

**Envisioning Education:
Teaching and Student Learning at UNL**

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Contents

Executive Summary	3
The Climate of Higher Education in the United States	7
Consequences of the normalization of the baccalaureate degree	
General education	
The push for accountability	
Business expectations and the focus on teaching	
Government expectations and the focus on teaching	
The focus on education by parents and students	
Concern about teaching within the academy	
The impact of technology on student learning	
Changing student populations	
The changing professoriate	
Opportunities and Challenges of Higher Education at UNL	25
A Research University of Educational Excellence	31
Student learning is the preeminent goal of instruction	
Reliable support exists for student learning within and outside the classroom	
Support for instructional excellence is offered to all educators	
Outstanding instructors are recognized and rewarded	
Research and teaching missions are thoughtfully harmonized	
The university celebrates its educational climate	
Envisioning the Future	39
Center for Student Learning	
The UNL Teaching Institute / Mentoring partnerships	
Faculty career instructional development	
UNL Undergraduate Forum	
Recruiting and rewarding outstanding educators	
Office of Educational Assessment	
Conclusion	47
Footnotes	49
References	51

Executive Summary

How can a research university become an institution of teaching excellence?

Universities like UNL require answers to this question in an era when they must compete both for federal grants and top students. Recent changes in the climate of higher education have focused concern on undergraduate teaching and student learning:

- An undergraduate education has become increasingly the norm, raising new questions of what should be the goals and purposes of the undergraduate degree program.
- Business and industry leaders expect professional skills in an educated workforce, legislators demand that a university education contribute to technological innovation and economic renewal, and accountability pressures from within higher education each focus attention on educational quality.
- Rapid advances in instructional technology will potentially change the meaning of "classroom" and "instruction," but basic questions of how technology can advance student learning are largely unanswered.
- The changing student population (more socioeconomically and culturally diverse) juxtapose with a changing professoriate (more parafaculty and market-driven professionalism) to create new challenges for effective teaching.
- The growth of the research university has devalued undergraduate instruction, resulting (in the words of an esteemed educator) in "the cruel paradox that a superior faculty results in an inferior concern for undergraduate teaching."

UNL shares these national challenges in the context of unique opportunities to promote effective instruction and student learning. UNL's land-grant mission and special relation to its citizens have traditionally emphasized high-quality undergraduate instruction. Recent innovations (U-CARE research partnerships; Honors education; Peer Review of Teaching Project; JD Edwards Program; learning communities) each reflect a climate of opportunity for instructional excellence. Yet UNL has not protected comparably innovative educational initiatives from past budget exigencies, and current budgetary pressures have further eroded UNL's instructional climate, leaving vulnerable the best and most innovative initiatives for undergraduates. Moreover, UNL lags its peer institutions in educational expenditures per student at a time of eroding state support and increasing tuition revenues. These circumstances indicate that a renewed institutional vision for excellence in teaching and learning is needed to guide UNL in its institutional priorities, especially during difficult budgetary periods.

What, therefore, would a research university that values teaching and student learning look like? At such a university:

- Student learning is the preeminent goal of instruction. This requires faculty and administrators to carefully consider the goals of curricula, how learning is fostered by classroom practices, and multidimensional assessments of learning outcomes to ensure that learning is at the forefront of educational practices.
- Reliable support exists for student learning within and outside the classroom. This means that study skills and writing labs, academic advising, learning communities, honors education, classroom lab and tech support, and other resources are adequately funded and do not

rely unduly on the overtime efforts of faculty and staff. These efforts are viewed as part of the institution's core educational mission.

- Support for instructional excellence is offered to all educators, including graduate students, new professors, and senior faculty through workshops, consultation, and other avenues. This is combined with a clear institutional expectation that faculty strive to be excellent instructors throughout their careers, even if their primary contributions are in research or service.
- Outstanding instructors are recognized and rewarded because they are central to the university's core mission. Exemplary instruction can be systematically documented through student evaluations, peer assessments, evidence of student learning and instructional development, publication and grants activity, local and national instructional service, and other means. Outstanding teaching is a high standard, but should be recognized when it occurs.
- Research and teaching missions are thoughtfully harmonized because they are complementary (not competitive) faculty responsibilities at a research university that values teaching. This requires creative avenues to harmonizing these missions (undergraduate research mentoring; introducing research tools into the classroom; senior projects; study groups) in the context of clear and reliable institutional support for faculty efforts to do so.
- The university celebrates its educational climate. It recognizes the importance of education as well as research and service to its institutional mission.

How can we become a research university of teaching excellence? If excellent instruction and student learning are important, we propose the following to advance this goal:

- 1. Center for Student Learning:** A center with professional or paraprofessional staff that provides students with advising, workshops, and resources on writing, study skills, and other assistance to promote academic success. We challenge the University Foundation and its donors to establish an endowment to provide reliable funding for such a Center (and to provide stable support for other outstanding features of the undergraduate program at UNL).
- 2. The UNL Teaching Institute / Mentoring partnerships.** A Teaching Institute would provide continuing opportunities for instructional development for new faculty. In addition, a program of mentoring partnerships between new faculty and senior colleagues within their departments would help newer faculty adapt successfully to the research and teaching challenges specific to their units.
- 3. Faculty career instructional development.** At the collegiate level, Deans would develop regular instructional development activities, especially on topics of special pertinence to the college. At the university level, programmatic instructional development would include: (a) Foundation Lectures on Teaching and Learning involving national experts, (b) an on-line Instructional Resource Library of digitized materials continuously available to faculty, (c) the UNL Summer Teaching Forum involving a concentrated four-week seminar on current issues in higher education, and (d) institutionalizing the Peer Review of Teaching Project as a continuing commitment to faculty instructional improvement.
- 4. UNL Undergraduate Forum.** A campus-wide forum organized jointly by the Academic Senate and ASUN to address broader questions of higher education at UNL, including the purposes of undergraduate (and general) education, the extracurricular environment of student learning at UNL, and harmonizing teaching and research missions of the university.
- 5. Recruiting and rewarding outstanding educators.** A renewed commitment to improving the educational climate by seriously incorporating multidimensional assessments of teaching excellence into (a) faculty recruitment, (b) faculty promotion and tenure decisions, (c)

the Academic Program Review of departments and other units. We also recommend inauguration of endowed Distinguished Professorships to recognize outstanding teaching and to recruit exemplary educators to UNL.

6. Office of Educational Assessment. A research unit organized to systematically evaluate the effectiveness of these and other instructional initiatives at UNL with the goal of improving programs that are succeeding (and identifying ineffective ones), anticipating instructionally relevant student needs, and contributing to future progress in the instructional climate at UNL.

Envisioning Education: Teaching and Student Learning at UNL

How can a research university become an institution of teaching excellence? This challenge is increasingly important to higher education in the 21st century. As universities strive to improve external research funding and faculty scholarship, they also face the expectations of legislators, the business community, parents and students for outstanding undergraduate instruction. In an era when universities compete both for federal grants and top students, they must convincingly show that faculty are excellent in the classroom as well as the laboratory and studio.

This is a challenge that derives from changes in universities during the past 50 years. In his classic *The Uses of the University*, Clark Kerr (2001) argues that with the growing preeminence of the research university and the demands of research on faculty time and effort, undergraduate instruction has become devalued, resulting in "the cruel paradox that a superior faculty results in an inferior concern for undergraduate teaching" (p. 49). The internal focus on research of leading universities contrasts with the public's interest in instructional excellence, he notes, and contributes to parents' concern that "their children are being sacrificed on the altar of research" (p. 79). It is a concern shared by many of the university's constituencies, and has contributed to renewed inquiry into the place of teaching at the research university by many of the nation's leading schools.

As UNL advances toward its goal of becoming an outstanding research university, it must also strive to create an outstanding teaching environment for faculty and students. Doing so is consistent with its historic land grant mission, and UNL has considerable strengths in undergraduate education. It was one of the first universities to establish a center on teaching and learning, and is currently part of a national dialogue on the improvement of student learning and the scholarship of teaching. As UNL strives to become one of the premier public research universities in the United States, however, it also needs a vision of how it can become a research institution with an equally strong commitment to teaching excellence. Such an institution would be a national leader in the contemporary focus on instructional renewal at leading research universities.

This report describes our vision of such an institution, one that UNL can become. It is founded on the assumption that there is no inherent conflict between institutional striving for research and teaching excellence, but that advancing toward this goal requires thoughtful planning by administrators and faculty. Our purpose is threefold: (1) to describe the current landscape of higher education that influences UNL in its teaching and research missions, (2) to portray a research university that values teaching excellence, and (3) to identify meaningful, attainable steps toward this vision. Our hope is to stimulate a campus-wide discussion of how UNL can achieve this goal.

Here are some of the questions to consider: How should UNL respond to the challenges and opportunities in higher education related to teaching, which include the push for accountability, technological innovations (including distance education), constituent expectations, the changing student population, and the changing professoriate? What unique assets and obstacles does our university face in reinvigorating the teaching climate? How effectively can the dual challenges of research and teaching excellence be harmonized for individual faculty, and for units within UNL? What models exist for doing so? In documenting achievement, how should teaching excellence be assessed? How should student learning be evaluated? What resources are necessary to develop and sustain incentives to instructional quality among the faculty? If a university is committed to excellence in teaching and learning, what reward structures need to be revised or developed? In documenting achievement, how should teaching excellence be assessed and weighed in merit and tenure decisions?

Our purpose in this report is to frame these questions, offer some provisional answers, and suggest future directions. The report has its origins in comments by Senior Vice-Chancellor for Academic Affairs Richard Edwards at the fall 2001 retreat of the Academy of Distinguished Teachers. At the retreat, he suggested that the Academy define aspirational expectations for teaching excellence at UNL by writing a white paper that would be comparable to *A 2020 Vision: The Future of Research and Graduate Education at UNL* by the Future Nebraska Task Force. Some of the issues he outlined at the retreat have shaped this report, along with others that have emerged in our discussions.

The report begins with a detailed assessment of the broader climate of higher education that affects UNL, recognizing that many of the incentives and challenges that we experience locally are, in fact, shared by similar institutions nationally. In the next section, we outline the opportunities and challenges that are more unique to UNL and derive from our history, constituencies, and funding. In the third section, we consider what a research university that values teaching excellence would look like, and some of the implications of this vision. In the final section of the report, we explore some of the avenues for getting there.

The Climate of Higher Education in the United States

A college degree -- and the education that should go with it -- was at one time an expectation for a relatively small segment of American society. Higher education was for socioeconomically advantaged white men who were preparing for professional careers, such as law, medicine, or the ministry. In the second half of the twentieth century, the baccalaureate became increasingly the norm for more and more citizens, extending across (if rarely transcending) boundaries of class, race, ethnicity, and gender. At the start of the twenty-first century, the normalization of higher education has to some extent democratized the processes by which decisions are made about what is taught and how it is taught: more constituencies that fund education, that provide education, and that are affected by its results make themselves heard. These groups, within the university community as well as outside the institution, express concerns that frame the environment for higher education now and in decades to come.

Consequences of the normalization of the baccalaureate degree

Ernest Boyer has articulated a widely shared concern that “the pieces of a college education do not add up to a coherent whole” (1987: 251) and cites others who share his “crisis of confidence” in higher education and the baccalaureate degree. Debates over core graduation requirements and student outcomes were once traditionally the “stuff of departmental or curriculum committee meetings” but have now become “‘public property’ pitting diverse moral, political, economic, and cultural interests against one another” (Newman, 1999: 309). This expanded debate has brought business interests, legislators, accrediting bodies and consumers -- both parents and students -- into sharp conversations with the academy. The issues that these constituents raise include questions of accountability *for what*, accountability *to whom*, and the availability of support for faculty development in teaching and for student learning. The challenges of the new century provide an opportunity for better understanding the meaning and significance of a baccalaureate education, and the nature of faculty responsibilities to students and student responsibilities for learning, in light of these voices inside and outside the university.

Consider, for example, the diverse expectations of the university's constituencies about what an undergraduate education should provide students. As we discuss below, students and parents approach the baccalaureate degree as a financial investment, with the expectation of enhanced income, career prospects, and professional skills as the return. State legislators and other educational policymakers have a comparably pragmatic orientation, regarding the investment of tax dollars in the university as a catalyst to economic growth and renewal through applied research, professional training, and the preparation of an educated workforce. Business leaders share this orientation, and their expectations of the entry-level professional skills of a university graduate have also grown in an increasingly technological and information-driven society. By contrast with these pragmatic expectations, many faculty endorse the traditional liberal education ideal of learning for its own sake, together with the development of basic skills in critical thinking and expression that form the basis for a lifetime of personal and intellectual growth. University administrators tend to endorse all of these expectations in how they market a university education to students and parents, legislators, and the business community, even though the design of the undergraduate curriculum is optimally suited to none of these goals.

The time is ripe, therefore, for a campus-wide conversation about the meaning of an undergraduate education. Are all the diverse expectations for educational goals appropriate and legitimate for UNL? If not, how should they be modified; if so, how can they be reconciled to create coherence in undergraduate education? Our discussion should consider the goals of general education requirements, the undergraduate major (especially options that transcend traditional academic divisions), the freshman and sophomore year experience, and the meaning of these issues for academic standards and ethics. It is important to consider what purposes a university education should be designed to serve, the appropriate role of the university in addressing the needs of its constituencies, and the value of engaging in a dialogue with external audiences about what an undergraduate education can and should accomplish for students. One outcome of this discussion will be a better shared understanding of the meaning and value of an undergraduate education and graduate education. Another will be a clearer definition of faculty responsibilities to undergraduates.

General education

Central to the diverse expectations of the university's external constituencies, and to the push for accountability, is the design of general education for undergraduate students. General education -- broadly defined to include not only *what* is learned but *how* education occurs -- is a university's first and primary statement of its goals for student learning.

Like UNL, a number of research universities have responded to developments in the academy and in student populations by rethinking their general education programs. This is a difficult task because of the problems of incorporating small-class, student-focused introductory educational experiences into the structure of a large research university. The fundamental challenges concern developing (and staffing) specialized courses that include features uniquely suited to general education needs (e.g., substantive writing and oral expression and its evaluation; multidisciplinary perspectives; integrative thinking across diverse bodies of knowledge; close student interaction with faculty) versus requiring a distribution of courses from the general curriculum. The University of Chicago has developed a hybrid model, for example, that combines a Core Curriculum approach in certain areas (with many courses deriving from the 1930s Chicago Plan) with a distribution model in the natural and mathematical sciences. Stanford University has made a major investment in subsidizing smaller courses, the Stanford Introductory Seminars, taught by faculty and postdoctoral fellows. Both institutions have set in place writing programs, largely staffed by lecturers and teaching assistants: at Chicago, writing "Interns" provide instruction as adjuncts to faculty-taught Humanities courses; at Stanford, writing instruction occurs in separate courses. In many institutions, introductory courses are largely entrusted to graduate teaching assistants, adjuncts, and instructors who teach within traditional departments, but whose jobs each term depend on "temporary" instructional funds. Often these funds are not made available to departments until mere weeks before the beginning of the term. In the case of both Stanford and Chicago, however, permanent learning Centers were established, at least in part, to provide greater institutional stability to a segment of the curriculum that had relied heavily on such "temporary" funds. The teaching positions in these Centers remain, however, non-tenure-leading.

