

House Bill 1 called for the University of Kentucky to become one of the nation's Top 20 public research universities by the year 2020. In response to this legislative mandate, President Lee T. Todd, Jr. appointed a task force to recommend criteria and measures that the University will employ in regularly assessing progress toward achieving recognition as one of the nation's 20 premier public research universities. The Task Force was charged with the identification of two types of metrics: those independently collected at the national level; and those local measures that address the University's "higher purpose" of improving the overall quality of life and economic prosperity of Kentuckians.

The Task Force first examined a number of approaches to rankings of higher education institutions and developed criteria to evaluate the indicators to be used in measuring national prominence. Informed by a thorough review of the strengths and limitations of institutional ratings, the Task Force identified those characteristics that mark a premier public research university.

For the University of Kentucky to become one of the nation's Top 20 public universities, it must fulfill its mission for the Commonwealth of Kentucky as well as attain excellence as measured by national standards. No single measure exists by which we can track our progress, but, taken together, the following characteristics and indicators of those characteristics will reflect the relative success of this institution in attaining excellence and thereby national recognition.

I. A comprehensive array of undergraduate, graduate, and professional programs, many with national prominence.

- Rankings
- Publications
- Total and Federal Research Dollars
- Level of Academic Challenge
- Number of Doctoral Students Produced
- Number of Postdoctoral Appointments
- Endowment Assets and Annual Giving

II. Attracting and graduating outstanding students capable of making significant contributions to their professions and communities.

- SAT Scores, Class Rank, Graduation Rate, and Retention Rate
- Student Honors
- Level of Academic Challenge
- Number of Doctoral Students Produced

III. A distinguished faculty whose research, service, scholarship, and teaching are exemplary.

- Publications
- Total and Federal Research Dollars
- Faculty Academy Memberships
- Faculty Awards

IV. The discovery, dissemination, and application of new and significant knowledge.

- Patents and Licenses
- Publications
- Total and Federal Research Dollars

V. Diversity of thought, culture, gender, and ethnicity that creates communities of learning and appreciation at the University and beyond.

- Faculty Diversity and Equity
- Staff Diversity and Equity
- Student Diversity
- Student Success
- Student Experience

VI. Improvements to the health and educational, social, economic, and cultural well being of the citizens of the Commonwealth.

Areas to be tracked where possible for fairness and equity with respect to age, disability, race/ethnicity, and sex:

- Research & Service Expenditures in the areas of arts and culture, community vitality and civic engagement, economic well being, education, environment, and health
- Educational Preparation & Training in the areas of arts and culture, community vitality and civic engagement, economic well being, education, environment, and health
- Outreach & Service Activities in the areas of arts and culture, community vitality and civic engagement, economic well being, education, environment, and health
- Status Report with Impact Narratives

The Task Force also presents a brief analysis of the resources needed to accomplish the Top 20 goal. For the University to progress on the indicators recommended by the Task Force, the following nine categories of resources/infrastructure must be increased and improved: enrollment growth; number of faculty; research space and facilities; educational facilities; support staff; infrastructure; student financial support; research and teaching equipment; and compensation.

The tripartite missions of research, service, and teaching are equally integral to attain higher levels of excellence and national recognition for the University of Kentucky. The Task Force recommends that the call for serving the Commonwealth and beyond must be integrated and operationalized into the University's administrative structure, and the reward system must move forward in embracing the missions of teaching, service and research.

Higher education is “built on behalf of the people, who have invested in these public institutions their hopes, their support, and their confidence.” - President Abraham Lincoln

Prior to the Morrill Act of 1862 there were few public universities in the United States. Predominantly private colleges, developed in the image of European institutions, served a select few from privileged social and economic classes. The sponsors of land grant legislation were eager for education to be available to the great masses of American people, not limited to the affluent or privileged. Accordingly, the term "people's colleges" was used to characterize the new institutions intended to serve all the people.

Signed into law by President Lincoln, the Morrill Act granted federal government land to each state to sell and use the proceeds to create a public university with a dedicated education and service mission to the public. To Lincoln, these state universities were not simply public universities but, in every sense, *the “public’s universities.”*¹

The land grant system encompasses three major missions: to conduct basic and applied research, to disseminate useful and practical information, and to provide academic instruction in the classroom. From their inception land grant institutions have had a strong outreach and service orientation in addition to educating students. Founded not merely to create "knowledge for knowledge's sake," these institutions have a long-standing emphasis on the use of knowledge to help improve the quality of life of the American people.

The land grant mission is as relevant to the Commonwealth today as when the University of Kentucky was established in 1865. As the state's land grant and primary research university, the University of Kentucky has both responsibilities and opportunities to apply the results of scholarship, creative work, and research to assist in the solution of difficult problems and support the well being of people and communities of the Commonwealth.

In 1997 the Kentucky General Assembly approved the landmark Postsecondary Education Improvement Act, commonly referred to as “House Bill 1,” which was designed to reshape the Commonwealth's system of postsecondary education as a means to advance the state's economy. The need for reform was relatively straightforward – postsecondary education was not linked statewide to strategic goals, and by national measures Kentucky residents were undereducated and trailed in income and health. In addition, the act sought to address the changing needs of the Commonwealth's workforce,

as a relative lack of education became a major disadvantage with the growth of a knowledge-based economy.²

House Bill 1 specifically called for the University of Kentucky to become one of nation's Top 20 public research universities by the year 2020. The University is committed to fulfilling that expectation. However, national recognition is not an end in itself; rather it is a by-product of excellence achieved by accomplishing our vision and by serving the community.

The University of Kentucky is a multifaceted institution - a land grant, doctorate research-extensive institution, possessing the richness of undergraduate, graduate, and professional degree programs as well as a community college. Only a handful of other institutions share our richness and breadth of programs. This richness can serve as a catalyst in the quest to attain national recognition.

