



STANDARD ONE

INSTITUTIONAL MISSION AND GOALS

“The primary mission of the University of Washington is the preservation, advancement, and dissemination of knowledge. The University preserves knowledge through its libraries and collections, its courses, and the scholarship of its faculty. It advances new knowledge through many forms of research, inquiry, and discussion; and disseminates it through the classroom and the laboratory, scholarly exchanges, creative practice, international education, and public service. As one of the nation's outstanding teaching and research institutions, the University is committed to maintaining an environment for objectivity and imaginative inquiry and for the original scholarship and research that ensure the production of new knowledge in the free exchange of facts, theories, and ideas.”¹

The University's mission was adopted by the Board of Regents in February 1998 and is published in the *University Handbook*. At its core, the University of Washington carries on tasks that have been central to human civilization from the beginning: teaching the young, pushing out the boundaries of what is known, thinking hard about big questions, and using new knowledge to serve the common good.

THE UNIVERSITY AS AN AGENT OF CHANGE

These tasks are timeless—and ever changing. People once looked at the stars and saw mythic figures, or imagined the music of the spheres; now scientists watch the forces of cosmic creation and destruction and see almost to the beginnings of the universe itself. Higher learning was once reserved for clerics or the privileged; now university students come from all walks of life. Modern medical research and health care have moved light-years beyond the old herbalists and blood-letters. Even the old texts that remain central to humanistic study reveal new meanings to each generation's new perspectives and new approaches. Ideas, tools, and knowledge change the world, and the world in turn demands new tools, ideas, and knowledge.

If change is a constant, the speed of change is now perhaps unprecedented, both in the world and on the campus. Technology, globalization, and the “knowledge society” are themes familiar to everyone. At the University of Washington, the definition of the word “student” expands across space and time. UW researchers are in the forefront of the revolution—not too strong a word—in biology and information technology. The University's involvement with the larger world accelerates, from K-12 classrooms to high-tech associations to rural medical clinics to international research consortia.

Such change is not unique to the University of Washington, but by many measures the University is

among a handful of leaders in the reinvention of the American research university. Some faculty members are, quite simply, the best in the world at what they do. Some programs are the first or only such programs with their particular purchase on the future.

This is the University's ambition and resolve: to continue the process of transformation already under way here, so that its place in a changing world becomes even more vital and vibrant than it has been in the past. To do so, the University draws on aspirations that are remarkably strong and common across campus, from the administrative leadership to the faculty and staff to the student body and even into the community. As the states' support for higher education recedes in the face of multiple demands, private philanthropy and public entrepreneurship will be crucial in moving the University of Washington and other public universities forward.

The University is actively breaking down old barriers and uniting disparate strengths. Building new interdisciplinary programs is one obvious route to that future. But integration is equally important on other fronts as well. This is a university where research and service have become integral parts of undergraduate education; where the liberal-arts world and the high-tech world exchange insights and ideas; where faculty, staff, and students join forces to open the University to new kinds of students and new areas of service; and where multiple working relationships with the world beyond the campuses become expected.

DEFINITION OF THE UNIVERSITY'S WORK

There are four fundamental areas by which the University of Washington defines its work.

Preparing Students for a Changing World

What kind of education will best equip students for a future we cannot plainly see? Ongoing changes in undergraduate, graduate, and professional education represent the University's concerted effort to answer that question.

Learning to Learn. Today's students will live and work in a world in which the creation and revision of knowledge continue to accelerate. The body of knowledge that students master in college or graduate school, however important as a launching point, will not see them through their lives. Therefore, they need above all to learn how to refresh and replenish that store of knowledge—how to make learning a way of life. This central imperative is behind several University initiatives.

Experiential learning. The best preparation for lifelong learning, should include direct and active experience with

the creation and application of knowledge. The University emphasizes opportunities for undergraduates to work with faculty in research and to integrate community service, internships, and problem-based projects into classroom learning. Mary Gates scholarships,² the Carlson Center,³ and curricula that include contact with the world of work are among recent innovations that promote experiential learning. This kind of learning links inquiry and creativity, theory and practice, ideas and their consequences. It also connects the undergraduate experience with the great strength of a research university: faculty engaged in inquiry, invention, and creativity at the boundaries of knowledge.

New kinds of teaching and curricula. The value of a university education will always rest on the knowledge, experience, and wisdom of the faculty. But what teachers actually do is shifting. As knowledge explodes and information technology makes it instantly and universally accessible, faculty members focus less on handing down knowledge and more on acting as guides, coaches, and mentors in the student's own intellectual journey. A history professor points his students to Civil War web sites around the country and helps them evaluate what they find there. The College of Engineering and the School of Medicine restructure their curricula to give students practice in building and rebuilding their base of knowledge. The Teaching Academy,⁴ the University web site Catalyst,⁵ and long-standing seminars and workshops on teaching give faculty members valuable help as they adapt their teaching to new demands and opportunities.

Personalized education. With vast networks of information and communication at their fingertips and with links among disciplines multiplying, students are able as never before to customize their education. This does not mean that lecture halls will disappear, or that students will learn in isolation, or that the University will abdicate all guidance. It does mean that students can increasingly use University resources to shape their own combinations of interests, goals, and questions into a personalized educational program. The geography department, for example, requires its majors to develop individual plans. Graduate students in public affairs can study law, urban planning, international studies, or forestry as well. In all fields, online access to information and individuals around the world invites students to build their own education—here, in consultation with faculty, and later, on their own.