Still other research universities have experienced difficulties in renewing the undergraduate curriculum. The University of California at Los Angeles' Writing Programs have enjoyed success for decades -- serving as an example for many other writing centers -- but the distribution model still holds elsewhere on campus. Harvard University offers a few small seminars to beginning undergraduates, but there is little enthusiasm either among departments and faculty for offering them or students for taking them. The University of Rochester has balanced its small, problem-centered Quest courses with standard "distributions" elsewhere in the curriculum.

One of the most ambitious restructurings is New York University's Morse Academic Plan (MAP), which has established for general education a core curriculum model with numerous student options (New York University, 2000). All NYU students take faculty-taught and faculty-developed courses in Foundations of Contemporary Culture and Foundations of Scientific Inquiry; faculty proposals follow guidelines that stress research-based pedagogy. Students also take courses in Expository Writing and Foreign Language, the great majority of

which are taught by lecturers and teaching assistants. Tenured faculty volunteer (and are “donated” by their departments) to teach the small-enrollment Foundations courses. Three of the principles of the Morse Academic Plan at NYU provide helpful guidance for any general education program at a research university:

- offering both curricular cohesion and “community of learning” experiences to all undergraduates, rather than a select few;
- addressing the real educational needs of non-majors by offering courses that go beyond either the gateway approach (sifting out those who will not continue in the discipline) or the dilution approach (providing a “discipline lite” introduction);
- encouraging faculty to develop courses that focus on learning, that reflect innovations within disciplines, and that engage in interdisciplinary thought.

UNL has made major advances in the development of its educational opportunities for undergraduates through the revision of its Comprehensive Education program in the mid-1990s, the development of its University Foundations curriculum, the growth of the University Honors program and, most recently, the creation of several Learning Communities. Although not all of these programs contribute exclusively to “general education” at UNL, each assumes an important role in accomplishing the general education goal through focused small-group academic experiences early in the undergraduate program under direct faculty guidance. Yet in many respects, these programs are severely constrained by many of the same problems besetting general education opportunities in other research universities. These constraints include too few faculty to staff small classes for beginning undergraduates and heavy reliance on faculty and parafaculty “volunteers” (i.e., staff who are willing to teach more than their standard coursework or give up other opportunities to contribute to the program) together with donated resources of other kinds from departments and colleges, and an emphasis on distributional requirements within the general curriculum rather than the development of courses uniquely suited to the general education goal. In many cases, these constraints have meant that outstanding undergraduate programs (like Honors) have been unable to grow as significantly as student demand would require, and the opportunities for students have remained far more limited than students can reasonably expect. Paradoxically, these are also the programs that are at the forefront of the recruitment efforts of UNL to attract the most capable of undergraduate applicants.

We believe, therefore, that as part of a broad conversation about the meaning of an undergraduate education at UNL, there should be a more focused discussion of the design and significance of general education, broadly defined. Now that the Comprehensive Education program has been underway for several years and several other programs have also developed that contribute to general education for UNL undergraduates, there is value in reconsidering what general education should achieve for students (or, in Kerr's [2001, pp. 89] words, “how to prepare the generalist as well as the specialist in an age of specialization looking for better generalizations”), how general education relates to the other expectations for an undergraduate education, and how this form of education can occur at a major research university.

The push for accountability

Consistent with the diverse expectations of higher education has been an increasing emphasis on accountability from many constituencies: government, the business community, parents, and, of course, accrediting agencies. Pat Hutchings (1999) notes that much of the activity undertaken in the name of assessment and accountability has been shaped by narrower questions about outcomes: what have students acquired from their coursework? By contrast, she encourages a more comprehensive view of what we mean by improvement in both student learning and faculty teaching activities. The focus on outcomes is too narrow if we bypass discussions of educational purposes and processes and proceed immediately to testing student learning at a particular moment in time. “At its best, assessment raises and illuminates practical, day-to-day questions about teaching and learning” (Hutchings, 1999: 207). Her work suggests that our own assessment processes should include questions such as:

- What do we know about the students who come to UNL?
- How do their course-taking patterns relate to achievement outcomes?
- What is the student contribution to learning?
- What do students understand about their program of study?
- What are they able to do with what they know? How can they use their knowledge?
- How do specific instructional practices contribute to student learning?

UNL has the potential to respond constructively to calls for accountability as, at the same time, it creates a rich climate for teaching excellence. Indeed, its response is well underway: the Peer Review of Teaching Project on our campus has already had a significant impact on classroom instruction and formative assessment of student learning. Increasing numbers of faculty participants in the Project have become skilled at documenting teaching effectiveness through processes that assess multiple dimensions of teaching -- including the intellectual content of courses, instructional practices appropriate to the subject matter and student population, and carefully defined and observed student learning outcomes. Through the Peer Review Project, UNL faculty have gained expertise in assessing the quality of instruction and promoting reflective teaching practices through processes (such as course portfolios) that offer systematic inquiry into teaching quality. UNL faculty also have gained national visibility in this area, and they have contributed significantly to the work of colleagues across the country.

External demands for accountability no longer stop at the college or department level. Individual faculty members “are being challenged to show that they are both useful and necessary to the education process” (Newman, 1999: 310). UNL has faculty resources to provide the campus with responsible methods of documenting teaching effectiveness and student learning that not only accept the challenges raised by calls for accountability, but also make such challenges an opportunity for growth. UNL should thus promote a climate in which assessment of the complex dimensions of effective teaching and learning is itself recognized as intellectual activity and an important element in institutional quality, as we discuss below. By contrast, however, assessment efforts that are driven primarily to satisfy external accreditation requirements, or that are tied closely to resource allocation, blunt many of these benefits and skew evaluation efforts to become high-stakes demonstrations of individual or program success. Put differently, *formative* assessments can be a powerful catalyst to instructional improvement

but poorly designed *outcome* assessments can undermine this goal. One of the challenges facing UNL is how best to respond to the push for accountability from external sources while also heightening the benefits of assessment procedures for improving teaching effectiveness and student learning.

Business expectations and the focus on teaching

In 1918, Thorstein Veblen published *The Higher Learning in America: A Memorandum on the Conduct of Universities by Business Men* to critique the infusion of business values into academic life. He focused on the problems that result when universities become dependent on contributions by the wealthy and business concerns. At the turn of the twentieth century, his analysis was focused on the developing private campuses such as the University of Chicago. At the turn of the new century, his analysis can be extended as well to state financial support of public higher education and the related demands of the business and political communities. One of Veblen's most fervent wishes was the abandonment of the burgeoning conglomerate (or "trust") and assembly-line approaches to education being imported from business practices of the time. He hoped that higher education in the United States would reclaim "that ancient footing of small-scale parcelment [that is, units of organization] and personal communion between teacher and student that once made the American college," despite its many handicaps, to be "one of the most effective agencies of scholarship" in the Western tradition (Veblen, 1957, p. 208).

Green and Dorn (1999) argue that the specific influence to be addressed today is the uncritical adoption by colleges and universities of a business focus on efficiency and productivity (i.e., on maintaining services at lower costs). Berliner and Biddle (1995) have likewise argued that the focus on accountability is intended to shift academic principles and practices toward private enterprise models of "economic efficiency." One of the direct results of this focus can be seen in the increase in class sizes: since "faculty have failed to define educational quality in terms of measurable learning outcomes, by default education has come become defined as 'time in place,' that is the number of semester or quarter hours of credit a student completes" (Green & Dorn, 1999: 69). These authors argue that faculty productivity in teaching has increasingly been defined *quantitatively* as the number of student credit hours attributable to a professor or a department. This academic version of a business model concludes that it is much more efficient to teach larger classes than smaller ones. Demands to make faculty workloads more "productive" have often focused exclusively on increased numbers of courses and increased enrollments in those courses.

These and other applications of business models to higher education are especially ironic in light of recent concerns from the business community about the quality of undergraduate education. In an increasingly technological and information-driven society, they find university graduates ill-prepared for professional careers. In response to employer concerns about the capabilities of its graduates, for example, UNL has offered a "guarantee" of its baccalaureate degree: if an employer finds that a UNL alumnus lacks basic educational skills and entry-level professional skills, remedial education will be provided by the university at its own expense¹. Although the incentives provided by the business community to improve the quality of undergraduate education are admirable, it is important that business concerns are translated also

into a focus on the *processes* by which education occurs at UNL, as well as its outcomes. Employers do not benefit if, in the interests of fiscal efficiency, their future employees are educated in classes so large or so fragmented that students do not acquire the capabilities in writing, thinking, and oral expression that are required for jobs in the 21st century.

In order to create a climate of teaching excellence at UNL, therefore, faculty and administrators must weigh the balance between the potential for financial efficiency and research productivity that increasing class sizes makes possible and the potential for decreased quality of instruction and actual student learning outcomes due to class size. Faculty especially need to advance clear *qualitative* goals for teaching that can provide alternatives to purely economic models of instructional productivity and efficiency. They must demonstrate how certain teaching methods lead to distinctive and desirable forms of student learning and document whether that learning has been achieved, and couple this with an analysis of the extent to which teaching practices that foster student learning can be reasonably achieved in large classes versus smaller ones. Only in such a context can constructive discussions about the relative advantages and disadvantages of larger class sizes be conducted.

Government expectations and the focus on teaching

One of the most significant influences on higher education during the past half-century has been the expanding influence of government funding on how universities function (Kerr, 2001). Frederick Campbell has noted that the amazing growth in higher education -- the “age of academic exuberance” -- experienced in the United States in the 1950s and 1960s was replaced, by the middle of the next decade, with a “time of contraction” that left a legacy of difficult teaching challenges (Campbell, 1985: 3-4). These challenges have endured as contraction in universities has continued, and have contributed to unprepared and overly burdened students, conflicted classrooms and conflicted disciplines, the increasing reliance on part-time faculty and graduate teaching assistants, the use of business models for measuring student outcomes, and the shift in definitions of “accreditable” campuses. Budgetary streamlining and institutional retrenchment are now standard modes of operation.

At the same time, government expectations for the contribution of universities to technological and scientific innovation, economic renewal, and the training of an educated workforce have increased. These expectations have also contributed to the push for accountability, sometimes in unusual ways. Joan Hartmann (1999), for example, points to standardized testing as the contemporary political “balance sheet” (which parallels corporate reports to investors) to enable the public to assess the quality of teaching at universities. She describes how the application of standardized tests as learning outcome assessments has generated severe changes in the educational process and goals for City University of New York faculty members. Her analysis of the conflicting academic, regential and legislative perspectives in that system crystallizes the challenges of government expectations for assessing student learning and faculty teaching. Standardized testing is significantly limited, of course, in the kinds of teaching and learning it can document. In higher education as well as in primary and secondary schools, reliance on standardized tests as a primary means of educational assessment can contribute to improved scores over time at the expense of intellectual discovery and generative learning. By contrast, some UNL faculty have pioneered alternative assessment

approaches, including teaching portfolios and course portfolios, which require greater cooperation among faculty, students, and administrators and enhanced communication between educators and educational policymakers. They have also pioneered means of evaluating teaching quality that complement the student voice (in course evaluations) with thoughtful and systematic peer assessments and the instructor's evaluations of student learning in the classroom.

Funding and accountability expectations are among the significant influences of state and federal government on public universities like UNL. But as a land grant university, UNL faculty and administrators are in a unique position to highlight the relevance of instructional excellence to the intellectual, personal and social development of Nebraskans to complement the economic dimensions of Nebraska's "good life." Doing so helps to underscore the association between investments in higher education and the university's diverse contributions to the state and its citizens, as well as the non-economic benefits derived from an undergraduate education.

The focus on education by parents and students

State supported colleges and universities have admitted larger and larger numbers of students, and larger proportions of students who are first-generation college attendees. This has resulted, in part, from the growing normalization of the baccalaureate degree and the increasing emphasis on access to higher education. The expanding participation of students in the United States reflects also expanded expectations that the college degree and its economic "payoff" should be widely available. Research shows that post-high school education does indeed lift lifetime earnings, but that these patterns vary widely by major. In addition, economic returns that result from higher education at each level (baccalaureate through the Ph.D.) retain the race / ethnicity and gender biases of the general labor force. Despite these mixed messages and realities, parents and students still consider higher education a significant economic investment in job skills and career advancement (Collins, 1988). In concert with such attitudes, business and government sectors have been raising their minimum education requirements for entry-level jobs. There have also been significant concerns about the quality of student preparation for professional jobs resulting from undergraduate education. As noted, the disjuncture between educational "inputs" and expectations connected with business development creates some of the loudest clashes over the accountability of higher education.

The expectations of students and parents for higher education are shaped by the business world and by their own social and economic circumstances. Students currently entering college are less likely to be fully supported financially by their families and are more likely to lack access to the core "social capital" conducive to success in higher education, such as knowledge of academic norms, traditions, and vocabularies. First-generation students in higher education spend twice as many hours working as do their second-generation peers and the conflicting demands of home, job and college result in high attrition rates (Tinto, 1987). Most university students are vocationally oriented, rather than interested in education for its own sake (Billson & Brooks-Terry, 1987) and parental attitudes parallel those priorities (Boyer, 1987). The annual survey of entering first year college students indicates that for 2000-2001, the highest student priority in higher education was obtaining job skills. Students also expect that an undergraduate degree should enhance their career prospects and boost earnings potential. Behind much of this emphasis on economic returns is the rising cost of post-secondary education, the increasing

duration of undergraduate education, and the declining sources of direct governmental support for students which contributes to the large debt that many families and students incur in order to obtain a baccalaureate degree.

Within this career-focused, consumer-driven orientation toward higher education, students often view their education as a product that their tuition dollars purchase, rather than as a component of personal growth for which they are responsible. Undergraduate students are thus critical of inadequate faculty effort in the classes for which they are paying, and quick to blame faculty if they are not learning adequately (manifested in their receiving high grades). By contrast, faculty tend to believe that students are primarily responsible for their own learning, and view student academic success as primarily a matter of effort and ability. These differing perceptions of faculty and students result in each regarding the other as primarily responsible for student success, and arise from very different views of the nature and value of an undergraduate education.