VISION

We aspire to enhance the University of Kentucky's stature as one of the nation's great universities: an institution recognized nationally and internationally for excellence in teaching, research, and public service, and a sustaining resource for the intellectual, social, cultural, and economic development of the Commonwealth.

MISSION

The University of Kentucky is a comprehensive, public, land grant university dedicated to preparing students for an increasingly diverse and technological world, and to improving the lives of people in the Commonwealth, the nation, and the world through teaching, research, and service.

Learning

Our instructional mission includes undergraduate, graduate, postgraduate, professional, and lifelong education informed by scholarship and research and guided by a spirit of integrity and mutual respect. Learning is central to our institution; it occurs in many contexts and by all members of the University community. We aspire to nurture a true learning community – one that inspires academic growth and learning among faculty, staff, students, on-campus and off, drawing from the richness and diversity of the University of Kentucky.

Discovery

Our research, scholarship, and creative activities promote human and economic development through the expansion of knowledge and its applications in the sciences, social sciences, education, arts, humanities, business, and the professions. We are committed to discovery and innovation that encompass research, creative activities, teaching and learning, as well as extension and professional practice. Discovery is characterized by research and creative activities that reveal new knowledge, integrate it into existing disciplinary work, cross-pollinate disciplines, and possibly create something entirely new.³

Engagement

We have a unique responsibility for outreach and public service to support the citizens of the Commonwealth. We collaborate with our educational, professional, business, healthcare, and agricultural partners here and abroad to disseminate, share, and apply knowledge. We strive to improve Kentucky's communities and the larger society through what the Kellogg Commission refers to as "engagement." We envision new public/university partnerships defined by mutual respect for what each partner brings to the table and by increased involvement with communities.

The University *For* Kentucky

The University of Kentucky has a special bond with the Commonwealth that is, for the most part, taken for granted. We provide the professionals on whom our communities rely. We prepare the teachers and administrators, the engineers and architects, the physicians and nurses, the scientists, the business leaders, and the public figures to whom citizens turn in times of private and public need. There is scarcely a sector in which our influence is not felt. In health care, education, public administration, science, agriculture, the arts, humanities, business, and technological innovation, our graduates lead the way – and our research defines the future.⁴

In a statistical analysis on the association between higher education and a variety of social benefits, the *Kentucky Long-Term Policy Research Center* reported the following:

Economic Benefits: The most obvious benefit derived from a college education is that of higher earnings. In 1996, those with graduate and professional degrees were earning more than twice what high school graduates earned, while those with a bachelor's degree earned 60 percent more than high school graduates.⁵

Lower Crime Costs: A negative correlation exists between education and incarceration rates, as high school dropouts are incarcerated at significantly higher rates than those who have obtained a bachelor's degree.

Healthier Lifestyles: Education also leads to healthier lifestyle choices. For example, a clear inverse relationship exists between education and the likelihood that an individual will smoke. Smoking has been linked to the leading causes of death in this country (lung cancer and heart disease), and the public costs attributed to smoking in 1993 were estimated at \$1 billion in the Commonwealth.

Civic Contributions: College-educated community members are more likely to participate in civic and community groups and are almost twice as likely as those with only a high school diploma to lead them. Those with college degrees give to charity at a high rate (93 percent), and volunteer more (with more educated Kentuckians donating well over 100 hours annually). They also lead those with only a high school diploma in registering to vote, reading to their children more frequently, and participating more in cultural activities.⁶

A study published by the University of Kentucky Center for Business and Economics Research notes “the most enduring economic impact of the universities is the increased earning power that students take with them into the job market.” The study shows that the effect continues throughout a student's adult life and aids in economic development by providing new businesses with a skilled labor force.⁷

Currently, nearly half of the state's population lacks the knowledge and skills to participate fully in the economy. The proportion of the population with less than a high school diploma is greater in Kentucky than all but one of our competitor states. Kentucky still ranks almost last in the nation in the percentage of citizens with a bachelor's degree. Low participation in postsecondary education and below average per capita income creates a vicious cycle that needs to be broken. Postsecondary education can play a valuable role in addressing the problems of our Commonwealth.

While the ability to explicitly determine benefits associated with higher education in the Commonwealth is limited by our capacity to identify and assign value to all the associated outcomes, the call for change is loud and clear.

We need to make it possible for all Kentuckians to participate in lifelong learning. We must create new knowledge, technologies, and cultural opportunities. Raising the standard of living and quality of life for Kentuckians

will not be possible if we can not develop better jobs and a culturally rich, diverse workforce with the knowledge and skills to fill them. *Postsecondary education is the key to prosperity – for our citizens, our businesses and industries, our communities, and our children.*⁸

**Kentucky Council on
Postsecondary Education**

***2020 Vision: An Agenda for Kentucky's System of
Postsecondary Education***

Public leaders have set a goal that puts Kentucky on a path to achieving economic opportunity and standard of living above the national average in 20 years. The key to achieving this goal is lifelong learning. A responsive and flexible system of postsecondary education is the most important tool we need to help Kentucky flourish; only through investment in postsecondary education with strong commitment to economic betterment can the Commonwealth and its people reach their full potential.

State policy makers established broad goals for Kentucky postsecondary education to achieve by the year 2020, including the University of Kentucky becoming a major comprehensive research institution ranked nationally among the top twenty public universities.

Absent a strong desire for change, most institutions stay more or less the way they are: stable, competitive at their level, but unlikely to move dramatically without significant and unusual impetus.