Information technology. On campus as in the world at large, the impact of information technology is dramatic and ongoing. It presents exciting new ways to teach students. It also demands that students know how to use technology and understand what it can do for them.

The University has been a leader in the effort to bring information fluency to students. Primarily through the adventurous program UWired,⁶ a collaboration of technolo-

gy experts, librarians, and faculty, the University has taught students how to use the basic tools, how to search and navigate vast amounts of data, and, perhaps most important, how to separate the wheat from the chaff. Last year, UWired won the first award ever made by the international organization Educause, for “collaborative, innovative use of technologies to support teaching and learning.” Keeping students abreast of rapidly changing technology will remain a vital mission, to which the newly renamed Information School will contribute significantly. As learners, as workers, and as citizens, virtually all students will need to know how to find, sort, judge, and organize the amazing riches made available by information technology.

Some students will also want to make careers in information technology, for which this region offers so many opportunities. Few places anywhere can prepare students so well for these careers as the University's top-ten Department of Computer Science and Engineering,⁷ noted among other things for its integration of imaginative teaching and leading-edge research.

As a tool to enhance students' learning at the University, information technology will continue to develop in ways we can now barely imagine. Already, its power to connect students to distant people and documents, to show them striking graphic models of complex processes, to create a learning environment that is interactive and rich in primary data, has given education a new face.

Interdisciplinary learning. Few important problems come in neat packages. This is increasingly true today, as both science and social science find new links among the phenomena they study, and as globalization blurs the boundaries between cultures and ecosystems. Whether in the workplace or in their lives as citizens, today's students will confront problems that are large, complex, unclear, and multifaceted.

The University's growing emphasis on interdisciplinary learning will help equip students to deal with these kinds of problems. There are two aspects to such learning. First, individual students may themselves master the basics of more than one discipline, which will give them deeper understanding and a broader array of tools. Second, programs that bring together students from several disciplines give those students an enhanced appreciation of how different kinds of expertise can work together—and how to make that kind of teamwork happen.

Some interdisciplinary programs at the University combine the strengths of closely related fields, such as history and sociology or astronomy and physics. Others reach more widely across realms of knowledge. The undergraduate Program on the Environment⁸ combines courses in the natural sciences, the social sciences, law, ethics, and management. At the campuses in Tacoma and Bothell, in

the Interdisciplinary Arts and Sciences Program,⁹ whole undergraduate degree programs dedicated to teaching and learning across disciplines serve hundreds of students. The new graduate program in astrobiology (the first in the world) brings together faculty and students from astronomy, microbiology, atmospheric sciences, oceanography, the history of science, and civil engineering, among others. It addresses an enormous question—is there life beyond earth?—but what its students learn and discover will also have important applications closer to home.

International and cross-cultural learning. The nation is becoming more and more culturally and ethnically diverse. To live, contribute, and lead in that world, today's students must be able to communicate across cultural, geographic, and linguistic barriers and to appreciate perspectives very different from their own. This is particularly true in Washington, a center of international trade and business.

More than three times as many University students now study abroad as did so five years ago, and the office of International Programs and Exchanges operates the largest international program on the West Coast. The University's Rome Center¹⁰ hosts increasing numbers of students from a broad range of disciplines. Building on the traditional strengths of the Jackson School of International Studies¹¹ and programs in Asian and other area studies, University curricula are becoming more international, from the business school to the medical school. Information technology allows students to collaborate around the world, as in the engineering class that links University freshmen with their counterparts at Japan's Tohoku University.

Curricula must also continue to incorporate the materials and perspectives of this country's multicultural heritage. The Curriculum Transformation Project in the College of Arts and Sciences¹² is an important step in that direction. The University faculty is rich in cultural expertise; infusing that expertise into coursework and classrooms is an ongoing project.

The liberal arts. What endures through all this exciting, unsettling, liberating, and disorienting change? Students need, perhaps more than ever, a grounding in the depth and breadth of human experience (other generations have also dealt with change); a healthy skepticism born of historical awareness; an understanding of the nature, power, and limits of science; a well-honed capacity for clear and critical thinking; the ability to communicate effectively; an appreciation for the demands of citizenship and justice; and a sense of how art enhances the human spirit.

This is the domain of the liberal arts, taught primarily in the University's College of Arts and Sciences.¹³ The College provides at least part of the education of the vast majority of University undergraduates. It offers extraordi-

narily rich opportunities for a liberal arts education within the context of a public research university. Continually strengthening this educational core is essential. It is occurring now along many of the dimensions already discussed: involving students in faculty scholarship, imaginative uses of technology (as in CARTAH, the Center for Advanced Research Technology in the Arts and Humanities),¹⁴ new interdisciplinary programs (such as the Simpson Center for the Humanities),¹⁵ and more international study.

Other initiatives to strengthen the liberal arts are also under way. The Honors program is doubling in size, so that more freshmen and sophomores have the opportunity for small classes, intensive writing, and rigorous inquiry. The first-year experience of undergraduates is being rejuvenated, with the goal of building intellectual community and helping students bridge the gap between the kind of learning they knew in high school and the different approach they will need at the University of Washington. Yet, amid all these changes the University remains committed to the power of the liberal arts to transform individual lives.

Creating Knowledge

Curiosity and imagination are the engines of new knowledge. On the "pure" end of the scale, scientists, scholars, and artists are driven by the simple need to explore, understand, and describe the world. On the "practical" end, they are passionate tinkerers, building new knowledge as they dream up and try out new devices, solutions, enhancements of human life. The University of Washington is involved in groundbreaking work along this entire spectrum. Such work, traditionally the realm of faculty and graduate students, is increasingly part of an undergraduates' experience as well. Three factors make this an especially dynamic time in the quest for new knowledge.

