



University Plan 4

Second position paper, April 2013



Office of Academic Affairs
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UNIVERSITY PLAN 4 (UP4): A STRATEGIC PLAN FOR THE UNIVERSITY OF WYOMING, 2014-2020 SECOND POSITION PAPER, APRIL 2013

Office of Academic Affairs University of Wyoming

1. INTRODUCTION AND OVERVIEW

This document represents the second of three position papers envisioned for the development of the University of Wyoming's next strategic plan. The plan, due to UW's Board of Trustees in May 2014, will cover the period 2014-2020. The intent of the position papers is threefold: to provide context for the planning process, to propose a set of major issues that the final plan will address, and to invite discussion and feedback about the shape and focus of the final plan. The narrative below reviews UW's mission and vision, analyzes the setting that the university will likely face during the period 2014-2020, offers a series of short narratives related to several key issues to be addressed, and outlines a process for developing the plan.

UW enjoys a tradition of strategic planning that stretches back to *Academic Plan 1* (AP1), developed in spring, 1999.¹ This tradition will soon enter its fourth cycle, as shown in the following table:

Plan	Period Covered
<i>Academic Plan 1</i>	1999-2004
<i>Academic Plan 2</i>	2004-2009
<i>University Plan 3</i>	2009-2014
<i>University Plan 4</i>	2014-2020

Strategic planning has allowed the university:

1. **To focus on areas of distinction**, developing bench depth needed to promote the highest levels of scholarship and teaching, in carefully selected fields of inquiry and in a way that permits and encourages most academic units to contribute;
2. **To connect these areas to critical issues facing Wyoming and the world**, through initiatives that transcend traditional disciplines, without diminishing the epistemologies and expertise that these disciplines nurture;
3. To go even further, helping **to define and create Wyoming's future**, in new and emerging economic, technical, social, and cultural dimensions as well as in the state's historic strengths;
4. **To identify core institutional principles** that guide resource allocations within the university and that shape the institution's responses to external opportunities and challenges.

A memorandum² from the Office of Academic Affairs, distributed in January 2012, outlines the structure, process, and timeline to be followed in developing a strategic plan for the University of Wyoming for the period 2014-2020. The first position paper³, distributed in October 2012, added substance to that skeleton. The current document expands upon key issues identified in those two documents, reflecting input submitted in response to the first position paper and anticipating the need for further input and refinement between now and the May 2014 due date for *University Plan 4* (UP4). We welcome feedback. The last page of this document lists contact information.

Strategic planning in the academy requires that its best minds — people who typically devote their creative energies to the advancement of specific disciplines or sectors of the university — engage in thinking that is more global and integrative than that which typifies most of our classrooms, offices,

¹A comprehensive record of UW's planning tradition, including planning documents and progress updates, is retrievable from the Academic Affairs website: <http://www.uwyo.edu/acadaffairs/plans/index.html>.

²See <http://www.uwyo.edu/acadaffairs/plans/14-20/index.html>.

³See http://www.uwyo.edu/acadaffairs/plans/14-20/up4_position_paper_1.pdf.

laboratories, and scholarly work. In the planning discussions that unfold between now and 2014, the most compelling ideas will be those that (1) reinforce the university's mission through the pursuit of academic excellence, (2) advance and refine the vision crafted in previous plans, (3) enhance the distinctiveness and lifelong impact of a UW experience, and (4) promote the university's role as a recognized leader in building the future, for Wyoming and the larger world.

2. UW'S MISSION AND VISION

MISSION STATEMENT⁴

In the exercise of our primary mission to promote learning, we seek to provide academic and co-curricular opportunities that will:

- Expose students to the frontiers of scholarship and creative activity and the complexities of an interdependent world;
- Ensure individual interactions among students, faculty, and staff;
- Nurture an environment that values and manifests diversity, free expression, academic freedom, personal integrity, and mutual respect; and
- Promote opportunities for personal growth, physical health, athletic competition, and leadership development for all members of the university community.

As Wyoming's only university, we are committed to outreach and service that extend our human talent and technological capacity to serve the people in our communities, our state, the nation, and the world. The primary vehicles for identifying the specific actions and resource allocations needed to accomplish this complex mission are the university's strategic plans, revised periodically.

A VISION FOR THE UNIVERSITY OF WYOMING⁵

Alone among society's institutions, universities both imagine the future and create it. And alone among states in the U.S., Wyoming entrusts this duty to a single public, land-grant, research university.

The University of Wyoming is a community of scholars, learners, and leaders committed to two institutional hallmarks. The first is our mission to explore, create, and share knowledge, in areas that are meaningful to our constituencies and at a level of accomplishment that garners international recognition for excellence. The second is a culture that advances the intellectual, ethical, and leadership capacities of our students and employees, with a degree of effectiveness that is exemplary among public universities.

The University of Wyoming also possesses a distinctive character. Counting among its assets a remarkable geographic setting, unparalleled statewide presence, and a heritage of strong public support, the university embraces both its historic sense of place and its mandate to create the future. We prize the institution's stature as a national model for *access* to higher education, *excellence* in areas of inquiry that are relevant and important to the state and region, and the cultivation of *leadership* for a civil society. We take pride in the will to focus energy and resources on endeavors that build what Wallace Stegner envisioned as "a society to match its scenery."

⁴This version of UW's mission statement appears at <http://www.uwyo.edu/acadaffairs/mission/index.html>.

⁵This vision statement appears in *University Plan 3*, <http://www.uwyo.edu/acadaffairs/files/docs/up3.pdf>.

3. THE INSTITUTION'S SETTING IN 2013

Several tangible attributes delineate both the constraints and the opportunities that the university faces.

- **Statewide role.** UW is the only public university in the state. This status confers benefits, responsibilities, and challenges. UW enjoys recognition by state officials as Wyoming's largest reservoir of high-level expertise in many areas. It benefits from a streamlined decision-making chain, since it does not report to a statewide system of higher education. It has steadfast supporters in every branch of state government and among the state's citizens. At the same time, as Wyoming's only university, UW carries a wide-ranging portfolio: it serves as the state's most important source of teachers, engineers, health-care providers, scientists, business professionals, attorneys, political leaders, writers, and artists. The institution faces perennial pressures — not only from external constituencies but also from within — to broaden this portfolio beyond what its budget can support.

While the portfolio must be broad enough encompass our mission, it must remain bounded and coherent. Instead of trying to respond to all external demands, UW must focus its resources on a set of programs in which nationally recognized excellence is both important to the state and sustainable. This premise entails saying no to many proposals to establish new programs.

- **Transition to a new president.** President Tom Buchanan will leave office in summer, 2013. His eight-year presidency will mark a period of extraordinary growth in the university's physical plant, statewide presence, and national recognition. Leadership transitions at this level, after such remarkable successes, challenge the entire institution, including its new president.

In February, UW's Board of Trustees hired Dr. Robert Sternberg, provost at Oklahoma State University, to become the next president. As the transition to a new presidency proceeds, UW's planning process will increasingly reflect not only the momentum established to date but also the philosophies, perspectives, and priorities of a new leader. Dr. Sternberg has proposed three goals for the university:

- Becoming the nation's top land-grant university
 - Serving the state and increasing its economic opportunities
 - Producing ethical leaders.
- **Research and graduate education.** As a research and doctorate-granting university, UW expects faculty to conduct rigorously peer-reviewed scholarly work and creative activity and, in some fields, to mentor doctoral students. As with many peer institutions nationwide, UW's investments in research and graduate education form an essential component of the state's economic development strategy.⁶ At the same time, they impart to its baccalaureate programs the distinctive opportunities associated with flagship public universities and elite private institutions. The university enjoys a long tradition of faculty commitment to baccalaureate education, but an uneven reputation for research and graduate education exerts a drag on its pursuit of recognized excellence.

This status as a research-doctoral university and the drive for multidimensional excellence imposes costs. In hiring and retaining faculty, we compete in one of the world's most competitive job markets, for some of the world's most highly trained professionals. The people we hire must live up to expectations significantly more complex than those that prevail at comprehensive universities or at undergraduate-only institutions. Those who meet these expectations are often highly sought-after by our peer institutions. Hiring and retaining faculty members at this level requires continual

⁶Noteworthy in this respect is a 2010 document, "A Plan for Wyoming Science and Technology," prepared by the Wyoming Science and Technology Planning Group. The plan emphasizes water, energy, and computation — three areas of distinction identified in UP3. See <http://www.uwyo.edu/research/files/docs/science-and-technology-a-plan-for-wyoming-2010.pdf>.

attention to salaries, funding for research start-up packages, and initiatives to overcome barriers to recruiting the world's most promising newly minted doctoral graduates.