TheCenter, July 2000

We aspire to be among the top research institutions in the United States, recognized for our world-class programs and preeminent research. As a doctoral, research-extensive institution with a commitment to the discovery and generation of new and significant knowledge, the University of Kentucky can become one of the most productive public research universities in the nation, equipped for the new realities of the 21st century. Equally important, the University of Kentucky can serve as a model of the modern land grant, public service institution through heightened efforts in outreach and engagement, propelling the Commonwealth of Kentucky into one of the most economically vibrant, diverse and literate populations of the nation.

The University of Kentucky continuously seeks to improve, and comparative measures of its achievements serve an important purpose. Because America's postsecondary institutions are so varied in terms of mission and scope, no single measure or group of measures can serve them all. However, a selected set of measures may identify the elements of competitive success for particular groups of universities.⁹

President Todd provided the following charge to the Task Force:

“The Top 20 Task Force shall recommend criteria and measures that the University will employ in regularly assessing its progress toward achieving recognition as one of the nation's 20 premier public research universities. The Task Force should identify two types of metrics:

- 1) those independently collected at the national level and
- 2) those local measures that address the University's “higher purpose” of improving the overall quality of life and economic prosperity of Kentuckians.

The Task Force should present its report by March 1, 2002.”

Composition of the Task Force

Phyllis Nash and Mike Nietzel, Co-Chairs

Bradley Anderson, College of Pharmacy
Deborah Blades, College of Medicine
D. Allan Butterfield, College of Arts and Sciences
Joseph Claypool, University of Kentucky Hospital
Lori Gonzalez, College of Allied Health Professions
Richard Greissman, College of Arts and Sciences
George Herring, College of Arts and Sciences
Kay Hoffman, College of Social Work
Jennifer Hoobler, *Graduate student*, College of Business and Economics
Jim Kerley, Lexington Community College
Tom Lester, College of Engineering
Kamyar Mahboub, College of Engineering, *Commission on Diversity*
William McCann, *Citizen member, Prichard Committee for Academic Excellence*
Jan B. McCulloch, College of Human Environmental Sciences
Lois Nora, College of Medicine
Joe Peek, College of Business and Economics
Ken Roberts, College of Pharmacy
Susan Scollay, College of Education, *Commission on Women*
Scott Smith, College of Agriculture
Chuck Staben, School of Biological Sciences
John Thelin, College of Education
Lionel Williamson, College of Agriculture
Connie Wood, College of Arts and Sciences

Staff to the Task Force

Kelly Bevins, Medical Center Office of Institutional Research and Decision Support
Lisa Collins, Graduate School
Maria Kemplin, Medical Center Office of Institutional Research and Decision Support

Approach

As an initial orientation, the Task Force examined a number of approaches to rankings of higher education institutions. Informed by a thorough review of the strengths and challenges of institutional ratings, the Task Force identified those characteristics that mark a premier public research university. The characteristics, studied in depth, led to the selection of several “indicators” or measures that serve as a yardstick to evaluate University progress in attaining excellence.

Criteria were developed to evaluate the indicators to be used in measuring national prominence.

The Task Force concluded that the indicators and measures selected must be:

- well-defined
- already collected by some entity
- possible to change
- important and significant to society
- widely used nationally
- variables over which we have control
- realistic
- reflective of the heterogeneity of the University of Kentucky's academic programs
- indicative of the direction we want to go

The Task Force agreed it would not base its choice of measures on an assessment of how the University currently ranks. Consequently, the measures ultimately selected would be those that encouraged the University to move forward in needed directions. All decisions of the Task Force were made by consensus. The group discussed each issue until agreement was reached; no votes were taken.

A series of presentations and open forums were held in order to engage individuals across campus in defining national and local measures. Feedback was solicited from the following:

Board of Trustees' Academic Affairs Committee	President's Commission on Women
College of Engineering faculty	Student Forum
4 open Faculty and Staff fora	Student Government Association Senate Meeting
Provost Dean's Council	University Faculty Senate
President's Commission on Diversity	

Faculty, staff, and students were asked to review the work in progress, attend open fora, and provide feedback. A Web site for the Top 20 Task Force was established to allow the opportunity to view, print, or engage in discussion. The Web site provided full access to meeting minutes, presentation materials for both national and local measures, and the measurement tools as they were under development.

All campus feedback was summarized and distributed to the Task Force, and a six-hour session was held to review and alter the recommendations based on the feedback. A draft report was created and circulated to the Task Force for review.

The draft report was placed on the Web and faculty, staff, and students were invited to comment. The draft was again revised based on the feedback from the University community and a draft sent to Task Force members for final review and approval. The final report was placed on the Top 20 Task Force Web site.

Despite an increasing national enthusiasm for identifying “number one,” a remarkable amount of controversy surrounds exactly what we can measure that will define the best.¹⁰

Traditional rankings that order universities by a weighted index of prestige, resources, or other categories do not help institutions understand what makes research universities succeed. Sometimes the rankings fail to serve a useful purpose because they use inappropriate criteria. Often, the difficulty comes from a ranking and weighting process that, in its complexity, obscures the relative strength of the institution’s many elements.¹¹

Many university rankings rely on various forms of reputational assessment. In most cases, the reputations of institutions in the uppermost rank of American universities have a basis in performance, often with reference to undergraduate student quality and program prestige that matches objective data. Developed during the 1920s and 1930s, when the scope of peer review in academia was much different, national reputation surveys must now be examined with caution. One underlying assumption of peer review - that the rater is an expert who is familiar with the entire body of work or persons being assessed - was reasonable during the earlier part of the 20th century. Post World War II expansion and increasing multidisciplinary and specialized academic work make this crucial assumption no longer valid and many experts now view the validity of these rankings with considerable skepticism.

In addition, survey research in human perception reveals that reputational surveys are biased by a “halo effect,” elevating departments and programs with academic stars and those located on prestigious campuses.¹² Much opinion about university quality likewise reflects wisdom acquired at one point in time and rarely reassessed; such opinions may not reflect the actual current performance of the institution.