First, the rapid advance of technology has given researchers tools that can "see," measure, and manipulate phenomena previously beyond our reach. The speed and scope of these tools are opening up new realms of inquiry. As Galileo's telescope created the modern science of astronomy, these new technologies are transforming virtually every field of knowledge.

Second, this is an era of the increasing integration of knowledge. Biologists work with mathematicians. Philosophers work with environmental scientists. Partly this is a recognition that the knottiest problems and the most exciting opportunities now lie where traditional disciplines intersect and partly it is driven by the same technological advances noted above.

Third, and again related to technology, the search for knowledge is now a global enterprise. There has always

been an international community of scholars, but it now operates at the level of daily collaboration and exchange.

These three factors are examples of reshaping the creation of knowledge at the University of Washington. Below are areas in which University scholars and researchers are poised to make especially strong contributions in the years ahead.

The secrets of life. University work in the biological sciences is nationally recognized, from discoveries about the working of cells in genetics to conservation biology. The Friday Harbor Laboratories¹⁶ are widely acknowledged as the world's leading center for research in marine invertebrate zoology. One University zoologist does groundbreaking work in modeling the biomechanics of animal movement, another in the evolution of birdsong. The University fisheries faculty is in the forefront of research on Pacific salmon, from basic biology to habitat studies.

Faculty members in the University's Genome Center¹⁷ were among the architects of the international effort to map the human genome; they also developed crucial technologies that were indispensable to that effort. They and other University researchers remain engaged in the exciting and challenging work that lies ahead: investigating natural variation in DNA sequences; learning when genes are turned on and off, what they express, and how they communicate; and sequencing the genomes of other organisms.

Health. University biomedical faculty members are at the forefront of new research, advancing the understanding of Alzheimer's disease, breast cancer, AIDS, hearing loss, autism, chronic pain, infectious disease, and numerous other medical afflictions. With expertise in all these areas and many more, UW Medicine will foster the kind of intensive collaboration across traditional and new disciplines that is transforming biomedicine. It will pursue understanding of the molecular mechanisms that underlie health and disease. It will explore genetic variation and extend knowledge of human immunology. UW Medicine will advance knowledge across the broad spectrum of conditions affecting the brain and nervous system. It will design new drugs and vaccines and new public health approaches for getting them to those in need around the world. It will continue to work at the frontiers of medicine.

The environment. The University of Washington has an outstanding record in environmental research, from oceanography to geology to atmospheric science to biology to environmental health. As the complexity of environmental issues becomes more evident, these and other fields increasingly join forces. A few examples: the Climate Impacts Group brings together scientists and social scientists to study how climate change in the Pacific Northwest affects our natural resources and how planners and policymakers can respond. PRISM (Puget

Sound Regional Synthesis Model)¹⁸ is an ambitious, multi-year program to build a system of integrated computer models of the Puget Sound region, so that the interactions of natural and human systems can be readily tracked and tested. Teams of oceanographers, hydrologists, geochemists, atmospheric scientists, and biologists work together on this project. NEPTUNE,¹⁹ still in the planning stage, is a revolutionary new instrumentation system that will create an extensive sea-floor observatory linked to the University by fiber-optic cable. It is envisioned by oceanographers and engineers as part of the next generation of real-time environmental monitoring systems, giving a new kind of window on both the volcanic churning of the seafloor and marine life.

Technology. This is a technological era, with an insatiable appetite for new and better technologies in virtually every area of life. University engineers and scientists are answering that demand in cutting-edge research programs. A few examples:

Three years ago the University established a Center for Nanotechnology,²⁰ and has now started the first Ph.D. program in the field. "For a ground-zero view" of the nanotechnology revolution, wrote the *Chronicle of Higher Education* last December, "one of the best places to look is the University of Washington, which has long boasted advanced research in many of the fields where nanotechnology is taking off, including bioengineering, biotechnology, materials science, and old-fashioned chemistry and physics."

The field of photonics is transforming telecommunications. A team of chemists and engineers at the University and USC recently devised a material that can perform this translation ten times faster than previous devices. Their continuing work on these plastic "opto-chips" could greatly speed access to the Internet, make radar far more sensitive, pave the way for "smart highways," and yield many other applications.

Information Science. Making computers ever faster, more powerful, and more secure is one broad focus of University research. Making them "smarter"—better adapted to human use, as in speech recognition—is another. Other areas include artificial intelligence, "ubiquitous" computing, robots, and tools to integrate and manage the vast amounts of data we can now call up. In almost all of these areas, University discoveries have already generated successful spin-off companies. The ultimate goal is computing that is human-centered, with thousands of natural-to-use communicating devices and software agents serving the needs of each individual.

Beyond the technology itself is the role information science has played, and will increasingly play, in other intellectual realms. Advances in neuroscience were powered by seeing the brain as a kind of computer; advances in

genetics were powered by seeing DNA as a digital code. Partnerships between computer science and other fields will continue to shape new conceptual breakthroughs.

Understanding the universe. Basic research—the pursuit of knowledge for its own sake, without thought of practical applications—is in fact the source of most of the scientific and technological advances that have changed our lives. “Pure” research changes the way we think about the world, stretching our minds and enriching our sense of wonder at the workings of nature. University scientists explore these frontiers of pure knowledge at scales both vast and minute.

