center for Women's Health was founded in 1997 to define a new model of health care for women. In 2003, the center was designated a National Center of Excellence in Women's Health, one of only six nationwide. The center is changing the health care experience for women by combining the best in clinical care with cutting-edge research and empowering patient education. For women in Oregon and throughout the Northwest, the center offers a new style and quality of care, centered on women and their families, and backed by the medical excellence of OHSU.

The Center for Women's Health promotes and participates in scientific investigation into gender-specific biology crossing the disciplines that impact on women's health. Research efforts focus on gender differences in the etiology, prevention and treatment of diseases, which affect both men and women, and on conditions and diseases unique to women. The Center for Women's Health reaches out to develop multidisciplinary approaches and foster collaborative research and communication among researchers, practitioners, policy makers and organizations to address diverse and complex issues that impact women's health.
The **Heart Research Center** was established in 1993 as the Congenital Heart Research Center and changed its name in July 1999 to reflect the expanding breadth of its research concerns to include adult heart research. The Heart Research Center is a collection of more than 100 scientists from varied disciplines, all of whose research has some bearing on heart health or heart disease. HRC members study the effects of nutrition, exercise, childhood environment and even dental health in order to contribute to a better understanding of how to improve worldwide heart health.

A central feature of the HRC is the collaboration and interaction it promotes among scientists, researchers, physicians and medical students at OHSU. The Heart Research Center supports researchers who study the underlying causes and factors involved in heart disease and congenital heart disease. Cutting-edge genetics, design techniques, and “classic” science come together in reaching for the common goal of curing and preventing heart disease.

The **Center for Ethics in Health Care**, established in 1989, provides an interdisciplinary base for education, research, practice, and health policy focused on ethical issues in health care. The Center’s programs are entirely gift and grant funded. It is administratively independent from the OHSU schools of dentistry, medicine and nursing and other units of the university, and is administratively responsible to the Office of the Vice President for Academic Affairs.

Clinicians, faculty and graduate students from all OHSU units, the greater Portland metropolitan area and rural areas of Oregon collaborate with center faculty on common interests. Faculty and collaborators develop innovative projects designed to improve health professionals’ skills by identifying, analyzing and resolving ethical issues in clinical care and health policy. In 1991, the center convened the Physician Orders for Life-Sustaining Treatment (POLST) Task Force. Center faculty wrote the grants that have funded research on the program’s effectiveness and raised endowment funds to sustain the program. The center also convenes and staffs the Task Force to Improve the Care of Terminally Ill Oregonians. In 1995, the Center established a formal Program of Research on End-of-Life Care to coordinate and conduct research on ethical aspects of decision-making and treatment in life’s final chapter.

The center has built statewide collaborative networks in end-of-life care, and holds five regional conferences for nursing home leaders each year. In addition, the center hosts annual conferences of leaders in Palliative Care from hospitals, hospices and long-term care facilities to improve care at life’s end. The center has begun greater collaboration with colleagues in other states in responding to requests for mentorship in building the POLST program beyond Oregon.

The **Layton Aging and Alzheimer’s Disease Center**, established in 1989, is dedicated to addressing the major public health problem of dementia or cognitive impairment in older people. It is one of 32 Alzheimer’s Disease Centers in the United States. The research chores of this National Institute include the effects of normal aging in the oldest old of exceptional health, effects of clinical treatment and biomarker studies, dimension prevention study, risk factors for age-related problems such as: memory loss in the African American population and the genetic basis of healthy brain aging and age-related neurological diseases.
Research Policies

OHSU has a number of policies governing the research enterprise. These policies include the OHSU Board of Directors Policy, Chapter 4, “Research Services and Intellectual Property,” and Chapter 10, “Conflicts of Interest in Research.” These policies and the policy development processes, which include the institution and local level policies, are discussed under Standard Nine, Institutional Integrity.

All proposed institutional policies, including those affecting research, are communicated to the entire OHSU community via e-mail for comment prior to enactment. The Policy Advisory Committee (PAC) advises and makes recommendations about proposed policies to the President and the Vice Presidents. The PAC includes voting members from the schools and units and other representatives of the research enterprise. These members carry back information related to proposed policies for discussion and comment at the local level. Department chairs, their administrators and the various research administration units share the responsibility for dissemination of research policies following their approval by the PAC. Both institutional and local level policies are further discussed via multiple communication resources, which include electronic and hard copy messages and live meetings.

In addition, the OHSU Center for Ethics in Health Care issues a number of special publications related to the work of the Center. These are ethics-related policies that are promulgated at OHSU, as well as in other Oregon health care systems, and in the Oregon Legislature.

The president of OHSU established the Research Council comprised of representatives from schools, centers and institutes across the university. This body provides advice and counsel on a wide variety of research subjects including proposed policies such as intellectual property distribution and space allocation. The Office of the Vice President for Research is revising the composition and mission of the council. From time to time, the vice president appoints an ad hoc advisory committee to study and to make recommendations on targeted research issues.

Other representative bodies, such as the Research Subcommittee of the Faculty Senate, play an important role in the development and enforcement of policies affecting research. The chair of the subcommittee meets with the vice president for research and also presents issues of concern to the Research Council. Also, the School of Medicine Faculty Council provides advice to the dean and, in the same vein; the School of Nursing established a research council to facilitate shared governance in its research mission.

Resources for Research

As the institution’s research programs have grown over the past 10 years, the requirements for space, computing and other infrastructure needs have grown in proportion. In the past decade, there has been astronomical growth in the acquisition of electronic resources, journals, databases and electronic books by the OHSU Library. Providing equitable library services to all members of the OHSU community, regardless of physical location or unit affiliation, while complying with copyright and license restrictions, has been a significant accomplishment by the library. Remote access to IP-authenticated resources is provided via the library’s web site to nearly all the library’s
electronic resources from any computer with Web access. Seamless access to library services has been similarly accomplished within the past five years.

As noted by the evaluators for the 1995 Self-Study, research facilities were inadequate to accommodate the planned expansion of the research component of the mission. The rapid growth of the research enterprise at OHSU has created an acute demand for more research space and information resources. The university has made significant improvement in both areas. The growth in dedicated research space is addressed below as well as in Standard Eight, Physical Resources. The growth in Information Resources is discussed in Standard Five.

Physical space dedicated to research has increased, but demand still outpaces supply. This need is being addressed, in part, with the construction of a new biomedical research building scheduled for occupancy in the fall 2005. This will provide more than 270,000 gross square feet of laboratory space, offices, animal quarters and core facilities such as the Advanced Imaging Research Center. Additional research space is being developed in Building One on the South Waterfront District with connections to the Marquam Hill campus via aerial tram.

Table 4.10 Growth in Research Space FY 1996 through FY 2004
OHSU research square footage (in thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Research Space (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 96</td>
<td>253,777</td>
</tr>
<tr>
<td>FY 97</td>
<td>245,290</td>
</tr>
<tr>
<td>FY 98</td>
<td>285,913</td>
</tr>
<tr>
<td>FY 99</td>
<td>325,223</td>
</tr>
<tr>
<td>FY 00</td>
<td>345,196</td>
</tr>
<tr>
<td>FY 01</td>
<td>410,864</td>
</tr>
<tr>
<td>FY 02</td>
<td>403,270</td>
</tr>
<tr>
<td>FY 03</td>
<td>660,081</td>
</tr>
<tr>
<td>FY 04</td>
<td>674,550</td>
</tr>
</tbody>
</table>

(add OGI and ONPRC)
The administrative support required to further OHSU’s research goals is provided both centrally and within the schools and units as described below.

**Research Administration in the Schools:** The schools and units support research administration in a variety of ways. Department and unit administrators have been trained by the central administration units described below so that they can support their area’s research faculty. In some cases, units have developed more aggressive support mechanisms to drive their research agenda.

The **School of Nursing** instituted an Office of Research Development (ORD) to promote the conduct and dissemination of research. It provides liaison between the school and the larger institution regarding policies, procedure and the ethical considerations related to scholarship and research. ORD focuses on the development of the faculty member’s funded lines of investigation with an emphasis on research funding opportunities, compliance, regulatory information, and pre-award application development. ORD also provides extensive consultation services which include conceptual framing, methodological advice, psychometrics, statistics, and human or animal subject consultation. Faculty in the School of Nursing engaged in preparing applications for research funding are provided with peer review for scientific merit and technical assistance with all aspects of proposal preparation.

The **School of Medicine** has recently appointed an associate dean for basic research and an associate dean for clinical research to advance its research agenda. These individuals also serve, respectively, in the Office of the Vice President for Research as the associate vice president for research planning and development and assistant vice president for clinical research so as to provide coordination between the two major research units of the institution.

The **School of Dentistry** supports research by providing partial salaries for approximately 21 basic scientists, remodeling research labs on a periodic basis, supporting a seminar series, repairing research equipment, supporting an active student research group and providing travel expenses to international scientific conferences.

The principal support mechanisms for research at the **OGI School of Science & Engineering** are offered to the faculty and students through a combination of services offered by the Office of the Dean and the departments and research centers at OGI. The Office of the Dean provides central administrative services through the associate dean for research (ADR), and the associate dean for finance (ADF). Financial services including pre-and post-award services for contracts and grants are centrally located in the ADF offices but staff is also allocated to serve specific departments. Other services offered by the School of Science and Engineering include providing IT services to faculty and students on research projects, tracking new funding opportunities, reviewing departmental research strategic plans and providing oversight to the OGI research programs, and facilitating the collaboration of clinical and biomedical faculty in cross-cutting research initiatives, referred to as the “Integrated Research Initiative.”

**Central Research Administration:** Research activities have grown so dramatically at OHSU that we have been challenged to provide the infrastructure necessary to administer and nurture the enterprise. The Office of the Vice President for Research was created in late 1999. The vice president for research serves as the key interface between OHSU investigators and the central
administration. The position coordinates research among OHSU’s four schools and many centers and institutes, and is responsible for developing and maintaining an efficient and effective research services infrastructure.

In general, research administration policies are generated and enforced by the responsible unit, but must be approved by OHSU’s Policy Advisory Committee after review by the university community. The policies regulating research cover a broad scope of topics, and including animal care and use, misconduct in research, conflict of interest, institutional review boards, sponsored project accounting and others. (See Exhibit 4.8, OHSU Policy Handbook.)

The directors of a number of institutes and centers report to the vice resident for research. In addition to its own staff, the vice president’s office is supported by a number of units that form the research infrastructure backbone. (See Appendix 4.2, Office of Research Organizational Chart.) Their activities are briefly described as follows:

**Comparative Medicine:** OHSU complies with the Public Health Service Policy on the Humane Care and Use of Laboratory Animals and has an assurance letter (A-3304-01) on file in the Office of Laboratory Animal Welfare at the National Institutes of Health. Also, OHSU complies with all applicable provisions of the Animal Welfare Act and other federal statutes and regulations relating to animals. OHSU is registered with the United States Department of Agriculture (USDA) as an animal research facility (USDA registration number 92-R-001). OHSU is guided by the U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research and Training. The Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC International) has continuously accredited the OHSU animal research facility since 1966.

The veterinary staff also known as, the OHSU Animal Care Compliance staff is authorized to ensure staff compliance with all rules and regulations. The veterinary staff establishes the training programs that provide animal care technicians, research technicians and staff with the appropriate training and guidance to conduct research using live animals. The veterinary staff monitors and when necessary, assists in experimental procedures requiring the use of live animals. This monitoring technique assures quality animal care from the caretakers and research staff. This control assures high standards for the animal health program and compliance with regulations governing the purchasing, housing and treatment of animals.

**Technology Transfer**

OHSU scientists have reported well over 600 inventions since 1985, and the rate at which inventions are disclosed is continually on the rise. In 1995, 35 new discoveries were disclosed to the Technology and Research Collaborations (TRC) Office but more than 100 were submitted in FY 2004. This translates to an average of one breakthrough, innovation or new technology every four days.

As it generates these research achievements, the institution not only provides improved healthcare opportunities for the citizens of the state, but also promotes economic development through the commercialization of OHSU discoveries and intellectual property. However, while basic research
generally is eligible for federal funding, translational research, aimed at testing a discovery’s marketability, often is not.

TRC actively evaluates invention disclosures for commercial feasibility and market potential and identifies the paths to achieve commercialization. To this end, OHSU, in concert with the OHSU Foundation, has created the Bioscience Innovation Fund (BIF). The BIF, consisting of $250,000 per year, will fund commercially promising, nascent research and foster the process of technology transfer and startup industry development and bridge the research gap between federal funding and private funding sources, such as venture capital. In those cases in which the research has advanced to the point where it could form the basis of a new company, TRC has initiated the Springboard Project that assists spin-off companies with the legal and accounting services required for a new corporate entity.

The Technology and Research Collaborations Office has tripled its staff over the past decade to meet the volume of new discoveries. In addition to evaluating invention disclosures, TRC negotiates non-clinical sponsored research agreements, manages the transfer of biological and other materials, launches companies based on OHSU technologies (16 in the past three years) and licenses the institution’s intellectual property for commercialization.

### Table 4.11 OHSU Technology Commercialization Activity

<table>
<thead>
<tr>
<th>FY 1993 through FY 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of new disclosures cumulative</td>
</tr>
<tr>
<td>Number of US patents issued cumulative</td>
</tr>
<tr>
<td>Number of licenses executed cumulative</td>
</tr>
<tr>
<td>Number of license-related income cumulative</td>
</tr>
<tr>
<td>OHSU startup companies (1997 to 2004) cumulative</td>
</tr>
</tbody>
</table>

* In 2004 OHSU Technology and Research Collaborations staff were more selective about the patent application process and applied for fewer patents than in previous years.
Compliance

OHSU has developed policies to ensure that research activities meet the highest ethical standards. We recognize that we must continually earn our reputation for integrity. Investigators and others involved in conducting research must comply with all applicable laws requiring the protection of human subjects and the humane use of animals in research.

Because of the growth in research, OHSU currently has four institutional review boards (IRBs) and two institutional animal care and use committees (IACUCs). All four IRBs are multidisciplinary so that all types of quantitative and qualitative human subjects studies may be assigned for review by any IRB. These IRBs maintain federal wide assurances with the Office of Human Research Protections (OHRP). Similarly, animal subject research is increasing at OHSU and has generated the need for two IACUCs. To facilitate both small animal and non-human primate research, one IACUC is located on OHSU’s West Campus and one is on the Marquam Hill Campus. These IACUCs are also multidisciplinary so that they may review a wide variety of animal subject protocols. Both IACUCs maintain assurances with the Office of Laboratory Animal Welfare (OLAW). Processing hard copies of research documents in a paper-based system is very time intensive.

The OHSU Research Integrity Department is the recipient of two NIH grants to enhance its program of human subjects protections. These grants focus on developing and implementing an electronic system that will be used for more than 1,600 active studies. The system will allow investigators and their study staff to submit all IRB materials in electronic format. The system will enable the Research Integrity Office to process these materials and prepare them for review with very rapid turn around time and at the same time provide an electronic portal for IRB members and administrators to receive and respond to human subjects research issues and documents. We anticipate that the “eIRB” will enhance subject safety by redirecting staff resources to value-added activities of risk management, informed consent monitoring, and adverse event reporting.

OHSU has begun the process of IRB accreditation through the American Association of Human Research Protection Program (AAHRPP) system. This year-long process provides the opportunity for an ultimate type of internal and external audit of an institution’s IRB and human subjects protection program. Applying for accreditation with AAHRPP requires that an institution prepare at least one year in advance and perform an intensive self-assessment. This preparatory process has been completed and AAHRPP will begin its accreditation review in calendar year 2004.

OHSU implemented a comprehensive system of Responsible Conduct of Research (RCR) education in 2000. This program was built in compliance with the standards and components recommended in the Office for Research Integrity’s (ORI) final guidance at that time. Although the ORI has since rescinded that guidance as constituting binding policy, it continues to serve as an informative model for institutions that are building an RCR program. OHSU’s RCR program applies to all research (human and animal subjects, basic and applied science) and is required regardless of funding source for the research. All those who are key personnel in the development and conduct of the research and in the analysis of the results are required to complete appropriate RCR education modules. Because the program is modular, study personnel are required only to complete the modules that apply to their type of research. This program has been presented in national publication, shared widely and highly praised.
Clinical Research Program

OHSU has committed to increasing the amount and excellence of clinical research conducted at the institution through investment in a variety of initiatives under the auspices of the OHSU Clinical Research Program initiated in 2002. The Clinical Research Program is sponsored by the Office of the Vice President for Research and the School of Medicine and serves all faculty and staff conducting clinical research on the OHSU campus. The mission of the Clinical Research Program is to enhance clinical and translational research at OHSU. The Clinical Research Program fulfills this mission by developing resources and systems for faculty, departments, and centers in the conduct of human investigation, fostering growth in clinical research and builds new areas of collaboration between basic and clinical scientists, providing an effective interface between investigators, university, and hospital administrations, developing and conducting clinical research conduct educational programs for investigators, coordinators, and administrators, and establishing core facilities and support needed for human investigation.

The Clinical Research Program mission is being enhanced by the newly-established Clinical Trials Office (CTO) which facilitates industry-sponsored clinical trials at OHSU. This office provides voluntary pre-award services to scientific investigators and study teams and streamlines the procedures required for human studies. In addition, the CTO is working with industry sponsors to improve existing relationships and develop new ones in an effort to expand the clinical research agenda.

Grant Development

With offices on both Marquam Hill and West campus, Research Grants & Contracts (RGC) assists investigators in the completion of grant applications and contract proposals that are in full compliance with funding agency and university policies. RGC is responsible for all pre-award sponsored projects administration, including grant, subcontract, and contract proposal review and approval, official correspondence with funding agencies, contract negotiation and execution, and award negotiation, acceptance, and processing.

Sponsored Projects Administration (SPA) supports OHSU’s missions of healing, teaching and discovery through fiscal management of research projects. SPA’s responsibility is to provide a high level of service to the campus research community, including guidance and training, timely billing and collection of sponsored projects to reduce campus deficits, and monitor accounting practices to ensure the integrity of systems and procedures and compliance with regulatory requirements. SPA is responsible for the financial administration of approximately $260 million in sponsored projects.

In a further effort to expand the research agenda and serve faculty, the Office of the Vice President for Research has created a new position to provide technical support in researching, communicating and applying for awards and prizes for research faculty. The Research Funding & Development Manager specializes in research communications to develop the grantsmanship skills of scientists. This position oversees the identification and communication of health and science-related funding opportunities for the campus at large. Resources and services provided for the campus by the Research Funding & Development Manager include: editing the OHSU Research Newsletter, coordinating limited submission grant competitions, developing and maintaining
a funding opportunities database and Web site, creating funding opportunities reports and calendars, writing publications on identifying research funding, departmental/laboratory trainings on identifying funding opportunities, technical trainings on using grant databases and other grant-related information retrieval systems, individual consultations for identifying project funding, referrals to scientific mentors and grant writing specialists for project and proposal development and guidance with the early stages of the pre-award grant application process.

Research Resources

As the institution’s research enterprise continues to grow and flourish, so has the demand for centralized research resources such as core facilities and shared resources. Nearly fifty entities serve the OHSU research community. A number of these are newly implemented and initiated with Oregon Opportunity funding such as the Biostatistics & Bioinformatics Shared Resource, the Proteomics Shared Resource, the Advanced Imaging Research Center and the Gene Microarray Shared Resource.

OHSU is also dedicated to the humane care and use of animals used in research. The Department of Comparative Medicine (DCM) located on OHSU’s main campus houses a wide variety of laboratory animals that are housed on two campuses in eight facilities totaling more than 50,000 square feet. An additional 29,000 square feet of animal housing space is currently under construction. DCM provides care for common laboratory animal species such as mice, rats, guinea pigs, rabbits, amphibians, swine, sheep, hamsters, dogs, cats, fish, poultry, monkeys and chinchillas.

DCM staff includes laboratory animal technicians, technologists, animal health specialists, and veterinarians. It currently employs over 35 laboratory animal technicians who are responsible for daily husbandry duties. Information on animal health, species physiology, animal models, monitoring, restraint/handling techniques, and surgical anesthesia methods are provided by the DCM.

The unit also provides individualized services to investigators to facilitate animal use programs. Sample collection, radiographic evaluation, breeding program management, transgenic animal development and special caging are examples of the services available.

The Division of Animal Resources at Oregon National Primate Research Center houses nonhuman primates and rodents in facilities totaling more than 60,000 square feet of climate controlled animal housing space and 8 acres of outdoor space. An additional 35,000 square feet of nonhuman primate housing is under construction. The Division employs eight veterinarians and 75 technical and support personnel who are responsible for all aspects of laboratory animal care. In addition to providing basic animal husbandry, environmental enrichment, and veterinary care, the Division of Animal Resources offers specialized research support services through each of its seven Units. These units are: Business/Research Coordination, Nonhuman Primate Resources, Operations, Psychological Well-being, Surgical Services, Clinical Veterinary Medicine and Pathology.

Research activity, most notably that funded by the National Institutes of Health, dominates the sponsored projects at OHSU followed by Clinical Trials and Training. As a testimony to
OHSU’s strength in the neurosciences, the largest amount of NIH funding in FY 04 came from the Institute of Neuro Disorders and Stroke ($22,778,433). Consistent with its mission, other significant research awards in FY 04 came from the NIH Institutes of Diabetes, Digestive & Kidney Disorders; Heart, Lung and Blood; Allergy & Infectious Diseases; Child Health & Human Development: Cancer; Eye and Aging. Other federal funding (NSF, NASA, DOE) along with awards from foundations and private sources make up the balance of research funding. (See Appendix 4.3, Sponsored Project Awards by Funding Source.)

OHSU faculty members are accorded academic freedom to pursue scholarship, research and artistic creation consistent with the institution’s mission and goals. Academic freedom is addressed in at the beginning on Standard Four.
**Strengths, Challenges and Strategies**

Both the quantity and quality of OHSU’s faculty have increased and improved in the past 10 years. In numbers, the faculty has grown by 111 percent during this period (an increase of 2,237 faculty over a fall 1994 base of 2,020). Of the total faculty, in 2004, 60 percent of the ranked faculty members had full-time appointments. The increase in full-time faculty is the result of several factors including academic program expansion in the professional schools, OHSU mergers with other institutions (notably NSI, ONPRC and OGI) and the improved ability to report on faculty information through the new Human Resource Information System put in place university wide.

Although there are three distinct faculty groups at OHSU — professors and research scientific faculty, clinical volunteer faculty and others — the functional roles of the faculty increasingly are interrelated and interdisciplinary. Faculty who were expected to focus exclusively on teaching 10 years ago are now expected to conduct research or to serve on interdisciplinary research project teams. Likewise, many research scientists now contribute to the training of doctoral and post-doctoral students who gain valuable research experiences by working under the mentorship of research faculty.

OHSU has responded favorably to the 1995 accreditation team’s belief that steady attention should be given, and appropriate actions taken, to ensure salaries of faculty and staff are competitive with peer institutions. Coincident with the last comprehensive Self-Study, in 1995 OHSU’s legal status changed from that of a state public university governed by state administrative rules and regulations, to a public corporation under ORS Chapter 353. This change of status was substantive and led to a review of the compensation systems in place for faculty and staff over the ensuing years. Under the new corporate structure, the university is much more market-driven for its faculty resources. The overarching policy of the OHSU Board and senior administration has been to encourage individual schools and research institutes to pursue competitively based compensation policies and practices. Significant progress has been made in several schools. Perhaps the most notable progress overall has been in the School of Nursing.

The university has responded to the 1995 accreditation team’s recommendation that a more systematic method for allied health faculty evaluation should be implemented, and the results of the evaluation should be linked to a formal plan for faculty development. In addition, the university has taken steps to ensure that criteria and procedures for promotion and tenure do not disenfranchise allied health faculty. The allied health programs have followed the School of Medicine guidelines for promotion and tenure, with several additional items taken into consideration as of the formal adoption of new “Guidelines for Promotion and Tenure for SOM Allied Health Programs” by the Allied Health Council in February 1998. These guidelines, in total, are directly linked to faculty development. They also are designed to ensure that criteria and procedures for promotion and tenure facilitate retention of allied health faculty.
The university has made significant strides toward bolstering faculty development in all of the schools and research institutes. This is demonstrated at many levels including the faculty senate which has invited speakers to a series of meetings to discuss balancing clinical, teaching and research activities of faculty; training opportunities through the EduTech program; a significant increase in the number of faculty development grants (“K Awards”) that generally fund up to 75 percent of a new faculty member’s time for a three-year period. Additionally, each of the schools and research institutes has a wide array of faculty development practices.

A strong and thriving research program can be measured by the strength of its faculty and their ability to acquire competitive grants from agencies such as the NIH and NSF. At OHSU, grants have increased substantially in the past decade, from approximately $85.5 million in 1995 to $260 million today. Approximately 1,500 scientists are working on more than 3,195 basic and applied research projects.

OHSU increased the breadth of knowledge and research expertise with the acquisition of three notable research and graduate institutes since 1998: NSI, ONPRC and OGI. These units conduct a wide array of basic and applied research. For example, OGI School of Science & Engineering’s strengths in environmental and biological sciences, and its emerging biomedical engineering program (launched through funding of the Oregon Opportunity) complement the significant life science research base at OHSU to create a multidisciplinary research and graduate institution.

The university responded to the rapid growth of research activities at OHSU by creating the Office of the Vice President for Research in late 1999. The vice president for research serves as the key interface between OHSU principal investigators and central administration. The executive-level position coordinates research among OHSU’s four schools and the research institutes and centers. This office is responsible for developing and maintaining an efficient and effective research services infrastructure, including an Office for Technology and Research Collaborations that oversees the hundreds of scientific inventions emerging from the conduct of scientific research each year at the university. There are a number of new offices in the research infrastructure since the 1995 self study: Research Integrity Office, Clinical Trials Office, Research Funding and Development Program, and Clinical Research Office.

The rapid growth of the research enterprise at OHSU also has created an acute demand for more research space. To meet this need, space dedicated to research has grown substantially due to construction of new facilities and major renovations on the Marquam Hill Campus and on the West Campus. A new building dedicated to biomedical research is scheduled for occupancy in fall 2005. It will have more than 270,000 gross square feet of lab space, offices, animal quarters and core facilities such as the Advanced Imaging Research Center. Additional research space is being developed in Building One on the new South Waterfront Campus, with aerial tram connections to the Marquam Hill Campus. (See Standard Eight, Physical Resources.)
The 1995 accreditation team affirmed the value of the Oregon Regional Primate Research Center for research and uses that can be self-contained and self-sustaining at the center. With the merger of the ORPRC (later broadened to a national center) with OHSU in 1998, OHSU acquired core facilities that are supported by the National Center for Research Resources of the NIH. Most of the ONPRC scientists now have faculty appointments at the OHSU School of Medicine. Much of the research conducted at the ONPRC is in areas identified as important by the NIH, such as AIDS, aging, stem cell biology, women’s health and neurological diseases.

The university has taken several actions during the past decade that respond to the 1995 accreditation team’s recommendation that a reserve fund or equivalent mechanism be established to sustain salaries of tenure-track faculty and scientists funded by grants and contracts should there be an unexpected and undesirable temporary or permanent loss of funds. OHSU has developed the Oregon Opportunity program that combines university gift funding with state bond funds, in which a certain amount of funds are set aside for recruitment of outstanding research faculty and the associated infrastructure for their activities. Additionally, the larger institutes and schools have financial models that provide mechanisms for sustaining faculty during temporary losses of grants or contract funds.

**Faculty Challenges and Strategies**

OHSU faculty members are heirs to an academic tradition that respects and recognizes program-level differences stemming from the mergers and disciplines. Several critical areas will be addressed in the near future. These include: promotion and tenure policies, further improvements in the HRIS database, faculty appointments and contracts, faculty handbooks, faculty workload and productivity, and faculty diversity.

- Institutional **faculty promotion and tenure policies** and processes are in place, and the university has delegated responsibility to each of the professional schools and research institutes to address these essential practices at the local level. Now that the merger activities associated with three of the units (NSI, ONPRC and OGI SoSE) are essentially complete, the Deans’ Council, under the leadership of the provost, has initiated a process to review faculty appointments, evaluation and other issues to achieve greater consistency among the units.

- Although significant progress has been made in **maintaining and reporting faculty data using the HRIS database**, several improvements are needed to represent all of OHSU faculty (e.g., demographic characteristics of volunteer faculty, number of faculty with joint appointments). To improve the quality of faculty data, OHSU will ensure processes for maintaining faculty data are in place at the unit level (transfers, degree information, joint appointments, emeritus faculty), coordinate centrally to check data consistency and accuracy, and permit only authorized individuals to update data.
• **Faculty appointments and contracts** include tenure, tenure-track, annual, multi-year (fixed term), rolling multi-year, etc. This diverse array of contract types needs further examination for improved consistency, reduced confusion and costs, and equitable treatment of faculty. There are some discrepancies among the units in treatment of faculty ranks versus use of titles. For example, the professional schools vary in how they define and appoint adjunct faculty. Provision of senior-level HR consultation/advice is needed for the units on: strategic planning for faculty hiring and treatment of individual faculty hiring, retention, and termination issues, on an as-requested basis.

• Improve the overall quality and consistency of content of **faculty handbooks** (electronic and hard copy). Although all four of the professional schools have some form of faculty handbook, the content is somewhat uneven and generally in need of updating.

• Report on **faculty workloads/productivity** in a manner that honors the individual approaches taken by the professional schools but permits reporting at the university level.

• Set objectives for continued improvement in **faculty diversity** for underrepresented groups.

**Research Challenges and Strategies**

The university is committed to:

• Continued growth in research funding levels and research administration support in the face of federal and state budget constraints.

• Finding additional ways to efficiently and effectively handle the increasing regulatory burden in research administration, including the areas of compliance, conflict of interest, and others.