Common criticisms of *U.S. News* rankings of colleges and graduate schools focus on methodology. Annual changes to the formula used by *U.S. News* make it impossible to interpret yearly shifts in a school’s rank in terms of change in academic quality. A college that is ranked 25th one year and 18th the next may have no change in its performance despite having moved in the rankings due to a change in methodology. Methodological changes can create an appearance of new, updated information and arguably increase sales of the annual publication. However, such change may not reflect increased institutional or program quality.

Based on its review of national rankings and ratings and published literature on the subject, the Task Force identifies the following caveats:

- Any definition of university quality will evoke controversy and disagreement

- Universities of the highest quality tend to do most things very well
- Being first is not as important as being “among the best”
- No single indicator or composite number can represent what an institution has done, can do or will do
- A number of indicators, taken together, gives a better approximation of accomplishment and relative strength than a single measure
- A relatively few number of indicators provides sufficient evidence of overall quality
- Faculty size affects university rankings; the larger the number of highly productive research faculty, the more intellectually powerful the institution
- Small changes in ranks or ratings are well within the capabilities of most institutions; large changes are probably not¹³

American universities exist in a highly competitive marketplace, competing for the people and money that deliver excellence. Despite the caveats of measuring quality, universities who seek to rise into the ranks of the nation’s elite institutions must move forward with reliable measures of performance that will reflect their success in the competitive higher education marketplace.¹²

The Task Force further understands that many examples of excellence at the University of Kentucky will not be captured by whatever methodology is employed to measure progress toward attaining national status. National measures that are tracked by external agencies for national comparison are often limited in scope and some areas, such as the arts and humanities, are vastly underrepresented by these measures. The Task Force struggled with this issue at length, reviewing as many resources as possible, even contacting bodies that generate rankings and ratings in an effort to determine measures that would encompass the rich array of programs and disciplines at our institution. Unfortunately, many areas of excellence go unacknowledged in national comparisons.

Despite inherent flaws in the methodology of rankings and ratings, the Task Force agreed that the University must attempt to assess its national status as called for by the General Assembly and the Kentucky Council on Postsecondary Education. The Task Force also agreed that a means to identify and celebrate the strengths and greatness of all of the University’s mission areas is essential.

The Call for Commonwealth Measures

Shortly after becoming the University of Kentucky’s 11th President on July 1, 2001, Lee T. Todd, Jr. challenged the University to solve some of the Commonwealth’s most persistent problems, declaring to faculty, staff, and students: *“Let’s go to work on some of Kentucky’s problems. Let’s declare war on the Kentucky uglies.”*¹⁴ The Task Force refers to the category of indicators that will be used to measure success in addressing these problems as “Commonwealth Measures.”

To select the indicators that will mark the University's contributions to the Commonwealth, we reviewed existing efforts to assess conditions across the state in a variety of areas. The Task Force did not attempt to identify the issues critical to the success of the Commonwealth. This undertaking has been accomplished with considerable success by several notable groups, some detailed below.

"Top 20 measures for the University of Kentucky will be more than just counting research expenditures. It will include cultural opportunities in the arts. We want to help build a better future in the state. As a land grant institution, UK will take seriously its outreach to the citizens of the state. We will pursue 'higher purpose' issues and tackle what I call the 'Kentucky uglies' like illiteracy, diabetes, heart disease, low per capita income, and other concerns where we can make a difference in people's lives."

- President Lee T. Todd, Jr.

The Task Force believed its charge was to bring those areas together for an understanding of how the University can and must influence the Commonwealth.

"Visioning Kentucky's Future" - Kentucky Long-Term Policy Research Center: In 1994, the Kentucky Long-Term Policy Research Center and the Kentucky Center for Public Issues jointly conducted a series of public fora across the state to engage citizens in a dialogue about their vision of Kentucky's future. Based upon the ideas set forth in these grassroots efforts, 26 long-term goals in five core areas were deemed critical to the future of the Commonwealth. Those core areas are:

1. Vibrant, nurturing communities
2. Lifelong, quality educational opportunities
3. A sustainable, prosperous economy
4. A clean, beautiful environment
5. Honest, participatory government at all levels

Each of the five areas is tied to articulated goals, with statewide measurements to define progress. The Kentucky Long-Term Policy Research Center publishes a biannual report detailing the progress of the state in accomplishing those goals.

"The Future of State and Land Grant Universities" - Kellogg Commission: Convinced that state and land grant colleges were facing structural changes as significant as any in history, the National Association of State Universities and Land Grant Colleges sought the support of the W. K. Kellogg Foundation in 1995 to examine the future of public higher education. The Kellogg Commission produced six reports to aid universities in bringing about needed change on their campuses. The reports call for public institutions to "return to their roots" - focusing on student experience, student access, a learning society, campus culture, and the notion of engagement.¹⁵ The Kellogg Commission specifically identified the following areas by which public higher education institutions should affect their communities:

1. Education and the economy
2. Agriculture and food

3. Rural America
4. Health care
5. Urban revitalization and community renewal
6. Children, youth, and families
7. Environment and natural resources

“2020 Vision” - Kentucky’s Council on Postsecondary Education: One of the biggest changes resulting from the 1997 Postsecondary Education Improvement Act has been a new focus on how the postsecondary educational system can improve the lives of Kentuckians. In its report, “2020 Vision: An Agenda for Kentucky’s System of Postsecondary Education,” the Council on Postsecondary Education calls for answering five key questions to assess the performance of state higher education institutions:

1. Are more Kentuckians ready for postsecondary education?
2. Are more students enrolling?
3. Are more students advancing through the system?
4. Are we preparing Kentuckians for life and work?
5. Are Kentucky’s communities and economy benefiting?