The drive for excellence, coupled with economic challenges discussed shortly, make a compelling case for seeking a more diverse funding portfolio. Increased private philanthropy will play a critical role. In addition, the institution must place substantially greater emphasis on competitive research contracts and grants, especially in departments and colleges where the faculty's performance in securing external awards lags significantly behind those at comparable institutions. External contracts and grants validate the significance of scholarly work in many fields, enrich the research experiences available to students, and provide resources that can make the difference between an adequate learning environment and a great one.

- **Land-grant mission.** UW is a land-grant university. Its mission encompasses preparation for a wide range of professions as well as opportunities to pursue the liberal and fine arts. This attribute and the public service mission embedded within it lie at the heart of UW's importance to the state. Owing to the land-grant ethos and the federal funding that underpins it, UW offers a commitment to access, a spectrum of career pathways, and emphases on applied research, extension, and community and business development that liberal arts institutions seldom stress.

UW enjoys a solid stance from which to nurture public-private partnerships that reinforce the land-grant mission and connect it to Wyoming's economy. The seven economic development units within UW's Office of Research and Economic Development⁷ have enabled many such partnerships in Wyoming. And since 2006, the Enhanced Oil Recovery Institute, Wyoming Reclamation and Restoration Center, Advanced Conversion Technology Task Force, and other energy-related initiatives have reinforced this role. Gift-matching programs sponsored by the Wyoming Legislature have provided outstanding resources to enable partnerships of this type.

- **Exceptional state funding.** Wyoming ranks first among states in per-capita public expenditures on higher education. As the table below shows, in FY 2013 the Wyoming Legislature provides roughly 73 percent of UW's base funding and more than 41 percent of the institution's overall funding. At public doctoral institutions nationwide, state funding in 2009 averaged 19 percent of overall funding⁸. In many states the level of state funding is closer to half that percentage and has been falling.

UW Funding Sources for FY 2013 (1 July 2012 – 30 June 2013)

Base ("Section-1") Funding	
General fund (legislature-appropriated)	\$204.7 M/yr
Tuition and other revenue (land-grant funds, royalties, etc.)	76.3 M/yr
Total, section 1*	\$281.0 M/yr
Self-Sustaining ("Section-2") Programs	
Non-grant section II funds	\$140.6 M/yr
Grants & contracts (estimated, excluding student financial aid)	74.4 M/yr
Total, section 2 (estimated)	\$215.0 M/yr
Estimated total	\$496.0 M/yr
*Within this category, roughly ¾ of the expenditures pay for salaries and benefits.	

Strong state support, explicit attention to the instructional workforce, and deliberate management of the faculty position budget has enabled UW to achieve a student/faculty ratio of 14. By comparison

⁷See <http://www.uwyo.edu/research/economic%20development%20reporting%20units/index.html> for an overview.

⁸National Science Foundation website, "Science and Engineering Indicators 2012, retrieved 8 July 2012 from <http://www.nsf.gov/statistics/seind12/c2/c2s.htm>.

with research universities in most states,⁹ UW has enviable faculty resources for the size of its student body. This asset notwithstanding, most of UW's academic departments struggle to cover their teaching. To reap the benefits of UW's favorable student/faculty ratio, the faculty must temper our profession's natural tendency to expand and compartmentalize the curriculum.

As an unfortunate corollary of UW's exceptional state support, reductions in legislative appropriations hit hard. This aspect of UW's fiscal profile becomes critically important whenever the state's general fund revenues drop, as discussed further below.

- **Vulnerability to energy commodity markets.** Wyoming's state budgets rely heavily on revenues from energy production. For at least the past decade, natural gas revenues have played a prominent role. While that revenue stream was robust in the years preceding the 2009 recession, since then it has weakened considerably.¹⁰ Concerns about the potential for sustained reductions in state revenues led Wyoming's Legislature and Governor to ask all state agencies, including UW, to reduce their budgets. For FY 2014 UW will have to manage a six percent reduction in general fund appropriations for FY 2014. For the main portion of UW's general-fund budget this reduction amounts to \$11.7 million/year for the university — significantly more than the annual budgets of most UW colleges.¹¹ As a result of this reduction, the institution will undergo a period during which (1) reductions in support budgets, student financial aid, and staffing levels will force UW to exercise care in identifying the initiatives that it will support in the near term and (2) progress in these initiatives will be slower.

This caveat notwithstanding, we must continue to pursue progress. Strategic planning provides a critical tool here. Our plans identify and reaffirm major institutional directions, and they establish priorities among the initiatives undertaken to pursue them.

Whatever Wyoming's economic picture may look like in the near term, UW must maintain both a sense of direction and sufficient momentum to capitalize on any upward trends that may occur during the 2014-2020 implementation period. History bears out this notion: many of the successes of the mid-2000s — including dramatically increased prominence in energy-related fields, the arts, computational science, and the life sciences — had their roots in the academic plan developed in 1999, when Wyoming's economy sat in the doldrums.

- **Salaries below market levels.** For many years, UW's faculty salaries have lagged the national averages. In 2011-2012, for example, UW's average salary for full professors was 12.1 percent *below* the average for public doctoral institutions; for associate and assistant professors the comparable statistics were 7.8 percent and 6.6 percent, respectively.¹² While UW made headway in addressing this problem during the mid-2000s, the absence of salary raises since 2009 has caused the institution to fall further behind. Our best employees always have opportunities to increase their salaries, if not through UW-administered raises then by moving to other institutions. For this reason the persistence of salary gaps leaves the institution vulnerable to the loss of its most capable people.

⁹For example, among highly regarded public universities the student/faculty ratio at UC-Berkeley is 17; at U. Virginia, 16; at U. Michigan, 15; at UNC-Chapel Hill, 14; at Georgia Tech, 19; at Colorado School of Mines 16; at UC-San Diego 19; at UC-Davis 15; at Texas A&M, 19; at Clemson, 16; at U. Minnesota, 21; at Colorado State U., 18.

¹⁰The daily natural gas price at Wyoming's Opal Hub averaged \$5.90/mcf during the period FY 2005-2008. For the third quarter of FY 2013 the average was \$3.48/mcf (source: Utah Geological Survey website, <http://geology.utah.gov/emp/energydata/natgasdata.htm>, retrieved 12 April 2013).

¹¹This observation serves only as a rough gauge of magnitude, not as an indication of how UW would manage such a reduction. For information about UW's budget reduction plans, see various documents retrievable at the Academic Affairs website, <http://www.uwyo.edu/acadaffairs/plans/budget/index.html>.

¹²See http://www.uwyo.edu/oia/files/facstaff/fac_rank.pdf. Comparisons of this type yield slightly different results depending on the years for which the data apply and the degree to which the analysis accounts for average salary differences among disciplines. Differences among methodologies notwithstanding, they all show that UW faculty salaries lag significantly behind market levels.

In addition, when resigning and retiring faculty members leave behind smaller amounts of salary, the pool available for new hiring shrinks. This dynamic reduces the institution's flexibility to address new initiatives, leadership needs, and emerging areas of research and creative endeavor.

- **Access.** UW offers remarkably barrier-free access to a flagship-quality baccalaureate education. Owing to high levels of legislative support, UW's resident undergraduate tuition rate is the lowest among all American public doctoral universities, and our nonresident undergraduate tuition rate compares favorably with the prevailing resident rates in many feeder states. UW's competitive tuition rates for nonresidents, together with merit- and need-based financial aid, furnish opportunities to recruit students from populations more diverse than those found in most Wyoming communities.

In addition, Wyoming's Hathaway Scholarship Program generates endowment-funded financial aid for qualifying graduates of Wyoming high schools, in many cases at levels exceeding tuition. As a result, the financial barriers to a UW education are remarkably low.

Several other factors affecting access come into play. In November 2011, UW's Trustees strengthened the institution's admissions standards, sending a clear message to Wyoming high school students and their families about the importance of academic preparation for success in college. During the transition period required for this message to take hold, the university will have a responsibility to provide supplemental academic resources for students admitted with support. In the longer run, UW will have a responsibility to assess whether the new admissions standards have observable effects on incoming students' preparation.

In recent years, UW has begun to meet the needs of nontraditional students on the UW-Laramie campus as well. Nevertheless, despite UW's low tuition, cost is still a barrier for many nontraditional students, who are ineligible for Hathaway Scholarships and who often face other constraints, such as geographic limitations and the need to support families, while they take classes. And many other potential students face non-fiscal barriers to postsecondary education beginning early in their lives, including weak aspirational cultures and families who are under-informed about higher education. As a result, the State of Wyoming lags behind national averages in the percentage of adults who hold a postsecondary degree of any kind.

- **Outreach.** UW's distance education program serves as a model for public institutions. For decades the university has delivered degree programs and student support services to learners in communities across Wyoming and worldwide. Unlike many institutions, UW offers distance education through its mainstream departments, with the Outreach School providing administrative and technical support. In particular, academic departments retain control over the curriculum and teaching personnel. This approach promotes parity between on- and off-campus curricula. In addition, it has enabled a smooth transition to modern, hybrid learning modes that combine face-to-face and online delivery.