• Finding creative and affordable solutions to current research growth demands as they continue to push the limits of physical facilities, core support activities and other research infrastructure.
Standard 4 Resources

Tables:
4.1 Growth in Faculty and Research Enterprise
4.2 Median Salaries of Full-time, Faculty by Rank 2004 Headcount
4.3 OHSU Average Faculty Salaries by Professional School Fall 2004
4.6 OHSU Faculty by Rank and Racial/Ethnic Group 2004 Headcount
4.7 OHSU Full and Part-time Faculty by Rank and Gender 2004 Headcount
4.8 Funded Projects Managed by Sponsored Projects Administration
4.9 Growth in Research Space FY 1996 through FY 2004
4.10 OHSU Technology Commercialization Activity

Figures:
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4.9 OHSU Sponsored Project Awards FY 1995 through FY 2004

Appendices:
4.1 Institutional Faculty Profile
4.2 Office of Research Organizational Chart
4.3 Sponsored Project Awards

Exhibits:
4.1 Faculty Handbook, Faculty By laws (SoD), Policy and Procedure Manual
(SoN, Policies for Scientists & Veterinarian (ONPRC)
4.2 Determining Market for Faculty Positions
4.3 School Initiatives to Increase Faculty Diversity
4.4 Faculty Committees and Memberships
4.5 Faculty Senate By-laws and Standard Operating Procedures
4.6 OHSU Human Resource Policy, Chapter 3, 03-10-005 through
03-10-090 and 03-20-001 through 03-20-020
4.7 Promotion and Tenure Guidelines
4.8 OHSU Policy Handbook
4.9 OHSU Human Resource Policy, Chapter 3, Terms and Conditions of Employment,
policy 03-30-001, Academic Freedom; Political and Public Activities; and Candidates
for Public Office
4.10 Faculty Involvement with Public and Community Services
Over the past 10 years, the OHSU Library has transformed how it provides a broad range of information resources and services in support of the university’s mission and goals. These fundamental changes include shifting focus from provider-driven to user-centered services, developing systems and structures to support effective decision making, and targeting investments in the technology infrastructure to meet current and projected demands.

Table 5.1 OHSU Library and Information Services
1995 through 2004

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<th></th>
<th>FY 1995</th>
<th>FY 2000</th>
<th>FY 2004</th>
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<tbody>
<tr>
<td>Gate Count (number)</td>
<td>211,279</td>
<td>211,862</td>
<td>131,915</td>
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<tr>
<td>Web Access (number)</td>
<td>n/a</td>
<td>140,660</td>
<td>318,397</td>
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<tr>
<td>LIS Staff (FTE)</td>
<td>43.5</td>
<td>55.3</td>
<td>55.38</td>
</tr>
<tr>
<td>Dedicated Space (total sq. ft.)</td>
<td>35,280</td>
<td>37,980</td>
<td>44,923</td>
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<tr>
<td>OHSU Library Collections (volumes)</td>
<td>216,159</td>
<td>229,796</td>
<td>276,009</td>
</tr>
<tr>
<td>Interlibrary Loan (journals)</td>
<td>5,892</td>
<td>6,593</td>
<td>10,500</td>
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<tr>
<td>User Satisfaction (percent)</td>
<td>n/a</td>
<td>n/a</td>
<td>73%</td>
</tr>
</tbody>
</table>

Sources: Square footage from 1996 LCME report; user satisfaction data from 2002 annual survey data.
Note: Gate count is for Marquam Hill Libraries only

The stimulus of change has included new delivery modes for instructional programs, the explosion of knowledge produced both inside and outside the university, the pervasive impacts of technology on all areas of the university and the pressure to contain costs and increase competitiveness.

Given the growing interdependence of OHSU’s library and information services, the university created an Integrated Advanced Information Management Systems site in the early 1990s. Three units — Library and Information Services, Information Technology Group, and Department of Medical Informatics and Clinical Epidemiology — provide library resources and information, media, networking, computing services and support to the OHSU community on two campuses and at off-campus centers. These services are not combined into a single organizational entity, and each unit reports to a different vice president.
• Library and Information Services reports to the provost and vice president for Academic Affairs.

• Information Technology Group reports to the vice president for administration.¹

• Department of Medical & Clinical Epidemiology reports to the dean in the School of Medicine. These departments are unified physically in the OHSU’s comprehensive Biomedical Information Communication Center on the university’s Marquam Hill.

Because of competing top priorities and resource constraints, each unit measures its success against goals, strategies and projects developed with the OHSU community. For example, ITG developed a list of top initiatives for FY 2004 with the leaders of seven standing committees and will measure its progress toward the OHSU Strategic Information Plan (2003-06).

The Library and Information Services Units

Library and Information Services supports the teaching, research, clinical care and outreach missions of OHSU faculty and students. LIS delivers a suite of information resources and services designed to provide fast and convenient service and desktop access to all members of the OHSU community. The OHSU Library provides seamless access to information for the OHSU community at all locations, and off-campus faculty have comparable access to that of on-campus users. The OHSU Library has experienced unprecedented changes since the 1995 self-study. Three factors drive these changes: 1) rapid technological change; 2) significant changes in the organizational structure, curriculum and research direction of OHSU; 3) expansion beyond the Marquam Hill due to mergers with institutes and centers (including the West Campus in 2001 and South Waterfront District in the near future); and programs offered in off-campus locations in Oregon and several other western states.

LIS units are under the direction of the university librarian/vice provost for Information Services (hereafter university librarian). Library and Information Services has four information technology units. Each unit develops goals reflecting its support of the missions of OHSU. These goals guide current work and new initiatives within available resources. These units are the OHSU Libraries, Educational Communications, Edu-Tech Center and Medical Photography.

• **The OHSU Library** includes four libraries: the Main Library, Van Hassel Library (School of Dentistry) on the Marquam Hill Campus, the Diack Library (OGI School of Science & Engineering) and the McDonald Library (Oregon National Primate Research Center) on the West Campus. Information resources and services are provided at all OHSU locations through electronic applications.

• **Educational Communications** is an internal resource for video production, video conferencing, and streaming media. Video Conferencing Services provides interactive video-conferencing for the OHSU community, enabling point-to-point or multipoint video-conferencing among campuses, to sites across Oregon and the U.S., and to the world at large. EdComm manages a streaming media server to help disseminate information through out the OHSU community. Streaming media allows 24/7 access to Web videos in labs, classrooms or anywhere with a network connection.

¹The centralized administrative functions of “Finance & Administration” were divided into two units (“Finance” and “Administration”) each with its own vice president in May 2004.
- The Edu-Tech Center provides recommendations and sales on computer hardware and software and trains OHSU employees and students on the OHSU-supported software business applications.

- Medical Photography provides photographic, digital imaging and graphic design services to all employees and students.

These units collaborate on a daily basis, working together to provide the full range of information services to the OHSU community.

Information Technology Group

The library provides many resources and services electronically to any affiliated user with an Internet connection. Access to the network from workstations on the two main campuses also is becoming faster and more flexible. ITG is in the process of a multi-year project to rewire all buildings on the Marquam Hill Campus. Because OHSU now is using just 10 percent of its available bandwidth, this investment takes into account the university’s plans for expansion in data-intensive fields of research. Wireless access to the OHSU network also is available from most buildings on the campuses, including the OHSU Main Library.

This powerful network infrastructure allows the library to support OHSU’s user base that is geographically dispersed. The number of OHSU sites and users located outside Marquam Hill is the result of new academic programs, new facilities and mergers and the advent and popularity of distance education. As a result, the goal is to make library resources and services available equally to the OHSU community, regardless of physical location, as well as meet curricular changes.

- An overhaul of the School of Medicine’s curriculum in the 1990s centered on several important curricular innovations. First, the School of Medicine developed a new course to run through the first two years of medical school, involving approximately one day per week of medical student time. Half of this time was devoted to small group, problem-based learning. One half day per week was dedicated to ongoing clinical care to insure that students had continuity in their clinical experience from the very first days of medical school. The curriculum revision impacted student use of the library and demand for new materials.

- The Ph.D. program in The School of Nursing required access to library services for distance-learners (e.g., in La Grande and Ashland in Oregon, and in Montana, Utah, Washington and Alaska) to match the quality of programs delivered on the Marquam Hill Campus.

- New areas of research at OHSU create demands for materials in fields beyond the existing library collections, such as complementary/alternative medicine and economics of health care.

At the same time, the near-ubiquity of the Internet, both on campus and in the Portland metropolitan area, ushered in an era of electronic collections and services. Users now expect
information resources and library services accessible from any computer on the Internet, at any time, at any location. Though library hours and in-person visits have decreased, use of library resources and demand for customer support has increased via the virtual library.

**Table 5.2** Changes in User Access to Marquam Hill Library Resources

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk-in</td>
<td>211,862</td>
<td>189,765</td>
<td>177,616</td>
<td>164,698</td>
<td>131,915</td>
<td>-79,947, -38%</td>
</tr>
<tr>
<td>Web Access</td>
<td>140,660</td>
<td>140,660</td>
<td>140,736</td>
<td>206,172</td>
<td>318,397</td>
<td>177,737, +126%</td>
</tr>
</tbody>
</table>

The library has responded to these profound changes with acquisitions of materials and services in new formats, especially electronic journals, databases and books. The library began providing remote access to IP-authenticated resources in 1999. The current system provides fast and seamless Web access for OHSU-affiliated users from any computer to the library’s electronic resources. Licensing electronic resources to provide equitable access is both challenging and expensive due to multiple campuses and sites.

The library’s Web site progressed from little more than an online brochure to a gateway to the library’s extensive electronic resources and services. To improve speed, service and quality of the library Web site, it is monitored annually according to established Web usability testing criteria. Hits to the library Web site increased from 4,500 total hits in 1997 to 12,500 hits per month in 2000, an increase of 178 percent. Other new electronic tools implemented within the last few years are as follows:

- The “library catalog” is accessible via the Web, and combined with new software, provides faster performance and a fully integrated library system.
- Electronic journals will be integrated fully into the catalog to provide users with one-stop shopping for journal information and access by 2005.
- A new document delivery management system allows users to place, track and retrieve materials electronically.

At the time of the 1995 self-study, the library had one computer support technician to manage desktop computers and no one with responsibility for systems or electronic resources. Over the last 10 years, the library added eight new or reconfigured positions for systems and electronic resources (3.0 FTE staff managing electronic resources, 3.0 FTE staff providing technical computer support, and 3.0 FTE staff for systems including a systems librarian, a Web developer and a digital resources librarian). These staffing changes reflect the dramatic increase in staff time required to ensure that the library’s electronic resources and services are available 24/7 to all authorized users, at all locations, and at any time.
These increased demands for new materials, new formats, and new services, with the resulting need for new personnel, impact the library’s budget. The university is entering into more cooperative purchasing agreements to acquire new resources and reduce spending. Major projects have been accomplished using grant funds. An award from the Library Services and Technology Act of $311,497 in 2001, supported migrating data to Innovative Interfaces, Inc., a requirement for membership in the Orbis Consortium membership (now the Orbis Cascade Alliance).

Information Resources and Services

The OHSU Library purchases information resources in a variety of formats to support all educational, research, and clinical programs at OHSU. Formats purchased include print books and journals, electronic books and journals, VHS videocassettes, DVDs, audiocassettes and audio CDs. The library also subscribes to a wide variety of bibliographic and full-text databases to support the educational, clinical and research needs of students, faculty and staff. OHSU’s holdings surpass benchmarks from the Association of Academic Health Sciences Libraries. These statistics are collected annually so health sciences libraries can compare themselves to peer libraries. For the OHSU Library, these peers include University of Washington, University of Colorado (Denver), University of California, San Francisco, and the State University of New York, Buffalo.

The Marquam Hill libraries subscribe to 1,648 journals in 2004, up from 1,189 in 1995 (39 percent increase). The West Campus libraries subscribe to 556 journals, for a total of 2,204 journal subscriptions at all locations. The library subscribes to two full text aggregated collections that provide access to over 6,900 electronic journals via the electronic journal database on the library web site. In addition to electronic subscriptions purchased from publishers and societies, counted in Table 5.3 Journal Subscriptions by Type 2004, this database includes titles from aggregated full text databases, collections of back issues, and titles freely available on the Internet that are considered useful to our users. Library staff, with the support of the OHSU Contracts Office, has negotiated electronic journal licenses with over 100 providers including Elsevier’s ScienceDirect, Wiley InterScience, Nature Publishing, Blackwell Synergy, JSTOR, Kluwer, and Ovid technologies. Archival collections that provide access to older volumes are purchased from JSTOR, Science Direct, and the American Chemical Society. (See Table 5.3).
Table 5.3 Journal Subscriptions by Type 2004

<table>
<thead>
<tr>
<th>Library</th>
<th>Print Only</th>
<th>Print and Electronic</th>
<th>Electronic Only</th>
<th>Total Journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
<td>166 11%</td>
<td>771 52%</td>
<td>561 37%</td>
<td>1,498 100%</td>
</tr>
<tr>
<td>Van Hassel Library (SOD)</td>
<td>76 51%</td>
<td>39 26%</td>
<td>35 23%</td>
<td>150 100%</td>
</tr>
<tr>
<td>Subtotal Marquam Hill</td>
<td>242 15%</td>
<td>810 49%</td>
<td>596 36%</td>
<td>1,648 100%</td>
</tr>
<tr>
<td>Diack Library (OGI)</td>
<td>76 17%</td>
<td>112 25%</td>
<td>255 58%</td>
<td>443 100%</td>
</tr>
<tr>
<td>Mc Donald Library (ONPRC)</td>
<td>46 41%</td>
<td>65 57%</td>
<td>2 2%</td>
<td>113 100%</td>
</tr>
<tr>
<td>Subtotal West</td>
<td>122 22%</td>
<td>177 32%</td>
<td>257 46%</td>
<td>556 100%</td>
</tr>
<tr>
<td>Total OHSU</td>
<td>364 17%</td>
<td>987 45%</td>
<td>853 39%</td>
<td>2,204 100%</td>
</tr>
</tbody>
</table>

Materials Selection and Acquisition

The OHSU Library works very hard to select and acquire materials to fully support OHSU’s educational, clinical, and research programs. Like most libraries, however, we are hampered by rapidly increasing prices for materials. The Collection Development Committee determines the selection criteria for library materials based on the needs of the OHSU community and ensures that collection funds are expended in the most prudent and cost-effective manner. Journals have traditionally been selected based on faculty requests, interlibrary loan and in-house use data. To make the evaluation and selection process more effective, in 2000 the collection development librarian developed the Serials Decision Database. Each year library staff record the number of OHSU authored papers, OHSU cited papers, and online article downloads and subscription costs. Using these objective criteria, titles are categorized as low, medium or high use. Depending on availability of funds, high use titles not owned by the library are added to the collection, and low use subscriptions are canceled.

To evaluate the effectiveness of journal selection, one can examine the titles that are cited by OHSU authors and those requested via interlibrary loan. Table 5.4 illustrates the changes in citation level and preferred access mode to journal articles in 1994-1999 compared to 2002-2004. OHSU authors have increased the number of publications and the number of references cited in those publications over the last 10 years. Most of the journal titles cited in 1994-1999 were available only in print format; from 2000-2004, most titles were available in electronic format. Overall, the number of annual downloads of journal articles used for any purposes has increased more than 600 percent over the last 10 years (131,302 to 1,016,633). This increase of electronic article downloads provides evidence that the choice to change to electronic format has been well received by students, faculty and staff.
Table 5.4  Number and Format of Journals Used by OHSU Authors 1994 to 2004

<table>
<thead>
<tr>
<th></th>
<th>1994</th>
<th>2004</th>
<th>Change (+/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of OHSU publications/year</td>
<td>1280</td>
<td>2032</td>
<td>59%</td>
</tr>
<tr>
<td>Number of journal titles cited</td>
<td>23,823</td>
<td>57,410</td>
<td>141%</td>
</tr>
<tr>
<td>Number of journal titles cited more than 5 times</td>
<td>1517</td>
<td>1646</td>
<td>9%</td>
</tr>
<tr>
<td>Number of cited titles held in print format</td>
<td>463</td>
<td>53</td>
<td>-89%</td>
</tr>
<tr>
<td>Number of cited titles held in electronic format</td>
<td>518</td>
<td>1,286</td>
<td>148%</td>
</tr>
</tbody>
</table>

1994 = annual average from 1994 to 1999
2004 = annual average from 2002 to May 2004
Source: ISI Web of Science and OHSU Library Serials Decision Database.

Data on interlibrary loan requests suggest that journal collection decisions accurately reflect the needs of the university community. About 90 percent of the time, fewer than six articles per year are requested from any given journal title not owned by the OHSU Library, suggesting cancellations in recent years did not have an adverse impact on the OHSU community. If the library were not choosing wisely, one would expect to see more journal titles borrowed more frequently. (See Table 5.5).

Table 5.5  Requests for Journal Articles Through Interlibrary Loan (ILL)

<table>
<thead>
<tr>
<th></th>
<th>FY 1998</th>
<th>%</th>
<th>FY 2001</th>
<th>%</th>
<th>FY 2004</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Journal Articles Borrowed (N)</td>
<td>5,189</td>
<td>41%</td>
<td>5,778</td>
<td>40%</td>
<td>7,327</td>
<td>39%</td>
</tr>
<tr>
<td>Articles Borrowed Inter-Library Loan</td>
<td>2,126</td>
<td>91%</td>
<td>2,334</td>
<td>91%</td>
<td>2,858</td>
<td>91%</td>
</tr>
<tr>
<td>Fewer than 6</td>
<td>1,934</td>
<td>91%</td>
<td>2117</td>
<td>91%</td>
<td>2589</td>
<td>91%</td>
</tr>
<tr>
<td>6 to 10 times</td>
<td>144</td>
<td>7%</td>
<td>148</td>
<td>6%</td>
<td>183</td>
<td>6%</td>
</tr>
<tr>
<td>Greater than 10</td>
<td>48</td>
<td>2%</td>
<td>69</td>
<td>3%</td>
<td>87</td>
<td>3%</td>
</tr>
</tbody>
</table>

In recent years, the library added new databases to support new academic programs and research directions, especially in the areas of evidence-based medicine, basic science, and technical information. A few examples of recent purchases include a suite of evidence-based medicine tools, ISI Web of Knowledge, and EMBASE. The library has also gained access to many resources beyond its traditional focus on biomedicine. As a result of OHSU’s merger with the Oregon Graduate Institute (OGI) in 2001, the OGI Library’s collection of engineering, technology and business resources became available to the OHSU community. The OHSU Library’s participation in Oregon’s Statewide Database Program provides access to a suite of databases from EBSCO Information Services, which includes general academic, business and health databases. Though many of these databases are beyond the traditional scope of a health sciences library, they are heavily used by the OHSU community and enhance the library’s ability to be a comprehensive information provider for its constituency.
The library selects books using approval plans from two major health sciences book vendors as its primary selection tools. Book selection would likely be more efficient if OHSU faculty and students were involved in updating the approval plans annually and if a library committee participated in the selection process.

Costs of health science and technology resources continue to grow more rapidly than those in almost every other field. With the move to electronic resources, fewer people are buying individual subscriptions, as they are able to access the library’s subscription on their desktop. As a result, publishers are changing their pricing models, and these costs are now being added to the library’s subscriptions.

The top priorities for a balanced budget include maintaining the collection and making as many resources as possible available electronically to meet demands for “anytime, anywhere” access to information resources. To achieve these goals, the library has partnered with other OHSU departments to purchase resources collaboratively. Although these are limited, successful collaborations allow the ongoing purchase of several print journals and otherwise prohibitively expensive electronic products. For example, the library was able to acquire a collection of cardiology books and journals through a significant donation to the Heart Research Center to endow the Glenn R. Struble, P.E., Memorial Library.5

With its two major locations and many satellite units, the negotiation of licenses presents a significant challenge. Publishers often view OHSU as having multiple campuses and therefore charge significantly more to allow access from all OHSU sites. Other challenges include the academic programs offered jointly with other Oregon’s public universities. Specifically, resources purchased and licensed by one campus may not be available on the other. In addition, the library negotiates license agreements with perpetual archival access rights whenever possible and has allowed the library to cancel the print format. Converting to online access exclusively involves some risk that electronic access could be lost if a subscription is canceled or a publisher no longer provides access to a title. The library needs to develop strategies to keep this risk as low as possible.

**Organization of Materials**

Due to space limitations in the Main Library, the library’s print collection is divided by date range among several locations. The Main Library contains monographs published in the last 10 years and print journals published in the last 13 years. Older materials are stored in either the Old Library or in a storage facility located off campus. Both the Old Library and offsite storage do not have staff assigned and are closed stacks, unavailable for browsing.

The library catalog Web site facilitates access to all the library’s collections, regardless of physical location. The catalog includes print, audiovisual, and most electronic holdings from all OHSU system libraries plus the holdings of the National College of Naturopathic Medicine Library. Only two major categories of material are excluded from the catalog — electronic journals obtained as part of large full text databases and digital multimedia objects created here at OHSU. The library

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5 Other partners include the Department of Physiology and Pharmacology for the purchase of SciFinder Scholar, and a number of departments and the University Hospital for Up-To-Date. Another valuable resource, Micromedex, is purchased by ITG for use by OHSU. These partnerships are valuable and demonstrate wide based support for library resources.
plans to include all electronic journals in the catalog as part of a project to revamp how electronic journals are managed. This project should be completed in 2005.

Digital multimedia objects are stored in the Digital Resources Library, a searchable collection of over 380 images, sound clips, text, and video clips developed by the OHSU Library and Educational Communications beginning in 2000. The DRL provides improved access to the university’s digital resources and the library’s historical collections.

The library Web site (www.ohsu.edu.library) serves as a gateway to the library’s electronic collections and services. From the Web site, users may access all the library’s electronic resources; the catalog, databases, electronic journals, books, electronic reserves, Digital Resources Library, a list of high-quality internet resources selected by library staff.

**Figure 5.6** Marquam Hill Library Web Access vs. Walk-in Use 1995-2004

To help students and faculty use these resources, library staff have developed online tutorials, instruction sheets and pathfinders. Users can request reference assistance and technical support via Web forms or e-mail. Requests for reference assistance and help with electronic journals, databases and off-access are the most common. To make linking among products more seamless and ubiquitous, the library purchased an open Uniform Resource Location resolver in 2003. When this tool is fully implemented users will be able to link from one product to another quickly and easily.
Reference Services

The OHSU Library provides reference services at a centralized reference area in person, over the telephone and electronically through e-mail and the Main Library Web site. Specialized reference assistance is available from librarians in the Research and Reference Services Department, as well as by other professional and paraprofessional staff. The central reference desk is open 40 hours per week.

Reference services include basic and in-depth research, one-on-one assistance with research and database usage, and general library assistance. In 2003 the library participated in a statewide trial of virtual reference services using live chat and screen sharing. This feature is being considered for implementation in the future as demand warrants and financial resources permit.

Classes and Other User Training

The OHSU Library instructional program consists of three-hour workshops in information literacy topics (e.g., use of library databases, bibliographic management software, and effective Internet searching), and orientations for all incoming students and course-related instruction (e.g., just-in-time instruction in nursing research course).

The advent of distance education required reference staff to develop new methods of training OHSU students. Currently, a reference librarian travels to each School of Nursing campus to provide library orientation and instruction for new students. Medical students preparing for rural rotations are given special training on how to access library services. These students can be challenging to serve, as they are often located in places with less-than-optimal Internet access. Reference staff have created several online tutorials which students and faculty can use to learn about the library's resources, and pages specifically designed for distance education students, explaining how they can access library resources and services, are linked to campuses from these tutorials.

At least three programs require international training. The biomedical informatics program has students from all over the world; the School of Nursing soon will have; and the Heart Research Center is creating partnerships in England. Access to the library will be a significant aspect of the development of program delivery to other countries, and the library staff will have to devise what is in essence its own distance-learning program.

Relationships with the University Community

The library seeks and considers input from the university community when selecting materials, creating or modifying services, and designing the library’s physical environment through a variety of scheduled and ad hoc assessments. Library staff respond to user comments and request additional information when needed. The library conducts a web-based survey annually to determine if the critical quality attributes desired by users are being met.

Faculty, staff and students participate in the journal and database selection process through surveys, individual recommendations and meetings with library staff. Faculty and student requests are given the highest priority for purchase. The OHSU Library purchases nearly all book titles requested by faculty and students. The policy and procedures are posted on the Collection Development
Committee section of the library Web site. The site also includes selection criteria, lists of new and canceled journal subscriptions, and forms for requesting library materials for purchase. When considering new databases for purchase, the library arranges for free trial access to the product. These free trials are publicized campus-wide through the newspaper, a library news e-mail list and library Web site, so the community can preview and comment on products prior to purchase.

The library does not currently have a formal liaison program with academic and research departments. Library staff plans to develop a liaison program to provide a mechanism for more consistent feedback from faculty and students and to keep abreast of curricular developments, current research and upcoming research proposals throughout OHSU. In addition, library staff will work closely with directors of new programs to ensure that the library’s collection will meet the program’s information needs.

In addition to asking for input, the library also attempts to keep the community informed about new resources and services. The library operates an e-mail list for announcements called the Library Alert Service, to which users can subscribe. Postings to this list are added to the “What’s New” area of the library Web site. Library staff has contributed a regular column to the OHSU Outlook, which was discontinued and replaced with e-newsletters, OHSU’s employee newspaper, highlighting new products, services and issues that affect the library and its users.

**Computing and Communications Services**

OHSU makes extensive use of the latest computing technology to provide information from sources outside the university. Information about the OHSU network infrastructure and connectivity was addressed earlier in this chapter and information about the library’s computing environment can be found below.

**Facilities and Access**

The OHSU Library system includes two staffed libraries at central locations on both the Marquam Hill and West campuses. The physical collections are focused at each site to meet appropriate curricular, research and clinical care needs; electronic resources licensed by any site are generally available to all authorized users from on and off-campus. Staffing levels and expertise are matched to the populations served.

**Access to OHSU Libraries and Computing Resources**

The university completed several projects designed to enhance building usability and increase security during the last few years: replaced the Main Library’s failing high density, electronic shelving, installed building security systems at the Main and Van Hassel Libraries and reconfigured the layout of the Main Library to respond to student complaints (e.g., increase library seating, added study carrels and a quiet study room, sound baffled several areas to address HIPAA concerns, and concentrated computer use in designated areas where staff assistance is readily available).

Although the total number of hours the library is open has been reduced by 16 percent, studies show the library is open during the hours of highest use by faculty, staff and students. General library use has steadily decreased since 1997 as electronic resources may be retrieved from
off-campus. During an unprecedented three-day closure in 2004 due to snow and ice, OHSU personnel successfully used library resources from home.

All computers in the Main Library offer unrestricted access to the Internet and to electronic resources licensed by the library. Macintosh and PC workstations designated for OHSU faculty, staff and student use also provide access to the intranet (O-ZONE), OHSU network drives and services and applications licensed by ITG for wide use (e.g. Microsoft Office Suite, Lifetime Clinical Record, statistical software). Multimedia CD-ROMs are mounted on a library-maintained server and programs are accessible on all PC workstations in the library. All user workstations are served by two black and white laser printers and two color laser printers, located behind the library’s circulation desk. Users print, then claim and pay for printouts at the circulation desk. Access to computers is on a first-come, first-served basis. Although library computers are heavily used most hours that the library is open there is rarely a wait for an available station.

Most workstations are wheelchair-accessible. Screen reader and screen magnifier software for visually impaired users is available at one workstation. The library strives to provide the full range of library services for disabled users.

Library workstations are selected based on criteria provided by ITG and are replaced at least every three years so that users have access to current technology. Operating systems (currently Microsoft Windows 2000 and Mac OS X) provide excellent security and stability. Three full-time computer support personnel respond to questions from both staff and users and maintain the hardware, operating systems, and software on library workstations and staff computers.

In 2003 wireless access became available in the public areas of the Main Library. Although currently limited to OHSU users with network cards compatible with OHSU’s wireless security protocol, unrestricted wireless access will become available by the end of 2004. This extended access will better serve users who wish to access electronic resources and network services in the library.

**Table 5.5 Library Access Parameters by Facility, 2004**

<table>
<thead>
<tr>
<th></th>
<th>Main Library</th>
<th>Van Hassel Library (Dental)</th>
<th>McDonald Library (ONPRC)</th>
<th>Diack Library (OGI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Operating Hours</td>
<td>91.5</td>
<td>82.3</td>
<td>40</td>
<td>73.5</td>
</tr>
<tr>
<td>Workstations (N)</td>
<td>48</td>
<td>22</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Study Spaces (N)</td>
<td>143</td>
<td>9</td>
<td>5</td>
<td>45</td>
</tr>
<tr>
<td>Group Study Rooms (N)</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AV Viewing</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Service Desks</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Professional Staff (FTE)</td>
<td>14.5</td>
<td>0</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Support Staff (FTE)</td>
<td>21.9</td>
<td>1.4</td>
<td>1</td>
<td>2.3</td>
</tr>
</tbody>
</table>

**Source:** In-house library data
Access to Collections and Services

Access to the physical collections at staffed libraries and two closed stacks facilities are provided to all OHSU faculty, students and staff and members of the community via direct circulation and/or a selection of delivery options emphasizing 24 to 48 hour turn-around. These options include paging services, intra- and inter-campus courier service, mail delivery and a variety of electronic document delivery services. In March 2003 the library implemented a user-initiated online document ordering, tracking and delivery service and has since processed over 56,000 requests for OHSU users and other libraries using this application. Users may also renew materials, update their patron records, and place holds on circulating materials via the online catalog.

Storage space for the physical collection has become a significant issue during the last decade. Closures of both the Child Development and Rehabilitation Center Library in FY 2003 and the Van Hassel Library expected by FY 2006, combined with reduced storage space on the Marquam Hill Campus for a growing collection have necessitated locating increasing amounts of the collection off campus in leased space. In early FY 2005 approximately 62,000 volumes will be moved to the new “Library Annex.” This facility will increase the storage capacity by 50 percent. It is expected that long-term storage/retrieval needs will be addressed by an Orbis Cascade Alliance initiative to build a high-density, climate controlled storage facility in the Portland area during the next five years. Construction of this facility has been delayed due to lack of funding.

Most of the library’s electronic resources are open to any user with an OHSU IP address, allowing for seamless access from anywhere on the OHSU network, including workstations on the West Campus. Over 85 percent of the library’s current journal subscriptions are available electronically along with many databases and a growing collection of electronic books. An electronic reserve system (ERes) makes course materials available to students via the Web. Off campus access to electronic resources is provided to all authorized users 24/7 via a proxy server.

The library provides services to an increasing number of distance education students, community-based adjunct faculty, and students and faculty in joint programs such as the Pharm D. program offered in conjunction with Oregon State University. Services are subsidized by the library and are at least equivalent to those provided to on-campus students and faculty.

In addition to circulation and document delivery services, users may request reference assistance and consumer health and patient education materials via the Web. Queries may also be sent to monitored e-mail boxes requesting information on library resources and services or asking for technical assistance. Cross-trained staff respond rapidly to user inquires during all open hours and extended hours on weekends through rotating monitoring of these e-mail boxes. The library considers prompt resolution of problems related to off-campus access as critical to providing good service.