Students and their parents thus approach a university education as a valued investment, emphasizing its career and economic returns in response to business needs, the costs of an education, the health of the economy, and how the value of an undergraduate degree is marketed to them. Many of their classes -- particularly in engineering, science, agriculture, education, and other departments -- satisfy their pursuit of professional skills. However, many faculty -- especially those in traditional arts and sciences departments -- believe that the mission of the institution is also to provide a broad preparation for active and responsible citizenship and a foundation for continued personal, intellectual, and professional development. Faculty thus emphasize the development of critical thinking and reasoning skills, improving the clarity of written and oral expression, and fostering a better understanding of the world and one's place in it. Professors are also likely to perceive an undergraduate education as a prelude to graduate training, consistent with their own experience but not with student expectations. As a consequence, undergraduate instruction is often oriented toward learning goals and skills that are far more generalizable than the practical training for specific careers that students and parents often expect.

To promote a climate of true academic excellence, UNL must consider how it will respond to the conflict between the goals of students and parents for higher education, the beliefs of faculty, and the institutional mission of the university. It is especially important to create bridges between the traditional liberal education ideal of learning for its own sake and the pragmatic concerns of modern consumers of higher education. This will require clearer and continuing communication between faculty and students (with each group likely to believe that the other misunderstands the value of an undergraduate education, and the role of student and faculty effort in academic success), and greater clarity in how the university communicates itself to its constituencies. This conflict in goals and expectations must be addressed not only to serve students more effectively, but also to contribute to a better understanding of the nature of faculty responsibilities to students in the 21st century.

Concern about teaching within the academy

For more than 25 years, reform movements within and across disciplines – and in other

sites of scholarly endeavor – have sought to increase the attention given to teaching in academic reward structures. Boyer (1987: 123) describes a “conflict between scholarly productivity and other duties” attendant upon faculty status, with the pressure to publish especially apparent at those universities or doctorate-granting institutions “in transition” -- that is, attempting to move to a top fifty ranking. UNL struggles with its shifting placement in quality rankings over time in both research and teaching, while also contending with the challenges of serving as the only comprehensive university in a state with limited resources to invest in higher education. The tension between striving for research productivity and teaching excellence is felt keenly by UNL faculty.

But the issue is more complex than the familiar research versus teaching dichotomy. Burton Clark takes issue, for example, with the complaint that professors do too much research and not enough teaching (Clark, 1997). He suggests that many professors already spend excessive amounts of time on remedial education that results in a “dumbing down of the intellectual life of academic staff” (p. 32). Moreover, considerable faculty time and effort are devoted to teaching-related activities that are added to their standard teaching responsibilities, whether these concern leading a learning community, directing independent study coursework or practicum supervision, advising and counseling, supervising honors theses, or other activities. Although very worthwhile, these activities demand significant effort and many faculty decline these opportunities with regret because of limited time to devote to them in a research-intensive institution. Thus concern about teaching in higher education focuses not just on the *priority* on teaching within the research university, but also the nature of the *requirements* of teaching by faculty within a comprehensive research university.

The general view within research universities is that research and teaching are conflicting enterprises locked within a zero-sum competition for time and resources. We agree, however, with the conclusion of the Future Nebraska Task Force that “teaching and research provide sources of creative inspiration that make these intellectually comparable, not competitive activities” (Future Nebraska Task Force, 2000). We would go a step further, however, to argue that the complementarity of teaching and research exists only when faculty and administrators are thoughtful about how each is organized, supported and rewarded. The opportunities for teaching and research to be productively harmonized will depend, for example, on the relative weights assigned to each activity by internal and external shareholders, on the learning backgrounds of students, and on the types of research being conducted (Clark, 1997). Their complementarity will also depend on what the university defines as “meritorious” teaching and research and the facilities and resources devoted to each (Green & Dorn, 1999). The interaction of research and teaching also requires new ways of understanding their relationship that goes beyond the confines of the classroom and the laboratory.

The interaction of teaching and research is discussed further later in this report. It is important to recognize, however, that the extent of conflict and complementarity between these dual, essential faculty responsibilities is shaped not only by professional influences external to the university (e.g., the availability of funding for sponsored scholarship) but also by how universities choose to support faculty achievement. There are no disincentives to research productivity that arise when faculty and administrators reward teaching excellence. Rather, the goal should be the creation of a professional environment where *all* the contributions valued by

the institution are comparably esteemed. Creating such an institution will require, however, thought and creativity in developing support and reward structures that reflect avowed priorities.

The impact of technology on student learning

Some observers of higher education believe that the growth of information technologies is transforming higher education. Others respond that the technologies themselves are not the answer, and that improvements in student learning depend on whether educators can enlist technological advances constructively to promote learning goals. UNL faculty are already engaged in the process of bringing information technologies into the classroom and changing the meaning of "classroom" through technological innovation, partly through the impact of the Teaching, Learning, and Technology Roundtable and the New Media Center. The challenge to faculty and administrators is determining how, and in which applications, information technologies advance student learning.

The potential benefits of educational technologies are readily apparent. New hardware and software tools are facilitating pedagogical practices that were once much harder to accomplish, such as inquiry-based education, learning by doing, and autonomous learning. Web-based activities have already had a dramatic effect on the sources of information from which students learn, and will continue to do so. The Internet also makes it possible for students to be drawn to classes from locations across Nebraska and throughout the world. In one example, Hoffman (2001) used a computer simulation in an assignment that involved his students in competition with students from schools in Brazil, England, Pakistan, and South Korea using the Web. Groups of students from each nation competed as simulated multinational firms in world markets, with each group making relevant company decisions and coping with tariffs and exchange rates. Downes (2000) used distance technology to hold joint class sessions with a partner school in France. David Brooks, professor of Curriculum and Instruction at UNL, is widely recognized for his contributions related to online teaching. He has written a highly successful book entitled "Web-Teaching: A Guide to Designing interactive Teaching for the World Wide Web" that has become an important guide to any instructor planning to place course materials on the Web (see Brooks, Nolan, & Gallagher, 2000). In other technological applications, textbook publishers have begun to support computer applications by providing PowerPoint slides of each chapter, course Web page services, exercises, and additional information on their Web sites. Computerized custom publishing has also emerged as a growing market because it enables faculty members to assemble their own texts with chapters, articles, and cases from the publisher's sources. Other companies design Web pages and provide platforms that faculty can use to place an entire course online.

These exciting developments help to explain why computers are assuming an increasingly essential role in coursework, and greater numbers of distance learning courses are being taught through university campuses, including UNL. John Orr, professor of Mathematics and Statistics at UNL, has authored a highly successful Web-based homework management and assessment system published by John Wiley & Sons. This state-of-the-art product, called eGrade, is widely used at UNL (it is available at no cost to faculty), and last year the software powered mastery-learning assessments for over 7,400 active users, delivering and grading more than 100,000 student assignments. (Orr is now also vice-president in charge of Web

development for Brownstone, a software company that markets EDU Campus, an online homework management and assessment system for college and university campuses.) In another initiative, UNL introduced CourseInfo to the campus in January 1998. Four years later, the fledgling course management system now known as Blackboard is used widely by faculty and students. There are already 11 programs taught by UNL faculty where all or much of the program may be completed with minimal face-to-face contact with members of the classes they enroll. Such classes naturally mean a change in the pedagogies that are effective compared to more traditional classrooms. Teachers involved with computer-based instruction need to adapt to a setting in which students exert substantial control over their educational work and have direct electronic access to many primary scholarly resources. Teachers will increasingly exercise influence primarily by posing powerful questions and by guiding student inquiry towards new understanding and reflective practice.

But instructional technology can impair rather than facilitate student learning, and poor teaching can enlist technological innovations as much as good instruction does. Although the future of higher education inevitably will include more powerful and sophisticated technological tools, these innovations will not replace good teachers. The challenges to faculty are to understand how to adapt to changing technologies, and how to enlist them to promote student learning. In the fanfare over the growth of instructional technology in higher education, faculty must be at the forefront of asking essential pedagogical questions, such as the following. What evidence exists to document that specific technological innovations advance student learning? How do they do so, and in what applications? What are the benefits and disadvantages when instruction is delivered without face-to-face contact between student and faculty? Who are the intended audiences for Web-based instruction and other innovations in distance education, and how does this influence the kinds of courses that are offered, and how they are provided? How is the financial structure of distance education organized to support the investments required for reliable infrastructure and the maintenance of courses at appropriate sizes?

Although faculty must be at the forefront of these discussions, administrators also have an essential contribution for several reasons. Advances in information technology -- especially Web-based instruction -- were eagerly embraced by academic leaders at many universities as a means of attracting new student audiences and new revenues through the sale of internet-based courses. This market-driven enthusiasm occurred before there was serious discussion of the pedagogical strengths and weaknesses of these technological innovations, the nature of the potential student consumers or, for that matter, understanding of how to deliver high-quality instruction through the Internet. At the same time, many pretenure faculty have experienced conflicting incentives to devote time to their research or to mastering instructional software, since each seem to be prioritized by their deans and directors. Moreover, rapid advances in software upgrades and hardware requirements have made it difficult for faculty (and UNL) to keep up with changes in instructional technology, contributing to the time-consuming need to prepare instructional programs and adapt to hardware inconsistencies across classrooms. Thus the focus on teaching excellence can sometimes be obscured by a focus on exploiting technological innovations for the classroom, and exploiting revenue-generating opportunities on the Internet.

Advances in instructional technology thus pose many possibilities but no assurances

concerning their impact on faculty instruction and student learning. In this context of enthusiasm and uncertainty, we believe that UNL must proceed by maintaining a consistent focus on improving student learning as faculty explore the uses of increasingly sophisticated hardware and software resources. Faculty should be encouraged to explore technological innovations that have demonstrated benefits for learning, and remember that instructional technology is one of many potential avenues for effective instruction.

Changing student populations

A campus culture that supports teaching and learning will respond to the demographic changes that have occurred in the student population over the past several decades. Instruction can generate “*learning with every student by whatever means work best*” (Barr & Tagg, 1995: 13) only if faculty adapt methods to the needs and aptitudes of an increasingly diverse student community and the increasingly disparate circumstances in which students learn. A larger proportion of high school graduates receive some form of post-secondary education and those graduates are more culturally diverse than in the past, with the nature of that diversity varying from institution to institution and over time within any school (Astin et al., 1987). At UNL, although concerted student recruitment efforts have not resulted in an undergraduate student population that is significantly more culturally and ethnically diverse than in the past (roughly 6% of UNL undergraduates are students of color, with an additional 4% international students), students of all backgrounds require understanding of the cultural diversity of the broader society in which they live. Moreover, at UNL there has been increasing variability in the ages and backgrounds of the student population. The scholarship of teaching and learning requires, then, consideration of the implications of the changing student population for faculty efforts to foster student learning.

Edmund J. Hanson (1998) has summarized changes in the undergraduate population in the United States since the early 1970s. The proportion of high school graduates age 16-24 who enrolled in higher education increased from 47% in 1973 to 65% in 1996. The proportion of college students who are older than 25 increased from 28% in 1970 to 44% in 1995. Women and minorities are now more strongly represented in the student population. A larger proportion of students attend part-time, and more full-time students not only work, but also work longer hours than did their counterparts of thirty years ago.

The cultural and socioeconomic diversity reflected in these trends is further confirmed by avenues of access to higher education. Community colleges are especially important to minority and nontraditional students (many of whom are the first in their families to attend college) as steps toward four-year colleges and universities. Currently, four out of every ten first-time, beginning community college students transfer to another institution, and half of that figure go to a four-year institution (Hanson, 1998). If research universities like UNL are to succeed in addressing the needs of these students, they must attend to the backgrounds, inclusion, and support of transfer students (Eimers & Mullen, 1997). In a similar manner, if UNL seeks to ensure the cultural diversity of its undergraduate population, recruitment efforts must be complemented by retention efforts to ensure that students of color succeed at our university and that we eventually generate a "critical mass" of diverse student populations.

Work demands and family concerns, which intensify when the student population is older and more diverse, have also contributed to a nationwide increase in the number of commuter students, who represent nearly 74% of U.S. students attending colleges and universities (Horn & Berkold, 1998: Table 4.9). As Barbara Jacoby (2000) observes, college educators have assumed “that what works for traditional, residential students would work equally well for commuter students if they would just be a little more serious about their education” (p. 5). Such attitudes ignore the challenges raised by such basic concerns as transportation and multiple life roles; they also overlook the opportunities presented by engaging students' external support systems, such as family and neighborhood, in higher education and by reexamining the “sense of belonging” to the campus culture that was once taken for granted at universities.

More generally, the view that traditional pedagogical approaches will serve nontraditional students equally well risks neglecting the needs of all students. Recent scholarship suggests that adapting pedagogical strategies for changing student populations can enhance the education of traditional and nontraditional students alike. Nontraditional students are, for example, especially responsive to active learning and integrative approaches (Benshoff, 1993), but traditional students also benefit from hands-on experiences and from the opportunity to apply classroom principles to situations beyond the university. Alertness to cultural differences in a diverse student population will lead instructors to adopt a wider range of teaching approaches and accept a wider range of learning styles that are characteristic of all students. Such openness can respect diversity within population groups as well as between them (Wlodkowski & Ginsburg, 1995). While commuter students can most directly benefit from the connectedness offered by community-based service learning, residential students can also increase their problem-solving and leadership skills through such activities (Rowe & Chapman, 1999) and doing so increases their sense of social responsibility within and beyond academic disciplines (Reeb et al, 1999). Taken together, as Judkins and LaHurd point out, one effective way that colleges can respond to the needs of those who constitute “a more diverse student body” is by responding to the “needs of a diverse society” (1999: 787).

These considerations suggest that even at a school like UNL, with an undergraduate student population that has traditionally mirrored the ethnic and cultural composition of Nebraska, faculty must thoughtfully address the pedagogical challenges of increasing student diversity. They should do so not only to serve nontraditional students and students from underrepresented groups, but also to serve better the traditional student population with instruction that is culturally responsive and informed by the human variability of the broader society. At times, this may also require faculty to rethink their perceptions of student needs and cultural conditions, and the campus leadership to reconsider the instructional conditions (e.g., class size) that are necessary to respond adequately to student diversity in the classroom.

The changing professorate

“A cornerstone of a leading research institution with strong graduate and professional programs is high quality teaching, both at the undergraduate and graduate levels” (Future Nebraska Taskforce, p. 24). We agree with the writers of *A 2020 Vision* that outstanding undergraduate and graduate teaching is one of the primary resources for achieving UNL’s goal of becoming a leading public research university. To create an intellectual climate in which

teaching and research are truly complementary, however, UNL must have a clear understanding of who its faculty are and who they are becoming. The changing profile of the professoriate at UNL is reflected in many characteristics: in changing demographics, personal and professional values, aspirations and commitments, qualifications, and, of course, orientations toward teaching and research.