Letter to the Task Force - Prichard Committee: The Prichard Committee for Academic Excellence is a non-partisan, non-profit, independent citizens’ advocacy group. Since 1983, the Committee, made up of volunteer parents and citizens from around Kentucky, has worked to improve education at all levels in the Commonwealth. In a letter to the Task Force from Director Sexton, the Prichard Committee put forth the following suggestions for contributions that the University should make to the Commonwealth:

1. Help move from a tobacco-based economy to a more diverse, high-wage economy
2. Promote leadership that improves education
3. Provide leadership to improve health
4. Provide leadership to improve civic capacity

For the University of Kentucky to become one of the nation's Top 20 public universities, it must fulfill its mission for the Commonwealth of Kentucky as well as attain excellence as measured by national standards. No single measure exists by which we can track our progress, but, taken together, the following characteristics and indicators of those characteristics will reflect the relative success of this institution in attaining excellence and thereby national recognition. The six characteristics are equally important, and the order of listing does not reflect a prioritization. More detailed information on each indicator is provided in a subsequent section of this report. We will be known as a top national institution by:

I. A comprehensive array of undergraduate, graduate, and professional programs, many with national prominence.

- Rankings
- Publications
- Total and Federal Research Dollars
- Level of Academic Challenge
- Number of Doctoral Students Produced
- Number of Postdoctoral Appointments
- Endowment Assets and Annual Giving

II. Attracting and graduating outstanding students capable of making significant contributions to their professions and communities.

- SAT Scores, Class Rank, Graduation Rate, and Retention Rate
- Student Honors
- Level of Academic Challenge
- Number of Doctoral Students Produced

III. A distinguished faculty whose research, service, scholarship, and teaching are exemplary.

- Publications
- Total and Federal Research Dollars
- Faculty Academy Memberships
- Faculty Awards

IV. The discovery, dissemination, and application of new and significant knowledge.

- Patents and Licenses
- Publications
- Total and Federal Research Dollars

V. Diversity of thought, culture, gender, and ethnicity that creates communities of learning and appreciation at the University and beyond.

- Faculty Diversity and Equity
- Staff Diversity and Equity
- Student Diversity
- Student Success
- Student Experience

VI. Improvements to the health and educational, social, economic, and cultural well being of the citizens of the Commonwealth.

- Research & Service Expenditures
- Educational Preparation & Training
- Outreach & Service Activities
- Status Report with Impact Narratives

I. A comprehensive array of undergraduate, graduate, and professional programs, many with national prominence.

Lifelong learning is central to success and must occur in many contexts and by all members of the University community. We strive for a community of motivated faculty, staff, and students committed to their respective responsibilities toward learning, which we characterize by a comprehensive array of programs, many with national prominence. One of the great strengths of this University is the richness of a campus that brings together undergraduate, graduate, and professional students in a wide array of programs. This variety allows for the sharing of ideas across disciplines, promoting multidisciplinary endeavors, and enriching the educational and social experiences of our students. Some of these programs will attain national recognition and some will satisfy the land grant mission of creating the professionals needed to serve the state. All programs are relevant to our dual mission as the research and land grant institution for the state.

Rankings

We believe that the reputations of institutions in the uppermost rank of American universities have a basis in performance, often with reference to student quality and program prestige that may well match objective data. We therefore recommend monitoring selected national rankings.

Publications

The value of publication analysis as an indicator of research quality has been widely acknowledged. The frequency with which others cite the published scholarship would also be an excellent measurement of research quality. Unfortunately, the reliability of citation measures available at this time is of great concern to both the Task Force and the national ranking bodies, arguing against use of citation at this time. A National Research Council pilot project is underway to develop newer, reliable measures of publications and citations (which would include an indicator documenting book publication to address the limited number of those in the humanities recognized by current measures of journal publication alone). We await the availability of reliable national measures for citations.

The Task Force recommends measuring the total number of publications as well as the normalization of that figure by the number of faculty. A per capita measurement of this indicator will reflect the efforts of the institution relative to faculty size.

Total and Federal Research Dollars

The only comparable and reliable indicators of university research that are available nationally measure dollars spent by the institution from research grants and contracts. While expressed in mostly comparable terms for all institutions, these measures are less a complete measurement of the university's research than they are representative of that research. Although research expenditures do not reflect many kinds of significant university research, they still represent a significant measure and we recommend their inclusion. The Task Force recommends tracking total and federal research dollars, as well as adjusting those figures by the number of faculty.

Level of Academic Challenge

The National Survey of Student Engagement's (NSSE) core assumption is that learning is directly related to time on task. Thus, it attempts to measure not how institutions spend their money, but how students spend their time. Not surprisingly, students who spent more time on academic work and had more contact with faculty members rated both their educational progress and overall satisfaction with their school more highly.¹⁶ We recommend this section of the NSSE study as a valuable measure of the excellence of University programs.

Number of Doctoral Students Produced
Number of Postdoctoral Appointments

Research universities not only produce research, they also make major contributions to the education and training of the next generation of researchers. As an indicator of the University's participation in this activity, we recommend the number of doctorates awarded and the number of postdoctoral positions supported as indicators of the strength of our graduate and post-graduate education and research training activities.

Endowment Assets
Annual Giving

Endowment assets capture a stable and common element in the financial resources of all research universities. An institution's endowment represents a significant source of revenue in support of research, service, and quality education, and we recommend tracking this indicator.

Endowment reflects generations of gifts and the investment of those gifts, but not necessarily the current work of the University in attracting dollars through development activities. Thus, the Task Force also recommends measurement of annual giving. Success in annual giving represents the institution's ability to mobilize financial support and serves as a more dynamic measurement than endowment assets.