A survey of library users is conducted annually to determine satisfaction levels. When asked how satisfied they are with the OHSU Library, respondents reported high levels of satisfaction. The 2002 library survey indicated relatively high levels of satisfaction with library services (73 percent) and access to electronic resources (62 percent). Since then, the library has greatly expanded

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6 These percentages represent the percentage of respondents who rated their satisfaction as 4 or 5 on a scale of 1 to 5, with 1=Not Satisfied and 5=Very Satisfied.
Web-based access to both services and resources. A change in proxy server in 2002 addressed the inadequacies in off-campus access noted on the survey. The library will continue to use surveys as a valuable tool to evaluate user satisfaction with services and resources and elicit suggestions from the community.

**Preservation and Collection Management**

The library manages an active preservation program to ensure future access to the collections. Common preservation techniques for the collection include mending and rebinding items, storing materials in custom-fitted archival boxes and digitizing. In 1998, the library installed climate controls in two areas that house some of its most fragile and valuable materials. The historical collections and archives, including rare books, photographic collections, and museum objects, are stored in these areas, where temperature and humidity are strictly controlled and monitored by library staff. In 2003 the history of dentistry collection was moved to the Main Library to provide better climate control and security.

In the late 1990s, the library renewed disaster planning and recovery efforts begun earlier in the decade. The library now has a dynamic disaster preparedness and recovery plan for the Main and Van Hassel libraries, storage facilities and historical collections. During the last two years, the disaster planning team has provided training for all library staff on disaster preparedness procedures, identified and corrected potential safety hazards in library facilities and purchased basic disaster recovery supplies. In the latter half of 2004 disaster planning expanded to include libraries on the West Campus. These efforts are an integral part of the library’s preservation efforts, reducing the likelihood that the collections will be damaged in a disaster.

**Unaffiliated User Access**

The Main Library is open to unaffiliated users, including health professionals and patients and their families. Access to the Internet and to electronic resources is provided on workstations in the library. In addition, the library has a long-standing outreach program. A librarian visits rural hospitals during the year to provide training in the use of electronic resources to hospital personnel. A number of grant-funded projects have allowed library staff to work with specific health provider groups in the community such as school nurses, public health nurses, rural and migrant health clinics.

**Resource Sharing and Collaborations**

The library participates in resource sharing and other cooperative arrangements with OHSU departments and several institutions and organizations. These arrangements provide opportunities for the library to supplement core print and electronic collections and in some cases to provide access to related but out of scope materials. The library has a long history of actively seeking collaborations outside the university for the purpose of increasing access to biomedical resources for faculty, staff and students. One of the longest standing external relationships has been a legislatively mandated arrangement with the Oregon State Board of Medical Examiners. For over

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7Although the library considers the provision of quality consumer health information to the citizens of Oregon to be a part of its mission, this has not been a priority of the university due principally to fiscal constraints. The library developed and maintains a Consumer Health Resources Web page and provides Health Information by Mail email service but has been less successful in helping establish an actual library. A consumer health library opened in the University Hospital in 1999 and although use was comparable to that of other consumer health libraries in similar settings it was closed within the first year so that the space could be reassigned. A library established as part of the Center for Women’s Health 1997 was closed in 2002 due to fiscal constraints. A third consumer health library started in 1998, the Family Resource Center in the Doernbecher Hospital, has proved more successful. The OHSU Library collaborates with the FRC to purchase books and consumer health databases.
50 years the library has received a portion of licensing fees used to enhance the collection for licensees.

OHSU has a unique arrangement with Ovid whereby access is offered to Ovid databases and full text resources to all licensed health professionals in the state. Graduates of OHSU practicing in Oregon can continue using these resources to help keep knowledge and skills current.

The Orbis Cascade Alliance is a growing library consortium currently composed of over 30 public and private colleges, community colleges and universities in the Pacific Northwest, including the flagship state universities in Oregon and Washington. Library holdings of over 25 million items are available to nearly 200,000 full-time students as well as faculty and staff in Oregon and Washington. Users can request these materials through the Summit union catalog. Requested materials are generally delivered to the user’s home library within two business days or to other member libraries for the convenience of distance education students (http://summit.orbiscascade.org/).

Reciprocal borrowing agreements allow OHSU users to borrow materials directly from other local academic and public libraries, including members of the Portland Area Library System consortium and Western States Chiropractic College, National College of Naturopathic Medicine, and the Oregon College of Oriental Medicine. The library’s relationship with this latter group of libraries provides OHSU personnel with access to nationally recognized collections in complementary medicine.

Interlibrary loan service provides access to materials in other health sciences libraries in the United States and Canada through the OHSU Library’s membership in the National Network of Libraries of Medicine from libraries worldwide through the library’s membership in OCLC and from European libraries through the British Library. The library expects to continue to increase its cooperative arrangements in the future. Of particular interest are possible closer collaborations with regional health sciences libraries and Orbis Cascade Alliance libraries and with the Pacific Northwest National Laboratory for joint purchases of biomedical electronic resources.

**Personnel and Management**

**Staff Description**

In FY2004, staff consisted of 18.5 FTE librarians and 29.2 FTE support staff. Of the total staff, those who provide research and reference services for faculty, staff, and students total 4.5 FTE reference librarians, or 3 percent of the professional staff, similar to peer libraries at academic health sciences centers. (See Table 5.6).
Table 5.6  Staffing Levels of OHSU Library System, FY 1996 to FY 2004
Full-Time Equivalency (FTE) by Staff Type

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarians/Professionals</td>
<td>11.15</td>
<td>9.45</td>
<td>10.30</td>
<td>13.39</td>
<td>12.55</td>
<td>13.50</td>
<td>15.50</td>
<td>16.05</td>
<td>18.50</td>
</tr>
<tr>
<td>Paraprofessionals</td>
<td>21.70</td>
<td>20.85</td>
<td>20.40</td>
<td>1.50</td>
<td>1.10</td>
<td>1.10</td>
<td>3.00</td>
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<td>3.00</td>
</tr>
<tr>
<td>Classified</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>26.25</td>
<td>24.65</td>
<td>25.60</td>
<td>26.10</td>
<td>26.15</td>
<td>26.20</td>
</tr>
<tr>
<td>Students</td>
<td>15.05</td>
<td>14.95</td>
<td>15.00</td>
<td>18.40</td>
<td>17.00</td>
<td>16.85</td>
<td>18.16</td>
<td>12.25</td>
<td>7.68</td>
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<tr>
<td>Total</td>
<td>47.90</td>
<td>45.25</td>
<td>45.70</td>
<td>59.54</td>
<td>55.30</td>
<td>57.05</td>
<td>62.76</td>
<td>57.45</td>
<td>55.38</td>
</tr>
</tbody>
</table>

Note: Classified FTE introduced as a separate category first in 98/99 AAHSL survey; formerly under Paraprofessionals
Note: Primate library FTE added beginning 01/02; OGI library FTE added beginning 03/04

**Staff Qualifications**

Library staff includes librarians, management professionals, library technicians and information technology specialists. Librarians hold a master's degree accredited by the American Library Association as a primary credential and have academic, non-tenured appointments at the university. Management professionals generally have college or advanced degrees. Library technicians and information technology specialists meet required competencies specific to libraries. The majority have college degrees or some college education, and library-specific work experience.

Since the 1995 Self-Study, several new competencies in staff have become necessary, most notably licensing and information technology support. The two librarians who negotiate the library's licenses for electronic resources have attended national training sessions to learn how to negotiate licenses effectively. As the library provides more electronic resources and services, more staff has become involved in supporting the library's computer systems that make access to these resources possible. The library dedicates 5.0 FTE staff to maintain the integrated library system, develop and support the library's Web site and Web-enabled databases, maintain the library's document delivery management system, manage off-campus access to electronic resources, and maintain and troubleshoot library computers, electronic resources and services. Portions of several other library positions are also devoted to supporting these systems.

Staff roles and duties are clearly and individually defined with position descriptions that are routinely updated. Each employee receives an annual review and participates in regularly scheduled departmental meetings, quarterly all-staff meetings, and one-on-one meetings with supervisors.

**Opportunities for Professional Growth**

Library administration provides an annual continuing education budget from its operations budget for all staff, professional and paraprofessional alike. Library personnel attend continuing education classes sponsored by key national and regional library and information management associations and are active both in conducting and participating in programs at national and regional meetings. (See Exhibit 5.4). In FY 2004 library personnel attended more than
40 continuing education classes sponsored by key national library associations. In FY 2004, 90 percent of the professional staff attended meetings or conferences and 35 percent of the paraprofessional or clerical staff attended meetings. In addition to external meetings and workshops, a number of training opportunities are available here on the Marquam Hill Campus including those offered by the OHSU Human Resources and the EduTech Center. It is a continuing challenge to balance the need to purchase new computers and increase salaries with supporting opportunities for professional growth.

Organizational Arrangements

A major reorganization took place in fall 2001 in response to user demand to increase the effectiveness of library workflow. The Department of Collection Development and Library Systems and Department of Cataloging were added. Due to staff retirements, a few key positions (but not all) will be replaced in FY 2005, as fewer staff absorb an ever-increasing workload.

Service Linkages

One of the library’s most productive relationships is with ITG. The library staff regularly submits project requests to ITG and works closely with ITG project management staff. Through the ITG-developed project management process, the library successfully migrated to a new integrated library system, implemented a document delivery management system, set up off-campus access to electronic library resources, and implemented the Digital Resources Library. (See exhibit 5.2, OHSU Digital Resources Library.)

The library also works closely with the Department of Medical Informatics and Clinical Epidemiology. A member of the Department of Research and Reference Services is partially paid from that department’s funds to support evidence-based medicine projects. Also, a number of NLM Informatics’ fellows have worked at the reference desk or elsewhere in the library as part of their program.

From 1991–1998 the ITG Help Desk was located in the Main Library. This mixing of computer and library staff helped both units to provide first-rate phone and walk-in technology support to the OHSU community. Growth of this function necessitated moving the Help Desk out of the library in 1998. The library and ITG continue a close working relationship.

Curriculum Development

The university librarian was a member of the School of Medicine’s Curriculum Committee through spring 2000 and anticipates reappointment in the fall of 2004. The university librarian participates in the biweekly vice provost’s meeting, an opportunity to share library developments and services with others in Academic Administration and learn of other campus developments that impact the library program. The university librarian serves on several university committees to ensure that key players at OHSU are aware of library issues that affect the campus community.

The BICC is represented on the Faculty Senate by one position. This senator serves a three-year term and may be reelected to a second term. The current senator is a librarian who has been serving since 1999. Other members of the library staff also serve on OHSU committees. These committees include the Teaching, Learning and Technology Roundtable, Patient and Family Education Committee, Records Retention Committee, and Faculty Senate.
Financial Support

The cost of financing library operations increases as the university moves toward more digital delivery of information. The delivery of scientific information to desktops created a fiscal strain on the library budget and the university as a whole. Academic health sciences libraries across the nation are facing these same fiscal challenges. From 1995 through 1998, the library’s budget began to recover after Oregon’s tax limitation initiative (Measure 5) in 1991 due to the infusion of Department of Energy funds. In FY 2003 student technology fees supplemented the library’s budget for library services from which students derive direct benefit. (See Exhibit 5.3, OHSU Library Budget Summary FY 2004.)

Since 2002 the library has requested and received additional resources to maintain core services, such as stable library hours, an automated document delivery service, and upgrades to and maintenance of public terminals to ensure access by faculty, staff and students to information. There continues to be a demand for traditional library services, most notably study space for the students. For the FY 2004 budget planning process, selected operational cuts were made in order to keep the Main Library open for students a reasonable number of hours per week.

In FY 2003 and 2004 the library’s collection budget was level funded, but at the same time did receive funding support to cover much of the inflation rate on its journal renewals. Stabilization of the library’s budget and some growth has been realized under the leadership of the current provost. Central Administration, under the guidance of the provost, has tried very hard to protect the library collections because of the value the campus community places on these resources.

Security

A Fixed Assets Inventory is done for all equipment annually. Digital pictures have been taken of all computer and major office equipment in the Marquam Hill libraries as part of the Library’s disaster preparedness activities. The Main Library and the OGI Library have traditional security gates covered by maintenance contracts.

Planning and Evaluation

Planning

The university librarian manages the Library, Educational Communications, EduTech and Medical Photography departments. Uniting these complementary departments in one administrative unit facilitates joint planning and coordination of effort to provide superior information services to the OHSU community. The annual budget process provides a significant opportunity for planning and communication among OHSU administration, Corporate Financial Services, the university librarian and the library staff. The vice provosts’ meeting is another regular opportunity for sharing ideas and for resource review.

The Library Operations Team directs the planning and operations of the library based on the library’s mission, and members are responsible for planning and evaluating library projects that support the research and educational mission of the university. The operations team consists of the university librarian and managers of the five library departments (Access Services, Research and Reference Services, Collection Development, Administrative Affairs and Acquisitions, and Library
Systems and Cataloging) plus the librarians from the Diack Library (OGI) and the McDonald Library (ONPRC). To better enable monitoring of resources and services, library managers collect information from library committees, such as the Collection Development Committee, Networking, Electronic Resources, Databases, and Systems Team, Reference and Research Services and Access Services departments. The operations team reviews library projects bimonthly. New projects and ever-changing priorities of current projects also are reviewed at that time. The Library Operations Team also participates in the annual budget process that provides an opportunity for in-depth planning for library programs and staffing.

The library and the Information Technology Group work closely together and in many ways are interdependent. Thus, library planning efforts are commonly related to ITG planning. One notable example: the recent strategic plan to identify important focus areas included the clear message for the library that users expect electronic collections and services delivered directly to their desktop regardless of physical location. To facilitate the close relationship, the university librarian serves on five of the ITG steering committees: the Education Information Systems Steering Committee, Infrastructure Advisory Committee, Internet Strategies Advisory Committee, Research Information Systems Steering Committee and the Emergency Preparedness Advisory Group.

Evaluation
Self-evaluation of library resources and services is an ongoing activity. From one-on-one meetings with colleagues to committee meetings on up to the bimonthly Library Operations Team Meetings, evaluation occurs. It allows us to readily see problems in service delivery and to give prompt attention to these problems. These conversations, some held among staff on a daily basis, are the basis for adjustments in resources and services. At the same time, outside the library, library staff meet with regional, statewide and OHSU colleagues and groups to collaborate and to accomplish specific goals to bring excellence of service delivery to our respective library users.

Faculty, staff and students are encouraged to participate in the library’s collection and policy making via library surveys. These Web-based surveys ask for feedback on the collection, journal recommendations, and the effectiveness of library policy, services, hours and facilities. Questions and results for the 2000, 2001 and 2002 surveys are provided in Exhibits 5.5 and 5.6. The 2002 survey had the highest response rate with about 8 percent (1,098) of current faculty, students and staff responding, compared to 3 percent (300) in 2000 and 1.6 percent (160) in 2001.

Progress on the library’s ability to deliver electronic resources as recommended by ITG’s Strategic plan is documented in the year 2001 and 2002 survey results. In the 2001 survey, 79 percent of respondents indicated their success at finding the journals they need in electronic format had improved. The 2002 survey resulted in only 7 percent of the respondents indicating that the electronic collection of e-books, e-journals and databases was less than satisfactory. Even though there was satisfaction with current electronic resources, the number one priority according to the 2002 survey still was improved electronic access.
Respondents ranked the following as the top six priorities for the OHSU Library over the next two years:

- Provide increased access to electronic journals.
- Provide free interlibrary loans to OHSU faculty, students and staff.
- Provide increased access to electronic books.
- Maintain quality of OHSU print book and journal collection.
- Purchase permanent electronic back files of core electronic journals.
- Provide seamless access to OHSU Library resources among all libraries on Marquam Hill and West Campus.

The 2002 survey documented the shift from in-person versus electronic access to library resources. Respondents say they use library resources via their office or home computers more often than they visited the library in person. The top four reasons for visiting the library were to locate a journal article, photocopy materials, locate a book or video and study. (See Exhibit 5.5, 2002 Library Survey.)

When asked to identify their greatest satisfaction, 30 percent identified library services; 18 percent identified e-journals, e-books and databases resources; 16 percent identified access to resources off-campus; and 12 percent identified the print collection. Lack of study areas and a noisy environment were liked the least and the electronic collection and helpful staff were liked the best.

Response by the library staff to the survey resulted in the renovation of the library to create a quieter study area, increases in the selection of electronic resources and canceling of print format; purchase of electronic journal back files, relicensing of all electronic products for both campuses and a change to a better proxy service.
Strengths, Challenges and Strategies

Challenges to provide OHSU faculty, students and staff with the best library resources and services to support the university’s mission follow.

Information Resources and Services Challenges

Academic Library Status: The OHSU Library’s status as “academic library” results in deeply discounted pricing on electronic resources and document delivery fees. As OHSU develops relationships with commercial ventures, business use of OHSU’s library resources could jeopardize the library’s status, which needs to be protected. Being designated a “corporate library” has far-reaching negative financial and document delivery implications.

Appointment of a Library Committee: With the broad representation of library managers serving on OHSU committees and task forces, along with the location of the Main Library in the center of campus, productive working relationships have developed. The work with both the Library Self-Study Committee and the Self-Study Steering Committee has, in a short time, raised awareness of library programs and issues. We are interested in reinstating a Library Committee disbanded in 1991.

Collaborative collection development: Because electronic resources from the OHSU Library are sufficient to meet needs for local access, several programs closed their departmental libraries. The departmental libraries in the Casey Eye Institute and others still operate. Cooperative arrangements between these libraries and the OHSU Library could be explored for cost savings and improved service.

Facilities and Access Challenges

Planning for growth: New facilities and increased FTE create logistical and financial challenges for the library. Several factors will contribute to increases in FTE at OHSU including two new buildings, increase in community-based adjunct faculty and faculty in joint programs, and moving programs from the West campus to the South Waterfront District. Increasing FTE will increase costs for licensed products well beyond the average 8 percent annual inflation rate. The library will be involved in the planning of the South Waterfront District.

International training program support: OHSU programs are being developed in international markets. Biomedical Informatics, the Heart Research Center, and the School of Nursing, for example, will consider the OHSU Library to be a significant aspect of the development of program delivery to other countries.

Long-term collection preservation and storage: Being the only academic health sciences library in Oregon, much of the collection is unique in the state and includes highly valued historical materials. During the last decade, the OHSU Library has worked to minimize the need for leased storage space by eliminating duplication, weeding the outdated materials,
and increasing reliance on resource sharing. Although the library is moving aggressively
to develop an electronic library, there is a growing need to preserve, store and make the
physical collection readily available to scholars. The library’s Preservation Task Force is
envisioned to take on a leadership role in preservation planning for its collections.

**Institutional Support of Inter Library Loans:** Requests for interlibrary loans are higher than
five years ago even with the increase in print and electronic journal subscriptions and access to
books via the Summit catalog. Respondents to the 2002 survey placed free ILL’s as the second
most important priority for the library. Additional funding needs to be found to support
document delivery.

**Opportunities for electronic journal collection consortial purchases:** The OHSU Library
negotiates individual contracts with vendors and does not have the advantage of consortial
agreements that can decrease cost or increase access to electronic journals. Library staff
serving on the Alliance Electronic Resources committee support consortial agreements for
electronic journals, but there is philosophical and financial resistance by consortial libraries
to sign licenses with the providers that would bring the most benefit to OHSU. If the
library is to improve the purchasing ability of the collection budget, it will need to look for
additional funding opportunities.

**Personnel and Budget Challenges**

**Collection budget:** The Collection Development Committee has cancelled approximately
$100,000 of journal subscriptions in each of the last three years to balance the collection
budget. Most cancellations occurred by eliminating duplicate journal subscriptions at
system libraries, canceling the print format in favor of electronic format only, and canceling
lower-use print titles. Even though the library has increased its resources through consortial
offerings, purchase of long term contracts to cap inflation, and the purchase of aggregator
collections, the need for increased funding beyond inflation is critical if the library is to
meet the information needs of the university.

**Library resources for new programs:** Including library collection development
representatives on program development committees is critical as noted in 1995 Self-Study.
For example, faculty from biostatistics and bioinformatics and from biological chemistry
requested over $200,000 worth of materials. The cost of library resources should be
addressed as part of the overall cost of the new program.

**Fundraising:** The library does not have “Friends of the Library” or a similar program.
Consideration might be given to listing the library as a recipient of gifts to the OHSU
Foundation.

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8 The only electronic journal package the alliance has negotiated is with the American Chemical Society.
Planning and Evaluation Challenges

Although planning activities take place within the daily running of the library, more structured planning is needed to provide guidance for future economies and growth. Library staff will develop a three-year strategic plan in FY2005. Staff will address issues such as: a) review and adjustments in staffing due to retirements; b) changes in organization to support the expanded electronic resource delivery; c) the role of the Library in self-archiving of OHSU publications; d) finding supplemental funding sources to support library resources; and e) the feasibility of centralizing selected services among the three system libraries. This planning process is expected to help the library managers achieve a more appropriate budget by providing the necessary background information to demonstrate the contribution of the library to the university’s overall mission and goals.

The results of the surveys have a profound and immediate effect on those involved in providing those services and resources. The responsiveness of the library staff to accept and act on the suggestions and recommendations is demonstrated daily in all areas of library services and resource selection. The Library Operations Team will delineate its future goals during the 2005 strategic planning process and will plan to utilize measurement tools for how to evaluate whether and how well these goals are met. Overall, the OHSU Library staff and its resources are of exceedingly high quality and provide strong support for students, faculty, staff and the Oregon health care community.
Standard 5 Resources

Tables

5.1 OHSU Library and Information Services 1995 through 2004
2.2 Changes in User Access to Marquam Hill Library Resources FY 2000 to FY 2004

Appendices

5.1 Journal Subscriptions by Type 2004
5.2 Number and Format of Journals Used by OHSU Authors 1994 to 2004
5.3 Requests for Journal Articles Through Interlibrary Loan FY 1998, FY 2001, FY 2004
5.4 Marquam Hill Library Web Access vs. Walk-in Use 1995-2004
5.5 Library Access Parameters by Facility, 2004
5.6 Staffing Labels of OHSU Library System, FY 1996 to FY 2004

Exhibits

5.1 Central Reference Desk
5.2 OHSU Digital Resource Library
5.3 OHSU Library Budget Summary FY 2004
5.4 Professional Organizations for Continuing Education
5.5 2002 Library Survey
Governance and Administration
Governance and Administration

Over the past decade Oregon Health & Science University has undergone a significant shift in governance status from state agency to public corporation. The result has been dramatic growth by a number of measures.

Table 6.1 OHSU Growth and Change

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Operating Budget</th>
<th>% State Appropriations</th>
<th>Grant Awards</th>
<th>Employees</th>
<th>Students</th>
</tr>
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<td>1990</td>
<td>$340 million</td>
<td>19.0%</td>
<td>$43 million</td>
<td>6,500</td>
<td>1,464</td>
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<tr>
<td>1995</td>
<td>$499 million</td>
<td>12.0%</td>
<td>$86 million</td>
<td>6,600</td>
<td>1,795</td>
</tr>
<tr>
<td>2000</td>
<td>$882 million</td>
<td>6.4%</td>
<td>$168 million</td>
<td>10,000</td>
<td>1,906</td>
</tr>
<tr>
<td>2004</td>
<td>$1.18 billion</td>
<td>3.6%</td>
<td>$260 million</td>
<td>11,500</td>
<td>2,553</td>
</tr>
</tbody>
</table>

The impetus for reform came in the early 1990s, when OHSU found its efforts to achieve overall institutional excellence increasingly constrained by: (1) a long-term decline in state support, and (2) the emergence of managed care as the dominant method of financing health care.

OHSU believes that, on balance, the transformation in governance has had a very positive effect on the institution. To understand why this is the case requires some consideration of the nature of OHSU operations as well as the external environment that motivated the search for change.

Operational History

Like most academic health centers across the country, OHSU has long relied on its hospital to generate revenues to help underwrite losses incurred by educational programs, safety net care and community outreach. In stark contrast to many undergraduate universities, OHSU is a large institution. This gives OHSU the benefit of an internal mechanism for significant revenue generation, but experience has shown that it also requires a distinctive governance system.

Prior to the public corporation transformation, OHSU Hospitals and Clinics were ill-equipped to compete for revenues with private sector health care providers who had neither: (1) the regulatory burdens associated with being a state agency, nor (2) the price differential that comes with subsidizing public service missions.
State support to OHSU had been in steady decline for many years — from nearly 40 percent of the operating budget in 1975-77 to 13 percent in 1993-95. Finances were too tight to accommodate most essential maintenance, much less large-scale expansion or improvement. As a state agency, OHSU was restricted statutorily from accessing capital markets, which prevented the hospital from bringing its facilities up to community standards. With cramped and out-of-date facilities, OHSU Hospital was unable to attract enough paying patients to support the overall enterprise.

The emergence of managed care in the early 1990s as the primary system of health care finance in the United States hit OHSU particularly hard. The local market became extremely price-competitive, as managed care penetration rates in Oregon were among the highest in the country. OHSU was handicapped in its ability to react to rapidly changing marketplace conditions by its need to gain approval for strategic decisions from the State Board of Higher Education. It became clear that success at OHSU depended on gaining relief from some of the more burdensome state rules and regulations.

At the same time, the Oregon legislature was reeling from Measure 5 — a 1990 voter initiative that reduced property tax rates and cost the state significant revenues. The legislature and governor were looking for creative solutions to their budget problems. OHSU worked with the state to devise a hybrid public-private governance structure that would allow OHSU to boost its competitiveness while protecting the tradition of public service that was at the heart of the institution’s identity. In June 1995 the state approved Senate Bill 2, making OHSU a public corporation.

**Becoming a Public Corporation**

SB 2 gave OHSU a streamlined governance structure that allowed it to make independent programmatic and business decisions. In practice, this meant OHSU would operate more like a business and less like a state agency, answerable to its own board of directors (rather than the State Board of Higher Education) and accepting fiduciary responsibility for its own actions. At the same time, OHSU reaffirmed its commitment to continue to partner with the state to meet important public service missions.

Freedom in decision-making allowed OHSU to establish competitive procurement processes with external vendors (rather than state agencies or state-prescribed vendors) that were more cost-efficient and more responsive to customer needs. In addition, restructuring at OHSU in the wake of SB 2 created a number of operational efficiencies internally. (See Table 6.2.) The combined savings were significant and allowed OHSU to absorb a $17 million cut to its biennial appropriation (as part of the public corporation agreement) without cutting programs.

Perhaps most significantly, SB 2 made it possible for OHSU to access the bond market on its own faith and credit, which has allowed OHSU to make targeted capital investments in education, research and patient care. Since 1995 OHSU has issued a series of bonds totaling more than half a billion dollars. (See Standard Eight, *Physical Resources.*)
Substantial investments in clinical care have been critical to OHSU’s overall financial stability. Prior to 1995, the health system had been experiencing an increasingly bimodal (i.e., “too sick or too poor” to go elsewhere) patient mix that could not sustain the overall institution. Since becoming a public corporation, OHSU has renovated facilities and hired more health care practitioners and clinical researchers. As a result, OHSU has attracted more patients and become recognized more generally as a desirable place to receive care. Today, OHSU Hospital is ranked No. 1 in Portland by consumers, and has been for six years in a row.

**The Oregon Opportunity**

The public corporation transformation enabled a series of mergers with the Oregon National Primate Research Center (1998), the Neurological Sciences Institute (1998), and the Oregon Graduate Institute of Science and Technology (2001). These mergers have bolstered research and education programs. OHSU also has worked to foster collaboration with community colleges as well as public and private universities.

One of the most important outcomes of the public corporation conversion was a nearly 200 percent growth in OHSU research awards, from $86 million in 1995 to $260 million in 2004 — climbing through the National Institutes of Health research rankings as a result. In fact, growth in research is the key to overall institutional excellence and the linchpin of OHSU’s strategic plan.
During OHSU’s two-year strategic planning process of 1999 and 2000, the Faculty Senate identified research as the key to maximizing the synergy at an academic health center:

_Excellence in basic and clinical research is the foundation upon which the entire educational and clinical activities of the university are based. Excellent researchers generate and advance the new knowledge that leads to significant advances in health care. Excellent teachers remain alert to constant discovery of new knowledge, and excellent clinicians are quick to transfer the latest advances in scientific knowledge to the improved care of patients._ (Source: Strategic Plan 2000, OHSU.)

Newfound excellence in research also represents the basis for the Oregon Opportunity, a $500 million public-private campaign to achieve a major leap forward in OHSU research infrastructure and to capture the health and economic benefits of new opportunities in bioscience for the benefit of Oregonians.

In 2001, the state of Oregon committed $200 million in Oregon Opportunity bonds (funded through the tobacco settlement) to help OHSU invest in research infrastructure — adding badly needed wet lab space and recruiting more researchers. The private portion of the campaign has raised more than 95 percent of the goal ($287 million of the $300 million).

As a result of these investments, OHSU has successfully recruited new world-class researchers and begun construction on a new biomedical research building and a patient care facility expansion. With this added capacity, OHSU expects to add another 6,000 employees over the next decade and to help position Oregon to develop a robust bioscience industry. Since becoming a public corporation, OHSU gained the right to hold stock in companies that result from university research. A new focus on commercializing research discoveries has led to a surge in spin-off activity.

None of this would have been possible without the change in governance. That is not to say, however, that the shift from state agency to public corporation has been entirely without challenge. In particular, OHSU has yet to find equilibrium in its evolving partnership with the state.

The transformation of OHSU has been so successful and so well recognized throughout the city, state and region that it has led some in the legislature to assume the institution no longer needs support for its public missions. Reduced state support has forced OHSU to close or transfer some programs (such as dental hygiene) and raise tuition. In fact, the overall health and success of the institution has made it much more difficult to explain that public missions such as education, charity care and community outreach will continue to require public funding.

In addition, there are some OHSU faculty and staff who hold the opinion that the institution is moving away from its tradition of public service (in particular, safety net care) or who question the timing of the current expansion. OHSU believes its four-part mission has not changed; rather the need to generate new sources of revenue in the wake of declining state support has meant that new methods for financing mission-related activities had to be identified and implemented. This has been a difficult distinction to explain to internal and external audiences alike. Nevertheless, the result seems to be a healthy tension that keeps OHSU true to its traditional identity even as it adapts to new financial realities.
On balance, OHSU believes the public corporation transformation has been a very positive development for the institution. The primary benefits have been: (1) the ability to operate more efficiently and strategically, and (2) the ability to access capital markets to invest in clinical facilities. The combination of these factors has helped OHSU put itself on the road to both financial stability and overall institutional excellence.

**Governance System**

The overall governance system at OHSU begins with the board of directors, but also includes OHSU management, faculty, staff and students. Some of the individuals, standing committees and other entities involved in OHSU governance include:

- OHSU Board of Directors
- OHSU President
- Vice Presidents Group
- Health System Group
- Executive Committee
- Policy Advisory Committee
- Affirmative Action and Equal Opportunity Department
- Employee Benefits Council
- Faculty Senate
- Student Council

As a large and complex organization, OHSU is comprised of a variety of entities that necessarily require some degree of internal governance. (See Appendix 6.1, *OHSU Organizational Chart*.)