One straightforward reflection of the changing professoriate is age. A survey of faculty from 378 colleges and universities found that nearly one-third were 55 or older, compared with one-quarter a decade ago (University of Wisconsin System, 1999). At UNL in 2001, 45% of the faculty were age 51 or older. Faculty attitudes toward their professional role vary with generational outlook, of course. Faculty who will retire in the next ten years entered the professoriate in the 1970s, and they reshaped higher education with their increased interest in and attention to research in addition to teaching. Now a newer generation of faculty contributes to a declining climate for teaching as their attitudes and commitments move in new directions (Finkelstein et al, 1998). New professors hired in the past decade at UNL have been influenced by changing public pressures for accountability from legislatures, administration, and educational environments, along with economic and market pressures. Recent hires in most fields have survived a much harsher job market than the generation of faculty who preceded them and are accustomed to a more demanding, competitive professional environment. Perhaps the most significant difference between older and newer generations of the professoriate is in their graduate training: owing in part to a more competitive professional environment, younger faculty have been trained to be oriented to their research development, and the number of faculty reporting their primary interest as teaching has declined. Moreover, few new faculty arrive at the university with systematic background in teaching and education to prepare them to be thoughtful classroom instructors. Like their advisors, they learn to become effective instructors - or fail to do so -- "on the job."

Other important changes have occurred in the professoriate: increased numbers of women and ethnic minority faculty have joined professorial ranks; more faculty have an international perspective, have studied abroad or come from diverse backgrounds; fewer faculty hold tenure-track appointments; more differences exist in the work profile and distribution of work among faculty, with women faculty spending more time on teaching than men and men more involved in research and publication (Burke, 1995; Finkelstein et al, 1998). We profile some of these changes below.

Increased numbers of women and minorities. Although institutions of higher education have attempted to create a more diverse faculty by recruiting women and minorities, these groups remain underrepresented relative to the overall number of faculty and to their numbers in the U.S. population (Aguirre, 1995). At UNL, 25.2% of all faculty and administrators are women; 14% of those are full professors. Faculty and administrators of color make up 11% of the total (Perlman, 2001). Recruitment and retention remain difficult. Minority faculty are often hired without an understanding of the social forces and structures that influence integration into academic life and that, in turn, create professional satisfaction. The high demands on women and minorities for greater service and increased teaching may compromise professional development and hurt retention. These enhanced demands conflict with quality of life and family needs, and may cut off faculty from contact with the communities with whom they feel

more affinity. The urgent need for service may be so great that faculty may also be placed in jeopardy because their service conflicts with expectations for research in the institutional reward structures. In addition, women and minorities may find fewer appropriate forums for the publication of their scholarship and in some disciplines receive less favorable peer review because their research falls outside the standard framework of traditional disciplines (Aguirre, 2000, Burke, 1995; Niemann, 1999). The push for accountability exacerbates these difficulties; the recent adoption of Indicators of Institutional Quality by UNL and the designation of select journals and other publication forums as "nationally significant" channels the faculty evaluation process in ways that may undervalue the scholarship of women and minorities, which may appear in unconventional forums.

We agree with Chancellor Perlman that in order to achieve excellence in education and to serve a much more diverse national and global society, undergraduate education must introduce students to diverse perspectives and prepare them for citizenship in a diverse world (Perlman, 2001). This is the basis for UNL's commitment to recruiting and retaining a diverse faculty (enunciated in the Comprehensive Diversity Plan and other documents), accompanying a broader movement within higher education to encourage greater diversity in the professoriate (a shift that paralleled, interestingly, the emergence of the culture of the research university). But regular reports by UNL's Gender Equity Task Force document chilly or hostile climates for women, and for ethnic, racial, and sexual minorities in many areas of the university. As UNL seeks to create a climate that embraces diversity, it must also address the meaning of diversity *in* education for teaching and learning excellence.

Increased numbers of parafaculty. Part-time and temporary faculty and graduate students teach more than half the college and university courses in the United States, with tenure-track faculty now teaching only one-third of the classes (Nelson & Watt, 1999). The number of part-time faculty has doubled across the nation over the last twenty years, with temporary faculty numbers especially high in Departments of English, History, Modern Languages, and Mathematics (Wechsler, 1999). Women hold 47 % of part-time positions (Pratt, 1998). This trend follows labor practices in the business and corporate world as outsourcing and other practices are used as cost-saving measures. Outsourcing and contract employment practices are especially useful tools to help institutions downsize. In addition to responding to trends in business, new technologies, and partnerships with nonacademic entities, hiring increasing numbers of part-time faculty may also arise from the increasing devaluation of the humanities in higher education and the devaluation of face-to-face classroom teaching (Pratt, 1998). As noted by Donald Kennedy (former president of Stanford University), the growth of the "parafaculty" means that a "two-class faculty is now a fact of life in many places, and that will doubtless give rise to its own generation of new problems" (1997, p. 138).

Although current budget shortfalls suggest that this trend to cost-saving in hiring parafaculty is likely to continue at UNL, we suggest that caution is needed in considering the broader impact of these practices on education at UNL. Since they are not hired to do research, how can part-time faculty be encouraged to connect teaching and scholarship or to view teaching as a form of scholarship? What commitment to long-term institutional or departmental goals for excellence in teaching and quality of curriculum can be expected of an underpaid part-time or contract worker? How can UNL develop a climate and a process that encourages teaching and

learning excellence among part-time and contract faculty? What reward structures should be put in place to enhance their inclusion in faculty development? If the faculty are as vital an asset to the quality of education as *A 2020 Vision* asserts, UNL must consider the effects of this trend on the quality of undergraduate education.

Comparable questions must also be posed concerning graduate students in the classroom. A teaching assistantship for a well-prepared graduate student provides an essential source of financial support for graduate education, contributes to a department's teaching mission, and advances the student's professional development. When all goes well, the graduate student becomes a more skilled and self-confident instructor, undergraduate students benefit from their teacher's fresh perspective on the field (and shared generational outlook), and faculty members enjoy the pleasures of mentoring the future professoriate. Sadly, this ideal is undermined in many departments where graduate students are unprepared or poorly equipped for the teaching role, there is no faculty mentorship, and undergraduates suffer from classes that are not competently taught. UNL has made significant advances in the preparation of graduate student teaching assistants with the Preparing Future Faculty Program, in which graduate students are provided with formal guidance and mentoring experiences in undergraduate education at UNL and other regional institutions. Yet the Preparing Future Faculty Program has been inconsistently funded and only a small fraction of the graduate students at UNL have access to this program or to department-based seminars on college teaching. Many of the remaining student instructors are in departments with essentially no support for their development as undergraduate teachers. More broadly, the apparent ease with which an underprepared graduate student can be assigned to teach an undergraduate course at UNL may reflect the deskilling of undergraduate education that is inimical to UNL's avowed commitment to high-quality undergraduate education. No instructor should be in an undergraduate teaching role without adequate preparation, training, and instructional support. It is thus critical that the essential contributions of graduate students to undergraduate education at UNL (motivated partly by our university's financial needs) are supported by a systematic program of training for teaching assistants to ensure that undergraduates are well-served by graduate instructors, and that graduate students are developing teaching skills rather than just doing their time in the classroom to financially support their development as scholars.

Declining faculty interest in teaching and market-driven professionalism. UNL has a long history of hiring teacher-scholars who promote energetic dialogue between teaching and research. As Robert E. Knoll has observed about founding figures like Charles E. Bessey in the 1880s and 1890s, Nebraska's "professors did not define themselves as research scholars exclusively or even primarily. They did not separate teaching and research: that separation was not to come for some sixty years" (Knoll, 1995: 22). The complementary roles of teaching and research are affirmed also in UNL's *A 2020 Vision* statement: "Strong research and graduate studies programs complement undergraduate education. Two factors remain key in accomplishing this premise: 1) the University recognizes the resource commitments needed to accomplish excellence on both fronts and 2) the University culture finds ways to recognize different paths to faculty excellence" (Future Nebraska Task Force, 2000, p. 3). Teaching success has long been one factor in faculty evaluation, reappointment and tenure decisions, and various institutional structures at UNL have been designed to support faculty teaching development: the now-defunct Teaching and Learning Center encouraged the improvement of

instruction for decades, while more recent initiatives such as the Peer Review of Teaching Project, and the “Scholarly Teacher” and Outstanding Teaching and Instructional Creativity (OTICA) awards, focus on recognizing teaching ability and rewarding excellence in teaching.

But as we consider further in the next section, UNL conveys mixed messages to its faculty about the importance of teaching. Although the Board of Regents has identified teaching as the number one priority of UNL, the work of the Future Nebraska Taskforce was focused exclusively on enhancing research and graduate education, and has become the university's blueprint for growth. The 1998 Farnham review of the research climate at UNL and other faculty surveys have revealed considerable uncertainty about the relative priorities of the institution for research, teaching, and engagement. At the same time that significant enhancements to the research program occur (especially those promoting sponsored research initiatives) while teaching initiatives are underfunded, the university describes the quality of undergraduate education as one of its most important attributes when marketing a UNL degree to Nebraska citizens.

If UNL faculty are uncertain about institutional priorities, they are clear about professional and market priorities, and these also significantly influence their commitments of time and effort. Professional markets and business competition have played an important role in defining scholarship and faculty work profiles. As the flow of public money to higher education diminished in the 1980s, for example, the boundaries between the research university and the world outside became increasingly permeable (Slaughter & Leslie, 1997). Initially in the sciences, but later in almost all disciplines, the national and global marketplace has begun to influence academic entrepreneurial activity. As funds have been cut from state and land-grant university budgets, faculty also compete more fiercely for scarce resources from the federal government, private foundations, and other sources. These economic factors significantly influence the intellectual direction of faculty research and their teaching: scholarship follows funding, and faculty devote effort to activities that are rewarded. Moreover, acquisition of those resources has become the distinguishing indicator of prestige among institutions and among faculty within them as well. Consequently, faculty increasingly direct their efforts toward programs and research that bring in money, drawing faculty effort away from an emphasis on teaching which yields fewer institutional and external rewards. In such an environment, teaching ability becomes less important in hiring than the potential to bring in outside resources, to recruit graduate students as research assistants, or to enhance the research prestige of the institution in other ways. Moreover, faculty who invest themselves in scholarship (and funding for their research) maintain their professional mobility and, indeed, are likely to move from one institution to another in pursuit of a more prestigious faculty appointment. By contrast, because teaching is perceived to be more local in its impact, it rarely results in opportunities to move up professionally and, more often, reflects an academic's commitment to the institution. Furthermore, many young faculty (and graduate students) perceive the opportunity costs in their efforts to developing teaching skills as too high if it takes time and energy away from their research development. Consequently, many arrive in the undergraduate classroom poorly-prepared to be effective instructors.

Taken together, these changes in faculty attitudes and work pose significant challenges to a research university that strives to become an institution of teaching excellence. They suggest

that if UNL genuinely strives for a climate of outstanding teaching as well as research, it requires not only a clearly-conceived and well-articulated sense of institutional mission, but the translation of that mission into specific policies and practices that demonstrate clear recognition of the significance of teaching. This is important because faculty work in a broader professional climate that esteems research entrepreneurship, and because the development of faculty careers is guided by processes of professional socialization that privilege research. It will thus be necessary to develop clear, convincing, and creative avenues to supporting and rewarding faculty instructional contributions to student learning to complement a strong professional orientation that tends to prioritize research alone. We believe that it is well worth the effort to do so, because our students and our constituents will be the ultimate beneficiaries of this effort -- and through them, we will benefit also.

More broadly, it is apparent that the mission and responsibilities of educators in colleges and universities in the United States are changing. As teaching is becoming more important to the quality of an undergraduate education, as well as the marketing of a baccalaureate degree and the competition for top students, and the expectations for undergraduate education become more complex and multifaceted, it is becoming necessary for universities like UNL to reconsider the decades-long preeminence of the culture of the research university, at least that part of the culture that has tended to devalue teaching. University leaders are discovering that excellent teaching can neither be taken for granted nor is a peripheral facet of the university's mission. Moreover, as the pedagogical opportunities of information technology change the nature of the classroom, and as the student population is becoming more diverse, faculty must consider how teaching in the 21st century will decreasingly resemble traditional forms of instruction while maintaining their ongoing focus on student learning. Faculty also face the challenges of integrating a modern role as educator into the increasingly competitive, entrepreneurial research-oriented professional environment in which they find themselves as scholars. At the same time, institutional investments in teaching must compete with other pressing needs as universities face budgetary pressures and the vague expectation of "doing more with less." We believe that these national and global influences contribute to a uniquely exciting but uncertain environment for higher education that requires that we carefully consider the future directions it offers UNL.

Opportunities and Challenges of Higher Education at UNL

The climate of higher education at UNL is significantly shaped by the national influences discussed above. Nebraskans have a strong proprietary interest in their university, and in the quality of undergraduate education at UNL, that arises from the populist spirit of our region and from the normalization of the baccalaureate degree that has occurred nationally. Students (and their families) expect that a university degree will contribute to enhanced career prospects and earning potential as do students elsewhere in the United States, and UNL is significantly affected by the expectations of legislators, business leaders, and accrediting bodies that contribute to accountability pressures in the context of a broadening educational mission. Education at UNL is also affected by the very high proportion of students who work (many full-time) while they are undergraduates and the competition for their time that arises from jobs and other responsibilities. At the same time, UNL faculty have been professionally socialized by the modern culture of the research university that can make it difficult for them to accommodate the commitment of time

and effort to teaching improvement with the scholarly responsibilities that are preeminent to their career development. And UNL, like many universities nationally, faces budgetary constraints that have been a more typical than exceptional part of the institutional environment during recent decades, requiring priority-setting in a context of program cuts rather than investments. To a great extent, these conditions that UNL shares with comparable institutions nationally define the climate of higher education at UNL².

But UNL also has a unique culture of education and has been influenced by opportunities and challenges that are more specific to its history, mission, and present responsibilities. UNL is, for example, both a land-grant university and the state's only comprehensive university. These dual missions (which are often assigned to separate institutions in many states) are a foundation to UNL's mission to the state: to provide the broadest range of "liberal and practical" (in the words of the Morrill Act of 1862) educational opportunities within a context of service to the people. Although this perceived mandate has sometimes contributed to an overextension of the university's resources – with more programs maintained than budgetary realities should allow – it also establishes our unique educational mission compared to other institutions of higher education in Nebraska. UNL is also a Carnegie Research University and a member of the American Association of Universities. These designations imply a strong commitment to high quality scholarship, research, and graduate education in which faculty and students take justifiable pride. At the same time, however, UNL has a long tradition of inclusion and access of students that has arisen from, and contributed to, the university's strong relationship with the citizens of the state. For many years, UNL offered open enrollment to graduates of any Nebraska high school. The university raised its admission standards in the 1990s, but UNL still enrolls a high proportion of college-bound students from Nebraska, including students of the highest caliber. These special elements of UNL's history and role help to account for the strong loyalty of its alumni, its support in the legislature, the enthusiasm of its students, and its unique contributions to higher education in Nebraska.