Four University astrophysicists (two professors and two graduate students) were part of an international research team whose work in 1998 was called the “Breakthrough of the Year” by *Science* magazine. In studying supernovas—bright, massive explosions of distant stars—the team found that the expansion of the universe is accelerating, instead of being slowed by gravity as scientists had assumed. “Their findings,” said *Science*, “transform our view of the universe and pose fundamental new questions for physics.” University researchers must now wrestle with these new questions.

University scientists are leaders in the realm of nuclear theory, trying to understand the tiniest and most elusive building blocks of nature. As members of another international team, University researchers helped obtain the first evidence that neutrinos have mass. This is another contradiction of common assumptions and may have implications for the mysterious “dark matter” of space.

Exploring human potential. The University’s new Center for Mind, Brain, and Learning,²¹ now in its earliest stages, brings together researchers from psychology, neuroscience, cognitive science, education, and computer science to investigate learning in early childhood. It builds on University strengths in all these areas, especially groundbreaking University work on the way babies learn language. Although its focus will be the first years of life, the Center’s discoveries will potentially alter our understanding and practice of education throughout formal schooling and indeed throughout life. A strong public outreach component will ensure that the Center’s work is quickly made known to the public, especially parents and educators.

The Simpson Center for the Humanities²² supports teams of humanistic scholars who are combining disciplines to search out new dimensions of human experience, meaning, and value. Part of the Center’s mission is to reconnect campus work in the humanities with the world of public discourse. As part of that mission, the Center has joined the Washington Commission for the Humanities to cosponsor the Clemente Course, a free, rigorous humanities curriculum for poor and disadvantaged adults in

Seattle. Following a model in New York, the Clemente Course radically tests the notion that humanistic learning has the power to change lives.

The electronic revolution is creating new kinds of art. A University Center for Digital Arts and Experimental Media,²³ spanning disciplines in the arts, architecture, and engineering, fosters invention and exploration in new artistic media. In areas such as computer music, computer animation, spatial and temporal digital art, design computing, and theater sound design, artists and engineers will collaborate to make art for the 21st Century.

Social justice. The great divide between wealth and poverty—between individuals and societies that are profiting from change and those that are being left behind—is a growing challenge. There are troubling examples in Washington as well as around the world. Many University researchers are trying to understand this gap and devise ways of addressing it, often in interdisciplinary centers shaped by the complexity of the problems involved. For example:

- The University’s three-campus Human Rights Education and Research Network²⁴ is fostering interdisciplinary research around large questions relating to human rights.
- The Center for Internet Studies²⁵ is the first university-based program for the study of the Internet’s impact on economic, political, and social systems around the world.
- The Center for Studies in Demography and Ecology²⁶ is widely known for research in such areas as Asian demography, social stratification and mobility, poverty, family behavior, and migration and immigration.
- University health scientists are leaders in research on emerging and re-emerging diseases. One program is building international research collaborations in the area of infectious diseases. The program brings exceptional students from key regions of the world to the University, to do research with faculty in a wide range of medical fields. The students then return to their countries to build research programs there, disseminating modern medical research into societies where it has been rare or non-existent.

In sum, the University’s strength in creating new knowledge stems from its strong faculty. The faculty achievements are well recognized by peers through external funding and the University proudly plays host to faculty members distinguished in their recognition by others in recent years:

5 - Nobel Prizes;

- 6 - Gairdner Awards;
- 4 - Lasker Awards;
- 38 - Members, Institutes of Medicine;
- 40 - Members, National Academy of Sciences; and
- 11 - Members, National Academy of Engineering.

Expanding Educational Opportunity

America has spent the last century and a half redefining higher education. Changes in curricula have been matched by equally dramatic changes in the social function of higher education and the identity of its students. Land-grant universities, the GI Bill, and the civil rights movement were major landmarks in the march to extend higher education to Americans of all social classes and all racial and ethnic backgrounds. Even at elite institutions, yearbooks that were once a sea of white male faces are now kaleidoscopic.

No other country has matched this level of democratization in higher education. But impressive as this achievement has been, it is far from finished. American campuses do not yet mirror the increasingly diverse society. They are only beginning to explore the ways in which new technologies can extend their reach.

As the flagship university in the state's system of public higher education—and as the premier institution of higher learning in a wide region—the University embraces the challenges and possibilities of making higher education accessible to all. The stakes are significant: social justice, regional prosperity, and the quality of our democratic institutions. The programmatic complementarity on three University campuses is evidence of broadening educational approaches. Some other areas in which University efforts will be driving the expansion of educational opportunity:

- Helping all K-12 students learn;
- Expanding the pipeline for higher education;
- Making higher education affordable;
- Expanding distance learning opportunities; and
- Ensuring access to life-long learning.

Improving Lives: Knowledge in the Service of Society

Service, the third of the traditional missions of a public research university, derives its meaning and character from the first two, teaching and research. It makes explicit the general service ethos behind public higher education, forging direct connections between academic work and the needs of society.

In the neighborhood: Puget Sound. Its location in the state's largest metropolitan area gives the University special responsibilities and opportunities. Both as an institution and as a collection of highly trained, concerned individuals, the University addresses such urban issues as health care for the disadvantaged, social ills in inner-city communities, economic development, traffic, and (a special feature of this particular urban area) earthquakes. For a large, curious, multicultural population, including many who work at the cutting edge of the “new economy,” the University is also a major resource for information and for artistic and intellectual life. Not least important, University discoveries and inventions fuel the Puget Sound's entrepreneurial economy, and Puget Sound residents are often the first to enjoy the benefits of University medical research.