In implementing UP3, UW changed its funding model for distance education. The Outreach School no longer contracts with individual faculty members to teach courses via distance delivery. Instead, it contracts with academic colleges, distributing comparable levels of aggregate funding to support preparation and delivery of courses but allowing deans to manage the allocation of outreach-generated funds and teaching assignments within each college. Although the aggregate amount of outreach revenues transferred to the colleges has increased under this new system, the distribution of the revenues within some colleges has changed in ways that have stressed some departments.

In addition, the new system unavoidably transfers to colleges some of the risk associated with fluctuating outreach tuition revenues. The institution can explore ways to mitigate this risk, for example by managing outreach tuition revenues more like other tuition revenues. Such a system would allow for the assignment of a predictable annual budget to the Outreach School, eliminating the need for Outreach School administrators, college deans, and department heads to guess at each fiscal year's outreach tuition revenues. A change of this type would require great care, to

preserve the Outreach School's capacity to manage infrastructure costs (including equipment failures) and the costs of developing new courses and programs.

- **Partnership with NCAR.** Consistent with the commitment to computational science established in previous strategic plans, UW now enjoys an outstanding partnership with the National Center for Atmospheric Research. This partnership has provided UW researchers with access to world-class supercomputing facilities and strong connections to leading experts in computationally-related fields. Between now and late 2013, NCAR will develop its next strategic plan, and the overlap with UW's strategic planning process furnishes both organizations with an opportunity to explore scientific connections across an even broader array of areas.
- **Effective collaboration with community colleges.** The university maintains a statewide articulation agreement that facilitates students' transfer to UW after earning an associate's degree at a Wyoming community college. UW also participates in a statewide course-numbering and course-transfer agreement, to provide clear guidance on which courses qualify for transfer credit. Owing to these systems, Wyoming's excellent public community colleges serve as important pipelines through which Wyoming students can begin to pursue baccalaureate degrees. These connections have begun to form the basis for enhanced articulation with other institutions, including tribal colleges and public community colleges in Nebraska and Colorado.

Augmenting these institution-level systems are a variety of periodic, discipline-specific articulation programs conducted by faculty members throughout the state. These programs, which Wyoming can sustain to a degree that is difficult in large-population states, help insure that pivotal courses remain transferable in substance as well as on paper. Some UW departments have invited affected high school teachers to join these discussions. Through this mechanism, discipline-specific articulation may help resolve, at a statewide level, some of the touchy national issues surrounding concurrent and dual enrollment, through which high school students take courses for college credit.

The Wyoming Transfer Council, now in place, helps pave the way for more seamless transfer to UW from Wyoming community colleges. Some of the council's initiatives include reverse transfer, electronic transfer of transcripts, transfer advising workshops, and improved communication between Wyoming institutions of higher learning.

UW also has several intangible attributes that bear on strategic planning:

- **Strong teaching culture.** Most UW departments place historically strong emphasis on undergraduate teaching. UW must retain this emphasis as a source of pride. Teaching plays an essential role in faculty reappointment, tenure, and promotion decisions. In addition, unlike many sister institutions, UW has an academic professional employment series that promotes career-long growth and institutional engagement among lecturers, whose duties focus on classroom teaching. The Ellbogen Center for Teaching and Learning and numerous college- and university-level teaching awards help reinforce this culture.

Institutional culture and the recent changes in UW's admissions criteria provide an opportunity for the faculty to re-examine how we teach communication skills. As professional writers and speakers, faculty members possess both a natural interest in students' writing and oral communication and substantial expertise to offer. Broadening students' opportunities to hone these skills is arguably one of the most profound enhancements that UW can make to its baccalaureate program. However, an emphasis in this area will require faculty members in all disciplines to accept a greater commitment to teach writing and oral communication in their own classes. It will also require increased attention to the resources available to students in UW's Writing Center.

UW's commitment to graduate education is less uniform, especially in Ph.D. programs. Some Ph.D.-granting programs maintain vigorous and effective student recruitment and a widely shared

faculty commitment to doctoral mentoring. In other programs, graduate student recruitment appears to be less aggressive, and the production of Ph.D. graduates is spottier. Recent initiatives from the President's office and the Office of Academic Affairs, including increased funding for graduate recruitment and greater attention to the management of state-funded graduate assistantships, have begun to strengthen UW's institution-wide culture in graduate education.

- **Uneven commitment to the assessment of student learning.** Faculty commitments to the assessment of student learning vary greatly among departments and colleges. Although a few departments use assessment as an effective tool in the design and evolution of their curricula, the concept encounters resistance in a few others. Admittedly, much of the national discourse on assessment is jargon-filled and couched in the repellent rhetoric of accountability. Those decades-old barriers notwithstanding, UW has several local examples to illustrate how clear thinking about learning outcomes and pragmatic approaches to curriculum mapping and evidence-driven improvement can lead to more effective degree programs.

UW is implementing a new general education program, designed with learning outcomes in mind. To assure that UW provides the best possible value to its students, the university must develop a way to assess the effectiveness of the general education program in promoting the learning outcomes that the faculty have adopted for the baccalaureate.

- **Fertile ground for interdisciplinary teaching and scholarship.** UW's status as one of the nation's smallest flagship public universities may pose challenges, but it also facilitates collaboration across department and college boundaries. Compared with many peer institutions, the university provides a rewarding environment for scholarly work that involves multiple departments or that may be difficult to pigeonhole in traditional disciplinary taxonomies. This culture is far from universal across the institution. Still, the receptiveness of UW's senior academic leaders to cross-departmental and cross-college scholarship and degree programs — and the degree to which these enterprises have guided such initiatives as UW's institution-level EPSCoR, COBRE, and INBRE grants — are noteworthy among the institution's intangible assets.

The areas of distinction, discussed in the next section, promote interdisciplinary activity by emphasizing major intellectual themes for UW's pursuit of scholarly excellence. This approach encourages the cultivation of shared interests among academic departments, almost all of which can find ways to reinforce the areas of distinction through targeted faculty hiring and curricular development.

- **Sense of place.** Few universities enjoy such a remarkable geographic setting. Among those that do, the most widely admired take pains to capitalize on their sense of place. The sparse population, astonishing landscape, and distinctive human cultures and economy of the Rocky Mountain West provide fertile ground for focusing UW's areas of scholarly expertise, shaping the curriculum, and enriching the student experience. Nationally tabulated datasets seldom capture these dimensions of an institution of higher learning. But to those who look beyond the standard metrics, place-based assets provide salient guides to a university's future character.

4. ISSUES TO BE ADDRESSED IN UP4

Preliminary discussions and feedback to the first position paper have highlighted issues in five major categories:

- A. Key academic directions
- B. UP3 issues requiring continued attention
- C. The institutional environment
- D. Enrollment management, access, retention, and persistence
- E. Model employment practices.

The discussion below addresses each category.

A. KEY ACADEMIC DIRECTIONS

UW's 14-year-old planning tradition has changed the institution's academic culture to one that values communities of expertise in selected *areas of academic distinction*. Areas of distinction are fields of academic inquiry and curriculum in which UW has both an existing foundation in faculty strength and a commitment to sustained and increasing prominence. This culture helps counteract the perennial pressure to spread faculty talent over too many fields and too many degree programs, at the expense of excellence in any of them. Focusing on a well defined set of areas of academic distinction facilitates the recruitment of outstanding new faculty members, provides stability against faculty retirements and resignations, and enhances the distinctiveness of the UW experience.

Focusing on *areas*, instead of emphasizing specific academic departments, also helps maintain incentives for all departments to pursue excellence and to cultivate shared interests that cross traditional department boundaries. It whets the natural interest that departments have in each other's hiring, research programs, curricula, and overall success. This dynamic combats the self-imposed insularity that often prevails at academic institutions, largely as a result of purely administrative — and local — structures established to deliver the baccalaureate curriculum.

The issues listed below constitute a preliminary list of topics to be addressed in more detail in *UP4*. In many cases, the issues relate directly to one or more areas of academic distinction identified in *UP3*:

THE AREAS OF ACADEMIC DISTINCTION

- Critical areas of science and technology
 - Computational science and engineering
 - Earth and energy science and engineering
 - Water resources
- Cultural assets, arts, and humanities
- Environment and natural resources
- History and culture of the Rocky Mountain region
- Life sciences
 - Biomedical science
 - Ecology
 - Molecular and cellular life science
 - Neuroscience
- Professions critical to the state and region
 - Business
 - Education
 - Engineering
 - Health care
 - Law

These areas mesh closely with the vision of a connected university: one that pursues internationally recognized excellence in fields that are relevant and important to its state and region. It is possible to generalize this concept to some of UW's nonacademic divisions. For example, in implementing *UP3* the Division of Student Affairs has stressed outdoor experiences and leadership development as areas of distinction in the co-curriculum.