II. Attracting and graduating outstanding students capable of making significant contributions to their professions and communities.

In order to attain excellence and achieve national recognition, we must recruit, retain, and graduate an outstanding undergraduate, graduate, and professional student body. High achieving and better-prepared students are a primary reflection of university quality.

SAT Scores, Class Rank, Graduation Rate, Retention Rate

High-quality undergraduate students are identified repeatedly as an essential component of top national universities. However, student quality, real or perceived, can be difficult to measure directly – placement rates, persistence rates, and other calculations fluctuate as a function of size, mission, and geographic location rather than quality or excellence.¹⁷ While measures such as ACT/SAT scores do not present a complete indication of student quality, we recommend these indicators one measure of outstanding students. Likewise, the Task Force recommends tracking graduation and retention rates as measures of the University's success.

Student Honors

The number of national student awards, honors, and fellowships serves as a reliable and widely regarded indicator of outstanding student achievement, and we recommend an array of awards to be tracked as indicators of student quality and achievement.

Level of Academic Challenge

Again, we find the National Survey of Student Engagement a useful measure of the level of academic challenge and the achievements of the undergraduate student body. The Task Force recommends this measure as an indicator of an outstanding student body.

Number of Doctoral students produced

We recommend tracking the number of doctoral students produced as an indicator of University success in attracting and graduating outstanding students.

III. A distinguished faculty whose research, service, scholarship, and teaching are exemplary.

Faculty quality is the primary source of the institution's strength as a competitive academic enterprise. Research dollars awarded offer an indication of the faculty's ability to compete for grants and contracts. The honors and awards of the faculty further provide a perspective on the institution's distinction, capturing elements of quality not reflected in the data on research expenditures.¹⁸

Publications

The number of publications produced by the university, despite methodological limitations described earlier, serves as a valuable indicator of the efforts of the faculty. Again, the Task Force recommends a review of this measure following the completion of the NRC pilot program to develop reliable national data on citations and the inclusion of reliable national citation data when it becomes available. Publication data will reflect both the number of publications and the per capita number of publications for the institution.

Total and Federal Research Dollars

This measure also serves as an indicator of a distinguished faculty, both in terms of overall numbers as well as the amount of total and federal research dollars normalized by the number of faculty. Although research dollars do not reflect many kinds of significant university research, the ability of faculty to attract extramural funding to support its research represents a significant marker of faculty success and we recommend its inclusion.

Faculty Academies Memberships

The number of faculty who are members of the national academies is a key indicator of an outstanding faculty. The three major academies are the National Academy of Sciences (NAS), National Academy of Engineering (NAE), and the Institute of Medicine (IOM). We recommend National Academy membership as an indicator of faculty quality.

Faculty Awards

Another measure of faculty quality is the number of faculty receiving a range of academic awards in the sciences, social sciences, humanities, the arts, and health professions. These awards provide a general indication of the national recognition received by the University's faculty.

IV. The discovery, dissemination, and application of new and significant knowledge.

As a doctoral research-extensive institution, the University of Kentucky must demonstrate its excellence in discovery and innovation characterized by preeminent scholarship – encompassing research, creative activities, teaching/learning, and extension/professional practice. Faculty, staff, and students participate in the process of research and discovery throughout their careers at the University. Research is also a major engine of economic development for the state. National studies indicate that every one dollar of research funding spent produces three dollars of economic impact to the community and state. Each million dollars of research and development spending produces over 33 jobs.¹⁹ Research is a very good investment for the state.

Patents and License Income Received

The number of patents and licenses awarded provides an indicator of the University's effectiveness in transferring the results of research into the state and national economy.

Publications

We recommend using the number of publications and the per capita number of publications for the institution to indicate the discovery, dissemination, and application of new and significant knowledge.

Total and Federal Research Dollars

We recommend tracking total and federal research dollars for the institution and total dollars normalized by the number of faculty as indicators of the discovery, dissemination, and application of new and significant knowledge.

V. Diversity of thought, culture, gender, and ethnicity that creates communities of learning and appreciation at the University and beyond.

A growing body of research links diversity and academic excellence. We now know that students learn better in settings marked by their diversity. In fact, college students who experience the most racial, ethnic, and other forms of diversity in classrooms and in informal interactions on campus become better learners and better citizens. As a result, students who attend a truly diverse university are better prepared to live and work in a diverse and multi-cultural society. We also know that all people thrive when treated with equity and fairness. Thus, the Task Force believes strongly that the University has a special obligation to serve as a model of diversity and fairness in the Commonwealth, leading the state as both a learning community and a workplace in the areas of access, appreciation, and equity of treatment. We must constantly challenge ourselves to value, protect and advance the full range of human diversity, including those traditionally disenfranchised by prejudice and other barriers based upon economic and social class, gender, physical abilities, race, and sexual orientation.

Faculty Diversity

Working and interacting with faculty, staff, and students characterized by all forms of diversity enhances the texture of teaching and learning. Differences in backgrounds, approaches, and perspectives also enriches the process of discovery, the ways of thinking about and solving problems, and the multiple modes of communicating ideas.²⁰ The Task Force recommends monitoring faculty diversity, including measures of the representation, distribution, and compensation of diverse and traditionally under-represented groups, especially women and people of color, throughout all areas and ranks of the University's academic community.

Staff Diversity

Under this indicator, we look for diversity within the staff community and for equity in staff compensation. We recommend tracking staff diversity as measured both by the representation and distribution of women and people of color throughout the staff ranks and by the equity of their compensation as indicators of a diverse institution.