The hospitals of UW Medicine (UW Medical Center and Harborview Medical Center), together with the closely affiliated Children's Hospital and Regional Medical Center and Seattle Cancer Care Alliance, where many UW physicians practice, provide more than half of the charity care in King County, although they admit only 16 percent of the county's patients. Harborview Medical Center, in particular, has a special mission to refugees, AIDS patients, the homeless and mentally ill, and jail inmates—urban society's most difficult health-care challenges. University medical students also volunteer to work with local underserved populations through the Community Health Advancement Program (CHAP).²⁷ CHAP sponsors a variety of student-run projects, such as clinics at community health centers, a dermatology clinic at a downtown homeless shelter, and a diabetic foot-care program. In the Husky Smiles program, dental students provide preventive care and education to underprivileged children and their parents. The School of Pharmacy rotates students through four Seattle clinics to give their low-income and minority clients such services as blood-pressure screening and evaluation of possible drug interactions. Through such activities, the University's cutting-edge medical care and research advance the health of the whole community, not just those who can afford the best.

Service learning is increasingly a feature of University academic programs. English students tutor in high-school writing programs, geography students help out in social-service agencies for immigrants, and so on. In the Business and Economic Development Program,²⁸ business students serve as consultants to small-business owners in inner-city neighborhoods, helping them grow their companies and create jobs. The Street Law²⁹ program sends second- and third-year law students into Seattle-area high schools to teach a course in “practical law,” ending with a mock trial in Condon Hall. Law students also serve in the Clinical Law Program,³⁰ providing (under faculty supervision) pro-bono legal services to the poor. These and many other programs are part of the University's

growing emphasis on experiential learning. They provide an immediate two-way street between campus learning and service to the community.

Many University research programs are directly linked with local concerns and conditions. University geologists have greatly increased our understanding of Puget Sound's seismic history and potential (the Seismology Lab was the authoritative voice on the recent Nisqually Earthquake),³¹ and earthquake engineering is one of the recognized specialties of University civil engineers. Pioneering researchers in social work, testing prevention strategies with children, teachers, and parents in Seattle-area elementary schools, have developed programs that successfully reduce teenage violence, heavy drinking, and pregnancy. The University is leading a coalition to investigate the "digital divide" in Seattle and find ways to address it. University experts in traffic-flow theory and transportation networks have helped public officials design traffic systems to reduce congestion and put real-time information at commuters' fingertips. In many fields, University expertise grows out of involvement with the local community and feeds back into the welfare of that community.

With the twelfth largest research library system in the U.S., the University ranks fourth nationally in the quantity of library material supplied to non-campus users. Local citizens, teachers, businesses, and public agencies know the value of this resource and use it heavily. University librarians, both on upper campus and in the health sciences, have developed a wide array of services for the public. As more and more materials are made available online, the system will become an even more valuable asset (and a growing proportion of its users will be regional, national, and global).

All three University campuses serve as hubs of intellectual and cultural life in the Puget Sound. Its drama, dance, and music performances, its museum exhibits, and its free public lectures provide insight into the latest discoveries and the oldest cultural treasures. Its partnerships with the communities, especially in Tacoma and Bothell, make broader use of its facilities for local events possible.

One might say that the University serves the Puget Sound economy simply by being good. The quality of our graduates enhances the local workforce and makes the area attractive to new enterprise. An extraordinarily large proportion of University graduates remain local. The quality of University research has spun off more than 180 new companies in the last ten years, adding thousands of jobs and more than a billion dollars of annual revenue to the local economy. The University's strategic focus on such areas as computer science and biotechnology has been crucial to this economic development, as has one of the nation's best technology-transfer programs.

In the state and region. The striking geographical contrasts within Washington and the Northwest symbolize—and contribute to—a range of social and economic contrasts that are particularly stark: between urban prosperity and rural hard times, between a longstanding environmental ethos and the imperatives of development, between the old resource-based economy and the new knowledge economy, between indigenous peoples and the successive waves of newcomers, between the wet side and the dry side. Much of the University's state and regional service involves partnerships with communities and institutions that are trying to deal with these contrasts. What the University brings to such partnerships is expertise and resources linked to its teaching and research. In particular, the regional scope of the WWAMI program—medical training for five states with 25 percent of the U.S. land-mass—and the University's national leadership in rural medicine demonstrates an especially strong and intimate involvement with communities all across the Northwest.³²

The Rural Community Partnerships program was begun last year in Forks, Omak, and Toppenish, three different kinds of remote, rural communities trying to find a way into the 21st Century. At each of these sites, a University staff member based in a local institution works with an array of community representatives. The goal is to identify areas of need where University people and programs can help bring progress, and then to assemble the resources to make things happen. Technology centers (two in place, one still to come) are an important first step in bringing new possibilities to these communities. Early signs of success: UW at Forks³³ has already helped stimulate community plans for a technology-oriented future, and UW at Heritage³⁴ is launching a web-based link between the University's Business and Economic Development Program, Heritage College students, and small businesses (mostly Hispanic or American Indian) in the Yakima Valley.

The University is interwoven with the regional economy in many ways. The Northwest fishery and forestry industries, traditional but still important, have relied heavily on University applied research and training. As conservation issues bring added challenge and complexity to these industries, University expertise becomes even more important, as in the Columbia River Research Program and the Center for International Trade in Forest Products (CINTRAFOR).³⁵ In the "new economy" arena, the University's leadership in connecting the Northwest to Internet 2 and vBNS has set the stage for technological and economic advances throughout the region.