This list of areas of distinction need not remain fixed. As the university's setting evolves and as fields of inquiry wane and emerge, UW's areas of distinction may change. For example, the past few years have seen a significant emphasis on expertise in wildlife and livestock disease. Ongoing discussions among faculty members in the humanities may yield more finely resolved directions for future emphasis in that domain. Building genuine academic distinction requires a balance between the nimbleness required to

stay at the cutting edge and the sustained momentum needed to build a future based on existing strengths.

In the following narratives, issues marked with an asterisk relate directly to specific areas of distinction identified in UP3.

Engineering facilities and programs.* The 2012 Wyoming Legislature challenged UW to develop a “renovation and reconstruction plan for the college of engineering [and applied science],” aiming toward “a tier one academic and research institution in areas of excellence appropriate for Wyoming.”¹³ This directive creates an unprecedented opportunity to advance UW’s engineering curricula and research. A key component of UW’s next strategic plan will be the development of a compelling academic plan in the College of Engineering and Applied Science, to be pursued on an accelerated schedule and with special attention to the Wyoming Governor’s Engineering, Energy, and STEM Integration Task Force report¹⁴. A critical task in this effort will be the identification of metrics of success that can help measure the college’s progress toward “tier-one” status.

Of special interest are strategic directions that:

- Establish the College of Engineering and Applied Science among the nation’s prominent schools of engineering and technology, in a targeted set of areas related to UW’s areas of distinction
- Enhance connections between UW’s academic programs and state-of-the-art concepts and technologies being developed in the private sector
- Provide outstanding internship and career opportunities for UW students and graduates in engineering and other STEM disciplines.

Humanities initiative(s).* In 2011, UW’s administration invited members of the humanities faculty to explore potential initiatives that might strengthen the humanities as a community of teachers and researchers at the university.¹⁵ Ideas emerging from this discussion have included the identification of coherent foci for humanities research at UW, a humanities institute, new degree programs, and other proposals. Although we have no *a priori* prescription for how to bolster this set of core disciplines, we welcome the discussions as a vehicle for developing proposals for UP4 that enrich our students’ learning and the professional lives of UW’s humanities scholars.

Statewide university presence. UW must examine more deeply the statewide dimensions of its mission for the next two or three decades, recognizing the increasingly pivotal role that higher education will play in Wyoming’s future and the need to provide even greater access beyond the Laramie campus. The most promising strategy for this task is to develop a coherent system of long-term partnerships with Wyoming’s community colleges, according to a plan that adapts to regional needs and opportunities. Important considerations for this strategy include:

- The proper mix of locally staffed and distance-delivered academic programs that meld efficiently with existing and future programs offered at the community colleges
- Estimates of the recurring budget increases required for new faculty positions that can deliver this mix
- A plan for the timing, construction, operation, and maintenance of facilities to developed in concert with the community colleges.

UW cannot accomplish this system of partnerships by spreading its existing resources more thinly. The project will require realistic projections of off-campus demand for academic programs, appraisals of the strategic strengths and interests of individual community colleges, and the long-term addition of stable resources to support faculty positions and off-campus infrastructure.

¹³Wyoming Legislature House Bill HB0121, retrievable at <http://legisweb.state.wy.us/2012/Enroll/HB0121V2.pdf>.

¹⁴ See http://www.uwyo.edu/acadaffairs/plans/gov_task_on_engineering_dec_12.pdf.

¹⁵See “A proposal for the humanities,” posted on the Academic Affairs website at the following URL: http://www.uwyo.edu/acadaffairs/files/docs/humanities_proposal_9-6-11.pdf.

One aspect of UW's statewide reach — Wyoming Public Media — will require specific attention in the next few years. During the UP3 planning period, WPM has expanded its audience through the addition of new transmitting sites in Rawlins, Evanston, Lingle, and Fort Washakie, with sites in Kaycee and Torrington currently in the works. At the same time, many of WPM's facilities require equipment replacements and upgrades. The Outreach School has developed a five-year staged plan that, if funded, will address these needs.

Implementation and dissemination of an updated strategic plan for SER.* Funded by the Wyoming Legislature in 2006, as an outgrowth of Academic Plan 2, the School of Energy Resources now rests on stable state support and has developed a plan for expanding its suite of faculty positions. As the school marshals additional external funding and moves into the new Energy Innovation Center, it will be imperative to implement this plan in a way that maximizes SER's impact on UW's research missions and external funding, helps shape the curricula in contributing academic departments, and provides effective incentives for faculty members to pursue competitive research through the school's eight centers of excellence.

ENR-related programs and the Biodiversity Institute.* Spurred by the completion of the Berry Center for Biodiversity Conservation and the development of an array of other assets related to biodiversity, ecology, and natural resources, in 2011 a UW faculty task force developed a proposal¹⁶ to establish a Biodiversity Institute. This proposal builds on numerous institutional assets developed over the past decade, including the Ph.D. Program in Ecology, a Stable Isotope Facility, the Wyoming Geographic Information Sciences Center, faculty expertise in several life science and social science departments, and numerous others. Following the recommendations of a second task force,¹⁷ UW appointed a director for that institute, to be housed as a part of the Haub School for Environment and Natural Resources. A significant task for the next few years will be the reallocation of faculty and academic professional positions toward areas and units that can contribute to the success of this vision.

Diversity in STEM disciplines. Through the School of Energy Resources, the NCAR-Wyoming Supercomputer Center, and state-of-the-art research programs in several colleges, UW now offers many spectacular opportunities for upper-division undergraduates to participate in science, technology, engineering, and mathematics (STEM) research. By the time UW is implementing UP4, the Enzi STEM Laboratory will be in place, providing first-rate facilities for entry-level coursework in STEM disciplines.

These advances notwithstanding, there is a growing need, in Wyoming and nationally, for university graduates in STEM-related fields. UW can enhance the attractiveness of STEM fields not only with its facilities and better student recruitment generally but also through attention to recruitment of women and people of color, who remain underrepresented in these disciplines. Because careers in these fields are so critical to the nation's future and provide such effective pathways to leadership, UW must undertake efforts to tap this talent pool more effectively.

The proposed establishment of a Women's Advancement and Research Center will add a dimension to these efforts. One of the center's purposes is to promote women's representation and leadership at all levels and in all areas of the university community. While the center's mission encompasses the spectrum of disciplines, of immediate concern is the low representation of tenured women in the professorial ranks of STEM disciplines.

Continued partnerships with Historically Black Colleges and Universities (HBCU) offer additional avenues for enhancing diversity in STEM disciplines. UW's partnerships with Jackson State University and Winston-Salem State University have served as productive sources for collaboration and student research experiences. A recently initiated short course on data analytics for the geosciences, offered in partnership with NCAR scientists, has the potential to broaden this strategy.

¹⁶The task force report appears on the Academic Affairs website, at the following URL: http://www.uwyo.edu/acadaffairs/files/docs/biodiversity_initiative_tf_rep.pdf.

¹⁷The report appears at http://www.uwyo.edu/acadaffairs/files/docs/biod_organizational_relation.pdf.

The Division of Student Affairs will play a significant role in this effort. The Offices of Admissions, Student Financial Aid and Student Educational Opportunity (housing the federal TRiO and GEAR UP programs) will coordinate in the focused recruitment and retention of students of color and women in STEM-related disciplines.

Enhancements in health-care education.* Motivated in part by recently approved changes in the Medical College Admission Test, several UW faculty members have begun discussions about possible revisions in the premedical curriculum. The advent of the Enzi STEM Laboratory makes this study especially timely, and UW's close relationship with the University of Washington School of Medicine provides a potentially valuable resource.

For over three decades, UW's Family Medicine Residency Centers in Casper and Cheyenne have offered graduate medical education for physicians specializing in family medicine. These programs help build a workforce of primary care providers for Wyoming's challenging rural setting. In addition they serve as a health-care safety net for the regions surrounding Wyoming's two largest cities, and they provide clinical training opportunities for students pursuing careers in allied health professions. For much of their history, Wyoming's residency programs have struggled under funding models that lack sizeable federal contributions enjoyed by similar programs in other states. A continuing challenge for UP4 will be the identification and implementation of new funding models and business practices that can support the integrative, patient-centered approaches to medical care that our citizens deserve and that are emerging in graduate medical education nationwide.

As a health-care issue, aging looms large in Wyoming's demographics and requires integrative, patient-centered care delivery. The College of Health Sciences has begun working with UW's Wyoming Geriatric Education Center and the Wyoming Department of Health to form a Center on Aging at UW.