Student Diversity

The presence of diversities in race, class, gender, culture, and perspective within the student community is another indicator of an excellent institution. It is widely recognized that meaningful associations with students who bring insights from various backgrounds and who offer differing political, social, and philosophical perspectives, as well as contact with a wide range of international

students, broaden and enrich the university experience for all students.²¹ The ways in which we promote diversity and equal access across campus will be reflected in the numbers of diverse populations who choose an education at the University of Kentucky. The Task Force recommends tracking student diversity with measures illustrating the intersections among variables such as race, sex, and national origin as well as discipline/major and degree.

Student Success

The Task Force believes an indicator that allows us to evaluate how successful institutions are at retaining and graduating traditionally under-represented students is a critical measure. We recommend that data on retention and graduation be added to the measures noted above so that the University tracks the retention and graduation rates of its students by race, sex, and national origin and by discipline/major, and degree as well as the intersections among these variables. Although most rankings and ratings bodies across the nation do not employ such data, we can obtain some national data on academic success across different elements of the student community, and because of the importance of the issue, we recommend its inclusion.

Student Experience

When student experience is a key part of assessment, institutions ask more of their students and encourage faculty members to make student learning a top priority.¹⁷ This measure of student experience accounts for issues such as foreign language study, study abroad, community service or volunteer work, co-curricular activities, and the like. This indicator also captures comparative national data on the number of students who have held serious conversations with students of a different race or ethnicity, gender, religious beliefs, political opinions, and personal values. It measures if students believe their campus environment encourages contact among students from different economic, social, and racial or ethnic backgrounds. The Task Force recommends the University compare itself nationally in order to assess its progress in becoming a community of appreciation and diversity.

VI. Improvements to the health and educational, social, economic, and cultural well being of the citizens of the Commonwealth.

Since its founding in 1865 as a land grant college, the University of Kentucky has proudly and effectively served the Commonwealth, educating hundreds of thousands of students. It has applied both knowledge and skills to economic and societal needs. Following the passage of House Bill 1 and the call for reform by the Kentucky Council on Postsecondary Education, it is time to re-emphasize our land grant mission and focus in increasingly responsive ways to the Commonwealth. Based on the areas identified by the work of preceding groups, we recommend evaluating our contributions to the Commonwealth in the areas of:

- Arts and Culture
- Community Vitality and Civic Engagement
- Economic Well-being
- Education
- Environment
- Health

As a land grant institution, we must promote the interests of diverse populations and cultures. The Task Force also recommends that the indicators in the above six areas should be tracked, where possible, with respect to equity in age, disability, race/ethnicity, and sex.

Research and Service Expenditures

It can be argued that the entire budget of the University in some way benefits the Commonwealth. However, the Task Force recommends we more narrowly focus our definition to include only those research and service expenditures that *directly* affect the Commonwealth in the six major areas selected.

Educational Preparation and Training

The Task Force recommends this indicator as a means to quantify the impact of the University on the educational preparation and training of the people of the Commonwealth. In the six priority areas identified by the Task Force, this measure should include all those degree programs that prepare people to work in the state as well as those certificate programs, continuing education activities, and other training programs offered by the institution to benefit Kentucky's citizens.

Outreach and Service Activities

University outreach and service activities bring together faculty, staff, and students with professionals, practitioners, organizations, government agencies, schools, businesses, and others to address issues related to arts and culture, community vitality and civic engagement, economic well being, education, environment, and health.

In order to track the significant amount of outreach and service efforts across campus in a variety of disciplines, the Task Force recommends the development of a data-based Outreach and Service Web site, where information can be shared and accessed by the University community and external constituents. We envision a site that serves as a central repository of information, providing qualitative information on the types of efforts as well as quantitative information, addressing data such as the number of individuals served. Site visitors would be able to choose from specific topic areas under the general content areas, view a listing of activities, and make selections that would connect the viewer to the individual project or program sites to view more information. Site users could also select a locale from a statewide map to view University outreach and service activities in a particular location.

An Outreach and Service Web site would illuminate and link the many efforts of the faculty, staff, and students across the University, providing heightened awareness to the campus community. Cataloguing the depth and breadth of the University's undertakings, the Web site would allow Kentucky citizens immediate access to view areas of interest. It would educate constituents about the efforts of the University to engage and serve their individual community. Finally, the Web site would serve as a powerful tool for the President to use with the General Assembly to illustrate the myriad ways the University of Kentucky impacts the Commonwealth. The Task Force recommends the development and implementation of this tool as a means of measuring efforts in the Commonwealth.

Status Report

In addition to the three process-oriented indicators, we recommend a biannual status report to examine the role the institution plays in affecting outcomes across the six focus areas. Although these are measures over which the University has limited control, such as water quality or lung cancer rates, the Task Force believes it essential to address, in some meaningful way, the needs of the Commonwealth and to tie those needs to outcome measures.

Drawing upon data collected across the state by a variety of agencies, we recommend illustrating the efforts of faculty, staff, and students in the six focus areas through impact narratives. With the exception of programs with a well-established history of extending their knowledge to society - such as the Cooperative Extension Service - many of the service and outreach efforts of our faculty, staff, and students go unrecorded. The University of Kentucky must do a better job of communicating the

ways in which its research, service, and teaching make a difference in the Commonwealth. We recommend collecting information on these efforts via the Outreach and Service data base, then examining engagement efforts for their impact on outcomes measures at the state level - in the areas of arts and culture, community vitality and civic engagement, economic well being, education, environment, and health.