These include, but are not limited to:

- The schools of dentistry, medicine, nursing and science and engineering, as well as departments within those schools.
- OHSU Hospitals and Clinics, including OHSU Hospital, Doernbecher Children’s Hospital, numerous primary care and specialty clinics, as well as departments and units within those hospitals and clinics.
- Research institutes such as the Vollum Institute, the Center for Research on Occupational and Environmental Toxicology, the Vaccine and Gene Therapy Institute, the Neurological Sciences Institute and the Oregon National Primate Research Center.
- Multidisciplinary units such as the Casey Eye Institute, Center for Women’s Health, OHSU Cancer Institute and the Center for Ethics in Health Care.

OHSU has assembled a team of creative and self-directed leaders for its units and schools. In so doing, OHSU has created a strong management structure that carries out the overall institutional
priorities set by the board while working to improve performance at the unit level and augment coordination and collaboration among the schools and departments.

**Governing Board**

Prior to 1995 OHSU was one of eight public universities and colleges governed by the State Board of Higher Education. Many of the administrative and management systems that OHSU operated under had been designed for large undergraduate institutions like the University of Oregon, Oregon State University and Portland State University. Few if any of the final decision makers in state government had experience in medical education or health care delivery.

SB 2 gave OHSU a streamlined governance structure that allowed it to make independent programmatic and business decisions. The university now answers to an OHSU-focused board of directors rather than the State Board of Higher Education — although the state retains some oversight through the nomination and confirmation process and OHSU voluntarily participates in the academic review processes of OUS. Decision-making speed and agility has improved markedly.

Decision-making speed and agility has improved markedly. Consider the following:

- In 1986 OHSU initiated the process to upgrade its outdated maternity unit. Although OHSU was not asking for state money, bureaucratic delays dragged out the process for years. The decision was bucked from the State Board of Higher Education to the legislature to the agencies and back again. Finally, in the summer of 1994, construction began. In the meantime, OHSU was forced to send many of its patients to other hospitals, costing OHSU significant revenues.

- In 2000 when OHSU identified that demand for clinical care would soon require a new patient care facility, the elapsed time between the internal recommendation and board approval was just three months. The approximately 330,000 square-foot patient care facility, budgeted at $256 million, is currently under construction.

**Board Makeup**

The OHSU Board of Directors is comprised of 10 members — the president of OHSU, who is appointed by the OHSU board and serves as an ex-officio voting member, and nine members appointed by the governor and confirmed by the state Senate. The nine members appointed by the governor must include:

- Seven individuals who, in the governor’s judgment, have experience in areas related to OHSU’s missions or are important to the success of OHSU.
- One OHSU student.
- One non-student member of the State Board of Higher Education.

Except for the president of OHSU, the term of each non-student member is four years and the term of the student member is two years. Each member is eligible for reappointment for one additional term. Appointments are staggered to provide for continuity and change in board membership. The governor may remove any member at any time for cause, after notice and public hearing, but not more than three members may be removed within a period of four years, unless it is for corrupt conduct in office.
The following table lists the current members of the board and their terms.

**Table 6.3 OHSU Board of Directors**

<table>
<thead>
<tr>
<th>Name</th>
<th>Expiration of Term</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keith Thomson, Chairman</td>
<td>Sept. 30, 2008</td>
<td>Former Vice President, Intel Corporation</td>
</tr>
<tr>
<td>Scott Gibson, Vice Chairman</td>
<td>Sept. 30, 2005</td>
<td>Owner, Gibson Enterprises</td>
</tr>
<tr>
<td>Vacant (Mary Decker, recently deceased)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mark Hatfield</td>
<td>Sept. 30, 2007</td>
<td>Former United States Senator</td>
</tr>
<tr>
<td>Henry Hewitt</td>
<td>Sept. 30, 2007</td>
<td>Attorney, Stoel Rives, LLP</td>
</tr>
<tr>
<td>Kirby Dyess</td>
<td>Sept. 30, 2005</td>
<td>Director, State Board of Higher Education</td>
</tr>
<tr>
<td>Peter Kohler, M.D.</td>
<td>Ex-Officio</td>
<td>President, OHSU</td>
</tr>
<tr>
<td>Kathryn Smith, R.N.</td>
<td>Jan. 31, 2006</td>
<td>Nursing Student, OHSU</td>
</tr>
<tr>
<td>Charles Wilhoite</td>
<td>Sept. 30, 2007</td>
<td>Partner, Willamette Management Associates</td>
</tr>
<tr>
<td>Meredith Wilson</td>
<td>Sept. 30, 2007</td>
<td>Civic Leader</td>
</tr>
</tbody>
</table>

Under the OHSU board’s bylaws and its Governance Principles and Guidelines. (See Appendix 6.2 and 6.3), the OHSU board acts as a committee of the whole and no member or subcommittee of the board acts in place of the board except by formal delegation of authority.

The OHSU board has three standing committees, with portfolios as follows: (1) board governance, (2) financial and audit oversight, and (3) human resource/personnel matters. The duties, responsibilities, ethical conduct requirements, organizational structure and operating procedures of the OHSU board are defined in the aforementioned documents as well as the OHSU Code of Conduct. (See Appendix 6.4.)

The OHSU board approves all major academic, vocational and technical programs of study, degrees, certificates and diplomas. To the extent consistent with the law that governs OHSU, the OHSU board approves major substantive changes in institutional mission, policies and programs. The OHSU board has adopted some general policies (e.g., dealing with fiscal, contracting and student affairs) and has delegated to the president authority to implement its policies and to adopt and flesh out other policies as needed or convenient to governing OHSU.

As a note of historical interest, the OHSU board expanded from seven to 10 members in 2001 after the former Oregon Graduate Institute of Science and Technology merged into OHSU.

**Competitive Considerations**

Although it remains a public body, OHSU has been exempted from some of the restrictions that adhere to other public entities and state agencies. For example, OHSU is not subject to most of the state’s competitive bidding requirements. Many of the public accountability laws such as public records and public meetings laws still apply to OHSU, but are modified in various ways to accommodate the original intent of SB 2 — namely, to allow OHSU to compete in the health care marketplace.
The law provides that certain subject matters — such as decisions related to health systems strategies and decisions regarding sensitive business, financial or commercial matters not customarily provided to competitors — are not required to be discussed or decided at a meeting open to the public. This puts OHSU Hospitals and Clinics on a level playing field with its private sector competitors, none of which are required to disclose strategic business information. Additionally, the law provides that the OHSU board can determine how a quorum shall be constituted and when a quorum shall be necessary.

The OHSU board has sought to balance its responsibilities for achieving the missions of the university against its obligations through its bylaws to make decisions “in the sunshine.” The bylaws identify which types of decisions need to be made by a quorum in publicly accessible open meetings and those decisions that the board believes nonpublic meetings (or meetings without a quorum) better ensure accomplishing a particular university mission or objective.

Weighing transparency against strategic necessity is a delicate balance and an ongoing subject of board deliberation.

**Enduring State Ties**

Despite the restructuring of OHSU governance, several important ties to the state of Oregon remain. Perhaps most significantly, the OHSU board is appointed by the governor and confirmed by the Oregon Senate. By retaining its discretion over the individuals who comprise the OHSU board, the state can influence the strategic direction of the institution as a whole.

In addition, that portion of the OHSU budget that comes from the state general fund appropriation must be submitted to the legislature through a budget request to the State Department of Administrative Services, which is the same process that governs state agency requests. All major academic policies and program changes at OHSU are coordinated with the State Board of Higher Education in order to prevent inadvertent duplication of programs and to ensure the continuity of existing integrated programs such as the Master’s of Public Health and the statewide School of Nursing.

Although OHSU is a governmental entity, it is not considered a unit of local or municipal government or a state agency for purposes of many state statutes or constitutional provisions. For bond issuance purposes, OHSU is treated as a political subdivision of the state.

**Leadership and Management**

OHSU is committed to attracting and retaining leadership talent. The university is proud of its record of continuity and quality of leadership, as exemplified by the lengthy and successful tenures of President Peter O. Kohler, M.D. (17 years) and Vice President for Academic Affairs/Provost Lesley M. Hallick, Ph. D. (16 years).

Senior level OHSU managers, including the OHSU president, vice presidents, deans and directors, implement and administer the policies established by the board. Within those parameters, the OHSU president and vice presidents, as a group, also address major financial,
strategic and policy issues. The president also relies on three advisory groups: the University Health System Board, the Executive Committee and the Policy Advisory Committee.

The Health System Board recommends health system strategy and consists of the following members: the president of OHSU; the vice president and dean of the School of Medicine; the vice president and dean of the School of Nursing; the vice president and executive director of OHSU Hospitals and Clinics; the OHSU Medical Group president and director of clinical practice; the vice president for finance; and the dean of the School of Dentistry.

The Executive Committee is an information sharing and policy discussion group reflecting the broad leadership of the institution. The Executive Committee consists of the OHSU president; all OHSU vice presidents; and six deans and directors (dean of the School of Dentistry; the dean of the Oregon State University College of Pharmacy; the director of the Vollum Institute; the director of the Child Development and Rehabilitation Center; the director of the Center for Research on Occupational and Environmental Toxicology; and the director of the Oregon National Primate Research Center.)

The Policy Advisory Committee meets monthly and coordinates policy development, policy review, university input and submittal for approval by the president. The PAC is comprised of representatives of the major units of the university (e.g., the hospitals, School of Nursing, primate center), designated administrative units (e.g., Human Resources), and students, faculty and staff. The PAC processes involve representatives taking back to the groups they represent policy initiatives that come to the PAC for deliberation, sending out to the university community drafts of the policies under consideration, entertaining feedback, and ultimately recommending a version of policy for the institution.

**Faculty Role in Governance**

OHSU faculty members participate in institutional governance and planning primarily through service on various university committees and as elected representatives to the University Faculty Senate. The Faculty Senate represents the entire faculty of OHSU and, as such, has the authority and responsibility to act for and on behalf of the faculty in all matters encompassed by the stated functions of the Faculty Senate.

In Spring 2001 the Faculty Senate formed an ad hoc committee to formulate recommendations regarding a proposal to restructure and reorganize the OHSU Faculty Senate. The need for this committee was prompted by senate discussions during the 2000-01 academic year that suggested that the structure and function of the senate at that time impeded the ability of that body to serve as an effective and successful university faculty governance organization. The major aspects that were discussed during that year included:

- Difficulty recruiting faculty to stand for election as senators.
- Poor attendance at monthly Faculty Senate meetings.
- Lack of substantial work within the existing committee structure.
- Difficulty communicating and linking with university committees that address issues affecting faculty.
The ad hoc committee was charged with studying these issues in the context of formulating a plan to more clearly articulate the purpose and goals of the Faculty Senate and to describe the specific functions of the senate that would fulfill the purpose and goals. Specific recommendations were to be developed regarding changes in membership and representation, roles and terms of officers, restructuring of standing committees, and development of clear statements that would define the authority and responsibility of the Faculty Senate.

As a result of recommendations made by this committee during the 2001-02 academic year, OHSU faculty approved comprehensive revisions to the Faculty Senate bylaws and Standard Operating Procedures. (See Exhibit 6.5 and 6.6.) These documents outline the various structural and functional changes that now characterize the current Faculty Senate.

Representation was significantly altered in response to uniform agreement that the Senate was too large and that, primarily in the School of Medicine, senators did not have a clearly defined group of constituents. Through a process of attrition, the number of Faculty Senators has been reduced during the past few years. A clear description of the faculty to be represented by each senator was also developed based on appropriate grouping of various existing academic and clinical departments.

Another of the major goals of the reorganization was to increase the level of communication and linkage between existing university standing committees and the Faculty Senate. The senate believes that considerable progress has been made in this area. Specifically, faculty senators or their selected representatives now serve as representatives to university-level committees such as the Policy Advisory Committee, the Employee Benefits Council and the Research Council. Additionally, efforts have been made to appoint nonsenator faculty members who serve on university standing committees to positions as members of the appropriate Faculty Senate standing committees in order to further enhance communication and ultimately faculty input into institutional policy and planning decisions.

The functions of the OHSU Faculty Senate as set forward in the current bylaws clearly outline the role of the senate as the representative body of the OHSU faculty in institutional governance. Among the specific functions, the senate:

- Proposes or evaluates and advises the president on policies and activities with OHSU-wide impact or actions of one school or unit that impact another.
- Advises on OHSU-wide matters, including, but not limited to:
  - academic polices
  - educational standards, curricula, programs, regulations
  - research
  - faculty status
  - strategic planning
  - budgeting
  - aspects of student life
• Proposes or evaluates actions or policies to create, maintain and protect a university environment conducive to the full and free development of scholarly learning, teaching, research and patient care.

• Seeks and takes advantage of opportunities to participate in OHSU governance on behalf of the faculty.

• Informs the central administration and the OHSU board of the opinion of the faculty.

The provost of the university serves as the formal liaison for the Faculty Senate to OHSU administrative officers. The provost has been very accessible to the Faculty Senate and attends, with rare exceptions, all monthly meetings of both the Faculty Senate and the Executive Committee of the Faculty Senate.

In summary, a significant increase in opportunities for faculty to participate in institutional governance as described above has occurred in the last few years as a result of the recent Faculty Senate reorganization. The issues that had fostered a sense of ineffectiveness and lack of purpose among senators have been appropriately addressed. Through ongoing communication with university administration, faculty members may explore and develop avenues and mechanisms to enhance the current activities of the faculty in institutional governance.

The Faculty Senate also is working to better publicize its contributions to institutional governance in an ongoing effort to recruit quality faculty members and to demonstrate the value of faculty governance.

**Student Role in Governance**

One of the primary vehicles for student participation in OHSU governance is the OHSU Student Council (previously known as the “All Hill Council”).

The council is made up of representatives from the schools of medicine, nursing, dentistry, science and engineering, and allied health programs. In addition to being the prime initiators of important cocurricular programs designed to engage and integrate students across all of the school and educational programs, the Student Council plays a formal role in recommending the allocation and level of the student incidental fees on campus.

During the 2002-03 academic year, the Student Council worked closely with the vice provost for academic and student affairs to develop a more substantive process that complies with university policy in this regard. As a consequence, students now have direct input into how revenues from incidental fees are budgeted, and are directly involved in strategic planning for how the incidental fee might be used on behalf of students in the future.

In addition to this important role, the OHSU Student Council is responsible for providing student representation on critical all-university committees. This includes the OHSU Faculty Senate, University Policy Committee, Student Health Service Advisory Committee, and Web Strategy Committee.
The council also helps to solicit nominations for a student to serve on the OHSU Board of Directors. Nominated to serve by the governor of the state of Oregon and approved by the legislature, the student member serves a two-year term as a full voting member of the OHSU Board of Directors and its subcommittees, and thereby provides substantive input into university policy and strategic planning.

In addition to these university-wide activities, students participate in governance at the school and departmental level as well. Existing school-based student councils act as local sounding boards for much policy decision for school and program administrators. Student representatives also sit on most school-based policy committees related to educational program planning and professional standards, among others.

**Affirmative Action and Nondiscrimination Policy**

Oregon Health & Science University strives to maintain excellence in teaching, research and patient care by recruiting, employing and training quality individuals from the many diverse groups represented in today's society.

OHSU is fully committed to the concept and practice of equal opportunity and affirmative action in all aspects of employment and educational opportunities. OHSU policies are based on state and federal laws and executive orders regarding discrimination and affirmative action and reflect an institutional commitment to a diverse university community. The president of OHSU has assigned primary management responsibility and accountability to the director of the Affirmative Action and Equal Opportunity Department.

Responsibility for recruitment and retention of underrepresented students has been assigned to the vice provost for the Center for Diversity and Multicultural Affairs. CeDMA supports and works in collaboration with AAEO and various academic units, hospitals and other campus and community resources in promoting an inclusive environment that values and nurtures cultural diversity throughout the university. For more information on diversity goals in faculty recruitment, see Standard Four, *Faculty*.

**Affirmative Action and Equal Opportunity Department**

AAEO administers an equal opportunity complaint procedure, including investigating allegations of prohibited discrimination and harassment brought by staff, faculty, students, patients and employment applicants of OHSU.

Discrimination and harassment, or perceptions thereof, are reported from all levels and aspects of the university. Complainants, respondents and witnesses are treated fairly and equally regardless of title, rank or level of responsibility within the organization. Faculty members do not receive separate processes from AAEO than other employees.
Affirmative action and equal opportunity policy at OHSU is designed and evaluated in terms of achieving the following objectives:

- Identifying and removing any barriers that prevent an appropriate representation of men, women, ethnic minority group members, persons with disability(ies), covered veterans, or other protected individuals in faculty, administrative and classified positions that are proportional to their availability.
- Assuring equity in the classification, rank and salary structure for all employees and to make the necessary adjustments where inequities are found.
- Assuring equal opportunity and nondiscrimination in all aspects of employment, education and service.
- Eliminating gender or ethnic discrimination by increasing the number of employees in occupations from which they traditionally have been excluded.
- Providing equal and appropriate access to all facilities, services and institutional resources for all employees, students, patients or other persons connected with the university.
- Assuring that age, disability, marital status, national origin, race, religion, sex, color, sexual orientation, veteran status or any other factor(s) not necessary for the successful performance of the activity(ies) in question are not used to discriminate against any patient, customer, student or employee.
- Providing, through the university’s equal opportunity complaint procedures, an available and effective means for resolving complaints, questions or concerns regarding equal opportunity in any term and/or condition of employment, education and service.
- Providing instruction and training in valuing diversity, working in a diverse environment, and accessing and complying with the university’s affirmative action and equal opportunity programs and activities.

**Affirmative Action Plan**

OHSU prepares its affirmative action plan to cover all of its employees. The most recent AAP details coverage of 11,531 employees, including 1,795 minorities and 7,397 females, representing 15.6 percent and 64.1 percent of total employment, respectively.

The AAP provides information concerning the underutilization of women and minorities within the respective planning units, suggests placement goals and timetables that are designed to overcome any underutilization, and monitors placement and movement activities.

The compensation review compares the salaries of women and minorities to that of their white male counterparts, identifies any apparent discrepancies, and provides for resolution of discrepancies either through salary or FTE adjustment or nondiscriminatory justification.
Table 6.4 OHSU Employee Demographics FY 2003

<table>
<thead>
<tr>
<th>EEO 6 Code</th>
<th>EEO 6 Description</th>
<th>Total</th>
<th>Gender</th>
<th>Race Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1</td>
<td>Executive, Administrative and Managerial</td>
<td>699</td>
<td>304</td>
<td>395</td>
</tr>
<tr>
<td>2</td>
<td>Faculty</td>
<td>1,644</td>
<td>961</td>
<td>683</td>
</tr>
<tr>
<td>3</td>
<td>Professional Non Faculty</td>
<td>4,744</td>
<td>1,500</td>
<td>3,244</td>
</tr>
<tr>
<td>4</td>
<td>Clerical and Secretarial</td>
<td>2,337</td>
<td>428</td>
<td>1,909</td>
</tr>
<tr>
<td>5</td>
<td>Technical and Paraprofessionals</td>
<td>1,579</td>
<td>588</td>
<td>991</td>
</tr>
<tr>
<td>6</td>
<td>Skilled Crafts</td>
<td>70</td>
<td>65</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Service/Maintenance</td>
<td>458</td>
<td>288</td>
<td>170</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td>11,531</td>
<td>4,134</td>
<td>7,397</td>
</tr>
</tbody>
</table>

Note: The employment figure of 11,531 was recorded before OHSU made budget cuts due to state budget reversals that resulted in approximately 200 FTE fewer employees. The current number of employees is 11,375.

Source: OHSU Office of Affirmative Action and Equal Opportunity, date.

As required by 41 C.F.R. § 60-2.11, OHSU has prepared an organizational profile as part of its affirmative action program. The organizational profile is a depiction of the staffing pattern within the university. The profile provides an overview of the workforce at OHSU that may be used to assist in identifying organizational units where women or minorities are underrepresented or concentrated. OHSU has elected to prepare a workforce analysis to satisfy the organizational profile requirement at 41 C.F.R. § 60-2.11(a).

Handling Complaints

The equal opportunity program provides for the processing of all internal and external prohibited discrimination complaints. For internal complaints, this is accomplished through the university’s equal opportunity complaint procedures. These procedures are available to all employees, students, trainees and patients and are designed to provide an accessible, simple, timely and fair method of redressing complaints. Listings of complaints received during FY 2003 are shown below by allegation (Table 6.5) and by finding (Table 6.6).

Education and Training

Education and training activities to promote diversity and inclusiveness range from formal classroom training to departmental in services, informal seminars, individual consults, and, beginning in March 2005, include online mandatory training for all employees, students and volunteers. Subject matter includes topical areas such as recognizing and preventing specific types of discrimination, cultural awareness and diversity training, and instruction in nondiscriminatory supervision and interaction.
Table 6.5 Internal Complaints by Allegation 2002-03

<table>
<thead>
<tr>
<th>Allegation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADA Accommodation</td>
<td>34%</td>
</tr>
<tr>
<td>Age</td>
<td>3%</td>
</tr>
<tr>
<td>Gender</td>
<td>4%</td>
</tr>
<tr>
<td>National Origin</td>
<td>6%</td>
</tr>
<tr>
<td>Religion</td>
<td>1%</td>
</tr>
<tr>
<td>Sexual Harassment</td>
<td>6%</td>
</tr>
</tbody>
</table>

Table 6.6 Complaints by Finding 2002-03

<table>
<thead>
<tr>
<th>Finding</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADA Qualified</td>
<td>12%</td>
</tr>
<tr>
<td>ADA Unqualified</td>
<td>6%</td>
</tr>
<tr>
<td>Open</td>
<td>14%</td>
</tr>
<tr>
<td>Referred</td>
<td>10%</td>
</tr>
<tr>
<td>Resolved</td>
<td>29%</td>
</tr>
<tr>
<td>Substantiated</td>
<td>7%</td>
</tr>
<tr>
<td>Unsubstantiated</td>
<td>20%</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>2%</td>
</tr>
</tbody>
</table>
Collective Bargaining/Human Resources

Most OHSU job openings are listed and filled through the Human Resources Department, but faculty recruiting is handled by deans and division chairs, as described in Standard Four, Faculty. However, once faculty members arrive at OHSU, they are covered by the policies, procedures and programs offered by Human Resources.

OHSU does not have a collectively bargained faculty group. Thus, there is no risk to disruption of programmatic academic offerings as a result of a faculty labor dispute. However, as indicated earlier, OHSU (as an academic health center) depends on its hospital to generate revenues to help underwrite losses incurred by educational programs, safety net care and community outreach. In addition, the hospitals and clinics are training sites for students. This programmatic and financial interdependence suggests that academic offerings could be negatively impacted by an extended work stoppage at the hospital.

OHSU has undertaken, with the guidance of a labor strategist, efforts to further build and sustain positive working relationships, thus ensuring continuity of services.

Table 6.7 OHSU Employment Breakdown by Group 2004

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFSCME</td>
<td>38%</td>
</tr>
<tr>
<td>Non-Represented Employees</td>
<td>14%</td>
</tr>
<tr>
<td>ONA</td>
<td>48%</td>
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</table>

Labor Relations

When considering the overall institution, OHSU has a significant organized labor presence, with roughly 6,000 unionized employees (current employment at OHSU is 11,500). This includes approximately 1,500 Registered Nurses organized by the Oregon Nurses Association and about 4,500 American Federation of State, County and Municipal Employees union employees, the vast majority of whom are assigned to the hospitals and clinics, with the remainder in academics, research and administrative units.

The labor relations environment at OHSU has been largely stable, with some exceptions.

Soon after OHSU separated from Oregon State System Higher Education in 1995, AFSCME employees launched a three-day union strike, which was quickly resolved with assurances of job stability. Since that time, the labor relationship with AFSCME has strengthened, as illustrated by a number of indicators:
• The U.S. Department of Labor selected OHSU to participate in a study illustrating positive union relationships in the workplace. In 2004 as a follow-up, OHSU and AFSCME were invited to a national symposium at the University of Washington to present joint initiatives that have contributed to building increased collaboration between labor and management.

• In 2001 AFSCME and OHSU jointly sponsored an initiative to establish an onsite “Career Development Center,” to afford training opportunities for support staff in skills enhancement to promote career advancement (and which has enjoyed high levels of participation).

• In 2003-04 as part of a consideration to outsource Patient Billing Services, AFSCME bid on a process improvement project and won, saving as many as 60 support staff jobs.

In late 2001 following protracted union negotiations, the OHSU unit of the Oregon Nurses Association voted to strike, which lasted several weeks. There were a number of contributing factors, perhaps the foremost being perceived leverage attributable to the national nursing shortage. Following the successful conclusion of the strike, OHSU initiated a broad array of efforts to strengthen the labor-management relationship:

• Appointed a new chief nursing leader in 2002, who has led an initiative to establish OHSU as a Magnet Status health care institution, which is a multi-year engagement to secure this special certification.

• Established a unit-level employee/manager collaboration to increase RN input into unit level decision making.

• Undertook a broad nursing leadership reorganization to strengthen nursing management and capability to engage nurses and build retention.

OHSU wants to create a rewarding work environment that engenders employee satisfaction and allows the institution to fulfill its missions without disruptions of service. To do so, OHSU intends to continuously examine and evaluate its approach to labor relations.

**Human Resources**

As part of the transformation to a public corporation, OHSU was removed from state personnel rules, which led to the creation of a Department of Human Resources, consolidating tasks previously housed under several state agencies.

Beginning in 1995 a significant effort was invested in establishing an effective HR infrastructure, since the program was being created from “the ground up.” The first big accomplishment was the creation of a single, institution-wide, biweekly payroll. As the HR Department matures, it is changing slightly to focus on building human capital.

Beginning in 2003 the HR Department hired all new training and development professionals who are now offering a broad array of management development programs for leaders across all of the organization. These programs have been designed to build management skills and capabilities in communication, teamwork, performance management and overall management practices.
In 2003 a “Healthcare Certificate” program was introduced, offered by the OGI School of Science & Engineering, which is an accredited 18-month series of rigorous program offerings to build the talents of emerging organizational leaders. The first cohort of 15 enrollees was sponsored with one-third of the tuition paid by the hospital, and received high praise from program attendees. Given the program’s success, the School of Medicine will be next to enroll a cohort of leaders, with similar tuition support.

In 2001 OHSU was awarded the national AARP award for employing a large number of individuals over age 50. This was a special accomplishment that nevertheless points up a challenge for the future: more than 20 percent of OHSU’s employees are age 50 and over and are on a preretirement track. Employing talented managerial individuals as turnover occurs, as well as grooming effective leaders for the future, are parallel emphases.

Salaries and Benefits

On an annual basis, the Human Resources Department conducts salary and benefits surveys of comparator organizations (both locally and regionally, as well as nationally) to ensure that OHSU is able to attract and retain talented individuals.

As a public corporation, OHSU comparator organizations include an array of institutions both public and private. Traditionally, OHSU benchmarks would have centered on other higher education institutions and academic health centers. For competitive reasons, OHSU also includes benchmarks for corporate biomedical research facilities, state higher education, public agencies and major private corporations from which applicants are attracted.

Generally speaking, OHSU has difficulty competing strictly on a salary basis. At the same time, OHSU offers an excellent benefits package — and many who come to OHSU are attracted to working at the intersection of health care, education, research and community service. Nevertheless, remaining competitive with a view to base pay alone will continue to be a challenge, particularly as a number of local community hospitals expand facilities in the next few years. This will create a competition for health care providers in the Portland area at a time of scarce resources and national shortages in key health care occupations.

Pay increases for OHSU employees are generally effective on July 1 of each year, based upon individual performance evaluations and taking budget guidelines into account. Given the recent economic downturn (2002 to present) and declining state support, OHSU has been forced to temper its salary position. For example, in FY 2004, OHSU strongly recommended to departments a “wage freeze” for all nonunion employees. This affected roughly 6,000 workers. Given the national economic downturn, the erosion of the state’s financial condition, the reduction of 200 FTE, and the “wage freeze,” there was a lingering (and understandable) sense of insecurity. Although OHSU was not alone in this position, employee morale was affected. In an attempt to remain competitive and to reward employee loyalty, OHSU is undertaking a market-correction for pay at a level of 4.5 percent, effective July 2005, as a “catch-up” for its non-union employees.

To continuously evaluate employee benefits offerings, OHSU has established the Employee Benefits Council, a multirepresentative committee composed of faculty designated by the Faculty
Senate, union employees and management. The council meets monthly throughout the year to discuss current benefits policy and to recommend changes (if necessary) to balance choice, quality and cost effectiveness.

In response to employee requests, the health care benefits plan was redesigned (effective January 2004) to offer an internal OHSU Preferred Provider Network of clinic and hospital services for employees and family members, at lower premium costs for employees than the traditional Blue Cross/Blue Shield program. Of the more than 8,000 employees eligible for health care insurance, more than 1,500 employees and their families selected this new benefit plan in the first year.

As Human Resources continues to evolve into a more employee-friendly, customer-service oriented model, the biggest challenge will be accommodating overall institutional growth — which could see the arrival of as many as 6,000 new employees over the next decade.

Nevertheless, OHSU is much better positioned to handle HR challenges today than it was as a state agency. Human Resources is able to operate under policies and procedures specifically designed for OHSU. The institution has its own, more streamlined, benefits program and can set salary parameters without having to abide by state civil service requirements or legislatively mandated salary pools or freezes.
Strengths, Challenges and Strategies

On balance, OHSU believes the public corporation transformation has been a very positive development for the institution. The change in governance was motivated by a desire to achieve overall institutional excellence. In practical terms, SB 2 gave OHSU the tools to stabilize the “perilous” financial situation cited by the 1995 visit and thereby bolstered OHSU’s efforts to achieve its strategic goals.

- An OHSU-specific board of directors gave the institution the ability to plan strategically and to operate more efficiently.
- The ability to access capital markets allowed targeted investments that improved marketplace competitiveness for OHSU Hospital, which has improved financial stability across the institution.
- We believe OHSU has risen to the challenge of “bold program development” through the Oregon Opportunity and the 30-year master plan — either of which would have been virtually impossible without the changes facilitated by the governance shift.
- OHSU’s success paved the way for partnering with the state of Oregon on the Oregon Opportunity campaign, a $500 million public-private initiative to capture the health and economic benefits of medical research for the citizens of Oregon.
- OHSU also collaborated with the City of Portland on a 30-year master plan that facilitated new campus space at the South Waterfront urban renewal site on the banks of the Willamette River, connected to Marquam Hill by aerial tram.