Materials science curriculum and research.* For decades, faculty members in the Colleges of Agriculture and Natural Resources, Arts and Sciences, and Engineering and Applied Science have maintained vigorous research programs in materials science. At times these programs appeared to have little in common; at times there have been promising signs of cross-college and cross-disciplinary collaboration. Several UW leaders have proposed reviving this area as a focus for a more coordinated faculty hiring and curricular development. Whether such a proposal makes sense hinges on the prospects for productive new collaborations among existing faculty groups and for sustained commitments to cooperative hiring among the affected departments.

Wildlife and livestock disease initiative.* The College of Agriculture and Natural Resources has developed a multifaceted program of fundraising and internal resource commitments dedicated to research and education in wildlife and livestock diseases. This initiative responds to critical needs of Wyoming's agricultural industry, and it has important connections to some of the most pressing scientific questions surrounding neurodegenerative diseases in humans.

Computational and data-enabled science.* With the growing importance of large-scale, data-intensive research in many disciplines, UW's role in the NCAR-Wyoming Supercomputer, and UW's faculty strength in computational science, UW enjoys a remarkable opportunity to become a national leader in computational and data-enabled science. Achieving leadership in this area will require new curricula, possibly in collaboration with several sister institutions along Colorado's Front Range. It will also require the development of expertise and infrastructure in these areas and in such fields as scientific visualization, computational and statistical processing, and spatial statistics. Finally, it will require sustained attention to the high-performance computing infrastructure provided UW's Division of Information Technology. UW took significant steps in this direction in FY 2012, with the president's allocation of \$750,000/year in recurring support for UW's Advanced Research Computing Center, and in FY 2013, when the center began operating.

Computational science connects with many other STEM-related areas of academic distinction. Computational methodologies and data-intensive science have already become prominent in UW's earth- and energy-related science and engineering, in the new doctoral program in water resources, in various

research groups focused on subsurface flow, in several of UW's life-science focus areas, and in materials science and engineering. This "third pillar of science" represents an approach to analysis and discovery, not a field *per se*, and UW now enjoys a spectacular opportunity to join the top tier of American institutions that embrace this approach in its teaching and research missions.

Internationalization. At the invitation of the American Council on Education, UW is a participant in the current cohort of ACE's Internationalization Laboratory. A team consisting of faculty members and administrators has conducted town hall meetings around Wyoming and has begun to develop recommendations for UP4 action items that can enhance the global dimensions of a UW education. Prominent among these dimensions are the elements of the three-legged stool identified in UP3:

1. Cultivate an environment that attracts international scholars and students.
2. Enhance UW students' international awareness through the curriculum.
3. Expand the opportunities for UW students to study abroad.

Elements 2 and 3 require special attention to the opportunities — and hence the incentives — for students to engage in global issues in their coursework, both in Wyoming and internationally. Complementing these elements are four compelling recommendations from the ACE Internationalization Laboratory leadership team's white paper¹⁸:

- Expand opportunities for staff and faculty activities, exchanges, and sabbatical leaves abroad, possibly through private fundraising to establish an endowment for this purpose.
- Develop a new English Language Support Center at UW for non-native English-speaking students and to support international graduate students teaching at UW.
- Explore ways to increase students' access to instruction in critical languages, such as Chinese, Arabic, and Japanese.
- Identify a common set of global awareness learning outcomes, to support the new general education program for the baccalaureate.

Other recommendations from this report — such as the establishment of an Institute for Global Studies — also deserve consideration.

The undergraduate intellectual experience. The remarkable increase in opportunities for study abroad, increased emphasis on undergraduate research experiences, and investments in programs such as Synergy and the Honors Program have strengthened UW's strong baccalaureate teaching culture. The coming planning period has the potential to enhance this culture in at least five dimensions:

- The long-term prospects for better student preparation, as UW's new admissions standards take effect and influence high-school students' course-taking patterns
- The effects of the Hathaway Scholarship program in attracting more of the state's most academically promising high school graduates to attend college in Wyoming
- The adoption of first-year seminars as part of the general education curriculum
- Enhanced opportunities for undergraduates' participation in research
- A focused initiative to attract promising first-year and transfer students from across the U.S., through targeted student recruiting and dedicated scholarship support.

One specific goal, to support the state's aspirations to attain tier-one status in UW's engineering programs, will be to attract highly promising women into UW's undergraduate and graduate engineering programs.

Energy and natural resources law as an area of excellence.* During the implementation of UP3, the College of Law has strengthened its faculty expertise and curricular offerings in the legal aspects of

¹⁸ "White Paper on Advancing Internationalization," Fall 2012 report of UW's Internationalization Leadership Team, http://www.uwyo.edu/acadaffairs/files/docs/uw_internationalization_white_paper.pdf.

natural resource, energy, and water law. As a result, the college is poised for national prominence in these intertwined areas of expertise. A strategic question for UP4 will be how to capitalize and continue to build on the gains of the past few years, to solidify energy and natural resources law as a widely recognized area of excellence at UW. Part of the answer to this question will be to identify key indicators of recognition, such as the following:

- Nationally recognized publications in natural resource, energy, and water law
- A rich curriculum in these areas, including continuing legal education as well as coursework taken for the JD
- Establishment of a Center for Law and Energy Resources in the Rockies
- Applications for admission from and scholarship support for highly qualified students interested in specializing in natural resource, energy, and water law
- A number of faculty positions in this area sufficient to establish and maintain stable teaching bench depth, to attract talented faculty members, and to sustain national research prominence
- Capacity to deliver the curriculum to law students and to pursue jointly delivered curricula involving faculty members and students outside the College of Law, related to institutional areas of distinction.

Augmenting this opportunity are plans emerging within the College of Law to emphasize experiential education. The college already focuses on legal writing, other skills, and clinic experiences — in defender aid, legal services, domestic violence, and prosecution assistance — to a degree that distinguishes it from most American law schools as a leader in integrated legal education. Melding this practice-oriented teaching philosophy with the pursuit of true areas of excellence can provide a powerful strategy for attaining distinction in the coming planning period.

Literacy center.* Owing to the vision of several deans of the College of Education and the resources made available by the Wyoming Legislature through the Endowment for Excellence in Higher Education, UW established a Literacy Research Center and Clinic as an outgrowth of UP3. This center addresses the intellectual building block most fundamental to all levels of education. Significant tasks for the coming years will include the completion of a facility to house the center, identification of adequate and stable funding for sustainable center operations, and the continued development of UW's Ph.D. program in Literacy Education.

Refined policy on academic freedom and responsibility.¹⁹ For decades, the 1940 Statement of Principles on Academic Freedom and Tenure of the American Association of University Professors has served as the national standard for freedom of expression in higher education. Indeed, excerpts of the statement appear verbatim in UW's regulations. These regulations acquired new significance after a 2006 Supreme Court decision, *Garcetti v. Ceballos*²⁰, concerning a case outside of academia. To many, that case and some of its successors make it clearer than ever that academic freedom is less a First Amendment matter than a professional standard that academic institutions themselves must ensure. Straightforward measures can preserve the intent of the AAUP statement, but drafting them will require a careful and well informed review by the Faculty Senate.

Solidifying strength in the arts. UW has demonstrated a commitment to statewide leadership in the arts and arts education. Major construction projects, the Neltje gift, and many award-winning exhibits, degree programs, performances, and other activities have enhanced both the resources assigned to UW's fine arts programs and the strength of artistic endeavors and the arts community in the state and region. We welcome conversations about solidifying UW's role as a leader in the visual and performing arts as well as discussions about expanding opportunities for faculty and students to engage in the arts.

Advancing innovative modes of teaching and learning. A wide array of teaching and learning modes and technologies are now firmly embedded in UW's curriculum, in many on-campus courses as well as in courses delivered through the Outreach School. The rapid growth of these delivery modes has prompted

¹⁹The AAUP statement is retrievable at <http://www.aaup.org/AAUP/pubsres/policydocs/contents/1940statement.htm>.

²⁰540 U.S. 410.

the Office of Academic Affairs to commission a review of alternative learning management systems, to ensure that faculty and students have access to cost-effective and educationally powerful software applications. Although much of the punditry on this topic focuses on the purported business advantages new delivery modes, UW's long experience with distance delivery has led to more substantive questions: how to promote more interactive learning, how to provide high-quality intellectual experiences to site-bound students, and how to enrich faculty members' teaching careers.

At the same time, the Outreach School's revised funding model, adopted as part of the implementation of UP3, will enable UW to provide more systematic support for faculty members who use online modes in their teaching. Finally, opportunities are emerging for UW to share curricula with other institutions, to widen the scope of our course offerings beyond our own areas of distinction. UP4 provides an opportunity for the university's faculty to examine, evaluate, cull, and refine innovative teaching modes and technologies that will enhance student learning, wherever our students live and learn.