Undergraduate education is a special element of that loyalty. Excellent instruction is emphasized by the many external constituencies to the university. For many years, for example, the Legislature funded a series of awards for distinguished teaching, and other teaching recognitions are supported by the UNL Parents' Association, the Associated Students of the University of Nebraska (ASUN), student organizations (such as Mortar Board), as well as specific departments and colleges at UNL, the university (such as the Scholarly Teacher Award), and the University of Nebraska system (i.e., the Outstanding Teaching and Instructional Creativity Award). There are, in fact, many more formal recognitions of outstanding teaching than there are for exemplary research, many of them coming from the university's external constituencies. The Board of Regents has established that teaching is the highest priority of faculty efforts at UNL, and the importance of teaching is regularly emphasized by administrators at every level. The high quality of undergraduate instruction is arguably the most important expectation of UNL by the citizens of Nebraska, and one of the most important ways that families are directly affected by the university.

This has contributed, in many ways, to an internal environment conducive to teaching innovation and instructional excellence. Some elements of that environment have already been mentioned in this report. The Peer Review of Teaching Project is, for example, a nationally-

recognized program designed to encourage reflective assessment and improvement of instruction by faculty through analysis of the intellectual content of their courses, critique of instructional practices designed to foster student achievement, and careful evaluation of student learning outcomes. Through peer consultation and the development of teaching portfolios, faculty in the peer review project have been encouraged to take a more searching look at their roles as instructors and the effects of their instruction on students, and UNL has assumed leadership in the national movement toward greater peer evaluation of teaching in colleges and universities throughout the country. The Peer Review project is the most recent (and innovative) of several initiatives designed to improve faculty instruction which include projects supported by the Fund for the Improvement of Postsecondary Education to document teaching as scholarly activity, focused teaching circles in many departments and colleges, and workshops, seminars, consultations, and other activities formerly sponsored by the Teaching and Learning Center. The Academy of Distinguished Teachers was inaugurated in the 1990s by Senior Vice-Chancellor Joan Leitzel as a consultative group of outstanding faculty instructors who could provide campus guidance for teaching improvement. By contrast with similarly-constituted honorific groups at other universities, the Academy has sought to emphasize its service mission through the development of graduated criteria documenting teaching excellence and individual consultations throughout the campus, as well as this report.

The environment at UNL has not only supported improved faculty instruction but also student learning. The development of various kinds of learning communities in units throughout UNL derives from an increasing emphasis on the quality of the first- and second-year experience for UNL undergraduates and an effort to enlist the student peer environment in support of academic achievement. The Undergraduate Creative Activities and Research Experience (U-CARE) initiative provides funding to support student research under the guidance of faculty mentors. The Honors program seeks to provide the most capable students with the dual advantages of intensive coursework with other high-achieving students and the broad curricular opportunities of a comprehensive research university. The JD Edwards Honors Program in Computer Science and Management has similar goals of supporting the achievement of promising students in computer science, business, and related fields through residential living and specialized coursework. As the result of these and other innovations, UNL took pride in being chosen in 2000 as one of 16 institutions by the American Association of Colleges and Universities as an innovative institution for excellence in undergraduate education.

But when viewed from the perspective of the less recent past, it is also fair to say that UNL has an inconsistent history of support for instructional excellence and student learning. That history may be characterized by oscillations between periods of heightened interest and investment in educational quality (such as the present moment) alternating with periods of decline, disinterest and neglect. Faculty who have been at UNL for many years can recall the optimistic innovations in higher education of the past: the creation of the Centennial College in 1969 that heralded an era of exciting innovations in undergraduate instruction for which UNL received national recognition; the development of well-designed PSI (Personalized System of Instruction) courses in the early 1970s to provide for individualized progress in student learning, and which helped make UNL a national leader in self-paced instruction; and the creation of the ADAPT (Accent on Developing Abstract Processes of Thought) program in 1975 as a multidisciplinary program for freshmen committed to the development of student reasoning,

which was funded through external grants and became a national model for similar programs at other universities. In most instances, these and other innovations to promote student learning ended not when their purposes had been achieved or assumed by new initiatives, but when budget exigencies resulted in their deterioration or defunding. The most recent illustration, of course, is the end of the Teaching and Learning Center in 2002, which was created in 1971 as one of the first programs to promote faculty instructional excellence at a major university, and was for several decades a central resource for instructional improvement for faculty.

Budgetary pressures are a fact of life in contemporary higher education, and the priorities of campus leaders are revealed in decisions about program cuts as much as they are expressed in new investments. In this regard, the end of the Teaching and Learning Center (T&LC) in response to recent legislative cuts in the university's budget had two characteristics that have been recurrent aspects of the funding climate for educational quality at UNL. First, funding for the T&LC was cut at the same time that funds were being invested in other programs of importance to the university; for example, several units hired new faculty during this period of budget exigency, and significant funds for new research initiatives were also made available. Moreover, the small grants program for teaching innovation, administered by the Teaching Council and the Teaching, Learning, and Technology Roundtable, was also eliminated at a time of enhanced funding for research. It is laudable that university administrators have sought to move forward even while the budget is being reduced, but the means by which progress is defined (at a time when one expressed priority was to avoid threats to the core instructional mission of the campus) are expressive of the priorities of campus leaders. Second, there have been no plans to preserve the most essential contributions of the T&LC. Despite worthwhile suggestions that the functions of the center could more usefully be decentralized and assumed by individual colleges and departments, there have been virtually no incentives or support for doing so (indeed, one dean after another testified at the budget hearings concerning the T&LC that there were no funds for new instructional support within his or her college). In other words, the most valuable functions of the T&LC – such as conducting workshops and seminars on teaching excellence, individualized consultation with faculty, guiding faculty who are new to the classroom, and bringing the insights of educational theory and practice to UNL faculty – have simply been lost.

Meanwhile, some of UNL's most exciting initiatives in undergraduate education are also vulnerable to budget cuts and resource erosion. The learning communities program, for example, relies heavily on generous efforts by faculty and support staff which go beyond their standard responsibilities and are often unrewarded by their units. The same is true of undergraduate research mentoring under the U-CARE program. Likewise, Honors program and University Foundations courses are taught when departments can donate faculty teaching effort from the standard curriculum. Growth in each of these programs is limited by the amount of "volunteer" effort of this kind that faculty can provide, or can be reallocated from departments' primary responsibilities, and each is thus vulnerable to the increased demands on faculty time arising from budget reductions and reallocations, as well as UNL's growing emphasis on faculty research productivity. Without significantly enhanced, stable funding for these programs, their growth and indeed their maintenance are as uncertain as were some of the innovative educational initiatives of UNL's past.

Other essential elements of the undergraduate educational infrastructure at UNL are seriously undersupported. Advising should be, in many respects, one of the most important extracurricular features of undergraduate life because it offers opportunities to counsel students about the diverse goals of their education and how these goals relate to curricular and graduation requirements. But the significant demands on understaffed academic centers in many colleges often reduces advising to a perfunctory check of graduation requirements, and many students remain ignorant or confused about why their educational requirements are constituted as they are. Furthermore, when students need academic help – such as learning more effective study skills or assistance in writing a course paper – where can they go? The capacities of resources like the Writing Assistance Center have already been overextended by past budget reductions. If they are not scholarship athletes, many students believe that there are few resources available to them, and they are usually correct.

Thus at the same time that the campus takes pride in its national recognition as an innovative institution of excellence in undergraduate education, the programs that contribute to this excellence are vulnerable, and some valuable initiatives have been lost. We believe that the programs that contribute most to student learning and faculty instructional improvement should have sufficient funding that they are not so dependent on overtime faculty effort or subject to the next wave of budget reductions or reallocations. This is because they are core features of the university's educational mission. The commitment of campus leaders to excellence in undergraduate education can be measured not only by their investment in innovative programs when funding is plentiful, but also by their protection of these programs from budget exigencies.

This is an especially significant concern in light of UNL's current and future budget outlook. Undergraduate instruction is resource-reliant because it depends on faculty time and effort, technological and staff support, and the physical infrastructure within which teaching and learning take place. Financial resources strongly influence instructional quality, class size, innovative teaching methods (especially those involving technology or laboratory facilities), and the availability of non-classroom learning opportunities for undergraduates such as guided research, internships, and practicum placements. Resources also determine the extent to which faculty rather than graduate students or parafaculty are in the classroom or guiding extracurricular learning. What resources are available to UNL's instructional mission, therefore, and how are they used?

In fiscal year 2000, financial resources available to the UNL teaching function were significantly lower than comparable resources available to our peer institutions³. Measured by “educational cost / FTE”, UNL annual expenditures on this critical criterion were approximately two-thirds as great as the average for our comparator group (approximately \$10,000 per student at UNL vs. \$15,000 as the comparator average.). When peer institutions with medical schools are eliminated from the comparison because of the distorting effect of the high cost of medical education, UNL's relative position improves, but only to about 80 percent of the comparator group average. UNL lags behind its peer institutions in educational expenditures per student.

Gloomy economic prospects for the Nebraska economy in the near future, and consequent anticipated budget reductions may well widen this gap in expenditures on teaching. Given this financial handicap, UNL's innovative programs in undergraduate education are

vulnerable. Reducing or eliminating this funding handicap would create extraordinary opportunities for progress in providing significant, stable financial support for the crown jewels of UNL's efforts toward excellence in undergraduate education, and would fund new innovations that would provide added support for student achievement.

Why, then, does UNL lag its peers in expenditures per student? While the disparity in educational expenditures per student is not in dispute, the reasons for that disparity can be. The low population of Nebraska compared to other states in the region is frequently cited as a major problem, primarily because it provides a low tax base of support available for higher education. However, the fact that Nebraskans' per capita tax support of UNL is significantly *higher* than the average level of per capita tax support available to our peer institutions is important and, indeed, could allow government appropriations per student at UNL to be, surprisingly, about ten percent *higher* than such support among our comparator schools⁴. As the "Confronting Mediocrity" series published in the *Omaha World-Herald* in January 2001 pointed out, it is the paradoxical contrast between such relatively strong levels of public tax support and the relatively weak provision of educational expenditures per student that glaringly stands out at UNL. *World Herald* writers pointed to lower tuition revenue and higher expenditures on research and public service (especially related to state agricultural economy) as their explanation of the combination of relatively high state tax support and relatively low per student educational expenditure in Nebraska. Tuition levels have risen recently at UNL in response to the recognition that our tuition rates are comparatively low, but other problems cited in the *World-Herald* study have not been addressed. UNL's comparatively poor track record in attracting outside research money is an additional factor.

Although Nebraska tax support for higher education is relatively strong, the trend in state support through the decade of the 1990s was not. During that decade, while Nebraska personal income in real (deflated) terms rose by more than 20 percent, state tax support for UNL, also in real terms, was stagnant⁵. Real educational expenditures per FTE student at UNL rose by 15 percent during that decade, however, primarily because of a real increase in tuition and fees of more than 20 percent over those ten years⁶. In other words, state support of UNL is declining in real terms as tuition revenues are being raised.

Taken together, these considerations suggest that aspirations for achieving national leadership in undergraduate education at UNL are handicapped by the existing disparity in educational expenditure between UNL and its peer institutions. Moreover, in a context of current and continuing budget challenges, preserving and strengthening efforts to improve instruction and student learning at UNL will require unusually clear and focused priority-setting by campus leadership. Recent conditions and the events of the past several decades suggest that programs to support educational excellence have not been protected when budget exigencies arise, and many of the most innovative current initiatives are vulnerable. We believe that beyond budgetary pressures, what is needed are clearly-defined and achievable goals for advancing educational excellence at UNL to guide leadership decisions during periods of resource availability and restriction. In a sense, the "lack of a clear institutional vision for excellence" described by the writers of the *2020 Vision* report applies also to teaching and learning.

A Research University of Educational Excellence

What, then, would a research university that values outstanding teaching and student learning look like? What should our vision be?

In such an institution, student learning is the preeminent goal of instruction. Thus as students complete curricular distribution requirements, attend class for the requisite number of contact hours, achieve a passing grade in courses for the major, and satisfy other graduation requirements, an overriding concern for student learning is incorporated throughout the undergraduate experience. A concern with learning over credit hours and curricular requirements underlies the values articulated in UNL's Role and Mission Statement, which describes the university's curricula as "designed to foster critical thinking, the reexamination of accepted truths, a respect for different perspectives including an appreciation of the multiethnic character of the nation, and a curiosity that leads to lifelong learning," as well as the goal that "students can develop aesthetic values and human relationships including tolerance for differing viewpoints." Critical thinking and tolerance for diversity are less easy to evaluate than are credit hours and test scores, of course, and thus it is easy for faculty and administrators to substitute the latter for the former in the push for accountability, or to assume that student learning is accomplished when other requirements are satisfied⁷. But if student learning is preeminent, it deserves more careful consideration.

How can faculty thoughtfully assess student learning in their courses and across the curriculum? As we noted earlier, such an effort goes well beyond the emphasis on easily-measured outcomes that are the current focus of assessment efforts, and emphasizes also the educational process. It is concerned with faculty contributions to student learning primarily but not exclusively, because it recognizes that students significantly contribute to their own learning through the influences of background and prior preparation, goals and expectations, and effort that underlie achievement. Most fundamentally, however, assessing student learning requires a thoughtful articulation of the goals of instruction and of the purposes of undergraduate education, as noted earlier. This is because identifying appropriate ways of assessing student learning depends on the goals of the instructor guiding the design of coursework and, more broadly, the general goals of the undergraduate education to which the course contributes (Bernstein, 1998).

In a practical sense, therefore, any time an instructor administers a test, student learning is being assessed. If the test includes only questions requiring straightforward recall of knowledge, it reflects fairly narrow instructional goals that may be best-suited to an introductory course, or that are one of several components of instruction in a more advanced course. Most faculty have additional goals for their instruction beyond students' recall of specific information. They are concerned that students are capable of applying their knowledge to practical situations; that students can identify important relationships between concepts; that students can critically evaluate the (correct or erroneous) assumptions underlying new ideas presented to them; that they understand the conceptual complexities underlying superficially simple problems; that they develop practical skills related to the topic; that they develop deepened interest in the field; that they become more capable of presenting their ideas clearly and coherently in oral and written modes. These and other goals are worthwhile objectives for student learning, but they require different approaches, therefore, to assessing whether learning has occurred. Student projects (as

individuals or in groups), lab or practicum activities, oral presentations or debates, written reports incorporating peer or faculty feedback, performances, critiques, simulations involving applications of knowledge, and other activities can each be used to advance, and evaluate, student learning in coursework. Not all of these assessments must contribute to a course grade. UNL faculty have used short in-class “reaction papers” in which students comment on what they do and do not understand, journals, Web-based student discussion boards, and focus groups with students (with or without the instructor present) as means of assessing student learning. Information from student course evaluations is also an important means of evaluating whether certain learning goals (e.g., increased interest in the topic) have been achieved. In short, multifaceted and multidimensional approaches are warranted when a faculty member’s goals for student learning are also multifaceted – as is true for most courses.