Challenges

- The biggest challenges to come from the public corporation transformation have arisen out of changing perceptions of the institution.
- The overall health and success of OHSU has led many in the state legislature to assume the institution no longer needs public support for its public missions such as education, charity care and community outreach. Reduced state support has forced OHSU to close or transfer programs and raise tuition.
Standard 6 Resources

Tables
6.1 OHSU Growth and Change
6.2 OHSU Restructuring After Senate Bill Two
6.3 OHSU Board of Directors
6.4 OHSU Employee Demographics FY 2002-03
6.5 Internal Complaints by Allegations 2002-03
6.6 Complaints by Finding 2002-03
6.7 OHSU Employment Breakdown by Group 2004

Appendices
6.1 OHSU Organizational Chart
6.2 Bylaws for OHSU Board of Directors
6.3 OHSU Board Governance Principles and Guidelines
6.4 OHSU Code of Conduct
6.5 Faculty Senate Bylaws
6.6 Faculty Senate Standard Operating Procedures
Financial planning and budgeting are ongoing, realistic, and based upon the mission and goals of the institution.

In 1995 when OHSU made the decision to move to a nonprofit public corporation, the change was intended to help the institution respond more nimbly to market forces, streamline operations, finance its own bond issues and reduce reliance on state funding. The impact has been a dramatic growth in funding, research awards, and patient visits at the same time public biennial support has been reduced. State funding now accounts for less than 4 percent of a $1 billion operating budget. There is a new sense of urgency about the effort to attract and maintain private support. During this same decade OHSU’s institutional goals have become increasingly ambitious: to be among the top 10 programs in the nation, to be among the top 20 academic health centers in the nation, to become a national presence in bioscience research, and to serve as an economic engine for the state and its citizens.

Becoming a public corporation in 1995 enabled OHSU to become a more streamlined organization; more proactive and strategic in its planning and able to respond to the market with greater agility. The new structure also enhanced OHSU’s ability to raise private revenues while maintaining a partnership with the state to carry out its public mission.

The OHSU Board of Directors is comprised of 10 members. They include the president of OHSU, appointed by the OHSU board as an ex-officio voting member, and nine members appointed by the governor and confirmed by the state Senate. OHSU board policy delegates sufficient authority to the institution’s president to manage the day-to-day operations of the organization. Responsibility for the approval of the annual operating and capital budget for the university rests with the board of directors. The board has formally communicated its expectations regarding budgeting and financial issues to the management of the university. It has directed that the university’s budget be realistic and that spending be within budget. In fiscal year 2002 the university adopted a five-year financial plan which serves as the basis for all future operating and capital budgets. The board of directors adopts the plan annually.

The institution’s strategic plan encompasses the university’s wide range of activities and missions to provide the highest quality medical education and training, research, and clinical services. The five-year financial plan reflects the vision and strategic goals of the university. Future budget decisions, program development and implementation of strategic initiatives will be guided by these goals:
• Ensure that students and trainees receive high quality education and training, as supported by the financial resources available. Assess the unfunded components of the academic and research missions and align resources appropriately.

• Ensure that clinical services provide high quality care, which is patient-centered, safe, timely, effective, efficient and equitable, as supported by the financial resources available.

• Meet or exceed the total margins identified in order to support its academic, research, clinical and community service missions.

• Increase sponsored research awards, while maximizing efficient use of research space, and increasing the success of the Technology Transfer Program.

• Maintain and generate a minimum unrestricted days cash on hand to ensure sufficient cash flow to fund future facilities and equipment needs.

Budget Process

OHSU’s annual budget process is preceded by a review of the Five Year Financial Plan during the summer and fall prior to the fiscal year being budgeted. All assumptions are validated and any necessary changes made. The budget includes all operating costs for the year as well as projected capital outlays which span five years. The projected capital outlays include facilities construction, renovations and major renewals. Operating budgets may be distinguished further as academic and general, and auxiliaries. Auxiliaries or service centers do not receive state funds and are financially self-sufficient, deriving their income from fees and/or user charges.

The budget process at OHSU is in a state of transition. A new committee called the University Budget Council has been formed for the coming fiscal year’s budget process and is chaired by the comptroller. It has been charged with assisting in the development of budget assumptions and recommendations within the context of the university’s five year financial plan that will form the basis of the budget. It provides a forum for the discussion of planning and budgetary issues so that recommendations reflect the concerns of the entire campus community.

The comptroller’s office prepares a forecast of revenues and expenses by unit for the coming year. In the event the preliminary budget reflects that estimated revenues are insufficient to meet the expenditure requirements of the university, the comptroller works in collaboration with the vice president for Finance, other academic and administrative vice presidents, and leaders of the schools to address any shortfall across all units. Simultaneously, a capital allocations committee reviews submitted capital budget requests and allocates funds among the schools and research units accordingly.

During the month of May, the operating and capital budgets are presented to the Finance and Audit Committee for recommendation to the board of directors. Once approved, the budget is loaded into the accounting system and departments are informed of their available spending for the coming fiscal year. An annual budget report is prepared and submitted to the vice president for Finance. In the event of the need for budget revisions, adjustments are made promptly and communicated to all impacted parties.
Debt Management

The university operates under a fairly conservative debt strategy. Before any significant debt issue may occur, the university must seek the approval of the OHSU Board of Directors. Each occurrence of new debt is appraised in terms of the incremental revenue to be generated to satisfy the debt service and its overall impact on the operating performance.

In connection with OHSU becoming a public corporation, OHSU entered into a Debt Service Payment Agreement dated July 1, 1995, with Oregon University System. The terms of the DSPA call for OHSU to pay to OUS the debt service costs for debt issued prior to July 1, 1995, for which OHSU received the proceeds. The balance outstanding at the end of fiscal year 2003 is $46,628,000.

During fiscal year 1996 OHSU issued Insured Revenue Bonds Series A and B for the purpose of construction and rehabilitation of facilities, the acquisition of equipment, and to refund a portion of the DSPA and, to fund a debt service reserve account and to pay certain costs of issuance of the 1995 revenue bonds. The balance outstanding at the end of fiscal year 2003 is $194,377,000.

During fiscal year 1999 OHSU issued Insured Revenue Bonds Series A and B for the purpose of construction and rehabilitation of facilities and the acquisition of equipment, to fund a debt service reserve account and to pay certain costs of the issuance of the bonds. The balance outstanding at the end of fiscal year 2004 is $101,900,000.

During fiscal year 2003 OHSU issued Insured Revenue Bonds Series A and B for the purpose of construction and rehabilitation of facilities, the acquisition of equipment, to fund a debt service reserve account and to pay certain costs of issuance of the 2002 revenue bonds. The balance outstanding at the end of fiscal year 2003 is $249,717,000.

As part of the merger with the Oregon Graduate Institute in 2001, OHSU assumed responsibility for two debt issues. The first was an issue for $4,350,000 of City of Hillsboro, Oregon, variable rate demand revenue bonds. The proceeds were used by OGI to finance construction of educational facilities and certain other previous capital expenditures. The second was a 1992 issue of $18,600,000 of City of Hillsboro, Oregon, variable rate higher education revenue bonds. The proceeds were used to construct and renovate buildings and make other site improvements on OGI’s campus. The balances outstanding at the end of fiscal year 2004 are, respectively, $2,600,000 and $7,300,000.

On May 7, 2002, OHSU entered into an agreement with Wells Fargo Bank for purposes of providing credit to OHSU. The amount of the line of credit is $25,000,000 and may be renewed annually. At the close of fiscal year 2004 the balance drawn down was zero.

The university does not have a formal governing policy on the use and limit of debt, however board approval is required before any new debt can be issued.
Adequacy of Financial Resources

OHSU has undergone a dramatic transformation since the 1998 interim report was released. Bolstered by substantial growth in clinical and research programs, total current fund revenues have increased 86 percent in the last six years. Guided by the institution’s five year financial plan, significant effort has been directed toward revenue enhancement as well as cost reduction initiatives. OHSU has been successful in achieving its goal to increase the revenue base across all missions. Federal grants and contracts have quadrupled, hospital revenues have increased 73 percent, and tuition has increased 72 percent. OHSU has had a strong financial performance over the last five years and has not recorded a deficit during that period as evidenced in the all funds consolidated financial statements provided.

Proactive decision-making enabled OHSU to surmount considerable obstacles and remain focused on a programmatic plan of growth and capital expansion. During fiscal year 2001 the Oregon Graduate Institute merged with OHSU and is now OHSU’s OGI School of Science & Engineering. This merger increased the university’s capital assets by $39 million, including increases in land, buildings and equipment. In addition, it brought $28 million of quasi-endowments to OHSU’s investment portfolio. The merger created a unique institution that promises to capitalize on the convergence of biomedical research and engineering with new capabilities to broaden the traditional scope of science. The partnership between engineering and biology is expected to lead to more accurate disease diagnosis, innovations such as computer chip implants for medical treatment and engineering-inspired solutions for challenging problems such as spinal cord injuries.

The Oregon Opportunity initiative was created through an exciting statewide partnership to make Oregon a national leader in medical research in 2001. A combination of public and private dollars is funding the $500 million effort. The public funding portion is $200 million. The Oregon Legislature authorized the sale of bonds for the public portion in 2001. Almost all of the remaining $300 million has been from more than 55,000 individual donors, foundations and organizations as of the end of June 2004. These funds will be used to support initiatives such as recruiting world-class scientists, helping to build a new 260,000 square foot biomedical research building, a 335,000 square foot patient care facility, acquiring new facilities on the OHSU West Campus and creating new programs to support rural health.

OHSU already had an extremely strong research base prior to the Oregon Opportunity initiative. Grant dollars awarded to OHSU have nearly quadrupled in the past decade. Awards topped $260.3 million during fiscal year 2004. This supports more than 1,500 projects, which include both basic and applied science. Scholars in health sciences, engineering, information technology and the environment are contributing new knowledge on everything from the genetics of health and illness to ethical questions raised by modern technology. The National Institutes of Health ranks OHSU 31st among the more than 500 domestic higher education institutions competing for research dollars for fiscal year 2003.

In 2003 OHSU acquired land in Portland’s new South Waterfront District. Plans for the development of this property include several buildings that will house expanded facilities for OHSU’s educational, clinical, research and administrative functions.
OHSU Hospital and Clinics has successfully maneuvered its way through downturns in the national and state economies with a strong emphasis on expense reduction and a focused approach to revenue enhancement. In 1999, the hospital and clinics had a net income of $798,000 while 2004 demonstrated a strong improvement at $33.77 million. Revenue enhancement efforts have played a major role in this dramatic shift in profitability. The hospital’s net patient revenue increased from approximately $345 million in 1998 to $580 million in fiscal year 2004, a 68 percent improvement. Several factors contributed to this favorable change. Market studies were conducted to reset rates at the appropriate level, new faculty were recruited for key service lines, additional beds were added to handle capacity issues, and favorable changes in the managed care marketplace occurred. On another note, funding from the state decreased almost 51 percent during this same time period. Although salaries and supply costs increased significantly over this time period due to inflation and bargaining unit agreements, the increase was significantly less than the overall growth in net patient revenue.

OHSU has faced many of the same challenges other public universities around the country have encountered during the last several years. One of the most demanding has been the decline in state funding. The university has seen a decline in state support of approximately 15 percent (not adjusted for inflation.) During 1998 when the interim report was prepared, state support was 8.8 percent of the university’s total revenues. This has decreased over time to currently 3.6 percent of all revenues. This, coupled with steady increases in inflation and a sluggish economy, presented significant challenges as the university embarked on a focused plan of growth in its research programs. The university has met these challenges with programmatic changes, revenue enhancement initiatives, expense reductions and administrative improvements.

The School of Dentistry has endured challenges brought about due to the decline in state support and its desire to become more efficient in its operations. Other than state support, the school has three main sources of revenue: grants and contracts, clinical care, and tuition and fees. The research activity of the dental school is small compared to the other schools. Nevertheless, scientists are required to fund more of their salaries from grants. Newly recruited scientists are given a two-year grace period before a portion of their salary becomes at risk. In most cases, researchers are expected to fund at least 30 percent to 50 percent of their salaries with extramural funding.

The school has two areas of clinical care: the predoctoral clinic and the faculty dental practice. Dental students are required to have a specified amount of direct patient care in order to pass competency tests. However, clinical care revenue growth is challenged by the current payer mix, a lack of higher reimbursed procedures and elimination of dental care funding by the Oregon Health Plan. Despite increasing fees by 10 percent, estimated dollar revenue remains flat and increasing clinic revenue is the school’s priority.

Like other schools nationally and within Oregon, the dental school has increased tuition annually to offset reductions in state funding, as well as to meet rising costs. During fiscal year 2003-04, tuition was increased 22 percent. Tuition is being increased 8 percent in fiscal year 2004-05. While these are significant increases, dental school tuition is still competitive with similar schools, and the applicant pool is highly qualified.
Roughly 80 percent of the school’s annual expenses are personnel related. As stated above, clinic personnel are expected to fund 15 percent of their salaries from the Faculty Dental Practice. Last fiscal year, the School of Dentistry met its financial goals through careful management of revenues and expenses. It will continue with the same stringent management today and in the future.

The School of Medicine, faced with the same challenges, has seen a decline in its profitability. However, it still has a very solid financial structure and business plan that includes significant expansion. Faced with the reduction in state funding, the school has sought out other revenue sources, primarily from the clinical enterprise, to bolster its position. In addition, tuition and fees, having increased an average of 4 percent per year over the last four years and 8 percent in the current year, play a larger role in programmatic support. However, this has not impacted enrollment. Despite economic challenges, the school has increased the class size and is focused on a phased recruitment effort that will add a significant number of new faculty over the next three years.

The downturn in the nation’s economy was reflected in decreased investment earnings. Fiscal year 2002 reflected a decrease in interest received of $19 million due to lower rates and lower cash balances. This economic shift also impacted the hospitals and clinics, as more Oregonians were out of work and uninsured. In addition, a labor stoppage during this period caused the hospital to incur sizeable costs to bring in nursing care from out of state. During this time, the hospital also faced substantial reductions in support from the Medicare and Medicaid programs.

The School of Nursing has met the numerous fiscal challenges presented over the past several years head on and has implemented creative solutions that will sustain the school and allow growth in the coming years. It currently ranks in the top ten schools of nursing nationally and ranks eighth in NIH nursing research funding.

During the past five years, tuition has increased substantially for nursing programs to partially offset reductions in state funding. Tuition rates per credit have increased by 40 percent at the baccalaureate level and by 26 percent at the graduate level. In addition, the plateau in the tuition structure, under which credits beyond a level defined as “full-time” were provided at no additional charge to students, has been eliminated; therefore, students now pay for each enrolled credit.

During the most recent biennium, 2003-05, salary increases for faculty and administrators were eliminated in response to mid-biennium reductions in state funding and the School of Nursing’s administrative structure on the Portland campus also was reorganized to further reduce expenses and to realign the school’s structure to more effectively pursue the school’s strategic objectives in education, research and clinical practice.

The School of Nursing’s Rural Frontier Delivery program, which delivered baccalaureate-nursing education to rural communities throughout northeast Oregon during the 1990s, was eliminated during the 2001/03 biennium due to state funding reductions. A federal grant recently received through Eastern Oregon University has enabled the school to reinstate the RFD program temporarily, but continuation of the program beyond the end of the federal grant would require the development of a new source of funding. Also, during the 2001-2003 biennium, the Klamath Falls campus eliminated graduate nursing programs, reduced baccalaureate-nursing enrollment, and combined the nursing program administrative structure with administration of the nursing
## Table 7.1 OHSU Current Funds Revenues

Current Funds Revenues (dollars in thousands)

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<th>ACTUAL</th>
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<td></td>
<td>Year 1 FY 2002</td>
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<tr>
<td>Tuition and Fees</td>
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<td>Total Current Funds Revenues</td>
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**Source:** IPEDS Survey and OHSU Corporate Financial Services
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<td>34,619</td>
<td>43,310</td>
<td>47,641</td>
</tr>
<tr>
<td>Institutional Support</td>
<td>132,643</td>
<td>144,960</td>
<td>131,442</td>
<td>138,476</td>
<td>156,000</td>
<td>168,500</td>
</tr>
<tr>
<td>Plant Operations and Maintenance</td>
<td>18,463</td>
<td>20,170</td>
<td>19,048</td>
<td>23,079</td>
<td>26,000</td>
<td>29,000</td>
</tr>
<tr>
<td>Scholarships and Fellowships</td>
<td>3,374</td>
<td>4,226</td>
<td>4,04</td>
<td>4,226</td>
<td>4,27</td>
<td>4,37</td>
</tr>
<tr>
<td>Educational and General Mandatory Transfer</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Educational and General Expenditures/Mandatory Transfers</td>
<td>481,538</td>
<td>510,406</td>
<td>513,744</td>
<td>551,428</td>
<td>593,906</td>
<td>651,538</td>
</tr>
<tr>
<td>Auxiliary Enterprises (Including Transfers)</td>
<td>7,228</td>
<td>7,100</td>
<td>6,019</td>
<td>6,923</td>
<td>10,254</td>
<td>11,280</td>
</tr>
<tr>
<td>Hospitals (Including Transfers)</td>
<td>512,973</td>
<td>553,974</td>
<td>566,937</td>
<td>595,615</td>
<td>635,150</td>
<td>667,168</td>
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<tr>
<td>Independent Operations (Including Transfers)</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

**Current Funds Expenditures and Mandatory Transfers (dollars in thousands)**

**Table 7.2 OHSU Current Funds Expenditures by Function**
program at the Ashland campus. Many didactic nursing courses are now offered jointly between the Ashland and Klamath Falls campuses using distance education technologies. Baccalaureate enrollment levels have been maintained or increased as a result of new or increased financial support from health systems in Ashland and Portland (OHSU Hospital), and partially restored in Klamath Falls, reflecting the recognized need for baccalaureate-educated nurses among health systems throughout the state.

Five research centers have been created in the School of Nursing since 2000 to energize and focus the school’s increasing research efforts in healthy aging, geriatric nursing, symptom management, health disparities, and family care. At the same time, Oregon Opportunity funds have been invested in several new research faculty positions to jump-start substantial new efforts to obtain external funds for self-sustaining research programs.

Table 7.3 OHSU Summary Report of Revenues and Expenditures (dollars in thousands)

<table>
<thead>
<tr>
<th></th>
<th>Year 1 FY 2002</th>
<th>Year 2 FY 2003</th>
<th>Year 3 FY 2004</th>
<th>Year 4 FY 2005</th>
<th>Year 5 FY 2006</th>
<th>Year 6 FY 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ACTUAL</td>
<td>PROJECTED</td>
<td>ACTUAL</td>
<td>PROJECTED</td>
<td>ACTUAL</td>
<td>PROJECTED</td>
</tr>
<tr>
<td></td>
<td>Amount</td>
<td>Amount</td>
<td>Amount</td>
<td>Amount</td>
<td>Amount</td>
<td>Amount</td>
</tr>
<tr>
<td>Education and General</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues</td>
<td>994,782</td>
<td>1,078,226</td>
<td>1,155,741</td>
<td>1,208,893</td>
<td>1,270,403</td>
<td>1,363,046</td>
</tr>
<tr>
<td>Expenditures</td>
<td>994,511</td>
<td>1,064,380</td>
<td>1,080,681</td>
<td>1,147,043</td>
<td>1,229,056</td>
<td>1,318,706</td>
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<tr>
<td>Transfers: Mandatory</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transfers: Non-mandatory</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net Excess (Deficit)</td>
<td>271</td>
<td>13,846</td>
<td>75,060</td>
<td>61,850</td>
<td>41,347</td>
<td>44,340</td>
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<td>Auxiliary Enterprises</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Revenues</td>
<td>10,092</td>
<td>11,293</td>
<td>10,384</td>
<td>12,603</td>
<td>13,863</td>
<td>15,250</td>
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<tr>
<td>Expenditures</td>
<td>7,228</td>
<td>7,100</td>
<td>6,019</td>
<td>6,23</td>
<td>10,254</td>
<td>11,280</td>
</tr>
<tr>
<td>Transfers: Mandatory</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Transfers: Non-mandatory</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Net Excess (Deficit)</td>
<td>2,864</td>
<td>4,193</td>
<td>4,365</td>
<td>5,580</td>
<td>3,609</td>
<td>3,970</td>
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<tr>
<td>Net Operational Excess (Deficit)</td>
<td>3,135</td>
<td>18,039</td>
<td>79,425</td>
<td>67,530</td>
<td>44,310</td>
<td>48,310</td>
</tr>
</tbody>
</table>

Source: IPEDS Survey and OHSU Corporate Financial Services

Adequacy of Resources for Debt Service

Under the terms of the 1995, 1998 and 2002 revenue bonds, OHSU is required to maintain funds held by a trustee for reserve requirements in amounts sufficient to pay specified principal and interest payments. The indenture and other loan agreements contain, among other things, provisions placing restrictions on additional borrowings and leases and require the maintenance of a debt service coverage ratio on all borrowings. OHSU’s available income cannot be lower than
1.50 times the debt service requirement on its line of credit, 1.10 on the master trust indenture, and 1.25 on any new debt. The current debt service coverage ratio for the university is 1.81. This illustrates that OHSU maintains adequate resources to meet its debt service requirements without adversely affecting the quality of educational programs. A history of amounts borrowed for operating and capital purposes, as well as a five-year projection of future debt repayments is included in the attachments for your review.

**Transfer of Funds**

Guidelines are in place to address all allowable transfers between major funds. The following guidelines apply to the university's major fund groups:

- Transfers to or from other general funds, designated operating funds or auxiliary operating funds are allowed as long as the fund receiving the charge does not end up in a deficit position.
- Transfers are not allowed with quasi-endowment funds without the president's approval.
- Funds can be transferred from a general fund, unrestricted gift fund or designated operating fund into a service center operating fund in cases where the operations of the service center are being subsidized by the department, or to transfer a deficit balance in order to close the fund.
- Unrestricted gift funds may only receive transfers from other unrestricted gift funds.
- Transfers are not allowed with endowment funds.
- Transfers are not allowed with loan and scholarship funds because these funds are restricted and the restriction is not transferable. Transfers are allowed between other restricted funds but only if the restricted purpose requirement is met.
- Restricted gift funds may only receive transfers from other restricted gift funds.
- Transfers to or from grants are not allowed.

**Financial Aid**

To assist students in attending OHSU, the university provides financial assistance to qualified students. OHSU offers several types of financial aid including federal and state aid as well as institutional funding. In addition to these funds, some students receive assistance from sources outside the university such as foundations, businesses, professional organizations and the military. The types of federal grant aid that the university provides include Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (FSEOG) and Scholarships for Disadvantaged Students (SDS). Federal Pell Grants and Federal Supplemental Educational Opportunity Grants are provided to qualified financially needy undergraduate students. Scholarships for Disadvantaged Students are provided to qualified financially needy undergraduate and graduate students enrolled in certain health professions programs. In addition to federal and state grants, OHSU also provides educational loans to qualified students. The types of loans that OHSU provides to qualified students include Federal Perkins Loans, William D. Ford Federal Direct Stafford Student Loans, William D. Ford Federal Direct Unsubsidized Stafford Student Loans, Nursing Student Loans, Health Professions Loans, institutional loans as well as outside Alternative
Loans. Educational loans are the largest type of financial assistance provided at OHSU. Most students who qualify for financial aid are offered a loan from at least one loan program and usually from several. While many OHSU students obtain student loans to cover their educational costs, data indicates that OHSU students are able to meet their educational loan payments. The university Official Cohort Default Rate for the William D. Ford Federal Direct Loan programs (the largest loan programs that the university offers) has been extremely low for many years. The Official Cohort Default Rate for these loan programs for the last several years is as follows: FY 2000 = 0.5%; FY 2001 = 0.9%; FY 2002 = 0.5%. Table 7.4 recaps current and projected financial aid provided to OHSU students.

### Table 7.4 OHSU Sources of Financial Aid

<table>
<thead>
<tr>
<th>Sources of financial aid - public institutions (dollars in thousands)</th>
<th>ACTUAL</th>
<th>PROJECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year 1 FY 2002</td>
<td>Year 2 FY 2003</td>
</tr>
<tr>
<td></td>
<td>Amt.</td>
<td>%</td>
</tr>
<tr>
<td>Governmental State Aid</td>
<td>598</td>
<td>1.6</td>
</tr>
<tr>
<td>Federal Aid (PELL, SEOG, WS)</td>
<td>1,668</td>
<td>4.6</td>
</tr>
<tr>
<td>Endowment Earnings (Non-Foundation)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Institutional Unfunded Aid</td>
<td>4,606</td>
<td>12.6</td>
</tr>
<tr>
<td>Federal Student Loans (If applicable)</td>
<td>29,702</td>
<td>81.2</td>
</tr>
<tr>
<td>Nonfederal Work-study Aid</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total Financial Aid</td>
<td>36,574</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source:* IPEDS Survey and OHSU Corporate Financial Services

### Adequacy of Financial Reserves

OHSU’s operating reserves have increased 266 percent since becoming a public corporation in 1995. At the time, OHSU’s unrestricted cash balances were $63 million. At fiscal year end 2004, those reserves are now $231 million. This does not include OHSU Foundation cash balances or operating reserves that reside with the university’s insurance program. The strong financial performance over the last nine years has contributed to a substantial improvement in liquidity as evidenced by Table 7.5 below.
Auxiliary operations are primarily self-sustaining. The university does not rely on their income to support academic and general funded operations. Occasionally, a service center may depend on a general fund subsidy to aid it through a transition period.

Financial Management

In addition to regular reports made to the board of directors, the president also reports to three standing committees. All financial presentations are directed to the Finance and Audit Committee. This committee meets bi-monthly to review the internal financial statements and assess the financial performance of the university. The board of directors also meets bi-monthly and is regularly presented with a financial update on the performance of the university. The annual audit is presented to the Finance and Audit Committee as well as the full board at the conclusion of the audit. A list of reports regularly provided to the board of directors is included as an attachment.

Responsibility for financial management is the primary role of the vice president for finance who reports directly to the president. A team of qualified accountants, directors, and other staff support the day-to-day operations of the division. The comptroller, responsible for accounting, budgeting, and treasury functions as well as procurement services, reports directly to the vice
president for finance. The director of student financial aid reports to the vice provost. Related administrative functions such as human resources, security and plant operations, information technology, office of integrity, and risk management report to the chief administrative officer who also reports directly to the president. Fiscal responsibility for grant and contract activity resides with the vice president for research.

All resources of the university are combined and recorded in the university’s official books of record and are included in budgeting, accounting, and auditing procedures. All funds, including scholarships, grants in aid, and loans are subject to audit by the university’s internal audit department as well as the independent accounting firm responsible for the external audit.

**Cash Management**

OHSU maintains its cash and investment balances with financial institutions. All deposits are fully insured by federal depository insurance or secured by the statewide collateral pool, which secures public deposits pursuant to Oregon Revised Statutes.

OHSU’s investment policies are governed by statute, the Oregon Investment Council and the board. Investments are accounted for as prescribed by Government Accounting Standards Board Statement No. 31, Accounting and Financial Reporting for Certain Investments and for External Investment Pools to account for investments at fair value. Per OHSU’s investment policy, all investments comply with applicable laws and regulations. All investments of monies related to the sale of bonds and other tax-exempt obligations comply with covenants with bondholders, bond insurers, and tax laws. The performance of each of the university’s investments, other than its mission-related investments, are monitored quarterly by the OHSU Investment Committee, by comparing the rate of return of the university’s investments to comparable benchmarks. The vice president for Finance, the chairperson of the Investment Committee, appoints members of the Investment Committee. The committee meets quarterly to review the composition of the investment portfolio, review record keeping and financial reporting issues, and discuss other banking matters. The president, or a designee, monitors the performance of each mission-related investment.

**Accounting and Audit Services**

The university’s accounting system utilizing the Oracle system is a suite of integrated financial and procurement applications designed to allow the financial statements to be presented in accordance with generally accepted accounting principles. OHSU’s financial statements and footnote disclosures are based on all applicable Government Accounting Standards Board (GASB) pronouncements as well as applicable Financial Accounting Standards Boards (FASB) statements and interpretations, Accounting Principles Board Opinions, and Accounting Review Boards of the Committee on Accounting Procedure.

External auditors are selected through a competitive request for proposal with the final approval resting with the Board of Directors. KPMG LLP, the current independent auditor was approved by the board to serve a term of three years beginning with the audit of fiscal year 2004 and is eligible for a possible renewal for two additional years. The audit is conducted in accordance with
auditing standards generally accepted in the United States of America and *Government Auditing Standards*, issued by the Comptroller General of the United States. The product of the audit is an independent auditor’s report, which is presented to the board of directors in October following the June 30th fiscal year end. The report is also available to the public upon request. In addition, a management letter may be issued to address any problems identified by the auditors which need resolution.

OHSU also undergoes an annual OMB Circular A-133 audit. This audit verifies the controls around all federal grant awards as well as all federal student loan funds. Additional annual financial information is provided to the State of Oregon for its Comprehensive Annual Financial Report.

The internal audit program, through the actions of the director and internal audit staff, is responsible for assessing risks; recommending systems and procedures that intend to manage, reduce, or eliminate those risks; identifying gaps in policies and procedures that are critical to OHSU’s missions; facilitating the economical, efficient, and responsible use of resources entrusted to OHSU; and developing means for correcting or ameliorating problems or issues of non-compliance that are discovered in the audit process. OHSU’s internal audit program had been outsourced to a certified public accounting firm since 1995. In an effort to ensure the program received appropriate attention and proper board oversight for such a critical function, it was officially brought in house during fiscal year 2003. As a result, it makes quarterly reports to the Finance & Audit Committee of the board.

The Internal Audit Committee advises the director concerning the program, including budget, audit priorities, and other related matters that may have relevance to the institution’s internal audit program. The committee meets on a regular basis but not less than quarterly. The committee may meet more often if it determines that there are agenda items needing more prompt attention. The group will generate audit priorities on a continuous basis — i.e., a prioritized list of audit areas will be confirmed, amended, or re-prioritized as appropriate. One meeting of the IAC will be held in conjunction with the Finance and Audit Committee of the board of directors for the purpose of making a fiscal year budget recommendation for the Internal Audit Committee.

The independent auditor’s report and a management letter, if issued, is presented to the Finance and Audit Committee prior to the presentation to the board of directors. In the event that the external auditor identifies issues that need to be brought to the attention of management, they will do so in the management letter. The intent of the document is to provide comments and recommendations that may improve internal controls or result in operating efficiencies. The last management letter issued for OHSU was in fiscal year 2002, as no letter was deemed necessary for fiscal year 2003. All recommendations are considered, and corrective action is implemented as quickly as possible. They are included in the supplemental information provided.