The University Libraries. Owing to a strategic initiative pursued during the implementation of Academic Plan 2 and University Plan 3, UW's library collection budget grew from just under \$3 million/year in FY 2006 to \$10.7 million/year in FY 2013. This program culminated in UW's membership in the Greater Western Library Alliance (GWLA), a consortium of 32 research libraries in the central and western U.S. During the 2014-2020 planning period, three follow-up initiatives will help sustain this momentum:

- Develop a long-term plan to maintain the collection funding needed for membership in GWLA, and explore the feasibility of membership in the Association of Research Libraries.
- Identify learning outcomes associated with information literacy, to support UW's emerging general education program, including first-year seminars.
- Collaborate with faculty members outside the University Libraries to support digital scholarship and emerging open and alternative publishing modes.

B. UP3 INITIATIVES REQUIRING CONTINUED ATTENTION

The following initiatives originated as action items in UP3. Further information is available in annual report cards²¹ published by the Office of Academic Affairs and, in some cases, in more detailed documents posted on the Academic Affairs website. These initiatives will require continued attention during the 2014-2020 planning period.

Implementation of a new general education curriculum, to promote clearly identified learning goals while providing greater simplicity, flexibility, transparency, and ease of transfer for students.²² The Faculty Senate has endorsed the curricular structure proposed by the Stage Two Task Force on General Education, with additional recommendations, and the Office of Academic Affairs has appointed a Stage Three Task Force to begin implementing the proposal.

Follow-through on graduate education initiatives, to enhance UW's ability to recruit outstanding master's and doctoral candidates and to promote effective assessment of graduate degree programs.²³

Follow-through on diversity-related initiatives, including the development of outstanding opportunities for students to learn about the myriad cultural dimensions of American society. The addition of a Wyoming Excellence Chair to support eminent visiting scholars in American Indian Studies represents a recent advance in this direction.

Other diversity-related initiatives include:

- Expanded efforts to attract and retain ethnic minority, LGBTQ, and nontraditional students.

²¹Report cards for UP3 and a retrospective on strategic planning for the period 1999-2009 are retrievable at <http://www.uwyo.edu/acadaffairs/plans/background.html>.

²²See <http://www.uwyo.edu/unst/usp-review-revision/index.html>.

²³See <http://www.uwyo.edu/uwgrad/faculty-staff/index.html>.

- A proposed program of reduced tuition for undergraduate, tribally affiliated students from the Wind River Indian Reservation.
- Addressing the needs of an increasing number of students who qualify for and participate in programs offered by University Disability Support Services
- Developing best practices for website access, service animal accommodation, and accessible learning technology.

Enhancement of water resources education and research, capitalizing on two major programmatic grants through the National Science Foundation's EPSCoR program.²⁴ UW has made remarkable strides in this area during the implementation of UP3, including:

- Establishment of the Wyoming Center for Environmental Hydrology and Geophysics, through a \$20 million, five-year grant to use near-surface geophysical imaging to quantify the links between surface and subsurface hydrology
- A \$6 million, three-year collaboration with three Utah institutions, to develop computational models of the interactions among population growth, shifting land uses, climate variability, and water storage and availability in the intermountain west.

The targeted faculty hiring required for the long-term success of these projects will require close collaboration among the Wyoming EPSCoR Office, the Office of Research and Economic Development, affected college deans, and the Office of Academic Affairs, to ensure that this hiring program meshes the needs of the grant program with UW's instructional needs and state-level initiatives related to the College of Engineering and Applied Science.

One aspect of hydrology has intimate links with energy-related science and engineering as well as computational science. As an outgrowth of its strategic plans, UW now has one of the nation's strongest communities of researchers in **subsurface fluid mechanics**. This expertise resides in several departments in the College of Engineering and Applied Science, in Geology and Geophysics, in Mathematics, in Ecosystem Science and Management, in the Enhanced Oil Recovery Institute, and in the Carbon Management Institute. Solidifying this community through a broadly encompassing research center could place UW among the most prominent institutions in the world in this field.

Staff position management, enabling the institution not only to address foreseeable budget challenges but, more importantly, to permit the alignment of staff position resources as needs evolve.²⁵ Recent staff position management processes, developed to meet the budget reduction targets described earlier, have utility beyond the harsh task of reducing the number of staff positions. Even when there is no need to reduce UW's overall personnel expenditures, these processes allow for periodic review of the recurring dollars freed by staff resignations and retirements, to help ensure that these resources get used in the most effective ways.

Outdoor programs and learning as distinctive elements of the UW experience, especially as vehicles for promoting learning outcomes — such as leadership development — that may be more difficult to pursue through the credit-bearing curriculum. The Wyoming Conservation Corps, now under the aegis of the Division of Student Affairs, and the UW Outdoor Program have been two of the university's most prominent programs of this type.

An expanded presence of the Outdoor Program in the soon-to-be-renovated Half Acre Recreation and Wellness Center will provide a foundation for richer outdoor leadership experiences. The Division of Student Affairs will seek additional private funding to support offsite outdoor experiences through which students can imbue their UW education with a lasting sense of place.

The Outdoor Program seeks deeper partnerships in the Division of Academic Affairs, especially involving the academic colleges. Great strides have occurred in the past few years with the implementation of the Outdoor Leadership Development Series, the creation of an outdoor-oriented Freshman Interest Group

²⁴See <http://www.uwyo.edu/wrese/> for information about UW's new Ph.D. program in Water Resources and Environmental Science and Engineering.

²⁵See the president's June 2012 memo, "Process for managing non-academic employee vacancies," retrievable at http://www.uwyo.edu/acadaffairs/files/docs/pres_to_vp_memo_staff_vacancies.pdf.

that will begin in fall 2013, and the pursuit of a possible minor in outdoor leadership to complement students' classroom learning. There is interest within the Division of Student Affairs in hosting first-year seminars tailored to emphasize outdoor experiences.

Enhanced leadership development and succession planning, including refinements of existing programs. An excellent university needs a steady stream of capable leaders. Partly as an outgrowth of its previous strategic plans, UW offers and participates in a diverse array of leadership development programs aimed at staff members, early-career faculty members, new department heads, senior faculty members interested in institution-level leadership, and emerging civic leaders across Wyoming. A summit of key UW contributors to these programs has the potential (1) to identify hidden synergies among them, (2) to cast a broader net for talented future leaders at UW, and (3) possibly to spur the development of programs aimed at new audiences in the business, government, and education sectors.

The Division of Student Affairs envisions a similar collaboration among student-oriented leadership programs, through the creation of a student leadership institute. This institute will entail a partnership involving the Dean of Students, Student Leadership and Community Engagement, Associated Students of the University of Wyoming, recognized student organizations, fraternities and sororities, academic honorary societies, and the Residence Hall Association.

The impact of the co-curricular experience on student learning merits further comment. Although the formal curriculum lies at the core of baccalaureate education, students hone many important aspects of character outside of their formal coursework. Involvement in recognized student organizations, service projects, outdoor activities, intercollegiate and intramural athletics, ROTC, and other programs provide fertile ground for the development of leadership, civic engagement, appreciation for diversity, personal integrity, mutual respect, and physical health. In some cases, co-curricular avenues can be far more effective than credit-bearing coursework at promoting these attributes.

UP4 furnishes an opportunity to focus for distinction in the university's co-curriculum. Identifying the learning outcomes associated with these dimensions of the UW experience — and then focusing on areas of excellence that advance these outcomes — will help create pathways by which divisions such as Student Affairs and Intercollegiate Athletics can best use strategic planning to advance their missions. In this way, UW can strive to be a leader among land-grant institutions in keeping student life closely tied to the ethos of an institution committed to learning.

C. THE INSTITUTIONAL ENVIRONMENT

The following administrative issues reflect salient points in the draft division-level strategic plan developed by the Division of Administration²⁶ as well as significant input from the Division of Student Affairs and many individuals in the UW community.

Development of a strategic plan for sustainable operations. In 2011, UW contracted with Long Energy Solutions to act as an energy services contractor (ESCO). Under this arrangement, the ESCo identifies energy conservation measures yielding savings sufficient to finance additional energy-efficient upgrades and improvements.

This initiative contributes to a more broad-reaching institutional strategy for updating UW's Climate Action Plan and making UW's operations more cost-effective, energy-efficient, and sustainable. Specific initiatives worth pursuing during the next planning period include:

- Continued expansion of TransPark's shuttle system, consistent with UW's transportation and parking master plan and the long-range development plan
- Exploration of the benefits of converting some of UW's vehicle fleet to natural gas or other alternative fuels

²⁶<http://www.uwyo.edu/administration/files/docs/admin%20div%202014-2020%20strategic%20plan%20draft1.pdf>.