Health care remains the area in which the University's service to the region is most extensive and visible. The whole WWAMI (Washington, Wyoming, Alaska, Montana, Idaho) program was built on the concept of service. More than thirty years ago, the University medical faculty was concerned about vast rural areas in which doctors were

few, health-care needs urgent, and the conditions of medical practice difficult. The faculty decided that it should be the University's special mission to train and support doctors for primary care in rural and underserved areas of the Northwest. The faculty designed a system of community-based medical education serving four (now five) states and centered at the University, the only medical school in those states. Even as research and technology have changed the face of medicine, that basic WWAMI mission has remained, and the University is repeatedly ranked first in the nation in rural medicine.

The WWAMI network of training sites, in community clinics and practices all over the region, has given rise to many new educational and health-care initiatives. Through the Rural/Underserved Opportunities Program, medical students can spend the summer between their first two years working with physician preceptors in remote or inner-city practices. The MEDEX program, taught in Seattle, Spokane, and Yakima, trains nurses, paramedics, and other health professionals to become physician assistants, who then provide the support that can help keep doctors in demanding rural practices. Tribal Connections, a program of the University Health Sciences Libraries, connects sixteen American Indian and Alaska Native communities to the Internet and provides training in finding and using health information—such information as “The Arthritis Source,”³⁶ a comprehensive online tutorial designed by University doctors. The Telehealth Program allows family doctors and their patients in remote sites to have interactive video consultations with University specialists in Seattle. The Yakima Valley Farm Workers Clinic has especially close ties with University faculty and students, who regularly provide medical and dental care there.

WWAMI has not lost the big-picture perspective from which it originally sprang. The WWAMI Center for Health Workforce Studies brings together health-care professionals and social-science researchers to look at the region's overall health-care needs and the factors that shape its supply of doctors, nurses, and other health-care workers. On the local level, the Program for Healthy Communities sends medical-school personnel into rural areas to help community leaders survey populations about important health issues. The insights gained give communities a basis for addressing and solving problems.

In the nation and the world. The intellectual capital of the University in such areas as biology, information technology, environmental science, and public health make it a resource for national policymaking and international development. In addition, just as Seattle's Pacific Rim location has made it a center for international trade in goods and services, the University has become a center for trade in knowledge and ideas.

When federal officials were shaping a national policy for information technology, they brought University faculty and staff to (the other) Washington to join the inner-circle deliberations. When the international Human Genome Project³⁷ was established, University geneticists and technicians were part of the team that helped imagine and implement the project. WWAMI is regularly cited as a national and international model for innovative medical education tailored to community needs. In these and similar cases, the University serves the nation and the world as a sort of intellectual consultant, bringing original ideas and proven expertise to the consideration of important issues.

Being equidistant from Europe and Asia, the University plays a significant role in serving a global society. The University was a logical place for the APEC Study Center,³⁸ which coordinates multilateral, interdisciplinary research on issues that affect APEC members' economies. The APEC Emerging Infections Network, which uses the Internet to keep Pacific Rim health officials and policymakers up-to-the-minute about threats to health, is also based here. It is only one example of far-flung University contributions to international health, deriving both from our cutting-edge research and from our pre-eminence in rural health. The world's first Global Business Challenge³⁹ brings students from around the world to our campus to learn from one another as they compete to solve international business problems. The University's well-known Asian Law program builds bridges between professional communities on both sides of the Pacific. And the interests of individual faculty members often give an international dimension to service learning; one design-build project took architecture students to rural Mexico, where they created a community laundry for an impoverished village.

New developments in information technology, and University leadership in that field, will continue to multiply opportunities for national and international service. Already, a University web site called the “Digital Anatomist Project” is used in 95 countries, providing vivid, interactive models of human anatomy for students and medical professionals. The University designed and coordinates R1.edu,⁴⁰ which lists distance-learning offerings from 33 of the nation's foremost research universities. The University, Berkeley, and the American Association for the Advancement of Science have joined forces in SCOPE,⁴¹ or Science Controversies On-line: Partnerships in Education. EServer, an alternative publishing site for scholars, artists, and writers, is based here. The University is a founding institution of the Association of Pacific Rim Universities, the first truly international organization of Universities fostering meaningful exchange projects on a global scale.

THE UNIVERSITY'S GOALS AND TARGETS

Over the past eight years the Board of Regents has set annual goals and expectations for the President and University.⁴² Since 1999, the Board of Regents has established and maintained focus upon six goals, supplemented by related five-year targets. The Regents affirm these goals each year and establish, annually, a list of one-year performance measures. At the end of the year, progress on these one-year targets is assessed, reported to the Regents, and made available to the University community.

These goals emerged from a sustained, presidentially directed and led, year-long discussion among the University community—known as the “Conversation about the Future”—and a provocative series of values discussions among the Regents spanning more than eighteen months.

The goals and five-year targets, last affirmed in September 2002, are as follows:

Goal 1: Establish a solid resource base to support excellence in education and research, now and for the future.

Target 1-A: Achieve base operating funding (tuition, state appropriations and endowment income) equal to the average of peers.

Target 1-B: Maintain UW's share of the federal research budget.

Target 1-C: Launch and implement a capital campaign to raise at least \$2 billion in gifts and private grants (in seven years).

Target 1-D: Develop and execute a disciplined plan for deferred maintenance and renewal of facilities.

Target 1-E: Develop and execute a plan to build new research facilities.