**Fundraising and Development**

OHSU has awarded recognition as an institutional foundation to both Oregon Health & Science University Foundation and Doernbecher Children’s Hospital Foundation. Each foundation is an independent, non-profit corporation, regulated by the Attorney General, to which the Internal
Revenue Services has granted a 501 C (3) tax exemption. The mission of these foundations is to secure philanthropic gifts for OHSU in the form of gifts, grants, bequests and other forms of financial support, and to oversee funds under management in a responsible manner.

Through these closely associated organizations, tens of thousands of donors each year contribute millions of dollars in financial support to OHSU’s four graduate schools, two teaching hospitals, numerous clinical programs, research programs, centers and institutes, and support outreach initiatives throughout Oregon and southwest Washington. The foundations also oversee the efforts of hundreds of volunteers who participate in community-based fund-raising programs and events each year to benefit OHSU. The OHSU Foundation also staffs alumni giving operations in each of OHSU’s four graduate schools. These programs offer regular opportunities for alumni giving through events, annual appeals and other outreach and stewardship activities.

Since 1995 OHSU’s foundations have facilitated donor contributions totaling some $338.9 million. During the same period the total endowment managed by the foundations has risen from $107 million in 1995 to $289 million in 2005.

The Oregon Opportunity

In recognition of the key role developmental activities would play in helping OHSU achieve its goals, the institution revised and expanded the organizational structure of its foundations, beginning in 1998, to expand its fundraising activities. Development staff increased commensurately. This expanded team’s primary responsibility was to debut the most ambitious fundraising effort in OHSU’s history: the Oregon Opportunity campaign. Launched in March 2000, this landmark public/private effort includes a $200 million bond — a catalyst for investments in medical research and bioscience infrastructure (including facilities) — and a $300 million private fundraising campaign. This private campaign covers a range of institutional priorities, including a new multi-story patient care building and a new state-of-the-art biomedical research facility. The campaign’s priorities were jointly developed by senior leadership at OHSU and the two foundations as a direct reflection of OHSU’s goals to improve its education, research and clinical infrastructure, and to provide funding for exceptional programs and initiatives.

Oregon voters approved the $200 million public bond measure in May 2002, and as of March 2004 more than $225 million has been raised from more than 60,000 Oregon Opportunity donors. This broad range of support places OHSU among Oregon’s top beneficiaries of private philanthropy.

The hallmark of the Oregon Opportunity campaign has been its breadth of support. Leadership giving includes several seven-figure contributions, including a combined $6.5 million gift from noted philanthropists and community leaders to support the OHSU Center for Women’s Health; $6 million from an anonymous donor to endow a research chair and four professorships, and to support expansion of the Casey Eye Institute; $5 million from the Papé family to name the Papé Pediatric Research Institute; $5 million from the former ARAMCO head and philanthropist to support multiple sclerosis research and advanced imaging; $4 million from the Murdock Charitable Trust to support creation of a biomedical engineering department at the OGI School of Science & Engineering at OHSU; $3 million from the Ford Family Foundation to support
expansion of Doernbecher Children’s Hospital and a rural health endowment; and $2 million from the Maybelle Clark Macdonald Foundation to support the Casey Eye Institute.

**Coordination of Activities**

To be recognized as an institutional foundation by OHSU, the OHSU Foundation and Doernbecher Foundation must demonstrate compliance with OHSU policies — which are designed to ensure that fundraising activities are in concert with the institution’s mission and priorities — and to ensure that all funds managed by the foundations comply with applicable legal requirements.

To ensure that fundraising, development and funds management issues are coordinated, staff of the two foundations and OHSU work closely together. While OHSU has established the foundations as independent operating units, it has also integrated foundation trustees and staff into relevant university business functions and activities to ensure adequate communication and to foster a spirit of cooperation and collaboration. Coordination of efforts between OHSU and its foundations is essential if the foundations are to be successful fund-raisers and stewards of donor contributions.

The president of the OHSU Foundation is the primary contact working with the foundation boards and OHSU senior leadership to develop fundraising priorities and strategies. The president of the foundation also serves in a senior administrative capacity for OHSU, as vice president of development. In this dual role, the president is a member of the senior leadership teams for both OHSU and its foundations. He spends half his time at the OHSU Foundation and half his time in the president’s office. He participates in regular sessions with a council of OHSU vice presidents and is part of OHSU’s annual institutional strategy setting and goal-setting processes.

In addition, most development officers work out of offices on OHSU’s campuses in close physical proximity to the functional areas for which they provide support. On a daily basis these development directors work with key department heads, researchers, physicians, foundation trustees, community champions and donors to synchronize fundraising efforts with identified campaign priorities and departmental needs, and to ensure that all fundraising activities comply with OHSU policies and government requirements.

The president of OHSU serves as a voting member of each foundation’s board. The president of OHSU is also a member of the executive committee of the board of trustees for each of the foundations. The vice president for Finance for OHSU serves as a non-trustee voting member of both the Finance and Budget Committee and the Investment Committee of the OHSU Foundation.

These close ties between the foundations and OHSU help ensure that the foundations’ priorities continue to reflect institutional goals and objectives. Before the Oregon Opportunity campaign’s debut in March 2000, senior OHSU and foundation staff developed the key campaign priorities. They were then reviewed and authorized by the foundations’ boards of trustees and provided to the nine separate development councils representing the major identified areas of priority. Foundation trustees, OHSU senior leaders, key physicians, researchers and major donors serve as members of these development councils. They work directly with foundation staff to determine
Table 7.7 OHSU Endowment/Life Income Fund Balance and Income Distribution Report

<table>
<thead>
<tr>
<th></th>
<th>Year 1 FY2002</th>
<th>Year 2 FY2003</th>
<th>Year 3* FY2004</th>
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<tr>
<td></td>
<td>Fund Balance</td>
<td>Income Distr</td>
<td>Fund Balance</td>
</tr>
<tr>
<td><strong>Endowment Fund</strong></td>
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<tr>
<td>Permanent</td>
<td>100,141,477.57</td>
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<tr>
<td>Term</td>
<td>10,417,661.00</td>
<td>529,152.68</td>
<td>10,277,386.00</td>
</tr>
<tr>
<td>Quasi</td>
<td>137,802,473.41</td>
<td>7,613,146.44</td>
<td>132,995,889.97</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>248,361,611.98</td>
<td>13,113,289.47</td>
<td>249,602,819.12</td>
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<tr>
<td><strong>Life Income Fund</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Charitable Remainder Unitrusts</td>
<td>15,194,729.12</td>
<td></td>
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<tr>
<td>Charitable Remainder Annuity Trusts</td>
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<td>Charitable Gift Annuities</td>
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<td>Pooled Income Fund</td>
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<td>52,467.51</td>
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<tr>
<td><strong>Total</strong></td>
<td>17,573,220.44</td>
<td></td>
<td>15,490,153.39</td>
</tr>
</tbody>
</table>

Above listed data is consolidated for OHSU, DCHF, and OHSU Agency funds managed by OHSUF.
<table>
<thead>
<tr>
<th></th>
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<th></th>
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<tbody>
<tr>
<td>001</td>
<td>35,806</td>
<td>36,077</td>
<td>33,433</td>
<td>30,766</td>
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<td>26,543</td>
<td>24,633</td>
<td>22,833</td>
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<tr>
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<td>36,077</td>
<td>33,433</td>
<td>30,766</td>
<td>28,543</td>
<td>26,543</td>
<td>24,633</td>
<td>22,833</td>
</tr>
<tr>
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<td>35,806</td>
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<td>22,833</td>
</tr>
<tr>
<td>006</td>
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<td>33,433</td>
<td>30,766</td>
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<td>007</td>
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<td>28,543</td>
<td>26,543</td>
<td>24,633</td>
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<tr>
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<td>28,543</td>
<td>26,543</td>
<td>24,633</td>
<td>22,833</td>
</tr>
</tbody>
</table>

**Table 7.8 Capital Investments**
and execute a fundraising strategy for each identified area of priority and to provide support and counsel during the ongoing donor cultivation and solicitation process.

Financial Accountability

The foundations have in place a range of policies and procedures designed to ensure prudent administration of financial resources, to protect confidential data pertaining to donors or prospective donors, and to safeguard against misuse or mishandling of funds under management. Each foundation is an independent entity that is separate from OHSU and maintains its own governing board of trustees. The foundations’ mission statements, articles of incorporation, bylaws, foundation/university contractual arrangements, and investment policies are provided as supporting documents.

The Finance and Budget Committee of each foundation board oversees expenditures and an annual operating budget. These committees assist the boards in fulfilling their oversight responsibilities by reviewing financial information provided by management, the systems of internal controls, and the internal and external audit process. The foundations are required to submit a financial report to OHSU annually, including a financial audit by an independent CPA. The audit report, as well as the Finance and Budget Committee Charter is included in supporting documentation.

The Investment Committee of the OHSU Foundation oversees all invested funds under management. OHSU and the OHSU Foundation have a management agreement that allows for the OHSU Foundation to manage OHSU’s endowed funds and funds acting as endowments. The Investment Committee establishes the investment policies and asset allocations of the various funds. The committee is responsible for manager selection and terminations in accordance with investment policies. The committee also reviews investment performance on a regular basis and ensures compliance with all foundation investment policies. Life income gifts may be made directly to the foundations, which are empowered to serve as a trustee, or through a corporate trustee. As trustees, the foundations oversee the management and investment of the assets of the trusts. Each trust is individually accounted for and managed, and monitored to ensure compliance with internal policies and applicable legal requirements.

Complete records are maintained for endowment and life income funds, including the original gift agreement or contract signed by a donor, records of all gifts received, the original market value and current market value of each gift, the amount of spending distributions made available for program support, and documentation of expenditures made from funds available for program support.
### Table 7.6 OHSU Operating Gifts and Endowments

<table>
<thead>
<tr>
<th></th>
<th>ACTUAL</th>
<th>PROJECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual Gifts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operations Restricted</td>
<td>11,595,594.00</td>
<td>14,723,433.00</td>
</tr>
<tr>
<td>Operations Unrestricted</td>
<td>24,805,129.00</td>
<td>17,673,919.00</td>
</tr>
<tr>
<td>Endowments Exclusive of Foundation Gifts</td>
<td>13,111,732.00</td>
<td>5,105,333.00</td>
</tr>
<tr>
<td>Plant</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>49,512,455.00</td>
<td>37,502,685.00</td>
</tr>
<tr>
<td><strong>Ratio of Annual Gifts to E&amp;G</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent</td>
<td>100,141,477.57</td>
<td>106,329,543.15</td>
</tr>
<tr>
<td>Term</td>
<td>10,417,661.00</td>
<td>10,277,386.00</td>
</tr>
<tr>
<td>Quasi</td>
<td>137,802,473.41</td>
<td>132,995,889.97</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>248,361,611.98</td>
<td>249,602,819.12</td>
</tr>
</tbody>
</table>

Above listed data is consolidated for OHSUF, DCHF, and OHSU Agency funds managed by OHSUF.

*Most recent fiscal year for which audited financial statements are available.

**Budget for Current year
Strengths, Challenges and Strategies

OHSU’s operating reserves have increased 266 percent since becoming a public corporation in 1995. At the time, OHSU’s unrestricted cash balances were $63 million. Now, at fiscal year end 2004, those reserves are $231 million. OHSU’s strong financial performance over the last nine years has contributed to this substantial improvement in liquidity. During this period OHSU has undergone substantial growth in its clinical and research programs. This growth has resulted in an increase in total current fund revenues of 86 percent in just the last six years. The institution has not recorded a deficit during the past five years and is positioned well for its planned future growth.

OHSU Hospital and Clinics have continued to improve its strong financial performance since OHSU’s interim survey. With a strong emphasis on expense reduction and a focused approach to revenue enhancement, the hospital and clinics increased its net income from $798,000 in 1995 to $33.7 million in 2004. Its net patient revenue increased from approximately $345 million in 1998 to $580 million in fiscal year 2004 or 68 percent improvement. The new 335,000 square foot patient care facility is scheduled to open in the spring of 2006 and will increase service levels as well as add additional capacity.

Grant dollars awarded to OHSU have nearly quadrupled in the past decade. Awards topped $260.3 million during fiscal year 2004. The National Institutes of Health ranks OHSU 31st among the more than 500 domestic higher education institutions competing for research dollars during fiscal year 2003. Fiscal year 2004 results are not yet available. The successful creation of the Oregon Opportunity initiative has helped in the recruitment of world-class scientists, and construction of a new 260,000 square foot biomedical research building.

In 2003 OHSU acquired land in Portland’s new South Waterfront District that paves the way for expansion of OHSU’s educational, research and clinical programs and facilities. In addition in June 2004 OHSU was presented with a gift of 20 acres of land worth roughly $34 million adjacent to this property. This gift strengthens OHSU’s ability to meet the need for highly trained health care providers and scientists, and to do so with a focus on collaborative instruction that capitalizes on the synergies among the disciplines.

The decline in state funding, the need to stay competitive in student tuition, and the effort to recruit successful researchers and clinicians all are challenges that OHSU has successfully addressed in its five-year financial plan. Clinical care revenue growth is challenged somewhat by the current patient payer mix. OHSU Hospitals and Clinics provide a disproportionate share of unfunded patient care in the Portland area as well as around the state. A plan of action has been developed to address these issues. Third party reimbursement, primarily from the Medicare and Medicaid programs, is a constant challenge for the hospital as the federal government continues to implement budget reductions.
Fluctuations in the national and state economies provide additional challenges for the university. In an effort to rely less on a fluctuating stock market and related investment earnings, the university shifted its emphasis to operating margin performance, which has seen a steady increase over the past several years.

OHSU is committed to continuing to deliver solid financial performance, with adequate cash reserves. Its five year financial plan is the tool which serves as the guide to setting and achieving its financial goals. A focused effort on the growth of the clinical enterprise combined with the continued growth in the university’s research programs will provide the foundation for future development and expansion of the South Waterfront Campus. The opening of the new Biomedical Research Building and the new Patient Care Facility will add much needed capacity in both clinical as well as research endeavors. In addition, the university and the OHSU Foundation are committed to expanding their success in fundraising for OHSU programs and facilities.
Standard 7 **Resources**

*Tables:*  
7.1 OHSU Current Funds Revenues  
7.2 OHSU Current Funds Expenditures and Mandatory Transfers  
7.3 OHSU Summary Report of Revenues and Expenditures  
7.4 OHSU Sources of Financial Aid  
7.5 OHSU Unrestricted Year End Cash Balances 1995 - 2004  
7.6 OHSU Operating Gifts and Endowments  
7.7 OHSU Endowment and Life Income Fund Report for Fiscal Years 2002-2004  
7.8 OHSU Capital Investments – All Institutions

*Exhibits:*  
7.1 IPEDS Report (Financial Section) for Fiscal Years 2002-2004  
7.2 Debt Service Schedule For Fiscal Years 2002-2009  
7.3 Supplementary Documentation of year-end accruals  
7.4 Financial and Management Reports Provided to Board of Directors  
7.5 Summary of Fiscal Year 2004 Audited Financial Statement  
7.6 Fiscal Year 2004 Auditor’s Management Letter  
7.7 Fiscal Year 2004 Audited Financial Report  
7.8 Detailed Operating Budget for Fiscal Year 2004-2005  
7.9 Fiscal Year 2005 Operating Budget for Auxiliary Organization  
7.10 Fiscal Year 2004 Audited Financial Report for Auxiliary Organization  
7.11 Default Rate for Fiscal Years 2003-2004  
7.12 OHSU Foundation Mission  
7.13 OHSU Foundation Articles of Incorporation  
7.14 OHSU Foundation Bylaws  
7.15 Agreement between OHSU and OHSU Foundation  
7.16 OHSU Foundation Investment Objectives and Policies for the Endowment Fund  
7.17 OHSU Foundation Current Funds Pool Investment Guidelines  
7.18 Doernbecher Children’s Hospital Foundation Mission  
7.19 Doernbecher Children’s Hospital Foundation Articles of Incorporation  
7.20 Doernbecher Children’s Hospital Foundation bylaws  
7.21 Agreement between OHSU and Doernbecher Children’s Hospital Foundation  
7.22 OHSU Foundation Finance and Budget Committee Charter
Physical Resources
During the past decade, the university’s physical presence has kept pace with its mission as a leader in health care, education, research and community service. The shift in government status from public agency to a public corporation in 1995 enabled the university to merge with three research institutes in the late 1990s and one graduate institute in 2001 to generate new resources including physical assets. In 13 years the number of acres owned by the university increased 250 percent, total gross square footage of buildings increased 71 percent, and capital expenditures increased 227 percent. OHSU now has two campuses (Marquam Hill and West campuses) and is planning a third campus (Schnitzer Campus) adjacent to the developing South Waterfront District. This expansion of physical capacity accommodates the maturing of the university and its strategic directions and emerging priorities.

Table 8.1 Growth in Physical Resources, 1990 to 2003

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Acres</th>
<th>Building Spaces (Sq. Ft.)</th>
<th>Capital Expenditures</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>119</td>
<td>3.8 million</td>
<td>$60 million</td>
<td>6,651</td>
</tr>
<tr>
<td>2000</td>
<td>386</td>
<td>5.0 million</td>
<td>$79 million</td>
<td>10,100</td>
</tr>
<tr>
<td>2003</td>
<td>426</td>
<td>5.3 million</td>
<td>$98 million</td>
<td>11,375</td>
</tr>
<tr>
<td>13-year difference</td>
<td>+307</td>
<td>+2.2 million</td>
<td>+$68 million</td>
<td>+4,875</td>
</tr>
</tbody>
</table>

% Increase 258% 71.0% 226.7% 75.0%

Source: OHSU Space Planning, November 2004

OHSU believes that the increase in physical resources revitalized the university after years of decline in state support.

Historical Perspective

University education of health care professionals in Oregon began with the development of independent schools in the late 19th century in the Portland area. Subsequently, the individual institutions merged into a significant academic health center reaching to every corner of the state.

The nearly 120-year history reveals a university responding to its ever-changing environment in the training of health care professionals, increasing access to health care and exploring new basic and clinical research frontiers. By focusing on demand and opportunity, OHSU continues to be an entrepreneurial organization true to its core mission.
Willamette University started the first formal medical education program in Salem, Ore. in 1867, which was moved to Portland 10 years later. In 1887 the University of Oregon established a medical school in northwest Portland and became the only medical school in the Pacific Northwest. In 1913 Willamette University and the University of Oregon merged their medical education programs to form the University of Oregon Medical School. The Oregon College of Dentistry was founded in 1898 in downtown Portland and merged with the Tacoma College of Dental Surgery in 1900 to form the North Pacific Dental College.

The Oregon-Washington Railroad and Navigation Company and the family of C.S. Jackson, former publisher of an Oregon newspaper, donated two adjacent tracts of land, totaling 108 acres, that became the Marquam Hill Campus. In 1919 the University of Oregon Medical School moved from northwest Portland into the first of 31 major buildings on Marquam Hill. The Medical School also added courses in nursing.

The Oregon Health Sciences Center was formed in 1974 as an institution independent from the University of Oregon and became the eighth institution of the Oregon State System of Higher Education. The Schools of Dentistry, Medicine and Nursing were brought together under one umbrella to become Oregon’s only academic health center and one of 125 in the nation. The institution was renamed Oregon Health Sciences University in 1981. The School of Nursing brought together the three other OSSHE nursing programs (Eastern Oregon University, Southern Oregon University and Oregon Institute of Technology) into a statewide-integrated nursing education system in 1993 to improve program quality and secure efficiencies in the aftermath of Measure 5.

Primarily federal grants and gifts funded the planned capital expansions on the Marquam Hill Campus, which have enhanced the research, instruction and community service focus. The change in status from state agency to public corporation in 1995, gave the university the flexibility it needed to forecast changes in the health care environment, set strategic directions, and attract the resources needed to increase its competitiveness in community service and research.

OHSU has pursued its outreach mission by opening modern neighborhood clinics to improve health care access in the Portland metropolitan area. The institution also merged with existing science-focused institutes to expand research power, which increasingly demanded an interdisciplinary approach. The associated physical and human assets of these institutes boosted the university’s capacity in research (e.g., Oregon National Primate Research Center, Neurological Sciences Institute) and added a second campus in the Portland metropolitan area — the West Campus. The merger with Oregon Graduate Institute of Science and Technology in July 2001 resulted in a name change to Oregon Health & Science University. OHSU’s plans for future expansion will be expedited with the gift of 20-plus acres by the Schnitzer Investment Corp. near the South Waterfront District. The building of a third campus, on the Schnitzer property, is critical to developing academic and research space needed to pursue new research initiatives demanding interdisciplinary work. The results of the planning for OHSU’s physical growth to accommodate both new ventures and improved facilities for existing programs are reflected in several planning documents. (See Exhibit 8.1, OHSU 30-Year Master Plan and Exhibit 8.2, OHSU West Campus Concept Development Plan.)
Today's Campuses

Physical facilities supporting the university's instructional, research, patient care and community service efforts exist throughout the state and are a continually growing presence to the citizens of Oregon. (See Appendix 8.1, OHSU Statewide Sites.) As such, OHSU has wide geographic scope and cannot be tied to a single zip code.

Situated on Marquam Hill overlooking downtown Portland, the main campus of OHSU provides a beautiful 116-acre setting for fulfilling its mission. (See Appendix 8.2, Marquam Hill Campus Map.) On the main Marquam Hill Campus, the university owns 31 major buildings, comprising nearly 3.1 million gross square feet valued at $1.3 billion, and seven parking structures with a total of 1.1 million square feet valued at $139 million. (See Appendix 8.3, OHSU Building List.) During this past decade, five new buildings and three additions to existing buildings have been constructed. The newer buildings include the Mark O. Hatfield Research Center, Doernbecher Children's Hospital, the Doernbecher parking structure, Energy Management Center and Advanced Imaging Research Center. The three major additions to existing buildings include the addition of the C Wing to the OHSU Hospital along with major additions within its B Wing, and additions to Dillehunt Hall (primarily clinical laboratories). Since the 1995 Self-Study, the university has added about 745,000 square feet to the Marquam Hill Campus.

OHSU now includes a 300-acre West Campus in Hillsboro, about 12 miles west of downtown Portland, that houses the OGI School of Science & Engineering, the Oregon National Primate Research Center, the Neurological Sciences Institute and the Vaccine and Gene Therapy Institute. The West Campus is a suburban site, with both landscaped areas for faculty, students and staff to gather, as well as a variety of natural areas including Bronson Creek, which runs through the property.

In addition to the opportunity to expand education and research, OHSU serves as an additional catalyst for Oregon's developing bioscience industry. The West Campus includes 48 buildings with a total of 606,220 square feet valued at $158 million. (See Appendix 8.4, West Campus Map.)

In addition to these two campuses, OHSU owns six buildings off-campus (one of which is a parking structure.) Three are used for administrative services, clinical support, research and some education. The remainder includes a dental clinic, a parking structure,
and the Tower House (president’s residence). This represents 158,814 square feet valued at nearly $33 million. OHSU also leases space in 39 buildings off-campus, representing 386,578 square feet in total. Two of the leased spaces are rural clinics for the School of Nursing in Union and Elgin, Oregon (gross area: 6,206 square feet), four are family medicine and specialty clinics in the Portland metropolitan area (gross area: 40,985 square feet), three are used for hospital and general administrative support (gross area: 48,645 square feet), and the rest are used for a variety of administrative, clinical research and related support functions. (See Appendix 8.5, OHSU Off-campus Space.)

As a result of recent major planning activities with the city of Portland, the university and the city are working together to transform vacant land on the west bank of the Willamette River into a vibrant neighborhood within a half-mile from the Marquam Hill Campus. The South Waterfront District is planned as a mixed-use site in which residential, park/greenway and retail spaces will be co-located with OHSU facilities including a 16-story, 400,000-square-foot center that will include physician practices, research laboratories and educational facilities, and a Wellness Center. A School of Dentistry is envisioned on the Schnitzer Campus. Over the next two years, the university plans to add a total of one million square feet on its Marquam Hill Campus and in the South Waterfront District.

**Instructional and Support Facilities**

Sufficient physical resources, particularly instructional facilities, are designed, maintained and managed (at both on- and off-campus sites) to achieve the institution’s mission and goals. Of the 131 buildings that make up OHSU at its various campuses, 17 buildings on the Marquam Hill campus and 18 buildings on the West Campus serve the instructional and support needs of the university. These include buildings that house classrooms, seminar rooms, laboratories, libraries, administrative offices, space for student activities, maintenance and storage. In all, instruction and instructional support space comprise approximately 24 percent of the total space of the university. Research includes 22 percent, patient care 24 percent, parking structures 20 percent and institutional support and administration 10 percent. The teaching space and instructional facilities are generally adequate to support the academic mission of the university.

The most notable change to the campus in the past ten years has been the addition of the West Campus. The ONPRC was added in 1998 and the OGI School of Science & Engineering was added in 2001. In particular, the merger with OGI added instructional space to the university and the merger with ONPRC added research laboratories in addition to faculty, researchers, programs and funded research projects.
Table 8.2  OHSU Capital Construction Completed and Acquisitions, 1995 to Present

<table>
<thead>
<tr>
<th>Year</th>
<th>Facility</th>
<th>Gross Sq. Ft.</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>Mark O. Hatfield Research Center</td>
<td>303,475</td>
<td>Research, hospital administrative offices</td>
</tr>
<tr>
<td>1998</td>
<td>Doernbecher Children’s Hospital</td>
<td>287,849</td>
<td>Hospital</td>
</tr>
<tr>
<td>1998</td>
<td>Energy Management Center</td>
<td>13,940</td>
<td>Campus utility systems</td>
</tr>
<tr>
<td>2000</td>
<td>Neurological Sciences Institute</td>
<td>68,567</td>
<td>Research, offices</td>
</tr>
<tr>
<td>2000</td>
<td>Vaccine and Gene Therapy Institute</td>
<td>37,500</td>
<td>Research, offices</td>
</tr>
<tr>
<td>2001</td>
<td>ONPRC Sheltered Group Housing</td>
<td>27,790</td>
<td>Research</td>
</tr>
<tr>
<td>2001</td>
<td>Bronson Creek Building</td>
<td>85,928</td>
<td>Offices, classrooms and laboratories</td>
</tr>
<tr>
<td>2003</td>
<td>Advanced Imaging Research Center</td>
<td>2,554</td>
<td>Laboratories, offices, 3T MRI</td>
</tr>
<tr>
<td>2004</td>
<td>ASB 3 Expansion</td>
<td>28,000</td>
<td>Research</td>
</tr>
<tr>
<td>Underway</td>
<td>Biomedical Research Building</td>
<td>274,000</td>
<td>Research</td>
</tr>
<tr>
<td>Underway</td>
<td>Patient Care Facility and 450 parking spaces</td>
<td>485,000</td>
<td>Patient care</td>
</tr>
<tr>
<td>Underway</td>
<td>South Waterfront Infrastructure and UMG Research Tower</td>
<td>400,000</td>
<td>Research and Patient care</td>
</tr>
</tbody>
</table>

Source: OHSU Space Planning, November 2004

Architectural renderings of the three buildings under construction are included as Exhibit 8.3, Renderings of New Construction. A list of smaller renovations related to improvements in education and research space are included in Table 8.2, Capital Construction. On-campus instructional facilities are generally satisfactory, enabling the university to meet its mission and goals. Classroom inventories are adequate, but require effective scheduling and multiple users to achieve maximum efficiency. (See Exhibit 8.5, Classroom Inventory.) Over the past 10 years OHSU has remodeled space for instructional activities, including rooms for lectures, small group conferences and seminars, preclinical instruction and clinical training as follows:

- **School of Dentistry**  Renovations in the School of Dentistry, totaling over $4 million, focused on upgrading research laboratories, clinical teaching areas, faculty offices and teaching and student support facilities. The School of Dentistry is fully equipped to accommodate physically handicapped students and patients and classroom facilities are equipped with slide, overhead and video projectors.

In 2002 a major remodel of the third floor resulted in a large upgraded Technique Laboratory as well as a state-of-the-art Dental Simulation Laboratory. There are 227 dental operatories in the School of Dentistry of which 204 are designated for predoctoral patient treatment and 23 are reserved for graduate/resident patient treatment. Most students are assigned permanent individual chairs. The dental specialties programs
(e.g., oral surgery, endodontology, periodontology and orthodontics) have individual clinics. The general clinic on the first floor provides areas for admitting, urgent care and radiology. Clinic equipment and facilities are continuously upgraded and replaced to meet modern standards and the requirements of the Commission on Dental Accreditation. In the funding of space remodel projects, furnishings upgrades are generally included. The School of Dentistry has an equipment maintenance and repair department that is responsible for establishing a regular schedule of maintenance for all dental units and associated equipment. All dental units receive a thorough maintenance evaluation twice a year when students are not in session. Over the past decade the School of Dentistry has spent approximately $690,000 each year on new and remodeled equipment.

Plans are under way to develop a new building for the School of Dentistry. Conceptual planning began in 2001. Planning has accelerated with the donation of the Schnitzer property and plans to relocate the School of Dentistry there.

- **School of Medicine** – A major challenge in the past several years has been providing additional classroom and support space for the increase in first- and second-year medical students. In the 1990s several upgrades were made to teaching space in the library/auditorium building to provide smaller group, pre-clinical teaching space, as well as locker rooms and student study space. In 2002 the School of Medicine increased the size of the class of first-year medical students by 15 percent (96 to 110 students). The university remodeled two lecture halls in the Basic Science Building to accommodate the increase in students and changes in teaching technologies.

A majority of the Allied Health programs are housed in Gaines Hall on the Marquam Hill Campus. Instructional facilities in that building have been upgraded over the past 10 years and the rooms are well equipped with audiovisual aids. With the movement of Allied Health to the School of Medicine, lecture halls in the Basic Science Building are available for the physician assistant program and a new classroom was added in Emma Jones Hall for the dietetic internship program in 2003.

- **School of Nursing** – The School of Nursing moved into a new award-winning building in 1991 on the Marquam Hill Campus. The building includes classrooms, seminar rooms and a variety of student study and support spaces. Some minor remodels have taken place over the years, but in general this building is providing good instructional space for the various programs of the School of Nursing.

- **Science and Engineering** – The School of Science and Engineering is located on OHSU’s West Campus in a variety of buildings. The School of Science and Engineering is the primary user of available education and instructional spaces. However, the institutes and centers plus OGI use research and administrative space.