- Expansion of UW's recycling and waste-reduction programs, including plans to compost food waste where feasible
- Continued commitment to LEED Silver as the minimum standard for design, construction, operation, and maintenance of new and renovated facilities.

Planning for new operation and maintenance needs. From FY 2005 through FY 2012, UW's total floor space grew from roughly 6.4 million gross square feet (gsf) to roughly 7.0 million gsf. (The projected area for FY 2014 is 7.3 million gsf.) In the same period, the average annual utility cost increased from roughly \$0.85/gsf to roughly \$1.30/gsf. UW has managed much of this pressure by the spreading a non-increasing workforce over more facilities. However, this approach is unsustainable, and it fails to accommodate costs in facilities outside Laramie. Early in the upcoming planning period the Division of Administration must develop a strategy for funding the increased operation and maintenance costs of new and planned facilities.

Recently adopted academic calendars for 2014-2020 have the potential to reduce heating costs during January. With immediate needs for academic calendars settled for the near term, the institution has some latitude to examine other calendar structures, such as quarters or trimesters, for subsequent years.

Protecting health, safety, and security. At the core of the Division of Administration's responsibilities is the maintenance of systems that protect people's health, safety, and security. Several systems deserve particular attention:

- Updating UW's emergency response plan and conducting the training required to ensure proper handling of emergencies
- Reviewing and refining UW's laboratory safety management system
- Enforcement of anti-violence policies and practices, including those that combat sexual violence, sexual misconduct, and self-harm. Existing programs, such as the STOP coalition, Gatekeepers, Life Savers, and the Mental Health Collaborative have central roles to play here.
- Identification and implementation of effective strategies for alcohol harm reduction, through UW's A Team and AlcoholEdu.

Refinement and staffing of institutional fundraising priorities. The UW Foundation's board of directors recently increased the Foundation's annual fees from one percent to 1.25 percent of endowed account values. This change will generate over \$800,000/year in increased revenues, much of which the Foundation plans to use to add fundraising staff. A critical task for the near term will be the alignment of these new positions with major institutional fundraising priorities. Prominent among these is the Legislature's expectation that UW will raise \$15 million in private gifts to help fund new engineering facilities.

The university may be well positioned to consider a major fundraising campaign during the 2014-2020 planning period.

Connecting with alumni. UW's alumni represent a remarkable community of supporters. A formal reporting line through the Vice President for Student Affairs, instituted beginning in 2009, has strengthened the historic ties between the UW Alumni Association (UWAA) and the university's administration. Three initiatives can help solidify these gains:

- Developing a strategic plan for the UWAA, in cooperation with its board.
- Cultivating lifelong connections to UW beginning with a student's first experiences at the university through commencement.
- Building meaningful career support for alumni, through a network of professional contacts and connections with companies that seek highly qualified employees from the UW alumni pool.

D. ENROLLMENT MANAGEMENT, ACCESS, RETENTION, AND PERSISTENCE

More sophisticated enrollment modeling and refined recruitment and retention goals. Crucial to UW's enrollment management goals is the mix of students that the institution successfully recruits. By reducing barriers to a college education and, at the same time, matriculating more students who have the capability to succeed at high levels, UW can elevate the learning environment for all students. And it can do so without reducing the opportunities available to others who meet the institution's admission standards or whom we admit with support.

The Division of Student Affairs has initiated an enrollment modeling study, to be conducted during the spring and summer of 2013. The study focuses primarily on undergraduate enrollment, to help guide the establishment of enrollment goals for the period covered by UP4. The study will include a demographic analysis of Wyoming, the region and nation; residential and classroom space available at UW; the instructional capacities of the colleges; and federal, state and private scholarship support to attract and retain students.

To support these efforts and to open the pathways to success to all who can succeed, UW will need to develop sophisticated and inclusive indicators of academic promise. These indicators should capture attributes of potentially successful students that are not reliably measured by traditional standardized tests and that recognize the capacities of people from all parts of society.

Improved retention, persistence, and college completion. Achieving UW's enrollment goals will require a multi-pronged strategy, to improve the retention of students who can succeed and to encourage students' persistence to completion of the baccalaureate. The following measures deserve attention:

- Statewide discussions, with K-12 educators and community colleges, about enhancing the aspirational culture among Wyoming's middle school and high school students. Other pipeline-oriented measures include (1) proposals to review the eighth-grade curriculum, to increase students' access to the Hathaway Scholarship program, and (2) further development of Wyo4Ed, a website that helps pre-college students and their families plan for higher education.
- Programs that lower the nonacademic barriers to college success. The Division of Student Affairs has proposed a review of private and public scholarship and aid programs, to lower the fiscal barriers, alongside a review of support for ethnic minority students, students with dependents, athletes, and others who may face barriers outside the classroom.
- Implementation of DegreeWorks, a software package that provides easy-to-use, web-based resources for academic advising, degree checking, and course transfer. Early degree checks, conducted as students cross the 60-credit threshold, can augment this tool.
- Collaborations between the Division of Student Affairs and UW's academic departments, to help provide four-year curriculum planning for incoming first-year and transfer students pursuing the baccalaureate.

Support for nontraditional students and veterans. These students face special challenges in a learning environment historically tailored for traditional-aged college students. The Office of Student Financial Aid, Registrar, Veterans Services Center, Nontraditional Student Center, and ASUW Nontraditional Student Council have critical roles to play in promoting these students' successful pursuit of UW degrees. Grant funding and private fundraising can help smooth the way, by providing resources that are not available to these students through the Hathaway Scholarship program.

Systems for students admitted with support. In adopting new admission standards beginning in the 2012-2013 academic year, UW's Board of Trustees made a commitment to expand the Synergy program, to accommodate students admitted with support. (In the long run, the influence of the new standards on high-school students' course-taking patterns may reduce the need for these services.)

In addition, the Multicultural Affairs office has proposed to meet, during the first three weeks of class, with all new ethnic minority students admitted with support. The aim of these meetings is to ensure that the students are aware of academic success resources such as those available through LeaRN (an

outgrowth of earlier strategic plans), transition services including mentoring through the Multicultural Student Leadership Initiative, and ongoing support of students' persistence.

Improved systems for transfer students. Augmenting the initiatives of the Wyoming Transfer Council, discussed above,

- UW will identify private funding and will reallocate public funding to provide additional scholarship support for resident and nonresident transfer students.
- The Transfer Advance admission program will facilitate dual admission and advising for students at Wyoming community colleges and out-of-state institutions.
- New software (Degree Works) for curriculum tracking will assist transfer students in transfer credit evaluation and degree program planning.

Tracking and using longitudinal data on student success. The State Longitudinal Data System (SLDS), funded by the Wyoming Legislature, represents a statewide collaboration spanning the K-12 school system, Wyoming's community colleges, UW, the Department of Workforce Services, and the Wyoming Department of Education. The project currently includes a UW staff member whose task is to refine and track longitudinal information about UW students. The project will entail a new reporting system to provide better access to information about students' progress in all of Wyoming's educational systems. As a contribution to this effort, the Division of Student Affairs plans to launch an electronic dashboard containing enrollment-related data.

E. MODEL EMPLOYMENT PRACTICES

The university aspires to be Wyoming's model employer. The key to this aspiration is a philosophy that values not only the contributions but also the potential that each employee brings to the accomplishment of the institution's mission. Concrete measures that UW can take to implement this philosophy include the following.

Family-friendly practices and policies. UW has made significant headway in adopting family-friendly practices and policies. Among the measures adopted so far are:

- Development of academic calendars for 2014-2020 that mesh more effectively with the needs of employees with school-aged children;
- Fine-tuning of policies governing academic hiring, reappointment, tenure, and extended-term decisions, informed by the involvement of the Office of Academic Affairs in Harvard's Collaborative on Academic Careers in Higher Education;
- Health insurance for employees' domestic partners;
- Use of the faculty position management system to enable the hiring of spouses and domestic partners, where appropriate;
- Extension of certain board-retiree benefits to employee's surviving spouses

Continued attention to these issues, and especially to the needs of employees who have young families, must remain an emphasis during the implementation period for UP4.

Review of employee benefits. Within UW's portfolio of employer-paid benefits (EPB), many have high value. Some — such as long-term disability coverage — receive little use compared with their cost. Some — such as an employee assistance plan (EAP) — do not appear in the portfolio. Work by UW's Mental Health Collaborative, an outgrowth of UP3, indicates that an EAP could provide critical support to employees experiencing mental health difficulties or substance abuse. A review of the relative costs, advantages, and expected rates of use of various employer-paid benefits, including a possible EAP, will help ensure that employees receive the greatest possible value from the university's EPB portfolio.