Goal 2: Provide equitable access for all citizens of the State of Washington and promote diversity at the UW.

Target 2-A: Increase the number of underrepresented minority students to at least 10% of the applicant pool.

Target 2-B: Increase the proportion of underrepresented minority students in the incoming freshman class to at least 10%.

Target 2-C: Increase the underrepresented minority students among undergraduate, graduate, and professional degree recipients to at least 10% of the total number of degrees awarded.

Target 2-D: Increase the number of tenured, tenure-track and research faculty from underrepresented groups by at least 10%.

Goal 3: Work with our state's other educational institutions to meet the educational aspirations of students at all levels.

Target 3-A: Increase the UW's service to K-12 students, teachers, principals, and superintendents.

Target 3-B: Improve the coordination between UW and community colleges to better serve students.

Target 3-C: Make selected UW educational opportunities more easily accessible.

Goal 4: Position the UW to contribute to solving critical human problems of the 21st Century.

Target 4-A: Utilize key UW strengths to address critical problems, particularly in the areas of global equity, health, environment, technology, and citizenship.

Target 4-B: Increase the positive perception of the UW's contribution to the well being of State of Washington citizens among selected industry and civic leaders.

Goal 5: Stay on the cutting edge of innovation in education, research, and technology.

Target 5-A: Develop new methods for measuring student learning.

Target 5-B: Increase the number of departments or programs recognized as top-ten and/or national leaders in their fields.

Target 5-C: Increase annual investment in infrastructure to a level adequate to maintain competitiveness in research (~66 M/year).

Target 5-D: Increase the number of spin-off companies by 10% over present levels.

Target 5-E: Increase the venture capital available for funding transformational initiatives by 10% over present levels.

Goal 6: Promote the integration of research, education, and service.

Target 6-A: Increase the number of students involved in research or public service so that half of all undergraduate students have a significant experiential learning opportunity by the time they graduate.

Target 6-B: Increase the community impact of research in ten selected areas (e.g., environment, early childhood development, etc.).

PLANNING IN SUPPORT OF MISSION AND GOALS

The President's annual address to the University community provides the framework for the President's agenda.⁴³ The President reviews accomplishments during the preceding year, sets forth goals and targets for the coming year, and identifies challenges and opportunities that lay ahead. The President's agenda provides direction to the planning and evaluation processes across the University.

The President also provides direction to the University community through institution-wide initiatives. During the President's 1999 annual address, he invited the University community to engage in a "Conversation About the Future."⁴⁴ The "Conversation About the Future" was a year-long series of events designed to encourage discussion about the challenges and opportunities facing the University of Washington of the future. How will the future be different than the past? How will that future change the way in which we educate students and create new knowledge? The Conversation deeply influenced the one-year goals and long-term vision of the future expressed in the 2000-01 strategic emphases for the University administration. The three overarching goals came directly from the Conversation and from the strategic planning in departments, programs, schools, and colleges. The President, in his summary of the Conversation, noted:

[t]he three themes raised in the Conversation About the Future—ambition, community and resources—are all essential to the University's success. Only with all three can a "culture of possibilities" flourish. We have a wonderfully diverse, creative, intellectual community with a high level of commitment to the University of Washington. Working together with the same energy and imagination that we brought to the Conversation, we will inspire success.⁴⁵

In 1998, the President launched the Tools for Transformation Initiative in order to allow programmatic change to go from isolated examples to a way of life at the University. These resource and management tools are intended to enable departments and programs to respond to new challenges and to remove impediments to change, in order to achieve institutional and unit goals. Only through the efforts of faculty and staff in departments and programs can the university's goals be achieved. For this reason, the Tools for Transformation are specifically targeted at the department and program level. Because of the diversity of mission, structure, and ambition across units, these tools are meant to represent an array of opportunities and to recognize that "one size does not fit all." Since its inception, Tools for Transformation has awarded in excess of \$13 million to projects that have reached across the campuses, colleges, and schools.⁴⁶

In his 1996 address to the University community, the President highlighted the need to "think strategically as a University. We must plan and set priorities and make the hard choices to seize the right opportunities. Where does the University of Washington have comparative advantages? And where can it make the most difference?" In order to find resources to move the University ahead, to fund extraordinary programs, new and existing, the President created a special budgetary reserve called the University Initiatives Fund (UIF).⁴⁷ Permanent money for the fund came from a one percent assessment on University operating budgets beginning in July 1, 1997.

This fund was viewed as essential to move the University forward, to seize new initiatives, and to respond to new ideas. The President's decision to create the UIF came only after extensive consultations with the Faculty Senate Committee on Planning and Budgeting, the Board of Deans, the President's Council, and the University Budget Committee. Almost everyone agreed that a University Initiatives Fund was necessary to permit the University to address programmatic needs that stretch across several schools, colleges, and departments, including interdisciplinary programs that involve joint proposals from more than one dean. It was also created in response to the need for some funds centrally as "leverage" for proposals that are largely supported by outside sources of income. And finally, it was recognized that sometimes promising developments occur within a college or school after a biennium has begun and resources have been allocated. The UIF provides the flexibility to initiate the best of those possibilities when failure to do so would risk losing them altogether. The University Initiatives Fund is not used to "fix" problems in the regular budget. It is dedicated to the support of new and existing programs for which there are inadequate resources.

Since 1997, 18 projects have been funded, several of which have lead to pathbreaking new degree programs. Each of these institution-wide initiatives exemplifies the University's commitment to ongoing planning that supports the achievement of its mission and goals. The University is engaged in a continuous process of asking questions, seeking answers, analyzing itself, and revising its goals, policies, procedures, and resource allocations. This process is informed by systematic and ongoing institutional research.