When student learning is the preeminent goal of instruction, the effort to thoughtfully assess learning goals may also change instruction because it requires faculty to be clearer about their instructional goals and how they are implemented in the design of a course. Lectures, discussions, group work, media presentations, and other forms of instruction each assume different roles in class depending on the instructor's goals for student learning. A focus on student learning also requires administrators and faculty to be more reflective about what are the goals of an undergraduate education, and how these goals are realistically incorporated into the curriculum. This is part of what is meant by teaching as scholarly activity, because serious intellectual work is required in meaningfully developing and interrelating learning goals, curriculum, and assessments of learning outcomes. A focus on student learning also transforms assessment activity from the current emphasis on *outcome* assessment to a more constructive focus on *formative* assessment that contributes more significantly to the improvement of instruction. The goal is to strengthen instructional practices that contribute to improvements in student learning, rather than establishing how well students or faculty have done. Finally, when properly conceived, an emphasis on student learning also views faculty instruction in the broader context of the other contributors to student achievement that derive from the extracurricular experiences of the student, the institutional environment, and the student’s personal contributions to learning. Students contribute significantly, of course, to their own learning, and student leadership is also crucial in creating a campus environment in which learning is valued by students and is affirmed by the peer culture. Too often student government, campus organizations, and student activities compete with and undermine the creation of a campus culture that values learning within the student community. Thus when viewed in this manner, all members of the university community appreciate how student learning is a function not only of a faculty’s efforts within (and outside) the classroom, but the support for learning that exists outside the classroom.

This leads to a second characteristic of a research university that values outstanding teaching and student learning: reliable support exists for student learning within and outside the classroom. Recognizing how much student achievement is fostered by the extracurricular environment, a university that is deeply committed to its educational mission ensures that the undergraduate educational infrastructure is adequately and reliably supported; it does not depend primarily on the overtime efforts of faculty and staff. This means that learning communities, freshmen seminars, honors education, service learning, writing labs and other learning support services are endowed with significant permanent funds that are protected from the fluctuations of

budget cutting and internal reallocation processes because they are recognized by the campus leadership as part of the core educational mission of the university. Enablements to student learning within the classroom, especially those that derive from the thoughtful use of laboratory research or instructional technology, also receive stable, permanent support. Tech labs for instruction and classroom technical resources are adequately maintained and updated, for example. Academic advising for undergraduates is another essential component of this educational infrastructure because of its importance to communicating to students a clear and exciting institutional vision for undergraduate education and relating this vision to curricular and graduation requirements. In a research university that values student learning, effective advising is one of the most important extracurricular efforts to help students understand their education in a broader life context than might have occurred to them when entering the university.

In such a university, faculty, students, and administrators share responsibility for shaping the extracurricular environment of learning. Although faculty and administrators guide the design of activities and programs to foster student achievement, student leaders recognize their role in shaping a campus climate where excitement about learning is respected and valued, and where students converse about the discoveries of the classroom as well as the weekend's activities.

A third characteristic of a research university that values outstanding teaching is that support for instructional excellence is offered to all educators. Although many faculty bring natural gifts to their teaching, excellent instruction does not come naturally. Natural gifts differ and prior preparation for teaching is variable, and thus institutions that value instructional excellence ensure that there are multiple opportunities for instructional development available to faculty. Many of these opportunities (e.g., inservice training, individual consultations, seminars on specific topics, mentoring with senior teachers within the discipline, development leaves, grant funding for instructional development) are focused on new faculty, who often arrive at a university committed to excellent instruction, anxious about their capabilities, and unsure of how to balance teaching and research responsibilities. They are thus likely to be highly receptive to guidance from faculty and administrators on how to embark successfully on a teaching career⁸. Instructional assistance should also be part of an institution's continuing commitment to faculty career development, recognizing that as careers evolve, faculty interests change, and as the landscape of research in higher education advances, the preparation for teaching in graduate school or early in one's career becomes less well-suited to the instructional challenges of later life. Indeed, an institution committed to instructional excellence is likely to combine a comprehensive graduate training program in teaching with early-career opportunities for newer faculty and continuing support for more senior faculty into an integrated initiative to foster the development of peer partnerships among those engaged in undergraduate education.

This institutional commitment is coupled with an expectation that faculty should strive to be excellent instructors throughout their careers. Even the most productive faculty researcher is expected to strive for excellent instruction -- just as strong instructors are expected to contribute through their scholarship -- at an institution that values student learning. Only when outstanding researchers are also strong teachers are the benefits of a research university applied to the undergraduate curriculum. To state the issue negatively: there is no excuse for poor teaching, and neither ambitious research programs, professional traveling commitments, or national

service responsibilities excuse inadequacy in the classroom. We believe that one indicator of an institution's commitment to excellent instruction is the extent to which multidimensional evaluations of teaching are seriously incorporated into tenure, promotion, and merit review procedures. No faculty should be tenured or promoted if they are inadequate in the classroom, and no faculty should be deemed to have contributed satisfactorily if he or she is a poor teacher.

As faculty careers develop, it is natural that interests evolve and strengths emerge that alter initial career pathways. A new research direction may reinvigorate one professor's pre-tenure research program, while another may discover opportunities in the classroom that were unanticipated. Although faculty are expected to contribute satisfactorily to the research, teaching, and service missions of the university, it is not reasonable to expect that all faculty will contribute to each mission to comparable degrees. "Multiple profiles" of faculty responsibilities emerge naturally in many ways, such as when faculty are excused from certain teaching responsibilities because of sponsored research, or faculty with teaching interests assume a greater responsibility for instruction. We concur with the Future Nebraska Task Force that a wise institution encourages faculty to work within their strengths and to expect excellence within those strengths. We also believe that satisfactory performance in all areas of faculty responsibility is also a reasonable expectation of faculty, even when one's major contributions are within research, teaching, or service.

Thus a department may wisely encourage a prolific researcher to pursue new research initiatives by reducing teaching obligations, while encouraging an outstanding instructor to assume enhanced teaching responsibilities with comparably reduced research expectations. Such a department, however, never "punishes" a faculty member for poor research productivity with more teaching -- unless instruction is that faculty's strength. Such a policy is inimical to the purpose underlying multiple profiles of faculty responsibilities and, more importantly, the emphasis on excellent instruction.

A fourth attribute of a research university that values student learning is that outstanding instructors are recognized and rewarded. The reward structure of any institution expresses its most important priorities and goals. An institution that espouses the importance of undergraduate instruction provides evidence of this commitment through the reward and support system. The goal here is not strict comparability with the research environment. Research support and incentives -- many of them coming from the federal and state governments -- create their own reward systems that are important to promoting faculty scholarship. But in a university that genuinely values outstanding teaching, instruction is highly rewarded also: distinguished professorships recognize the accomplishments of strong teachers (as well as researchers), funding is readily available to invest in creative new instructional initiatives, and the quality of instruction is taken seriously in decisions about faculty tenure, promotion, and merit evaluations.

We commonly hear the view that contrary to research, teaching cannot be evaluated objectively or systematically. Kennedy (1997, p. 73) is representative:

First, whereas persuasive and credible judgments about research quality are available from multiple sources (publication record, awards and memberships, citation data, and

the testimony of an international "college" of peers), judgments about teaching quality have been available mainly from students and only occasionally from departmental colleagues. Second, whereas research evaluations have an aura of objectivity because they come from afar, assessments of teaching are by nature local and are therefore perceived as being more subjective and potentially influenced by friendship, personal loyalty, or other forms of bias.

Rosovsky (1990, p. 92) writes similarly in his classic *The University: An Owner's Manual* that "the degree of professional consensus as to what is meant by outstanding teaching is not great."

Such a view overstates the apparent objectivity of research evaluations and understates the multidimensionality of thoughtful evaluations of teaching. As insightful observers of higher education (including Kennedy and Rosovsky) recognize, typical markers of scholarly accomplishment are often misleading: publication counts do not necessarily index professional impact, and it is often hard to identify independent referees of scholarship from outside the university, especially in small research fields characterized by closely-knit networks of colleagues. Valid evaluation of research derives instead from the convergence of multiple kinds of information from within and outside the institution. The same is true of teaching. The days when teaching quality was assessed solely by student course evaluations are long past. The student voice is critical to evaluating many features of instructional excellence (especially the motivational qualities of student learning), but for other aspects of teaching other voices must be heard.

One of these voices is from faculty colleagues, who are most qualified to assess the intellectual content of teaching and research. In each case, the care and thoughtfulness of the peer reviewer is critical to the quality of the assessment: a quick glance at syllabi is as inadequate to the evaluation of teaching as a publication count is to the evaluation of research. Peer assessments have long been standard in the evaluation of teaching and research for promotion and tenure in many departments and colleges at UNL, and well-designed evaluations include classroom visits, together with careful consideration of a portfolio of materials assembled by the instructor which may include syllabi, tests, handouts, and other course-related materials, evidence of student learning, reflective comments on instructional practices and changes in teaching over time, and other materials. Peer assessments of teaching may come from colleagues within the department or from other units at the university, or they can come from colleagues outside the institution who have no prior acquaintance with the instructor (as are outside evaluations of research). With the growing number of faculty who have participated in the Peer Review of Teaching Project and a number of faculty who have been promoted primarily on the basis of outstanding teaching at UNL, there are now many examples of teaching portfolios that have been submitted to independent, external review, and which are good models of how external review can occur for others.

There are other indicators of outstanding teaching. A well-designed teaching portfolio includes also the instructor's voice that discusses efforts to enhance student learning, the development of teaching practices, and the intellectual content of the course, much as a reflective research statement describes the development of a research program. Outstanding educators are also commonly involved in extracurricular efforts to enhance student learning through their

participation in student activities, advising, research and practicum supervision, and learning communities, as well as contributions to enhancing the teaching climate at UNL by leading faculty workshops and seminars, and other activities. But it is not all local. Conferences on higher education and journals devoted to teaching provide forums for faculty to communicate with broader collegial audiences about their work, and successful competition for grants programs related to instruction in higher education provide another indicator of exemplary teaching contributions. Many outstanding teaching activities involve service to public school systems, communities throughout Nebraska, and national educational programs through the preparation of instructional materials, technological innovations, and consultations. In the Department of Physics, for example, Project Fulcrum places undergraduate and graduate science students in elementary and secondary school classrooms to work in partnership with teachers, and the Cosmic Ray Observatory Project (CROP) brings astrophysics research into high school classrooms. In short, there are many indicators of outstanding teaching that are local to UNL and national in scope.

It is time, therefore, to put to rest the views that research but not teaching can be objectively evaluated, that research is national but teaching is local, or that there is no consensus about the markers of outstanding teaching. In fact, instructional excellence can be as rigorously and systematically evaluated as can other faculty responsibilities in a research university that cares about outstanding teaching. At the same time, faculty must recognize that popularity in the classroom is not the only indicator of excellent instruction. They need to do more to document that their instruction not only results in happy students, but also students who have learned well and can apply their understanding. They need to show that their teaching effectiveness extends beyond the classroom, in part because they recognize that teaching leadership reaches to the institution and the profession. Only when the criteria of exemplary teaching are high will there develop an institutional climate in which truly outstanding instructors are recognized and rewarded.

A fifth attribute of a research university that values outstanding teaching is that research and teaching missions are thoughtfully harmonized. Thus far, many of the attributes we have described are characteristics that a research university would share with a small liberal arts college or a teaching-oriented university. But a research university is different in its comprehensive research focus. This means that faculty effort cannot (and, for most, should not) be devoted as significantly to undergraduate instruction as can be true for the faculty at these other institutions, because scholarship and graduate instruction are important responsibilities. A research university that values outstanding teaching, however, finds creative avenues to undermining the apparent zero-sum dilemma that faculty commitment to research excellence and striving for teaching excellence can create. It provides its faculty with means of harmonizing research and teaching so that efforts toward each are not competitive but complementary as much as possible, and faculty are encouraged to be strong scholars and excellent teachers at the same time. It offers faculty many models of productive research-teaching interaction.

Graduate education is one example of how research and teaching missions can be effectively harmonized. The preeminent research focus of graduate study is facilitated by seminars, taught by the department's senior researchers, that guide the development of theoretical knowledge, currency with recent literatures, and research skills that contribute to productive

scholarship. Much graduate education occurs outside the classroom, moreover, in the context of close working relationships with faculty on research topics of mutual interest arising either from the faculty's ongoing program of study or the student's self-initiated projects. With the addition of the need for guidance in the development of teaching skills (which are also important for scholars planning for careers in the professoriate), we concur with the view of the Future Nebraska Task Force that enhancing the research environment at an institution like UNL will also enhance the quality of graduate education.

With respect to undergraduate education, harmonizing research and teaching missions requires more thought. Because most undergraduates are not intending a career as professors, research training is not as central to their success and a much broader variety of pedagogical goals are. Nevertheless, many of the skills that are essential to research are central to undergraduate learning: evidence-based inquiry, consideration of alternative views, critical thinking, an appreciation of the impermanence of established knowledge, tolerance of complexity, clear definitions of concepts, and the examination of assumptions are attributes of thoughtful scholarship for students at every level of higher education. Thus one reason that research and teaching are complementary rather than competitive is that they rely on many of the same disciplines of thought.

One well-recognized model of how teaching and research can be integrated is through the infusion of research into teaching. In this approach, research apprenticeship becomes the avenue for undergraduate student learning, much as it occurs for graduate education. UNL's U-CARE program is an example of this approach; so also are undergraduate research opportunities at the Cedar Point Biological Station and other programs at UNL. Each provides undergraduates with opportunities for focused research under the guidance of a committed faculty mentor. Of course, some undergraduates have learned (as have graduate students) that different kinds of research apprenticeships present different learning opportunities: students who are washing test tubes or searching for library materials are not necessarily learning the tools of intellectual inquiry; such activities are inconsistent with this model of research and teaching. But when properly designed, this kind of guided mentoring in shared research, in which teaching is incorporated into the research experience, can be a fantastic opportunity for undergraduate students, and rewarding for faculty, when there is appropriate institutional support for their efforts.