Since acquiring the OGI physical plant, several acquisitions and upgrades have been made to improve the education and research space for the school. Most notably, the Bronson Creek Building, adjacent to the existing OGI buildings was purchased in 2001. This added 85,928 square feet to the campus. In 2002, 28,840 square feet were remodeled for academic office, laboratory and administrative space. In 2004 additional tenant improvements were made to the Bronson Creek Building to provide improved
educational and support space (41,000 square feet) for the Computer Science and Biomedical Engineering departments on the first and second floors of this building.

In addition, the university completed major upgrades to classroom space, including the development of two new classrooms in the Wilson Clark Building in 2003. Also on the West Campus, the university started and completed several new construction projects including a building to house the Neurological Sciences Institute and the Vaccine and Gene Therapy Institute, adding 106,067 square feet of research space in 2001; Sheltered Group Housing for ONPRC, adding 28,000 square feet in 2001; and the ASB III Building for ONPRC, adding 27,000 square feet by the end of 2004.

**Student Support Space**

In addition to space supporting the university’s core missions, the university has made a considerable investment in the common student spaces that enhance the culture of the educational community. Three projects of significance include major renovations for the Center for Diversity and Multicultural Affairs, the Mac Hall Café and bookstore.

- The university remodeled a 1,700-square-foot suite of offices centrally located on the first floor of MacKenzie Hall to house the Center for Diversity and Multicultural Affairs in 2002 to reflect its commitment to achieving greater diversity in OHSU’s student population.

- The university partnered with Chartwells Corporation to remodel the cafeteria in MacKenzie Hall with the goal of increasing both the hours of service and study spaces for students. The resulting project in 2001 produced a beautiful eating and gathering area with expanded space for students to study after classes. (See Exhibit 8.6, Architectural Drawings for MacKenzie Hall.)

- The university took its first steps to transform the Fitness and Sports Center into a student center when it merged two small bookstores into one remodeled space in 2004. Plans include relocating FSC to the South Waterfront District and creating common spaces for gathering, meeting and studying.

**Quality and Safety**

The university’s Department of Facilities Management and Construction is responsible for management, maintenance and operation of instructional facilities, as well as all other campus buildings and facilities, to ensure their continuing quality and safety at the level necessary to support the university’s educational programs and support services. Facilities Management and Construction is made up of 10 units, including planning/space management, real estate, design and construction, operations and maintenance, utilities, grounds, custodial, environmental health and radiation safety, public safety, and transportation services/parking.

Currently 212 staff members within the Department of Facilities Management and Construction are involved in the ongoing support of operation and maintenance, construction and related functions for all of the OHSU campuses. Staff in Facilities Management and Construction numbered 298 in 1990 and currently number 212. (See Appendix 8.6, OHSU Growth Metrics.) Deferred maintenance for the physical plant at the various campuses is backlogged, but an
ongoing assessment process maintains data on deferred maintenance projects and cost estimates. Moderate budget dollars in the current year are being applied to priority deferred maintenance projects.

New facilities, and those involved in major remodeling projects, are constructed in compliance with all required life, health, building, and fire safety codes and regulations. Contractors selected for these projects are fully licensed and bonded by the appropriate governmental jurisdictions and generally have a high standing in the construction community. Facilities are designed and maintained to meet the needs of all members of the university community.

**Instructional, Research, Outreach and Support Facilities**

The portfolio of services within Facilities Management and Construction is outlined in the organizational chart in Appendix 8.7 and consists of the following:

- **Planning/Space Management:** Produces the annual institutional space inventory (1749 rooms); maintains the building, room, occupant space database and building floor plans; provides planning support; supports the university Space Committee for space allocations and capital planning.

- **Real Estate:** Provides lease management for approximately 386,500 square feet representing total annual lease expense of $13 million (rent $10 million, operating expenses $3 million) for 1.3 percent of OHSU’s total operating budget.

- **Design and Construction:** Manages approximately 250 construction projects annually, with costs ranging from $25,000 to $100 million; facilitates project coordination between users, architects, engineers, special consultants, contractors, university and state officials, municipal agencies and regulatory bodies to assure proper construction project management; services include preparing competitive solicitation documents and overseeing selection committees and procedures, developing and negotiating contracts, maintaining construction schedules, monitoring the quality and directing the performance of the work, monitoring budgets, and coordinating with the users who will occupy the space.

- **Operations and Maintenance:** Maintains and operates the facility seven days a week, 24 hours a day; maintains and operates all buildings’ systems; services include responding to corrective action requests and providing preventive maintenance to all building systems to provide a safe and comfortable environment for the education, research and patient care missions of the institution. Building systems include domestic hot and cold water supply and distribution, sanitary waste and storm drainage, steam distribution, medical gas source and distribution, air handling, cooling and heating systems, building electrical transformation and distribution, maintenance of interior and exterior finishes and roof systems.

- **Utilities:** Provides support seven day a week, 24 hours a day; maintains and operates all steam generation plants, high pressure steam distribution and all chilled water plants; maintains high voltage electrical grid and primary transformation, including emergency power generators and associated distribution; provides and manages energy monitoring
system as required by regulatory agencies and health care accreditation bodies; manages and monitors fire/life safety and security access and control systems.

- **Grounds**: Maintains all aspects of grounds maintenance in the form of landscaping and campus roadways, walkways and parking lots; acts as first responder to inclement weather.

- **Custodial**: Manages contract for custodial service, which has been outsourced since 1988; manages the institution’s recycling program which recycles increasing amounts each year (recycled 690 tons in 2000, 812 tons in 2003).

- **Environmental Health and Radiation Safety**: Provides emergency response personnel seven days a week, 24 hours a day for response to chemical or radioactive spills and mitigation of other hazardous situations. Services include occupational safety (air and water quality, biological, chemical and radiation usage, waste minimization, handling and disposal, personal hygiene, safety, health and operational regulations, and training and education) and coordination of regulatory compliance (Occupational Safety and Health Administration, Environmental Protection Agency, Department of Transportation, Federal Aviation Administration, Joint Commission on Accreditation of Healthcare Organizations and others).

- **Public Safety**: Maintains an operations and dispatch center that operates seven days a week, 24 hours a day that handled 21,092 calls for service in 2003. Thirty commissioned officers with “probable cause” arrest authority provide traditional security services (patrols, crime response, investigation, workplace violence response), community assistance (jump starts, escorts, transports, door unlocks, etc.), intelligence services and threat assessments, and community awareness.

- **Transportation Services/Parking**: Maintains and oversees OHSU’s parking and transportation program. Current parking spaces on Marquam Hill are 3,967, and on West Campus, 1,092. OHSU’s current modal split is 34.7 percent (i.e., people using alternative modes of transportation other than single occupant vehicles). The national average is 15 percent, but the Marquam Hill Plan requires OHSU to be at 32 percent.

**Parking and Transportation Services**

Parking continues to be a challenge, particularly on the Marquam Hill Campus. Parking spaces have been held constant since 1994 at slightly less than 4,000 parking spaces due to a parking lid imposed by the city of Portland. The numbers of employees, patients and visitors have increased greatly in the past 10 years, and construction activity provides an additional impact. As a result, the university has taken a number of creative measures to provide incentives for employees to use transportation alternatives to reduce demand for parking. Since 1996 OHSU has been in a comprehensive partnership with the area bus services, Tri-Met and C-Tran, to provide dedicated bus service (currently five express bus lines) to the Marquam Hill Campus for employees, students and patients. Currently, approximately 6,000 employees and students participate in this program. This significant proportion of students and employees using alternative transportation is the result of an incentive program. OHSU offers a subsidized bus pass to employees and students for $168 annually, which represents 23 percent of the true cost of such a pass. OHSU is the largest pass program partner in the Portland metro area, with one-third of employees using Tri-Met’s
services daily. The Parking Office provides a significant number of bike lockers and facilities to OHSU students and employees and also offers free bike tire repairs to any bike commuter on the Marquam Hill Campus. OHSU is the only employer in the area that provides this type of service free of charge to its bike commuters. OHSU has partnered for years with the city of Portland in carpool programs and also has instituted the Flexcar system on campus. Employees who utilize transit, bike or carpool to the Marquam Hill Campus are given free membership and access to the Flexcar. To deal with the approximately 450 construction workers who come to campus daily, all are being parked at a satellite lot and shuttled to campus. In addition, the Parking Office has reopened two satellite parking lots, which provides 146 parking spaces, accessible by OHSU shuttle service.

In 1998 OHSU won a BEST award from the city of Portland Energy Office for joining with Tri-Met, the city of Portland and the other major employers on Marquam Hill (the Shriner’s Children’s Hospital and the VA Medical Center) to create an innovative trip reduction plan to address the parking and traffic problems in the Marquam Hill area. The program has reduced drive-alone trips by more than 20 percent (saving 3.7 million miles per year and 174,000 gallons of gasoline worth about $190,000), doubled bus ridership, increased carpooling and vanpooling, and cut CO2 emissions by more than 1,700 tons a year.

Custodial and Grounds

An outside contractor has provided custodial service since 1988. As a result of various budget cuts in recent years custodial services have been decreased in a number of areas. Currently classrooms are cleaned three times a week (Monday, Wednesday and Friday), and offices are cleaned once a month.

Over the past 10 years a number of projects have been undertaken by the grounds staff to provide lower maintenance areas while preserving the beauty and safety of the campus environment. The OHSU grounds crew has remodeled many areas with native, drought tolerant plantings to increase interest while reducing the amount of irrigation required. Currently, well water provides 17 percent of the campus irrigation, reducing the burden on the domestic water system. Grounds staff has installed a centralized computerized irrigation control and tracking system for the north campus common area. The areas upgraded so far have shown a 35 percent water savings over time clock control alone. OHSU also was recognized nationally for its significant reduction in pesticide usage (down 7 percent over the past seven years). The Integrated Pest Management program reduces the release of pesticides into the environment and allows more enjoyment of the landscaping by students, employees and visitors. (See Exhibit 8.7, Tree Inventory.)

ADA — Accessibility

OHSU is committed to meeting the requirements of the Americans with Disabilities Act, or ADA. As renovations are made, any needed upgrades to meet ADA requirements are included as part of the project. In addition, the university has committed funds and resources each year since 1994 to address the issue of access to facilities by the physically disabled. Some examples of completed projects include providing a sidewalk connector between Doernbecher Children’s Hospital and the CDRC Building to facilitate a link between the health care and education activities of these two buildings; providing a fully accessible classroom in the ground floor of Gaines Hall; upgrading a classroom in the university hospital for nursing education; and
providing a ramp to the front door of MacKenzie Hall, a building largely dedicated to educational functions.

Four projects completed in 2004 include a project to add an accessible restroom to Gaines Hall; provide a fully accessible elevator in Gaines Hall; increase accessibility to two conference room/classrooms (adding a deck to a classroom in MacKenzie Hall and adding a ramp into a classroom in OHSU Hospital); and add audio devices to several meeting room/classrooms around campus. (See Exhibit 8.8, Examples of Projects to Enhance Accessibility.)

Off-campus Facilities

Facilities owned and operated by other organizations and leased by the institution for educational purposes are appropriate for the programs offered and meet the standards applied to on-campus facilities as well. There are not major amounts of leased space utilized for education, but several programs of the School of Nursing offered in off-campus sites operate in leased space, as well as an off-campus library warehouse facility. In 2002 the School of Nursing was funded for a simulation and observation room in support of its Institute for Excellence in Nursing. The simulation and observation room was designed as an educational laboratory to allow the use of sophisticated clinical simulations as a component of clinical education and in preparation for hands-on patient care experiences. The laboratory was designed to include computers, clinical simulation packages and a critical care simulator. The simulation laboratory was completed in 2003 in leased space in the ADP Building, which is in close proximity to the Marquam Hill Campus, along with a number of other OHSU programs in adjacent space in the same building. Also in 2003 in the ADP Building, an existing conference room was changed into classroom space to provide additional instructional space for the School of Nursing.

The School of Nursing in Ashland is located in Central and Britt Halls on the campus of Southern Oregon University. Central Hall houses faculty and support staff and has a large all-purpose room and open conference space. The clinical learning lab, offices, a video-conferencing room and a classroom are located in Britt Hall. The School of Nursing in Klamath Falls has its administrative and faculty offices in Boivin Hall on the Oregon Institute of Technology Campus. Its on-campus clinical learning lab includes a designated classroom and other designated space in Semon Hall. In 2004 the School of Nursing in La Grande moved into the newly remodeled Badgley Hall on the Eastern Oregon University Campus. It houses faculty and support staff and has a computer and clinical skills lab for nursing students as well as classrooms and a video-conference room available to the School of Nursing. The La Grande faculty operates the Union Family Health Center and the Elgin Family Health Center that provide clinical placements for students.

Due to on-campus space constraints, the OHSU Library has leased off-campus storage space for a portion of its collection for a number of years. Currently OHSU is sharing space with Portland State University’s library in leased space in a warehouse near the Marquam Hill Campus. The space works well for both institutions.

Equipment and Materials

Equipment is sufficient in quality and amount to facilitate the achievement of educational goals and objectives of the institution. An annual Space Inventory is taken by the Space Planning Department involving all departments on campus. This provides an updated list of all classroom,
seminar room, conference and other instructional space on campus. (See Exhibit 8.5.) The Ed Comm office of the BICC provides tracking of classroom equipment, some of which is purchased centrally and some purchased by individual schools.

An interesting development over the past 10 years has been the number of classes broadcast on EdNET and vaIP/ISDN. These courses have originated from the BICC Theater, BICC Studio A and School of Nursing, Room 371. (See Exhibit 8.9, Videoconference Classes and Continuing Education Events.)

Staff makes physical inventories to verify fixed assets. An institution-wide inventory of all equipment is done at least every two years by the acquiring department and the results reconciled with the equipment database. The Fixed Asset Accounting Office within the Corporate Accounting Department distributes listings of equipment inventories with instructions and a completion due date. All departments are required to perform the inventory and return the completed packets within the specified time. Fixed Assets Accounting then updates the equipment database, which is reflected in the general ledger. Fixed Assets Accounting also performs bar-code-scanning audits on a random basis. (See Exhibit 8.10, Fixed Asset Policies.)

Items that are not located within the responsible department are identified as missing items within the database. A formal memo of explanation, signed by the department head, must be submitted to Fixed Assets Accounting for all missing equipment. Missing equipment reports are produced by Fixed Assets Accounting and distributed to the executive member of each department. If the equipment is not located within three years, it is retired from the equipment database and any remaining book value is expensed. Additionally, any missing equipment purchased with grant or sponsored project funds must be reported to Sponsored Projects Administration by Fixed Assets Accounting. Approval of the Fixed Assets Department is required on all changes to the property inventory and on request to dispose of property.

**Hazardous Waste Practices**

Within the larger health and safety program administered by the Department of Environmental Health and Radiation Safety, or EH and RS, several smaller programs exist that address handling hazardous materials. Specifically these are: 1) Biosafety – Clinical; 2) Biosafety – Research; 3) CDC Select Agents; 4) Chemical Safety; 5) Fume hood and biosafety cabinet testing/inventory; 6) Hazardous waste collection, reuse, minimization and disposal; 7) Radiation licensing, tracking, inspection, compliance, instrument service and dosimetry; and 8) Training.

Each of these components of the Hazardous Materials and Waste policy is presented for all employees on the EH and RS Web Site. Live training and intranet-based training is also conducted dealing with all aspects of handling biological, chemical and radiisotope hazards. All handling of hazardous materials is planned around “cradle to grave” concepts.

Biological materials are handled using procedures laid out in the documents listed above. The Biological Safety Officer and the Institutional Biosafety Committee also develop situation specific procedures and processes on a case-by-case basis that are required to be used by research employees. Both campuses also have International Air Transportation Association Infectious Materials Shipping procedures in place. EH and RS has developed and implemented a new Select
Agent policy in 2003 and a needle stick prevention program at both campuses. Infectious waste at the West Campus is collected by EH and RS and at the main campus by Employee Services and all waste is disposed of through a licensed biomedical waste hauler.

Hazardous chemicals handling procedures are separated based on chemicals used in research laboratories (Laboratory Safety Manual) versus those used in all other locations (Hazard Communications). MSDSs are maintained for all chemicals at both campuses. Hazardous waste techs at both campuses collect Resource Conservation and Recovery Act waste for storage and disposal via a RCRA regulated disposal company.

OHSU has had an effective Radiation Safety program for several years. In 1998 separate Radiation Safety officers were appointed for research and clinical use of ionizing radiation, simplifying the regulation and oversight in both areas. OHSU has a research radioisotope license and a medical radioisotope license. All radioactive waste is handled exclusively by EH and RS at both campuses. Established procedures are followed for decay-in-storage, liquid and solid waste disposal. Regulated disposal companies handle ultimate disposal. Hazardous spills are handled using strict reporting, response and cleanup procedures provided in the Hazardous Materials and Waste policy. The far majority of spills at OHSU are incidental.

The best measure success of hazardous materials handling procedures at OHSU comes from regulatory agency inspections and findings. Findings and citations have steadily declined in number since 1995 and the few findings that are documented are minor. Challenges that remain are fundamentally related to the large number of employees that handle chemicals at OHSU and the resulting difficulty in adequately communicating with each employee.

Physical Resources Planning

Prior to becoming a public corporation, OHSU’s planning efforts were largely influenced by the priorities of the Oregon State System of Higher Education. Planning was generally opportunistic, taking advantage of state and federal dollars when available. OHSU developed a Master Plan with the city of Portland that expired in 2001. As it neared its end in 2001, OHSU initiated planning with the city based on a desire to pursue opportunities for growth in Portland on both Marquam Hill and in the South Waterfront District of the central city. The vision for OHSU to become a top 20 nationally ranked academic health care research institution was dependent on the continued synergy of frequent interaction between its core functions of teaching, research and patient care. OHSU’s planning effort concluded that Marquam Hill could not entirely accommodate the growth necessary to achieve these goals. The South Waterfront was selected by OHSU as its preferred location for expansion, in part because of its close proximity to Marquam Hill. OHSU envisions the South Waterfront and Marquam Hill functioning as an integrated central campus connected by an aerial tramway to maintain the existing synergy between functions.

Master Plan

OHSU’s 30-Year Master Plan called for expansion of roughly 2.2 million square feet of new research and patient care facilities, divided between Marquam Hill and South Waterfront. It also provided a functional reorganization of the campus into zones, through development and
redevelopment that, over time, would locate research functions in the northern and southern portion of the campus and educational functions in the western portion. This reduces the impacts of institutional traffic growth on Terwilliger Boulevard and local streets, while also providing a more integrated and understandable campus layout. Centering patient care in the central area of the campus allows more intensive development to be located away from the campus edges and allows vehicular access by patients and visitors to focus on the intersection of S.W. Campus Drive and Terwilliger Boulevard. The City Council approved OHSU’s new “Marquam Hill Plan” in July 2002.

A little earlier than the Marquam Hill Campus-Planning project, the need to update the Master Plan for the West Campus arose. The ONPRC had developed a preliminary concept master plan in 1994, but its merger with OHSU in 1998 and OHSU’s decision to house the Neurological Sciences Institute on the West Campus and build a new building spurred the master planning effort. At the same time, the Westside Light Rail Transit line was being extended to Hillsboro with two stations adjacent to the West Campus. This required an updated Concept Development Plan for OHSU’s West Campus per the requirements governing Light Rail Station Community Planning Areas within the Hillsboro Zoning Ordinance. As a result, OHSU submitted its Concept Development Plan for the West Campus in April of 1998. The plan was accepted and scheduled to run through October 2003. In May 2003 the plan was extended for an additional 20 years from its 1998 adoption.

As a related effort, in 1999 OGI — as a separate entity from OHSU — undertook concept development planning related to their campus, which is adjacent to ONPRC. The plan was developed in concert with OGI’s 1998 Strategic Plan and was designed to serve as a flexible framework to be followed in the ensuing years. Elements of that plan have been incorporated into OHSU’s plans for the West Campus since OGI’s merger into OHSU in 2001.

The cornerstone for physical facilities development and major renovation planning is through the work of several executive-level groups and the institution’s capital budget process. Projects that involve physical facilities development, major renovations or property acquisition are first brought to the university’s Space and Capital Committee for consideration. Departments with space needs are required to fill out a Space Request Form and send it through their unit’s approval process to this committee; other executives bring projects for facilities development or property acquisition directly to the committee.

The Space and Capital Committee works closely with Corporate Financial Services to prioritize and integrate capital projects into the overall capital budget process. This insures that projects are prioritized, work scopes and budgets are developed, and funds are allocated from capital and operating funds.

The university’s Space and Capital Committee is the mechanism for involving affected constituent groups in planning physical facilities. The Space and Capital Committee is made up of the provost, representing faculty and students in all of the educational programs at all of the institution’s campuses; the vice president for Medical Affairs/dean of the School of Medicine, representing the various basic science and clinical departments of the School of Medicine; the vice president for research, representing the research community; the vice president/executive director
of the university Hospitals and Clinics, representing the patient care areas of the campus; and the associate vice president and several staff of Facilities Management and Construction.

Requests for additional space generated by departments or individuals are made with a Space Request Form, completed and approved by the requestor’s unit head and forwarded to the committee. The committee also, at times, initiates planning projects that may affect space for programs or departments and these are coordinated through the committee.

The Space and Capital Committee meets weekly. During the spring, the majority of the committee’s time is spent developing the capital budget. The rest of the year the committee reviews and monitors space allocations, the progress of remodeling projects, and new initiatives that arise relating to recruitments or changes in programs.

Both the university’s Space and Capital Committee and Corporate Financial Accounting review the annual capital budget. The capital budget is then forwarded to the board’s Finance and Audit Committee for review and approval and finally, to the full board of directors for final approval. In addition, institutional policy states that the board of directors must approve any real property valued at more than $500,000 before being bought or sold. The board also must approve all financing agreements in excess of $1 million.

Safety and Security on Campus

The protection of persons, property and facilities on campus is essential to providing a safe and secure learning environment for students and other community members. The Office of Public Safety provides both emergency and preventive services 24 hours a day, seven days a week. With a staff of over 40 trained officers, dispatchers and administrative support staff, public safety provides a variety of services such as emergency incident response to crimes, hazardous conditions, medical emergencies and other life-safety incidents; conducts patrols in all campus areas and provides campus escort services; distributes information concerning crime prevention and safety; supports campus events with security staffing; and monitors facilities for compliance with a number of policies.

The need for strict security of information and the protection of sensitive and valuable research and clinical resources led public safety to develop an identification badge system for personal safety and protection of property at the university. OHSU policy requires that all students, employees, contractors, volunteers and others doing business at OHSU must have an OHSU photo identification card issued by public safety. A procedure for obtaining identification badges, keys and keycard access is in place, administered by Public Safety.

The Office of Public Safety maintains crime statistics and reports these statistics annually to the U.S. Department of Education, under direction of the Clery Act. A database and Web Site maintained by public safety is linked to other campus Web sites that are the primary communication sites for students. (See www.ohsu.edu/pub SAFETY/pages/CLERY.html). Both the Marquam Hill and West campuses have very low crime rates overall. A statistical comparison for the reported years and other related Public Safety information is included in Appendix 8.9, Clery Act Statistics.
All new facilities, and those involved in major remodeling projects, are in compliance with all required life, health, building and fire safety codes and regulations, as well as with the requirements of the Americans with Disabilities Act. The associate vice president for Facilities Management and Construction serves as a liaison to all parties involved in the construction process and represents the interests of the university and its many constituencies in this area. The assistant director of Facilities Management and Construction coordinates all projects for compliance and tracks projects, both large and small, throughout the campus to address the issue of access to facilities by the physically disabled.
**Strengths, Challenges and Strategies**

During the past five years, the institution's 30-year Master Plan was thoughtfully revised, calling for expansion of roughly 2.2 million square feet of new research and patient care facilities, divided among its campuses. OHSU’s new plan was approved in July 2002. The West Campus Master Plan was updated and approved in May 2003 for extension for an additional 20 years from its 1998 adoption. This planning effort was major and forms the framework for additions to OHSU’s physical plant. Projects currently under way include:

- Biomedical Research Building, adding 274,000 square feet of research space.
- Patient Care Facility and parking structure, adding 485,000 square feet of patient care space.
- Building One in the South Waterfront District, will add about 400,000 square feet of patient care and research space.

The integration of the various entities on the West Campus into the overall OHSU physical plant has been an ongoing project over the past several years. Various construction and renovation projects improved the educational and research space on the West Campus. The acquisition of the Bronson Creek Building and the construction of the NSI/VGTI Building on the West Campus, as well as the addition of the Biomedical Research Building currently under construction on the Marquam Hill Campus have added considerable research space.

Space planning for the institution has become more systematic over the past five years with the updating and implementation of the campus master plans and the work of the university’s Space Committee. The integration of capital planning and the institution’s capital budget has resulted in effective oversight of construction projects and related budgets over the years.

The Facilities Management and Construction Department identified six priorities/strategic issues for the next three years:

1. **Backfill Strategy**: As two new buildings are added to Marquam Hill and a new building is built on the South Waterfront, some existing programs that need to expand will move to those locations. As that frees up space in existing buildings, a “backfill” strategy has been developed to prioritize space utilization among the university’s programs.

   A benefit of the increased capacity, particularly of the South Waterfront, will be changes in the traffic patterns of some visitors, patients and employees of OHSU. A major issue continues to be restricted access to the OHSU’s Marquam Hill Campus (e.g., lack of traffic capacity at Terwilliger Road and Sam Jackson Parkway) that impacts education, research and patient care activities.
2. **Lease Portfolio:** A part of the university’s backfill strategy includes moving some groups currently in leased space to space in the South Waterfront or Marquam Hill Campuses, reducing the amount of space leased by the university. Current efforts are underway to “right size” the university’s lease portfolio and lease rates.

3. **Parking Improvements:** The 30-Year Marquam Hill Plan includes an increase to the university’s parking cap by 900 spaces. The new Patient Care Facility on Marquam Hill will include a 450-space parking garage and a project to widen the Sixth Avenue intersection to improve access and parking on Marquam Hill.

4. **South Waterfront Development:** OHSU plans to develop a “front door” for patient care at this location. This campus will likely include a Wellness Center, day care, retail and significant parking, a highbred conference/business/extended stay hotel, a district-wide utility plant and education and program growth.

5. **Carnival Restaurant Property:** The Carnival Restaurant property at the bottom of Marquam Hill was acquired and will be developed into a patient/visitor-welcoming center. The plans for a welcoming center include retail activity and approximately 50 valet parking spaces.

6. **Bronson Creek Building** (West Campus): The Bronson Creek Building, acquired in 2001, is being upgraded with additional tenant improvements to attract researchers and encourage program growth. Currently the chair of the Biomedical Engineering Department has moved into space in the building to develop his new department and the Computer Science Department has also moved into space in the Bronson Creek Building.

In the next two years, as three new buildings come on-line, a “space backfill” strategy is being developed to prioritize space utilization among the university’s programs. This includes reviewing the university’s lease portfolio as well to eventually reduce the amount of space leased by the university.

Parking improvements are needed to improve access and parking, particularly on the Marquam Hill Campus.

The new South Waterfront development, including both the central district and the Schnitzer property to the north, will require planning for an effective physical plant.

A team has been working on the “backfill” strategy over the past six months and will be instrumental in prioritizing space utilization as additional space is built off the Marquam Hill Campus, thus freeing up some vacant space there.

The 30-Year Marquam Hill Plan includes an increase to the university’s parking cap by 900 spaces. The new Patient Care Facility on Marquam Hill will include a 450-space parking
garage and a project is under way to widen the Sixth Avenue intersection to improve access and parking on Marquam Hill. A benefit of increased capacity at the South Waterfront, in particular, will be changes in the traffic patterns of some visitors, patients and employees of OHSU. Transportation planning is under way to address this.

Planning is under way for the South Waterfront District, where Building One is located, and the OHSU Schnitzer Campus to the north. This will be a major effort in the next several years.
Standard 8 **Resources**

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Institutional Integrity

STANDARD

NINE
OHSU’s emphasis on integrity and ethical behavior is reflected in its policies, programs, leadership, and national reputation. Although oversight of OHSU’s Integrity Program is within the purview of the OHSU Integrity Office, the ethics-based philosophy and responsibility for integrity are integral parts of the institution’s fabric at all levels and in all schools and operating units. Substantial resources are devoted to the Integrity Office, Research Integrity Office, Center for Ethics in Health Care, Policy Advisory Committee, various compliance committees and functions, the OHSU Institutional Ethics Committee, local-level integrity coordinators and the information technology infrastructure that facilitates the communication of integrity issues. This broad base structure for the OHSU Integrity Program is necessary and appropriate for a large academic health center to address and manage a wide range of integrity issues.

The Integrity Office was formed following a 1999 resolution passed by the OHSU Board of Directors to begin a formal, institution-wide, “Corporate Compliance Program.” This resolution specified the basic elements upon which the program would be built and described the organizational structure for the program. (See Appendix 9.1, Board Resolution.)

Compliance roles and functions that previously had been organized at the local, unit, and enterprise level were brought together within a formalized structure. This presented an opportunity for increased efficiency through coordinating all compliance areas via an institutional compliance office. OHSU’s Institutional Integrity Program provided this organization and coordination. The resulting structure is reflected in the current organizational chart for the integrity program and sorted into “domains” that represent the key integrity areas for an academic health and science institution. (See Appendix 9.2, Organizational Chart for the Integrity Office.)

President Kohler started the process of defining OHSU’s integrity-based missions in 1999, when he held a university-wide “conversation” with all OHSU employees and students and community leaders. Over the course of a two-year strategic planning process, the OHSU community helped articulate the values to establish the foundation of an integrity program. The OHSU community agreed on these nine values as follows: quality, compassion, innovation, service, collegiality, diversity, integrity, efficiency, and excellence. These community-defined values formed the basis for the 1999 Corporate Compliance Program’s first edition of the Code of Conduct and are repeated in the second edition. These values are used as benchmarks for the integrity program and challenge everyone in an organization to act and speak in ways that are congruent with the organization’s values. These “top down” and “bottom up” democratic processes have been helpful in creating a sense of ownership with every employee and student a key stakeholder in promoting those values.
The shift from a “compliance program” to an “integrity program” was formally inaugurated with the publication and distribution of the second edition of OHSU’s Code of Conduct. (See Exhibit 9.1, OHSU Code of Conduct.) An integrity-based program is built on the fundamental belief that our success depends on collaboration, honesty, and respect, as well as the trust of those we work with or serve.

The environment of ethical issues in academic health centers changes constantly. A few of the integrity issues of current interest include conflict of interest for individuals and institutions, information privacy and security, new human and animal subjects research endeavors, teaching and practicing evidence-based health care, scrupulously representing services delivered to third-party payers, and increasing access to care for underserved populations. The integrity program is responsible for insuring that these and all other integrity concerns are addressed and managed efficiently and comprehensively.