Critical review of administrative processes. Every organization of UW’s size has the potential to streamline its administrative procedures and paperwork and to envision more efficient models for staffing and delivering business and accounting services. Recent reductions in UW’s staff size have only strengthened the imperative to reduce the complexity and inefficiencies associated with routine business processes. Because few offices in any large organization regard their own processes as complex or burdensome, a truly critical and effective review may require the appointment of a university-wide task force.

5. THE PLANNING PROCESS

A key feature of the process for developing UP4 will be *iterative refinement*: following a broad-brush, preliminary identification of key issues, the Office of Academic Affairs will coordinate four cycles, each leading to a public position paper for further review. Each iterative refinement cycle will:

- Provide opportunities for UW Trustees, faculty members, staff members, students, and other stakeholders to provide input and feedback;
- Allow time for divisions, departments, and colleges to refine and revise drafts of their own plans, in alignment with the university-level plan;
- Yield a refined university-level position paper in response to input and feedback.

Paralleling the processes used to develop Academic Plan 2 and University Plan 3, stakeholders include UW students; employees; advisory boards, commissions, and councils; members of the UW Foundation Board; community college leaders; members of the Wyoming Legislature; and key leaders in the state’s executive branch. Their input will inform the development, by Academic Affairs in collaboration with other vice presidents, of a refined university-level position paper.

The flow chart below shows how each iterative refinement cycle fits into the overall schedule.

The university-level position paper produced at the end of the fourth cycle will serve as the first draft of UP4, submitted to ASUW, Faculty Senate, Staff Senate, Academic Deans and Directors, and the President’s Executive Council for review and recommendations. The final draft resulting from this stage will go to the Board of Trustees for approval in May 2014.

Key dates are as follows:

Milestone	Responsible party	Due date
Preliminary memo identifying key issues	Academic Affairs	Jan 2012
Position Paper 1	Academic Affairs	Oct 2012
Position Paper 2	Academic Affairs	Apr 2013
Position Paper 3	Academic Affairs	Sep 2013
First Drafts of Unit and College-Level Plans	Divisions, Colleges, Departments	Oct 2013
First Draft of UP4	Academic Affairs	Jan 2014
Final Drafts of Unit and College-Level Plans	Divisions, Colleges, Departments	Mar 2014
Final Draft of UP4	Academic Affairs	Mar 2014
Consideration by Board of Trustees	Trustees	May 2014

A word about metrics

Any honest appraisal of UW’s effectiveness as the Wyoming’s flagship university, as a land-grant institution, and as a research university must rest on a factual framework. For the 2014-2020 planning period it will be useful to identify a compact suite of metrics that UW can track over time, as a gauge of the strategic plan’s impact on its mission. This undertaking requires great care. As indices like the *US*

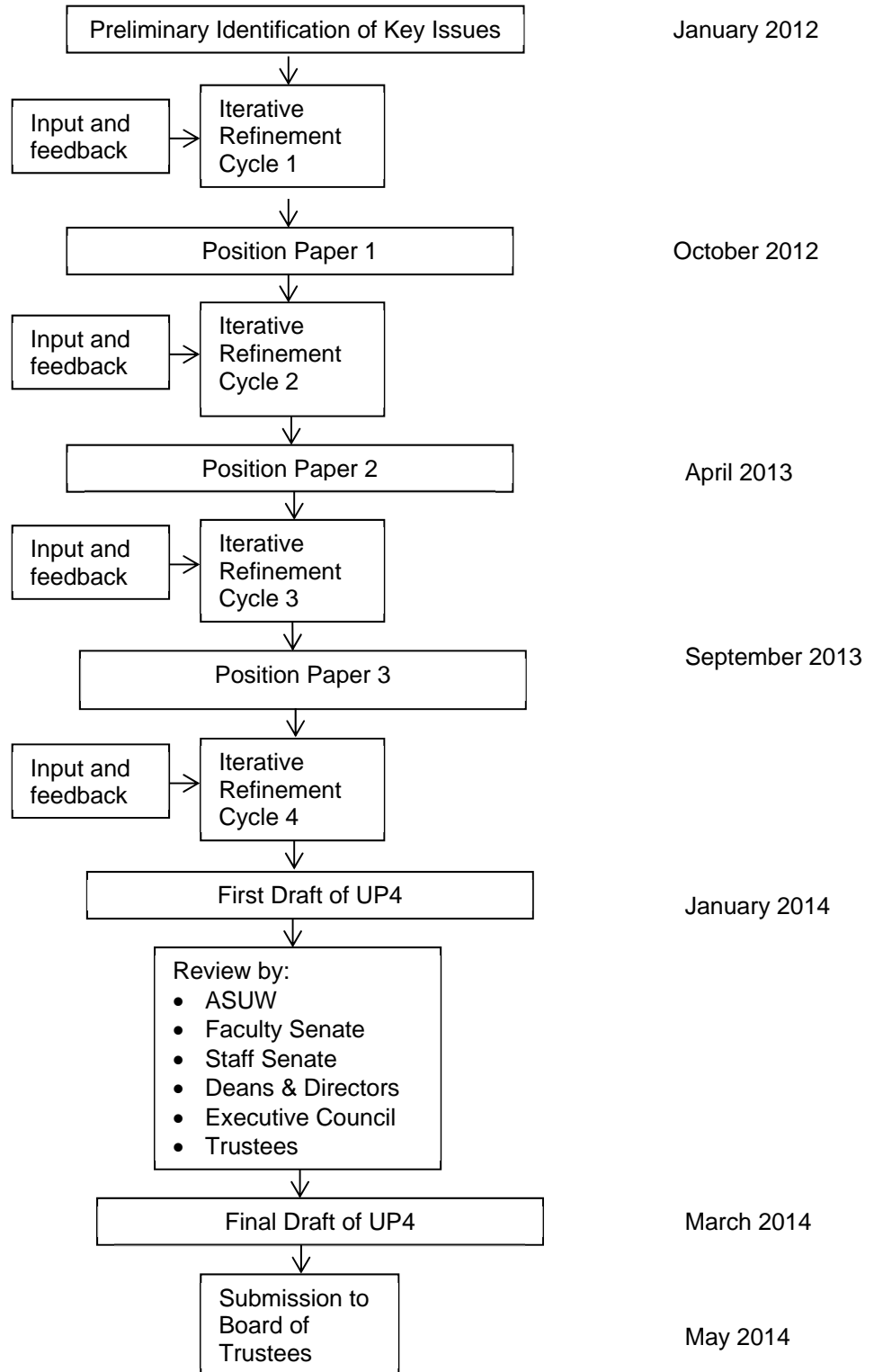
News and World Report rankings illustrate, an injudicious choice of metrics — as well as any blind focus on metrics instead of the attributes for which they act as surrogates — can distort institutional self-awareness.

On the other hand, when properly selected, tuned, and interpreted, metrics can help quantify how well UW meets the public's expectations. Attributes worth considering at UW include:

- The institution's ability to attract promising undergraduates
- Retention of undergraduates
- Indicators of how much students learn during their baccalaureate programs
- Ability to attract high-caliber graduate and professional students
- Average degree completion times
- Faculty salaries
- National and international faculty recognitions and awards
- Production of doctoral degrees
- Success in landing competitive research grants
- Indicators of graduates' success after UW
- Success at fundraising through philanthropy.

Others may be equally useful or even more so.

Well chosen metrics can also provide insight into how well UW stacks up against other institutions in the dimensions that we care about. We owe it to ourselves and to our constituents to identify the elements of such a framework that best reflect UW's mission and that best portray the university's commitment to accomplish it.



We welcome comments and suggestions.

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We thank our colleagues who lead other UW divisions, for their help and insights in shaping UW's strategic plan:

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Mr. Ben Blalock, Vice President for Institutional Advancement
Mr. Chris Boswell, Vice President for Governmental and Community Affairs
Mr. Tom Burman, Director of Athletics
Mr. Mark Collins, Interim Vice President for Administrative Operations
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Ms. Janet Lowe, Interim Vice President for Fiscal Administration
Dr. Bryan Shader, Special Assistant to the Vice President for Research and Professor of Mathematics
Ms. Susan Weidel, General Counsel

We owe thanks to the Board of Trustees, for their endorsement of the planning process and substantive engagement in it. We also owe special thanks to UW's president, Dr. Tom Buchanan, for exceptional leadership and vision throughout UW's 14-year tradition of strategic planning.

*"The art of progress is to preserve order amid change and to preserve change amid order."
Alfred North Whitehead*

TWELVE VALUES

In his first visit with UW's Faculty Senate in March 2013, incoming President Robert Sternberg advanced the following 12 values for the University of Wyoming:

1. Academic excellence
2. Academic freedom
3. Academic integrity and ethics
4. Diversity
5. Service
6. Promotion of active citizenship and leadership
7. Shared governance
8. Passion
9. Modifiability
10. Community
11. Globalism
12. Mutual respect and dignity.