INTEGRATION OF INSTITUTIONAL RESEARCH WITH PLANNING AND EVALUATION

Institutional research at the University of Washington is synonymous with planning and evaluation. The Institutional Studies office is located within the Office of

Planning and Budgeting and shares reporting to the Associate Provost for Academic Planning. The office subscribes to its mission of providing analysis and information services to enhance decision-making, planning, and policy formation. By fulfilling its mission, the Office provides the foundation for informed decision-making across the University. Examples of specific research activities that support the University's planning and evaluation include:

Academic Profiles⁴⁸

Academic profiles are used by departments to evaluate their activities in terms of resource allocation, utilization, and outcomes. Resource allocation refers to budgeted funds and staff by source. Utilization includes student credit hours and average class size. Outcomes list student course evaluations, undergraduate satisfaction (measured six months after graduation), graduate student rating of experience upon graduation, and time to degree. Relating resources to outcomes in this way allows administrators to make planning decisions that are based on factual evaluation of programs.

Peer Comparisons⁴⁹

Comparisons are used to evaluate how well the University of Washington is funded in relation to other, similar institutions. Funding per student full-time equivalent and faculty salary comparisons are helpful in providing benchmarks for budgeting and planning decisions.

MRTE (Mutual Research Transcript Enterprise)⁵⁰

MRTE is a shared database developed by institutional researchers at the University of Washington and the State Board for Community and Technical Colleges. This database contains encrypted information about student performance, used by researchers to evaluate programs and improve instruction. Section-level course data are available that provide comparisons, for example, between transfer students and students whose entire academic career takes place at the University of Washington. These course-based assessments assist decision-makers in planning and evaluating curriculum offered at different institutions.

Financial Aid and Tuition

Over the past two years, the Office of Institutional Studies has developed a continuing program of student aid, tuition setting, and enrollment research. The primary focus of this research has been the relationship between tuition setting and satisfaction of student financial need. The research agenda, however, is beginning to evolve to respond to the need for a better understanding of the relationship among different types of aid, the condition in which types of aid can have maximum effectiveness, and

how student aid can enable equality of opportunity within the institution.

Decision Support Databases

The University's decision-making and academic management functions are highly decentralized. This decentralized process is served by a series of decision support databases that may be used and accessed by academic leaders for analysis and research. These databases include student demographic characteristics, course enrollments, grades, degree awards, faculty and instructor teaching assignments, space and space utilization, actual and budgeted expenditures and revenues, staffing and personnel. The Office of Institutional Studies is responsible for management of and access to the databases. This resource serves as a foundation for shared understanding within the University, where dialogue can occur based on data rather than on anecdotal information.

The University is accountable to itself, to its communities of interest, and to the State of Washington and must demonstrate its academic and administrative effectiveness and efficiency. Measures of accountability and effectiveness and efficiency are routinely used to inform planning and evaluation decisions.⁵¹

The University of Washington is committed to the effective and efficient use of its resources for the fulfillment of its mission and goals. Using data from the National Science Foundation (NSF) and the National Center for Educational Statistics (NCES), Zheng and Stewart analyzed the instructional and research performance of 56 public research I universities.⁵² Their analysis suggests that the University of Washington is one of a very small number of "powerhouse" universities that demonstrate top effectiveness and efficiency in both research and instruction.

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- 3 Carlson Center, <http://depts.washington.edu/leader/>
- 4 Teaching Academy, <http://www.washington.edu/oue/academy/>
- 5 Catalyst, <http://catalyst.washington.edu/home.html>
- 6 UWired, <http://www.washington.edu/uwired/>
- 7 Department of Computer Science & Engineering, <http://www.cs.washington.edu>
- 8 Program on the Environment, <http://depts.washington.edu/poeweb/>
- 9 UW Bothell Interdisciplinary Arts & Sciences, <http://www.bothell.washington.edu/IAS>
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- 10 Rome Center, <http://depts.washington.edu/roma/>
- 11 Jackson School of International Studies, <http://jsis.artsci.washington.edu/>
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- 22 Simpson Center, <http://depts.washington.edu/uwch>
- 23 Center for Digital Arts & Experimental Media, <http://www.washington.edu/dxarts/>
- 24 Human Rights Education and Research Network, <http://depts.washington.edu/hrights/>
- 25 Center for Internet Studies, <http://www.cis.washington.edu/>
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- 27 Community Health Advancement Program, <http://www.fammed.washington.edu/predoctoral/chap/>
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- 41 SCOPE, <http://scope.educ.washington.edu/>
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[Board of Regents Resolution of Expectations – October 1996;](#)
[Board of Regents Resolution of Key Expectations of the University President and His Administration for 1997-98 – October 1997;](#)
[Board of Regents Resolution of Goals for the University President and His Administration for 1998-99 – October 1998;](#)

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⁴⁵ Conversation About the Future: Toward a Culture of Possibilities, http://www.washington.edu/change/future/rlm_caf_report.htm

⁴⁶ Tools for Transformation, <http://www.washington.edu/change/proposals/>

⁴⁷ University Initiatives Fund (UIF), <http://www.washington.edu/uif/>

⁴⁸ Academic Profiles, <http://www.washington.edu/admin/factbook/AcademicProfile/acadprof.html>

⁴⁹ Peer Comparisons, <http://www.washington.edu/admin/factbook/OisAcrobat/peers.html>

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