**Ethical Standards**

OHSU’s ethical standards, as they are reflected in its management and operations and in all dealings with students, the public, organizations and external agencies, are best expressed by the organizational structure, elements, and principles and standards of the university’s integrity program.

**Organizational Structure**

The program is organized into the three levels of executive, institutional and associate with clear lines of operational reporting responsibilities. (See Exhibit 9.1, OHSU Code of Conduct, Exhibit 9.2, OHSU Integrity Program Roles and Responsibilities, and Exhibit 9.4, Clinical Compliance Plan.) Integrity-related activities and oversight necessary for OHSU are initiated at the associate level and are divided according to institutional “domains.” Each of the seven domains is guided by appropriate federal, state, and local requirements. The integrity associates monitor the requirements and activities for their respective domains and report to the appropriate committees and director of the OHSU Integrity Office. The director is responsible for reporting concerns, issues, and initiatives to OHSU executives and to the board of directors.

The levels for integrity oversight and responsibilities of those represented on the organizational chart encompass the framework for OHSU’s Institutional Integrity or centralized integrity function. In addition, individual departments, divisions, units, schools and programs have been assigned integrity responsibilities tailored to the circumstances of the individual entity. In most instances, the entity has named an integrity coordinator and/or appointed an integrity committee that address specific, and often unique, integrity issues.

**Elements of OHSU’s Integrity Program**

There are seven elements in OHSU’s Integrity Program. These elements are based upon federal guidelines and referenced in the board’s resolution 1999-11-12. OHSU’s Integrity Program addresses each element, has made significant progress in all areas address by the elements, and continually monitors the regulatory environment to ensure that the program is current and responsive to change. Compliance with these elements is required of all OHSU employees, students, board of director members, and other associates.
Element 1: Established compliance standards and procedures to be followed by all employees

OHSU developed a code of conduct that reflects the university’s core values and sets expectations for behavior and compliance. This original code, developed and distributed in October 2000, was substantially revised and published as a second edition in May 2003. OHSU’s Code of Conduct has been distributed to all employees, students, board of directors, foundation trustees and employees. New employees receive a copy of the code through campus mail within their first month of employment. Students receive a copy of the code at the time of initial enrollment.

In addition to the code of conduct, the integrity office has published Integrity Program Elements and Roles and Responsibilities. This document provides greater detail regarding the integrity expectations for all who are associated with OHSU as a student or employee. There are similar documents for Research Integrity and Clinical Compliance Plan. (See Exhibits 9.3 and 9.4). A collaborative process was used to develop these documents. Experts from the respective areas drafted documents that were then distributed to the executive level for review and adoption, and posted to the OHSU Integrity Office Web page.

Finally, there are a number of domain-specific compliance manuals for areas including Health Care Systems, Research Development and Administration, and the academic enterprise including student handbooks. (See Exhibit 9.3, Manuals and Handbooks.)

Element 2: High-level oversight responsibility

In fulfillment of the board’s 1999 resolution, a director for the OHSU Integrity Office was hired and given responsibility and authority to direct the integrity program. This person reports directly to the OHSU chief administrative officer and indirectly to the president and the board of directors. In addition, the Integrity Program Oversight Council is built into the program model. This council includes two members of the board of directors, executive and institutional level representation and one community member. The integrity-related roles and responsibilities of the council are set forth in the board’s resolution.

The individual integrity domains represented in the organizational chart also have created a domain-specific system for high-level oversight and responsibility for integrity functions.

Element 3: Due care in delegation of discretionary authority

OHSU has implemented a system for initial and periodic screening of all employees to ensure that they are not excluded or debarred from participation in federal or state sponsored programs. This screening diligence extends to vendors and contractors who certify that they are not excluded/debarred and who are periodically re-screened, industry and private research sponsors who are screened, and donors to the OHSU Foundation. OHSU policy has been revised to permit employment termination for cause if an employee becomes excluded or debarred. In addition, prospective employees must undergo a national criminal background check and specific job classifications are subject to pre-employment drug screenings.

Element 4: Education and Training

OHSU is committed to ensuring appropriate standards of knowledge, awareness, and conduct for all OHSU associates and has instituted integrity education programs in all domains. Integrity
educational materials communicate policies, procedures, laws, and organizational standards in a practical and understandable manner. In most instances, integrity education is mandatory and continuing. To reach all employees and students at OHSU, most integrity education is Web-based, but the education content is also included in a number of printed publications and in live presentations. Venues include:

- University-wide publications, broadcast e-mails and pamphlets, oral presentations at managerial and staff meetings. (See Exhibit 9.7.)
- Integrity program publications such as Integrity Insights and Privacy and Security Watch.
- Formal, live or Web-based trainings.

Materials are typically targeted towards all populations at OHSU, but may be customized depending on audience. The integrity program has designated an integrity education manager to oversee the delivery, coordination, and consistency of integrity education across the university. This person has been very successful in leading specific integrity education initiatives and in overseeing general, ongoing integrity education at OHSU. Specific initiatives include:

- OHSU HIPAA Privacy Education, which is mandatory and which achieved 98 percent successful completion in advance of the privacy implementation deadline.
- OHSU’s Respect at the University education program. This on-line module addresses issues related to workplace respect, harassment, equal opportunity, affirmative action and discrimination.

All students in the schools of dentistry, medicine, nursing and science and engineering and the College of Pharmacy are provided with student handbooks that explain expectations regarding ethics, integrity and professionalism. OHSU professional schools operate according to an honor system (specific school standards of conduct are included in Exhibit 9.5.) Additional ethics education includes:

**School of Dentistry.** Ethics education is vertically integrated into all four years of the curriculum. There are required lecture and seminar courses in ethics. Ethics is addressed early in the predoctoral dental curriculum when professionalism and academic integrity is introduced and discussed in an intensive two-day program. These elements are threaded throughout the preclinical and clinical courses and reinforced in case-based discussions and the patient care environment. In the fourth year, each student completes Ethics in Dentistry (CDEN 702), a required course. This course presents the concepts of biomedical ethics and guides the student in discerning and managing the ethical issues of dental practice through analysis and discussion of case-based dental problems and ethical dilemmas. Content in dental ethics and the use of an ethical decision making model is also provided in each of the advanced specialty education programs in the School of Dentistry. Each student who matriculates in a School of Dentistry program receives a copy of the student handbook and OHSU Code of Conduct. A signed letter acknowledging that receipt is retained in the students’ files.
School of Medicine. Ethics education is integrated throughout the medical curriculum. At least 36 hours of curricular time is devoted to ethics utilizing both didactic sessions and case-based small group discussions.

Teaching medical ethics is a central goal of the Principles of Clinical Medicine Course. The very first session of the course is titled, “The Patient-Physician Relationship: The Cornerstone of Medical Ethics.” As ethics is central to the development of a physician, these concepts are liberally woven into the goals and small-group discussions of most of the sessions of the course, including sessions not specifically labeled as involving ethical issues. At the same time, there are formal presentations on professionalism in medicine, the history and interpretation of the oaths taken by physicians, “Touching the Body, Respecting the Person,” “Confidentiality in Modern Medicine: A Collective Obligation,” “The Impact of Law on Medicine,” and “Clinical Ethics in the Clerkship” which specifically focus on ethical issues. In addition, there are sessions on controversies in medicine, which illustrate real-life struggles with ethics in medicine, such as termination of pregnancy, assisted suicide, and even physician relationships with pharmaceutical companies.

In family medicine, ethics topics are consistently addressed during sessions on access to care, continuity of care, and contextual care presented by the department chairman. In addition, the topic of medical ethics is woven throughout many other small-group sessions. Issues ranging from individual autonomy, informed consent, physician and patient rights, and the utilization and allocation of scarce health care resources are addressed both directly and indirectly.

Issues such as patient confidentiality and appropriate behavior and boundaries with patients are particularly important in psychiatry. These issues are discussed throughout the clerkship both formally and informally. Students are expected to understand these principles and apply them in an appropriate manner. Students are graded on issues of professionalism.

Ethical considerations are addressed during didactic sessions on abortion and contraception in several courses and clerkships. These issues also are addressed in the family medicine clerkship in the discussion of exam under anesthesia.

Ethics as well as ethics/law cases are presented in small group sessions during the transition to medical school and transition to residency courses.

Specific areas of evaluation of the acquisition of ethical principles includes the following:

- Grading process in principles of clinical medicine course.
- Grading process in the required clinical clerkships. Ethics and professionalism are components of each evaluation.
- All students are required to participate in HIPAA training.
• All students are given a student handbook that states the expectations for professionalism including ethical behavior.

• All students are given the OHSU Code of Conduct.

Our recent graduates indicate that medical ethics is a key part of their education. Almost 90 percent of the OHSU respondents to the survey (response rate of 96.8 percent) indicate that biomedical ethics is adequately covered (compared to a national average of 70 percent) and 93 percent felt that professionalism is adequately covered (compared to a national average of 78 percent) in the OHSU curriculum.

Faculty, other care providers, or other students who are concerned about a possible breach in a student's professionalism, including ethics, are encouraged to complete the Professional Development Evaluation to the associate dean for student affairs. The form, which is also provided in the student handbook, requires that the respondent identify the level of his/her concern (initial, moderate, significant) and write a description of the nature of the student's actions. For "initial" concern, the form goes to the associate dean for student affairs who, if in her assessment there is a problem, will review it with the student. It is not placed in the student's file unless another valid referral is made subsequently. In the case of valid "moderate" or "significant" concern, the form is placed in the student's file and the matter is referred to the Medical Student Progress Board for disposition.

Individual clerkships include ethical behavior in their criteria for student evaluation. For example, in surgery, as part of their final evaluation, students are graded on their professionalism when dealing with their patients and their patients' families. Students are given a copy of the evaluation form before the course begins. Any breach of ethics that occurs is addressed by the students' attending surgeon with the student and documented in the final evaluation of the student's performance. And in psychiatry, staff members directly observe students in their interactions with patients.

Notes written by the students in the medical record are reviewed and cosigned by resident and/or staff physicians. The attending staff or the clerkship director investigates any complaints alleging breaches of ethics by medical students promptly and thoroughly.

As noted above the Medical Student Progress Board reviews all academic and behavioral issues whether by referral through the associate dean for student affairs or as a result of the clerkship evaluation.

School of Nursing. Ethics education is integrated throughout the curriculum where there are required undergraduate and graduate courses in ethics, law, ethical conduct of research and ethical decision-making. Students are required to sign the School of Nursing Honor Code.

The undergraduate ethics curriculum is provided in both first and second year courses. First year ethics curriculum introduces the student to the analysis of ethical issues and dilemmas that arise in the practice of nursing and in health care systems. Emphasis is on
values clarification; models for ethical decision-making; collaborative approaches to the analysis of ethical dilemmas; relevant legal issues; and professional documents that guide ethical nursing practice. The second undergraduate year introduces the student to the ethical, legal, professional, and interpersonal foundations of nursing practice. Students are provided with guided learning activities to develop beginning level competence in developing professional relationships with patients across the lifespan; representing diverse populations; monitoring their own practice with regard to standard guidelines; finding and using evidence to support clinical decisions; and thinking critically about external forces that influence nursing practice.

The School of Nursing graduate program integrates ethics content into the master's and doctoral curriculum in both core and elective courses. Specific courses in the curriculum cover ethical issues relevant to developing advanced nurse practitioners, clinical nurse specialists, and administrators at the master's level and researchers at the doctoral level.

At the master's level, the ethical issues focus on health disparities and implications for policy decision making that impact practice as providers of health care and understanding the system issues relevant to access to care for vulnerable populations. In addition, ethical issues relevant to prescribing are covered for advanced practice nurses. Ethical issues are considered in relation to the impact of economics of care and competitive pressures in the health care system, challenges that accompany expanding technology, and demands for care that exceed available resources. Emphasis is given for students to learn how to identify, analyze, and make decisions about ethical problems and issues created by these and other contextual factors. These courses assist master's students to analyze the complex ethical issues surrounding their practice as advanced practice nurses and managers.

At the doctoral level, core courses address ethical issues related to the ethically responsible conduct of research and cover the following issues: historical background to the issue of scientific integrity, negligence in science, environmental factors that promote quality science, and the prevention of misconduct. Specific topics include conflict of interest, responsible authorship, policies for handling misconduct, policies regarding the use of human and animal subjects, and data management. Courses address contemporary issues of scientific integrity and students debate what constitutes misconduct in science, and develop strategies for the prevention and management of misconduct in science within these courses.

**School of Science and Engineering.** Academic integrity is addressed in the student handbook (which also references the OHSU Code of Conduct). Integrity and ethics expectations are included during new student orientation and restated at the first meeting day of each class. The school has an internal policy addressing scientific misconduct.

**College of Pharmacy.** Ethics education is integrated into the curriculum via six classroom hours of lecture and discussion. Students are also required to write a term paper on an ethics or legal topic and to sign a Pledge of Professionalism.
Element 5: Monitoring and auditing to detect violations

OHSU engages in multiple methods of integrity monitoring and auditing. The OHSU Integrity Office has instituted an integrity reporting protocol that provides for anonymous (“Hotline”), confidential, or identified reporting of concerns about possible violations of regulations, policies, or the OHSU Code of Conduct. Individual domains also provide avenues for reporting of integrity violations and concerns. All integrity reports are followed by assignment to integrity officers or representatives in appropriate domains and all receive inquiry and investigation. Integrity violations may be the result of various factors including misunderstood policies and procedures, lack of resources, inadequate education, or malfeasance.

In addition to specific reports, internal audits are performed periodically in selected areas. The internal audit function is incorporated into the Integrity Office and the manager of internal audit reports directly to the director of the Integrity Office, who chairs the Internal Audit Committee. Integrity officers in specific domains and the Internal Audit Committee determine the scope and focus of a particular audit. Finally, many OHSU centers, research institutes, professional schools, units, divisions, and departments (entities) have regular quality assessment and review programs. The results of these reviews are used for improvement within the entity and are shared with Integrity Officers or Representatives in appropriate domains. The results of these quality improvement activities may be used for process improvement, discipline, and policy change.

Element 6: Enforcement and Discipline

OHSU policies delineate disciplinary actions that may be implemented in response to integrity violations when individual misconduct is identified. A framework provides a basis for weighing integrity infractions and an approach to developing corrective action plans. Enforcement and discipline related to integrity violations are proportional to the severity of the violation, the frequency with which it has occurred, and the employee’s knowledge of the regulation or policy that has been violated. Domain-specific enforcement and discipline initiatives also exist and are focused on job positions and regulations related to the domain. Corrective actions are required to address these violations and may include re-education/training, disciplinary actions, up to and including termination or dismissal; policy development or revision; operating procedure changes; general internal reviews; and/or more formal internal or external audits.

Element 7: Response and Prevention

Responding to integrity violations on a case-by-case basis is necessary, but not sufficient, for a comprehensive integrity program. Individual integrity violations or errors must be followed by assessment of the “etiology and pathogenesis” of the problem and the process improvement and policies needed to prevent recurrence. Through the OHSU Integrity Office, OHSU is able to monitor the integrity “atmosphere” and detect ongoing problems, recurrent issues, and trends in non-compliance. Prevention efforts include identifying areas with low integrity violations histories to establish internal “best practices” as well as using national “best practices” to initiate new programs. For example, OHSU is currently implementing a new information security management program using national best practice standards. In addition, domain-specific initiatives for response and prevention are continually implemented through various quality assessment, internal reviews and audits, policy development, and education activities.
Integrity Principles and Standards

OHSU’s Code of Conduct expresses 21 integrity principles that guide the behavior of all members of the OHSU community. This community includes all OHSU employees and students. Each integrity principle is further defined by several standards that explain how that principle is expected to be lived at OHSU. (See Appendix 9.3, Integrity Principles.)

Policy Process

OHSU policies, depending on their terms and context, apply to officers, employees, students, volunteers, contractors, departments, units and others present on or using university facilities. In addition to administrative and management prerogatives, individual unit policies and procedures, the OHSU Code of Conduct, applicable federal, state and local laws and regulations, contractual obligations, and judicial orders, university policies must be followed and honored by all to whom they apply. Failure to do so may result in loss of privileges, disciplinary actions, termination of relationships with OHSU, or any other lawful administrative, judicial, contractual, managerial, or other mechanism available to the university to secure compliance.

Some university policies may also specifically address compliance and detail particular actions that may be undertaken in case of non-compliance. While not all policies deal directly with integrity or ethical issues, many do. Moreover, the universe of OHSU policies serves to support an overall philosophy of and foundation for the ethical behavior of all employees and students.

The president has the responsibility to adopt and amend policies and procedures (consistent with applicable OHSU Board of Directors’ policies) deemed advisable or necessary for the good of the university. All requests for policy adoption, revision or repeal are submitted to the Policy Advisory Committee or PAC when such policy potentially affects any university policy or more than one university unit. The PAC is advisory in nature, and any member of the university community may submit a proposal.

The PAC, at a minimum, is convened and comprised of representatives of the major units as well as additional staff who, in the discretion of the president or a vice president, should participate in the committee work. Other university staff members are invited to participate in committee discussions on an ad hoc basis in order to bring additional information to the committee. The general counsel, or designee, who is responsible for maintaining the official version of OHSU policies, chairs the committee. The chairperson may appoint subcommittees at the request of the committee or when helpful for the committee’s work.

The Policy Action Committee:

- Reviews proposals for consistency with other OHSU policies.
- Circulates the proposal to the head of any other campus constituency whose input is deemed necessary or helpful by the president or appropriate vice president.
- Obtains legal review.
- Recommends action to the president. Recommendations may include actions such as to table, approve, not approve or approve with certain changes. Advisory committee
members or other University staff may submit individual comments to the president in addition to the committee’s report.

All policies, once approved, are filed with the legal department.

The president may take any action on a PAC recommendation, including but not limited to, action to table, adopt, not adopt or adopt with revisions. The president may use any advisory process deemed helpful by the president. OHSU’s policy and process do not limit the discretion of the president or any vice president to adopt interim policies. However, such interim policies must be forwarded to the PAC for review and recommendation.

Notices of proposed policies, generally applicable institution-wide, to be adopted, amended or repealed are published in a university publication, electronic medium, or through other communication channels prior to the proposed date of approval. (See Appendix 9.4, Membership of the Policy Action Committee.)

Local Policies

In addition to the institution-level policy process, there are a number of school or operating unit level policy processes. For example, the health care system is responsible for creating and promulgating policies and procedures that support the mission of delivering outstanding health care at OHSU. These policies are normally more detailed than an institution-level policy, but cannot violate, contradict, or countermand an institution-level policy. An analogy makes clear the relationship of local and institutional policies: At OHSU, local policies are to institutional policies as administrative rules are to statutory laws for the state of Oregon. Most often, these local policies and procedures are provided as specific guidance to ensure compliance with regulatory rules. For example, local-level policies exist in support of guidance provided by the Joint Accreditation Commission for Hospital Organizations, The Office for Human Research Protections, the Environmental Protection Agency, the Food and Drug Administration, the Health Insurance Portability and Accountability Act, the Centers for Medicare and Medicaid Services, and many other agencies and groups.

In some cases, an operating unit may express local level policies that speak to compliance with a body of regulations in organized publications such as Roles and Responsibilities documents. Examples of such documents are included in Exhibit 9.2. More often, these local policies and procedures are posted on organized Web pages and those affected by the policies are educated about them in a number of ways. (See Integrity Education at OHSU, below.)

Collective Bargaining Agreements

OHSU has two collective bargaining units for the representation of classified employees. The Oregon Nurses Association represents all classified nurses who work at OHSU and negotiates the terms and conditions of their collective agreement. The American Federation of State, County and Municipal Employees, Local 328 provides representation for all other classified employees at OHSU. These collective bargaining agreements provide detail regarding the rights of labor and management and the acceptable parameters of some interactions between the parties.
In addition to the collective bargaining agreements, classified employees are guided by all OHSU policies, including the code of conduct. The process of creating the code of conduct brought many stakeholders into the discussion, including labor representation.

Publications and Representations

Publications that represent OHSU and its various academic, research, or patient care enterprises, are coordinated and approved by OHSU University News and Publications before any production begins. Publications are reviewed regardless of how they are produced (production may include printing, photocopying, or electronic transmission such as e-mail or World Wide Web transmission.) The various offices under the direction of the vice president carry out coordination of these activities for Public Affairs and Marketing, including Community Relations, Government Relations, and Health System Strategic Planning and Marketing. Decisions on marketing at OHSU are the responsibility of the vice president for Public Affairs and Marketing and requests for such activities are approved prior to implementation.

Advertising that markets the OHSU Health System is coordinated through Health System Strategic Planning and Marketing. News and Publications manages all other advertising that represents OHSU. This includes paid advertising and advertising that is provided at no charge (public service announcements).

All OHSU publications and public representations must be consistent with the university’s four-part mission (health care, teaching, research, and community service) and must not promote a competitive activity against the university’s interests or compromise the integrity of the university. Examples of OHSU’s catalogs, publications and official statements are included in Exhibit 9.7. Other Integrity Education publications are included in Exhibit 9.6.

Conflict of Interest

OHSU has specific policies that define and provide direction for the disclosure and management of outside activities and outside compensation (OHSU Policy 10-01-015), conflicts of interest (OHSU Policy 10-01-020), gifts (OHSU Policy 10-01-025; 10-01-030), and conflicts of interest in research (OHSU Policy 10-01-035; see Exhibit 9.5). Institutional conflicts of interest are addressed in a 2004 Board of Directors Resolution. (See Appendix 9.1). OHSU’s Code of Conduct also reinforces the principles and standards to be used in governing conflicts of interest and conflicts of commitment

Every employee and student of OHSU has an obligation to act in the best interest of the university and without improper bias. OHSU employees and students are expected to avoid both conflicts of interest and the appearance of conflicts of interest between their responsibilities to OHSU and any outside or personal interests. OHSU recognizes the potential benefits of its employees’ and students’ participation in outside activities that may advance the welfare of the community, the university, and the employee or student. OHSU is also committed to ensuring that these outside activities are conducted properly and consistent with federal and state laws and regulations and the policies that are fundamental to the well-being of the university and the responsible management of the university’s business. The number and complexity of relationships between OHSU employees and students and other outside interests have grown substantially.
Public trust in OHSU and in the responsible conduct of its employees and students is dependent upon the university engaging in meaningful monitoring and management of these types of situations over the past decade.

**Individual Conflict of Interest**

Conflicts of interest such as hiring a relative or accepting a gift in violation of the gifts policy, or conflicts that may result from employee or student participation in outside activities are reviewed and managed within individual units, with advice from integrity officers, administrative officials, the legal department, and appropriate committees as necessary. Some types of conflicts require the oversight of the provost, the chief administrative officer, or the vice president for research.

In 2001, a Conflict of Interest in Research Committee or CoIRC was established to review situations where there is an apparent individual conflict of interest relating to an OHSU research project. The CoIRC is comprised of senior faculty members and research administrators and staffed by the OHSU Research Integrity Office. In support of the function and charge of the committee, new policy was proposed and adopted at the institutional level. This policy seeks to foster collaboration between OHSU investigators and non-OHSU entities, including industry, by providing guidelines and mechanisms for disclosing and resolving potential or actual conflicts of interest and safeguarding OHSU’s and OHSU investigators’ reputation for academic integrity. Ultimately, the work of the CoIRC safeguards the academic integrity of OHSU research and its educational programs. In addition, the committee insures that students (undergraduate and graduate), postdoctoral researchers, and other OHSU personnel are assigned only research duties consistent with their status or position; that any financial interest of an investigator which could affect the design, conduct, or reporting of research or educational activities is disclosed and conflicts eliminated or managed as appropriate; and that research sponsors’ access to and use of OHSU resources is consistent with OHSU’s interests.

An annual disclosure process required of all investigators engaged in research at OHSU insures the CoIRC is informed of any potential conflicts requiring review (CoIRC disclosure form, Exhibit 9.5.) The CoIRC determines whether to allow the affected research to go forward, or whether the potential conflict can be managed through such actions as public disclosure, modification of the investigator’s participation in the project, or monitoring of the investigator and the project by a third party or monitoring board. The committee uses various guidance documents that have been published by organizations such as the Institute of Medicine, Association for Academic Medical Centers, and Association of American Universities, among others, to advise the review and approval process. Additional details about the CoIRC’s review procedures are available at www.ohsu.edu/research/rda/coir/index.shtml.

**Institutional Conflicts of Interest**

In March of 2004, the OHSU Board of Directors passed two resolutions to guide the management of institutional conflicts of interest. There is renewed and increasing national interest focused on the issue of institutional conflicts of interest. Part of this interest has been generated by the recent passage of the Sarbanes-Oxley Act and part of it represents continuing thought that has been put into the issue on the parts of professional organizations and academic institutions (Exhibit 9.5).
As OHSU’s research initiatives grow, fueled by the Oregon Opportunity funding, the potential for competing interests also grows. OHSU, like all large health and research institutions, has a responsibility to its patients, employees, donors and other stakeholders to conduct its research, patient care, academic, and other activities in a manner that is free from undue influence or improper bias. Sometimes OHSU is in a position where its financial interests could appear to compromise its objectivity. This is particularly true in the research area, although the issue certainly can arise in other mission areas. The board of directors determined that a process to manage these apparent conflicts through appropriate disclosures and internal controls is best for OHSU and the community it serves. This process involves disclosure to a high level institutional committee (the Integrity Program Oversight Council) that has board of directors and unaffiliated, community membership. This committee reviews the circumstances of a potential conflict and determines a management plan. Such a plan might involve disclosure of the conflict to all human subjects, and in presentations and publications about a technology.

This system establishes an atmosphere of “transparency” about OHSU’s ownership interest in companies. This approach mirrors the approach currently used by the standing committee that reviews and manages individual conflicts of interest in research. In addition, the board of directors approved a second resolution that mandates formal disclosure by OHSU Executives of investments in commercial sponsors of research, receipt of certain gifts, and certain relationships with non-OHSU businesses and organizations.

Finally, the OHSU Integrity Office collects ongoing information regarding OHSU’s business relationships, licensing agreements, patents, contracts and other commercial interests that may create a potential conflict of interest situation. This information is brought to the Integrity Program Oversight Council for review and determination of appropriate management.

**Free Pursuit and Dissemination of Knowledge**

All universities rely upon an atmosphere of academic freedom to support the intellectual pursuits for knowledge, understanding and discovery. At OHSU, all academic staff and students are entitled to freedom in the educational setting in discussing subjects. As an ethical matter, educators and students are advised to be careful not to introduce into the education environment, controversial matter that has no relation to the subject being taught. As a matter of policy OHSU does not attempt to control or sway the personal opinion of any person on the faculty, other employees, or students, nor the public expression of that opinion. In the exercise of this freedom of expression, employees and students are expected to manifest appropriate restraint, including non-disclosure of OHSU proprietary, confidential, or classified information unless authorized; show respect for the opinions of others; and make clear the fact that they are not institutional spokespersons.
Strengths, Challenges and Strategies

OHSU’s Integrity Program has enjoyed both top down and ground up support. Recognition of the importance of an integrity program and implementation of integrity initiatives benefit from this foundation of support and contribute greatly to the OHSU culture of integrity. As new students and employees join OHSU, these expectations are shared. Other examples of the ongoing corporate compliance processes include the formation of committees to explore and propose resolutions to emerging policy issues, such as conflicts of interest in research and institutional ethics.

The OHSU Institutional Ethics Committee was formed in May 2003 to provide a colloquium for discussing myriad issues facing an academic health center including providing uncompensated care, the wise and cost effective use of new technologies, the need to inculcate a sense of responsibility in students for caring for disenfranchised groups, the role of OHSU as part of a larger health care community, and other difficult ethical issues that require consideration beyond the individual patient. The OIEC has provided guidance on a variety of issues including the use of experimental technologies and drugs outside of research protocols, protecting patients who could be discharged but who cannot afford follow-up medication, and use of expensive new treatments for which there is limited information about effectiveness and risk.

OHSU has a robust program of institutional ethics and integrity. Specific strengths of this program include:

- Strong support and advocacy from the OHSU Board of Directors, which sets the tone for OHSU’s culture of integrity.
- The second edition of the OHSU Code of Conduct has been adopted as policy and distributed to all OHSU students, employees, volunteers, board members, and other associates.
- The world class OHSU Center for Ethics in Health Care. (See Standard Four, Faculty.)
- Integration of ethics education into the curricula of all professional schools.
- Integrity and ethics education for all employees in several major domains.
- Development of a “mature” integrity program that incorporates internal audit functions.

Two areas of challenge ahead include a need to support the growth of the integrity program to match the growth of OHSU. First, as new facilities and campuses are built and, ultimately, staffed with new employees and supported by new research grants and clinical revenues, the integrity program will require additional resources to maintain its level of excellence. Second, the integrity program must continue to attract the attention and
support of the OHSU Board of Directors and the executive leadership. New regulations that impact OHSU are regular events and must be incorporated efficiently and effectively into OHSU’s culture of integrity. For example, the Sarbanes-Oxley Act, the revised Federal Sentencing Guidelines, and the Annual Office of the Inspector General Work Plan for health care institutions are recent, but anticipated guidance documents that impact OHSU. The integrity program will continue to be successful in implementing the content and spirit of these documents only with the continued support and advocacy of the top-level leaders.

The strategy for dealing with these challenges is to foster growth of its integrity program and involvement of its top-level executive leadership in the program and continuously evaluate the effectiveness of its integrity program benchmarked against national and local standards and internal audits.
Standard 9 Resources

Appendices

9.1 Board Resolution and Policies Supporting Institutional Integrity
9.2 Organizational Chart for Integrity Office
9.3 Institutional Integrity Principles
9.4 Membership of the Policy Action Committee or PAC

Exhibits

9.1 OHSU Code of Conduct, Second Edition
9.2 Integrity Roles and Responsibilities Documents
   OIO Program Roles and Responsibilities
   ORIO Roles & Responsibilities
   Clinical Compliance Plan
9.3 Manuals and Handbooks
   Health Care Systems Manual (Index)
   Research Development and Administration Student Handbooks
   School of Dentistry
   School of Medicine
   School of Nursing
   School of Science and Engineering
   College of Pharmacy
9.4 OHSU Outside Activity/Conflict of Interest Policies
   Policies
   Disclosure algorithms
   Disclosure forms
9.5 Conflict of Interest
   Institutional Conflict of Interest in Research Committee
   Executive Conflict of Interest in Research Committee Disclosure Form
9.6 Integrity Education Publications
   OHSU Stats
   Integrity Insights
   Privacy and Security Watch
9.7 OHSU catalogs, publications and official statements