What other models exist for harmonizing research and teaching at a research university? We believe that one of the benefits of undergraduate education at a research university is that the tools of research inquiry are introduced into the classroom. Students become acquainted with the tools of data collection, for example, when they can observe laboratory demonstrations, watch a videotape of parent-child interaction, compare alternative translations of an ancient text, evaluate public opinion survey data, examine trends in key economic indicators, and become acquainted with the other tools of intellectual inquiry used by their professors. Students also become acquainted with the tools of theoretical analysis when they learn about current debates in the field, recent discoveries that seem to challenge established understandings, the interpretive problems posed by new data, and emerging questions that open new research possibilities into little-understood issues. The lessons students can derive from these classroom experiences are invaluable: knowledge is created from empirical inquiry (not from common sense or authority), understanding must change to remain current, scholarship does not always advance linearly or

steadily, scientific disagreement is often an avenue to greater insight, scholars are human. Students can also begin to see their professors as models of scholarly inquiry.

Another model of integrating research and teaching is when small groups of students at various levels of experience and expertise work together with a skilled faculty mentor on a common problem. This is the approach of a lab group in the natural or social sciences – when undergraduate and graduate students work in research teams under a scientist's guidance – but can occur in almost any scholarly field. By contrast with the individual tutorial or classroom instruction, student collaboratives of this kind facilitate peer learning and group consultation, and give students at all levels the experience of both mentoring and being mentored by more senior scholars. It takes great skill for a faculty member to guide the efforts of collaborative groups to ensure that students at all levels can achieve, but when successful, such groups can be among the most formative learning experiences possible.

There are other models of harmonizing research and teaching. At some universities, for example, students commonly complete senior theses that incorporate independent research into a culminating project in the major. And with the growth of distance technology, opportunities for undergraduate students to consult scholarly resources contained in electronic databases have significantly expanded the research opportunities afforded them.

These models for integrating research experience and undergraduate student learning help explain why an undergraduate education at a research university like UNL can have unique benefits for students: it acquaints them with *how* knowledge is created. These opportunities are not as readily available at a small liberal arts college or a teaching-oriented university and, for some students, they are the most significant and formative features of undergraduate life. These approaches to research and teaching also help to explain why *faculty can be strong researchers and also outstanding educators*, especially when they can find fresh, creative ways of harmonizing these essential roles. Indeed, a research university that values teaching encourages faculty to integrate research and teaching in ways that are consistent with the level of instruction, academic field, and the faculty member's own strengths as a scholar-teacher. Faculty can also benefit from doing so: respected scientists who can mentor undergraduates in the lab and the classroom also benefit from the skills they derive from communicating their work, and its excitement, to nonexpert audiences. At the same time, outstanding teachers find new vigor in instruction that capitalizes on communicating the most exciting new discoveries in their field (some of which students may be hearing about in the newspaper, the internet, or elsewhere in the media).

But it is also clear that the success of these efforts is not easy or automatic. It takes considerable faculty effort to mentor undergraduate researchers, guide a senior thesis, or direct a student research group well. Faculty with demanding research programs do not necessarily advance their own programs of research in doing so, and for many it is easier to decline invitations to mentor an undergraduate student than to commit the time and energy required to make this a successful educational experience. Consequently, a research university that values undergraduate learning finds ways of supporting the work of research mentors, recognizing that their willingness to integrate research into undergraduate education is part of what makes the student experience at a research university potentially enlivening. This is not, in other words, a

responsibility that can be simply added-on to a busy faculty schedule if the institution expects it to be done well. Resources and support are part of the institution's commitment to ensuring its success. Yet a research university recognizes that promoting these kinds of research apprenticeships on a large scale is part of what makes an undergraduate education at such an institution special and enlivening.

A sixth and final attribute of a research university that values teaching and learning is that the university celebrates its educational climate. Any institution celebrates what it values, and such a university takes pride in both its vigorous research environment and its innovative undergraduate educational climate. Each is central to its mission. Indeed, the vigorous scholarly community of great expectations and high morale described in the *2020 Vision* report can only be achieved when all who make significant contributions to the institution's goals are esteemed by the institution they serve. In such an environment, outstanding educators are lauded for their teaching just as prominent researchers are valued for their scholarship. Guided by a campus leadership that recognizes the importance of each to the mission of the institution, the university celebrates the contributions of its educators as well as its researchers.

Envisioning the Future

Is this the right vision for UNL? Does our university seek to respond to the contemporary challenges of higher education in this way? Of the many questions framed by this report, this is the most central.

If these goals for teaching and student learning at UNL are appropriate, however, then other questions follow. It is, of course, far easier to create lofty aspirations than to identify the means of achieving them, and the follow-up questions are always more challenging. How can a focus on student learning become incorporated into courses and programs in a manner that advances learning goals and not just faculty workloads? How can meaningful support for student learning become part of the extracurricular environment for a university with chronically unmet financial needs? How can research and teaching be effectively harmonized and in a way that does not just increase performance expectations, academic demands, faculty frustration, and pre-tenure faculty anxiety? How can the varieties of nonclassroom contributions to student achievement – academic advising, U-CARE, learning communities, honors program, to name a few – be reliably supported and in a manner that does not simply require additional worktime from faculty or departments? How can teaching excellence by educators at UNL be documented objectively and systematically, but without significantly enhancing mere reporting, record-keeping, and administrative paperwork? Readers (and least of all, this Academy) will not be surprised to learn that we do not have the answers to all of these questions.

If this vision for UNL's future is correct, however, then these are the right questions to ask, and this is where the campus conversation begins. To further that conversation (which is, after all, one of the purposes of this report) we have some proposals for getting started. Their purpose is not to narrow the range of alternative directions considered nor to prescribe the future, but rather to suggest some outcomes and processes that will begin to develop a campus climate suitable to a research university that values teaching and student learning.

We have two kinds of proposals: some are focused on improvements to the educational climate for undergraduates, and others are focused on faculty instructional development. Obviously, their effects are interrelated. For each proposal, we have identified a specific office or unit with primary responsibility for developing and implementing this initiative. We recognize that other units might also share this responsibility, but we believe that responsibility becomes diffused if it is not specifically assigned at the outset, and doing so advances progress in a typical university climate of discussion without action. We also recognize that these proposals are not cost-free in either human or financial resources. At a time of budgetary difficulty, respect for financial exigency competes with the impetus to progress. At the same time, we respect the administration's commitment to move forward even in the context of budgetary pressures, and we believe that this applies to renewing the climate of student learning as well as of research at UNL. Moreover, we have sought to frame these proposals as economically as possible, as part of our belief that it is possible to implement some of these recommendations fairly quickly. Finally, we urge that these (and other) initiatives should be assessed regularly to determine their effectiveness with respect to the preeminent goals of improving student learning and teaching excellence at UNL, thus one of our proposals emphasizes program evaluation with a view toward modifying or discontinuing ineffective efforts and strengthening effective ones.

1. Center for Student Learning

Although UNL has strengthened its admission requirements and developed a growing Honors program, many students arrive on campus deficient in the skills required for academic success. Many students discover this to be true during their first year, and this is one of the reasons for the poor retention rate of freshman students at our university (which is the lowest of our comparison group) and poor graduation rate of UNL students (which is next to lowest among our peers)⁹. Although there are some excellent programs to strengthen writing and study skills in the athletic department and selected units (such as the Writing Assistance Center in the Department of English and the E.J. Faulkner Writing Lab in the College of Business Administration), most students find few resources available to them to help them learn how to study effectively, write clearly, think strategically about curricular planning, or plan and organize other facets of their academic life. The development of academic skills is not the same thing as academic remediation (which presents different challenges and different responsibilities) or academic advising (which is focused primarily on graduation requirements), but is central to creating a campus climate where students in difficulty can easily find the assistance they need before they lose heart and drop out of UNL.

We propose, therefore, the creation of a campus center – or network of centers – devoted to the academic success of UNL undergraduates. The center would be staffed with well-trained graduate students, professional staff, and/or temporarily-assigned faculty who would be prepared to help students who self-refer (or are referred by academic advisors or faculty) for assistance. The center would provide individualized counseling together with written materials and technological resources intended to help students develop study and writing skills, plan their academic work, and acquire other skills necessary to success at UNL. Consultations can be either short-term or longer, but will be designed to provide students with strategies that they can readily implement in their coursework and extracurricular learning activities.

We challenge the University of Nebraska Foundation, and its donors, to establish an endowment to provide permanent, reliable funding for the Center for Student Learning, which would be organized and administered by the new Dean of Undergraduate Studies. We believe that this is the most important way of ensuring that such a program does not fall victim to temporary budget exigencies and reallocation as have similar units in the past. It would also provide meaningful support for the most important goal of undergraduate education – student learning – while addressing one of the problems that reduces UNL's national standing for undergraduate education (i.e., freshman retention and graduation rate). In consideration of its permanent endowment, the director of the Center would be responsible for conducting periodic assessments of the Center's effectiveness that would help to ensure that its initiatives are continuously updated and improved in accordance with changing student needs and the educational climate of UNL.

As we have noted, the lack of stable, dedicated funding also hinders the growth of other programs of importance to undergraduate education at UNL, such as the Honors program and learning communities, that rely too often on departmental commitments of faculty and staff efforts that are vulnerable to workforce reductions and other resource reallocations. Other initiatives that could contribute substantially to the quality of general education at UNL are comparably constrained. We believe that these efforts, too, are worthy of consideration for endowed funding to ensure their maintenance, growth, and improvement. We hope that the Nebraska Alumni Association will work in partnership with the University of Nebraska Foundation to generate the kind of donor interest in sponsoring these programs in which the entire UNL community takes justifiable pride.

2. The UNL Teaching Institute / Mentoring partnerships

Faculty who are new to the professoriate face special challenges in their teaching. Arriving at UNL from graduate school or a postdoctoral position, they are committed to excellent teaching but may have limited experience and are often anxious about doing well in the classroom. At the same time, new faculty are concerned about professional success and, in particular, balancing a productive scholarly program with preparing new coursework. A position at a research university that values outstanding instruction may appear to present new faculty with impossible expectations related to their immediate research accomplishment (starting a research program, securing external funding, publishing regularly) and teaching excellence (mastering coursework, learning instructional technology, contributing to extracurricular learning). Such a university recognizes that thoughtfully introducing and integrating new faculty into the climate of the university is a critical contributor to their success, especially if it helps them effectively balance research and teaching expectations in ways that contribute to the institution's missions and supports their professional success and satisfaction. Moreover, as newer faculty move into the tenured and senior faculty ranks, their experience provides models to newly-arriving faculty and helps the campus climate to evolve in productive directions if they begin their careers well.

Supporting the early career development of new faculty is thus a significant goal, and this can occur at two levels. First, we propose that a UNL Teaching Institute should be developed

that provides a continuing series of presentations and workshops devoted to instructional development and focused especially on the needs of beginning faculty. Workshops would address topics such as peer consultation in instructional development, training in instructional technology, evaluating teaching effectiveness, balancing research and teaching expectations, writing across the curriculum, managing large classes, and other topics. These are interests that are generally shared by faculty in different colleges and departments, and thus the creation of a university-wide forum for newer faculty seems most appropriate. The focus of these workshops would be broad (acquainting new faculty with the national scholarship of higher education) but practical (emphasizing the skills and strategies that are feasible for a beginning faculty member). The Institute would be created and sponsored by the Office of the Senior Vice-Chancellor for Academic Affairs who, in consultation with a faculty committee, would design each year's workshop series. Although the series should include presenters from outside the UNL community, we believe that faculty at UNL (including those in the Academy) would contribute substantially because of their capacity to address instructional challenges more unique to UNL, as well as their continuing availability for consultation. New faculty would be expected to participate in the Institute during their initial years at the university.

[The UNL Teaching Institute could be designed with a somewhat broader mission that includes the teaching development of graduate students and postdoctoral scholars in cooperation with other programs (e.g., Preparing Future Faculty) that have similar goals, and with support from the Graduate College. The different needs and concerns of graduate students and new faculty at UNL must be appreciated, however, in preparing workshops and other activities with each audience in mind.]

Second, we suggest that a program of mentoring partnerships between new faculty and their senior colleagues within departments should be organized to assist new faculty in the challenges of teaching and research within the specific cultures of their home departments. Such partnerships have already been instituted in many units at UNL, and we believe that this opportunity should be more broadly available under the guidance of department chairs and their Deans. The purpose of the mentoring partnerships would be to provide new faculty with guidance from an experienced senior colleague about the most effective ways of developing their teaching and research programs within the context of the resources and expectations of their department and college. The selection of senior faculty as mentors is crucial to the effectiveness of the partnership, and thus the support provided these faculty is important because effective mentoring can be time-consuming. We suggest that their participation in a mentoring partnership should be considered the most important service contribution of a senior faculty member to a department, warranting significant reductions in other service commitments.

3. Faculty career instructional development

Instructional development is, of course, a career-long pursuit. Indeed, faculty careers regularly become enlivened by creative new ways of teaching familiar classes as well as by new research ideas and revised service responsibilities. Catalysts to the growth of instructional excellence should thus be available to faculty at all levels of experience.

We agree with Chancellor Perlman that many of these incentives for instructional improvement should occur at the collegiate level. Colleges function with distinct missions, professional orientations, and histories that contribute to unique instructional climates and expectations that shape teaching within and outside the classroom. Faculty instructional development also becomes more relevant and visible when it occurs within the college, especially as faculty progress through their academic careers. In conjunction with their faculties, therefore, we urge Deans to develop regular instructional development activities within their colleges and, where appropriate, individual departments. These can include discussions or presentations, especially on topics of particular relevance to the college (e.g., effective teaching for developing pre-professional skills; preparing undergraduates for careers; mentoring of newer faculty; approaches to student advising), but also more general concerns (e.g., evaluating student learning in the classroom; instructional climates for students from underrepresented groups; peer review of teaching effectiveness). These activities might also include demonstrations or tutorials, consultation with professional experts from off campus, or conversations with the Dean about instructional issues. Guidance in the effective use of instructional technology is another important activity, especially in light of the defunding of the Teaching, Learning, and Technology Roundtable, and the significant investment UNL has made in developing technological resources related to instruction (including the New Media Center). So also is reflective discussion of the continuing challenges and opportunities of distance education, and the incentives (and disincentives) for faculty to develop on-line coursework. Given the many demands on faculty time, some creativity will be necessary in identifying formats and topics that will attract interest, as well as devising incentives to faculty participation.

As another facet of their instructional development efforts, we urge Deans to allocate and publicize designated travel funds for faculty to attend professional meetings related to higher education or to consult with teaching experts at other universities. Doing so would help to connect UNL faculty with national teaching networks, many of them discipline-specific, that can have continuing benefits for invigorating the teaching climate within specific units. Providing release time or summer support for innovative curricular development or to prepare grant proposals for external funding of teaching-related initiatives is another avenue for promoting instructional innovation within the college. So also is the availability of small grants to support essential costs related to instructional improvement (e.g., instructional software purchases). We urge the availability of "venture capital" of this kind to encourage the development of teaching innovations much as research seed money from an institution can provoke the growth of new scholarly initiatives. The need for small grants of this kind is especially urgent with the elimination of the small grants program of the Teaching Council that had formerly supported innovative initiatives of this kind.

Collegiate initiatives are not enough, however. Many instructional issues transcend disciplinary and professional boundaries, and there is considerable redundancy and expense if each college seeks to address these on their own. Therefore, we believe that several initiatives to promote career-long instructional development in faculty should occur more centrally. These include:

a) Foundation Lectures on Teaching and Learning: Each semester, a nationally-recognized expert would be invited to UNL to acquaint faculty with current thinking on topics of

national significance in higher education (e.g., should undergraduate majors be aligned according to academic departments? how should universities address the entrepreneurship of distance education? what are the implications of the growth of parafaculty within the professoriate?). One goal of the lectureship would be to connect teaching at UNL with the national scholarship of teaching and learning and to enable faculty at our university to become better acquainted with nationally-prominent experts in higher education. Consequently, each invited speaker would also be asked to participate in a postlecture forum or workshop devoted to discussion with faculty of the ideas presented during the talk, and their relevance to UNL. The Office of the Senior Vice-Chancellor for Academic Affairs would, in consultation with faculty, organize and sponsor the lectureship.

b) On-line Instructional Resource Library: There are rapidly expanding literatures in higher education that address teaching issues of interest to UNL faculty, but most faculty are unaware of these resources or how to access them. Many of these are available through the internet. We recommend the commitment of funds from the Office of Undergraduate Studies to create and maintain a Web-based directory of resources that faculty can easily access when issues arise related to teaching and student learning. Doing so would provide a relatively inexpensive library of resources that faculty can consult as needed.

c) UNL Summer Teaching Forum: Instructional development requires, at times, a sustained commitment of time and energy to think, read, and discuss reflectively issues related to higher education and student learning outside of the ongoing demands of teaching. We propose that UNL establish a Summer Teaching Forum to provide this opportunity, based on the successful Summer Teaching Institute at Baylor University. UNL's Summer Teaching Forum would consist of a four-week seminar in which a small group of faculty would devote themselves full-time to learning about current issues in teaching and higher education and their practical implications, guided by instructors from within and outside the university. The Forum would culminate in a faculty project that could be directly implemented in classroom instruction the following year, as well as other activities designed to improve instruction. As an incentive to their serious participation, faculty participants would receive a stipend equal to the salary they would receive from teaching full-time a summer session course. Faculty would apply to participate in the Forum during the preceding year, and selection would be based on prior history of instructional improvement, and the effort to achieve a desirable mix of faculty from different fields and with different levels of experience. The University Foundation would provide continuing support for the annual Summer Teaching Forum, with guidance from the Office of the Senior Vice-Chancellor for Academic Affairs and a faculty advisory committee.

d) UNL Peer Review Project: The Peer Review of Teaching Project has been a very successful initiative for encouraging faculty to analyze teaching effectiveness, student learning, and their classroom practices, and the UNL program has become a national leader in the development of materials related to the scholarship of teaching. Moreover, the Peer Review Project connects faculty with a small cohort of peers who provide ongoing consultation and support that contributes to the development of more effective teaching. Typically, these collegial networks extend long after the conclusion of their work together, and together these networks are strengthening the climate of undergraduate instruction at UNL. With the departure from UNL of the project's originator, Dan Bernstein, and the eventual end of the external support that initially

funded this initiative, it would be easy for this important catalyst to instructional improvement to quietly die, as have many innovations from the past. We recommend continued permanent funding for the Peer Review Project in the appointment of a new director, whose work would be supported by funds from the Chancellor's Office and a part-time release from teaching and research responsibilities to guide the work of the peer review teams. Doing so would help to ensure that the unique benefits of this innovative program continue to contribute to an improved climate of teaching at UNL

4. UNL Undergraduate Forum

In this report, we have raised many questions concerning the nature of undergraduate education at UNL. What is the meaning of a baccalaureate degree, and what should students (and their parents) expect from an undergraduate education? How can the expectations of students – and, for that matter, their parents, the business community, and government – be harmonized with each other, and with the educational goals of the faculty? What should be the purposes of general education? Does an academic major – organized around academic disciplines – still serve well as an approach to specialized undergraduate study? How do undergraduate educational goals affect academic obligations and responsibilities, including the ethics of scholarship, teaching, and learning? What opportunities and challenges exist in distance education? How should undergraduate education be considered in light of the changing nature of the student population? How is student learning affected by the extracurricular lives of students, which include the incentives to learning arising from the campus climate and the disincentives arising from student work schedules and other activities? How can faculty and students jointly assume responsibility for education at UNL?

We believe that these are important questions with significant implications for how we envision undergraduate education. Yet there is no forum for candidly exchanging views about these questions between students, faculty, administrators, and others with an interest in education at UNL. We propose a campus forum, therefore, that would encourage the discussion of goals and concerns about undergraduate education. The UNL Undergraduate Forum would enable students, faculty, and administrators to exchange perspectives about the undergraduate experience and, in concert with contributions from other constituencies, work toward a clearer, consensual view of what an undergraduate education is all about. The forum would be sponsored and organized as a joint effort by the UNL Academic Senate and the Association of Students of the University of Nebraska, and coordinated by the Senior Vice-Chancellor for Academic Affairs. This would help to ensure that the voices of each central participant in undergraduate education -- students, faculty, and administrators -- are heard.

A central question that the forum should address is: what makes an undergraduate education at UNL special? As earlier noted, we think that opportunities to participate in the creation of knowledge through research is one special benefit of the undergraduate experience at a research university, yet there are many unanswered questions about how research and teaching can be effectively harmonized. This is another important topic for the forum, perhaps with special consultation with senior professors holding endowed chairs and members of the Academy of Distinguished Teachers, each of whom have valuable perspectives to offer concerning the interaction of research and teaching. We hope that such a discussion will yield

further models of how scholarship and student learning can be harmonized in ways that advance both the research and teaching missions of the university.

5. Recruiting and rewarding outstanding educators

The core of excellent education is outstanding teaching. University support for faculty instructional development should be accompanied, therefore, by efforts to recruit, recognize, and reward faculty who are outstanding educators within and outside the classroom. This is the most important responsibility of department chairs (and the senior faculty of the department) and Deans.

a) Faculty recruitment: It begins with faculty recruitment, when interviews should incorporate serious consideration of teaching in the form of a breakfast conversation about undergraduate education, a "teaching colloquium," guest lecturing in a class, or another opportunity. Most applicants for Assistant Professor positions are interested in becoming skilled educators, and discussions of teaching during the interview process aid recruitment efforts by indicating that teaching is important and will be supported by a department that also values research. Departments should seek to hire faculty who are proficient educators or show exceptional promise of becoming so.

b) Promotion and tenure: The quality of teaching should also be central to faculty promotion and tenure decisions. Assessments of teaching should incorporate the student voice (in course evaluations) but more, including careful peer assessments of the intellectual content of the course and the instructor's discussion of student learning and evidence for improving it. When promotions are based primarily on teaching excellence, external evaluations of a teaching portfolio are also necessary. Now that there are multiple means of reliably evaluating instructional effectiveness, there is no reason that the scholarship of teaching should not be taken seriously in promotion and tenure policies. Departments should seek to tenure and promote faculty who are excellent educators.

c) Department program review: The teaching climate of a department is more than the sum of its constituent faculty. It consists also of the extracurricular opportunities for learning available to undergraduates (especially majors), the support for instructional skill among graduate student teaching assistants, the quality of undergraduate advising, opportunities for supervised research, internships, and practica, the assignment of faculty and TAs to introductory and advanced courses, and many other decisions. We believe that only when the overall climate of teaching and learning is assessed in a department can it improve to serve students better, yet there are few existing opportunities to do so. We recommend, therefore, that future Academic Program Review external teams include at least one member who is an expert in teaching within the field. The APR would be expected specifically to address the teaching climate of the department, identifying strengths and recommending areas for future improvement, along with the other topics typically discussed in the team report.

d) Distinguished Professorships for exemplary education: As faculty careers evolve, the profile of faculty responsibilities naturally changes to accommodate changes in interests, capabilities, and opportunities. Although a tenure decision is based on strengths in both teaching

and research, promotion to full professor may be based primarily on outstanding teaching (or research), consistent with the "multiple profiles" of faculty responsibility earlier discussed. For a few, their teaching becomes truly exemplary. These are the colleagues who are recognized with distinguished teaching awards but, strangely, there are no distinguished professorships that recognize instructional excellence and leadership. This is an anomaly for an institution that values outstanding teaching. Distinguished professorships offer public recognition to exceptionally meritorious faculty, identify role models for other faculty, and communicate to the campus and the larger community the qualities that are most highly prized by the university. We invite the University Foundation and its donors to endow a series of named professorships to be awarded to faculty who exhibit instructional excellence and educational leadership comparable to the research achievements currently recognized by existing endowed professorships. We believe that distinguished professorships can be awarded to outstanding educators who have been recruited to UNL from other universities (comparable to the Othmer professorships), but can also be awarded to exceptional educators currently on the UNL faculty who have assumed exemplary leadership in education.

6. Office of Educational Assessment

The proposals outlined above are not cost-free and, although relying on economical means whenever possible, require the reallocation of human and financial resources. We recognize that in a climate of budget restriction, they must compete with other campus needs. Although continuing assessment of program effectiveness is good institutional policy, program evaluations in the context of budget exigency have more often characterized the instructional climate at UNL. Moreover, programs are sometimes discontinued based on informal or anecdotal evidence of ineffectiveness that cannot be countered with more systematic data because such data do not exist. This is unfortunate because capable program evaluations can contribute to improving strong initiatives by identifying and correcting weaknesses in the context of evolving constituent needs. This is especially true of educational programs.

Recognizing that program review is frequently a complicated effort and benefits from the capabilities of professional analysts, we propose that an Office of Educational Assessment be created that would conduct data collection and analysis focused on the campus-wide educational program with the goal of improving the quality of undergraduate education at UNL. The Office would contribute to identifying instructionally relevant changes occurring on campus (e.g., changing student demographics), provide needs assessment related to program development, and assist in ongoing assessments of existing instructional programs. Such an Office will focus on the undergraduate educational climate at UNL but, because it relies on many of the same data sources and analytical techniques, has a role that is consistent with the Office of Institutional Research and Planning and with the work of the Bureau of Sociological Research. We recommend, therefore, that the Office of Educational Assessment function in close collaboration with the Office of Institutional Research and Planning and with the Bureau of Sociological Research, but supported directly and under the supervision of the Dean of Undergraduate Studies.

Conclusion

The UNL Strategic Plan for 1997-2003 -- aptly named "A Work in Progress" -- identifies a number of goals for the university's growth that are consistent with the recommendations of this report. These include: enhancing the advising program for undergraduates; strengthening the Honors program; rewarding excellence in teaching and other faculty responsibilities; enhancing the use of technology throughout the curriculum; promoting the development of high quality teaching through the peer review project and other activities; and providing special guidance to graduate students who assist in undergraduate instruction (an additional recommendation urges "utilize effectively and fully the Academy of Distinguished Teachers as advocates of teaching"). There are more recommendations concerning teaching in the strategic plan than for research and outreach combined. Many of these recommendations were further developed in "Enhancing Our Undergraduate Program," a discussion paper prepared by the Senior Vice Chancellor for Academic Affairs in 1998.

UNL takes justifiable pride in its teaching aspirations and its undergraduate program. Yet aspirations do not move the university forward until they are enacted in meaningful ways to improve teaching and student learning. As UNL advances toward its goal of becoming one of the great public universities, we believe that its greatness will be measured by the quality of its educational programs as well as its scholarship. It is time to move forward.

Footnotes

¹ The UNL Guarantee assures that "in the event that an employer finds that a graduate of the University is deficient in such basic skills, the University, at its own expense, will make a reasonable attempt to assess the nature of the deficiency and will provide appropriate opportunities, to the best of the University's ability, for the graduate to remedy the deficiency."

² This does not necessarily mean that they are unchangeable. For example, UNL's recent "guarantee" of a four-year undergraduate degree is contingent on a number of conditions that students must fulfill, including keeping reasonable work hours, obtaining appropriate advising, and registering early for classes. It remains to be seen whether these conditions, and student incentives to complete the degree within four years, result in desirable accommodations in students' working commitments. Likewise, UNL administrators have recently sought to raise student tuition (which is low by regional standards) to fund needed investments in the university's research infrastructure and to raise lagging faculty salaries.

³ Data supporting this paragraph were provided by the UNL Office of Institutional Research and Planning. They come from Integrated Post-Secondary Data System (IPEDS) reports. Peer institutions for comparative purposes are: University of Missouri, University of Minnesota, Ohio State University, University of Iowa, Purdue University, University of Illinois, Iowa State University, Colorado State University, University of Colorado, and the University of Kansas.

⁴ UNL Institutional Research and Planning (IPEDS) reports.

⁵ Data on Nebraska personal income from U.S. Department of Commerce, Bureau of Economic Analysis, Regional Accounts Data, Table SA1-3. Current dollars deflated to constant dollars by use of Consumer Price Index as reported in Council of Economic Advisers, Economic Report of the President 2002, Table B-60. Data on state tax support for UNL from UNL Office of Institutional Research and Planning (IPEDS) reports.

⁶ Source: UNL Office of Institutional Research and Planning.

⁷ In a similar vein, the proposed UNL "indicators of institutional quality" in undergraduate student learning and achievement focus on readily-assessed outcome measures such as the six-year graduation rate, freshman-to-sophomore retention rate, and undergraduate GRE, LSAT, and MCAT scores, none of which is a good reflection of the curricular goals of UNL's Role and Mission Statement and none of which captures essential student learning goals.

⁸ The same is true of graduate students who are preparing for careers in the professoriate, and this is why institutions that value teaching also invest in the future by incorporating into their instructional support program specific initiatives focused on graduate students. Doing so advances the interests of the institution by ensuring that novice instructors in the undergraduate classroom have the support and resources necessary to do well.

⁹ Source: U.S. News & World Report website report on comparative rankings of undergraduate programs among colleges and universities in the United States; July 11, 2002 (consult www.usnews.com/usnews/edu/college/rankings).

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Appendix 1

Academy of Distinguished Teachers

Charles J. Ansorge, Health and Human Performance
John R. Bailey, Flute
Leverne A. Barrett, Agricultural Leadership Education and Communication
Patrice M. Berger, History and Director of the Honors Program
Robert F. Bergstrom, English
Stephen M. Buhler, English
James D. Carr, Chemistry
Barbara J. DiBernard, English and Women's Studies
Robert G. Fuller, Physics and Astronomy
Amy Goodburn, English
John R. Gruhl, Political Science
Ann Mari May, Economics
Ali Moeller, Education
Helen Moore, Sociology
Ted Pardy, Biological Sciences
Joy Ritchie, English and Director of Women's Studies
Ross A. Thompson, Psychology

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