Examples of Areas for Status Report

Arts & Culture – *examples such as but not limited to:*

- Cultural opportunities
- Cultural participation
- Diverse leadership
- Historic preservation
- Library use
- Participation of minorities in Government
- Participation of women in Government
- University working with community

Community Vitality & Civic Engagement – *examples such as but not limited to:*

- Charitable giving
- Child abuse
- Child care
- Community pride
- Crime
- Homelessness
- Neighborliness
- Aging populations
- Quality of life
- Volunteerism

Economic Well Being – *examples such as but not limited to:*

- Access to water, sewer systems, garbage collection
- Economic diversity
- Employment rates
- Gross state product
- Housing/affordability
- New businesses
- Participation in economy by diverse groups
- Poverty rates
- Poverty despite work
- State exports

Education – *examples such as but not limited to*

- Early childhood education
- Funding equity
- High school graduation rates
- Number of advanced degree holders
- Parent participation in schools
- Performance test scores
- Preparation for youngsters (Head start/early start)
- Quality of teachers
- Teacher preparation

Environment – *examples such as but not limited to:*

- Air quality
- Environmental literacy
- Hazardous wastes
- Participation in recycling efforts
- Recycling
- Soil erosion
- Solid waste disposal
- Smart growth
- Toxic releases
- Water quality

Health – *examples such as but not limited to:*

- Cardiovascular disease
- Diabetes
- Disease incidence and prevalence
- Health insurance coverage/access
- Infant mortality
- Life expectancy
- Patient satisfaction
- Prenatal care
- Risk related behavior
- Smoking rates

While these limited examples are not meant to be exhaustive but rather illustrative of the data available at the state level, they suggest the types of information we may relate to Outreach and Service activities at the University of Kentucky in a status report. An endeavor such as this will rely heavily on the ability of the faculty, staff, and students to record their efforts in order to document a

broad spectrum of activities. We recommend the University implement a centralized data system so departments may report their activities with minimal effort. Frequently, departments are called upon to provide the same statistical data to fulfill multiple requests. The Task Force believes a centralized information collection system on Outreach and Service activities, tied to a Web site where this information may be viewed by both external and internal constituents, would allow faculty and staff to report efforts into one system accessible by many. By freeing individuals from multiple data reporting efforts, we hope to increase the quality of the data as well as its availability, providing a valuable tool for examining our outreach efforts and their impact on the Commonwealth.

For the national measures, the Task Force recommends monitoring data already collected by national organizations, such as the National Research Council, *TheCenter*, *U.S. News*, the National Survey of Student Engagement, the Association on University Technology Managers, the Integrated Postsecondary Education Data System, the Institute of International Education, and the Consortium for Student Retention Data Exchange. In this section of the report we provide information for the indicators we have chosen on source, frequency of collection, definitions and comments on each indicator.

Indicator: **Rankings**
Data source: National Research Council’s *Research-Doctorate Programs in the United States: Continuity and Change*
Frequency collected: Every 10 years
Data definition: Of the programs/disciplines listed by the NRC, the number of University of Kentucky programs ranked in the top 20
Comments: This indicator is a reputational measure only.

Indicator: **Rankings**
Data source: *US News*
Frequency collected: Annually
Data definition: Of the UK programs/disciplines listed by *US News*, the number of programs in the top 20
Comments: 75% of a school’s ranking is based on a formula that uses 6 measures of academic quality: retention, faculty resources, student selectivity, financial resources, graduate rate, and alumni giving rate. The remaining 25% are based on a reputational survey (U.S. News asks the president, provost, and dean of admissions at each school to rate the quality of the academic programs for schools in the same category, including their own).

Ranking Category	Weight	Subfactor	Subfactor Weight
Academic reputation	25%	Academic reputation survey	100%
Student Selectivity	15%	Acceptance rate	15%
		Yield	10%
		High school class standing – top 10%	35%
		High school class standing – top 25%	0%
		SAT/ACT scores	40%
Faculty resources	20%	Faculty compensation	35%
		% Faculty with terminal degree	15%
		% Full-time faculty	5%
		Student/faculty ratio	5%
		Class size 1-19 students	30%
		Class size 50+ students	10%
Graduation and retention rate	20%	Average graduation rate	80%
		Average freshman retention rate	20%
Financial resources	10%	Average educational expenditures per student	100%
Alumni giving	5%	Average alumni giving rate	100%
Graduation rate performance	5%	Graduation rate performance	100%

Indicator: **Publications**
Data source: National Research Council
Frequency collected: Every 10 years
Data definition: - The number of publications for the institution, defined as analytic work disseminated through papers given at professional meetings, through the publication of those papers in scholarly journals, and/or through patenting activities. The measures includes only those

in the fields of Sciences and Engineering, and includes a count of papers published in reviewed journals and monographs printed by recognized publishers.

- The per capita number of publications for the institution, defined as the number of publications for the institution divided by the number of faculty, as reported to the Integrated Postsecondary Education Data System (IPEDS).

Comments:

We will use NRC data for publications alone with the intent to continue to monitor reliability in this area, adding citations measures and increasing the span of data collection as reliability increases. The Task Force recommends reporting the total number of publications for the institution as well as normalized by the number of faculty.

Indicator:

Total and Federal Research Dollars

Data source:

TheCenter

Frequency collected:

Annually

Data definition:

- Total research dollars including all those expenditures on research reported by the university to NSF, including corporate, state, local, as well as federal sources

- Total research dollars adjusted by number of faculty, determined by amount of total research dollars reported to the NSF divided by the number of faculty, as reported to the annual IPEDS report

- Federal research expenditures in science and engineering as reported by the university to NSF

- Federal research dollars adjusted by number of faculty, determined by amount of federal research dollars reported to the NSF divided by the number of faculty, as reported to the annual IPEDS report

Comments:

The data used come from the NSF *annual Survey of Scientific and Engineering Expenditures at Universities and Colleges*. They explicitly exclude any non-science and engineering research in such fields as law, education, humanities, business, fine arts, and journalism. While historians, poets, literary scholars, some social scientists, and most artists and composers, for example, produce exceptional research and creative products, these activities do not appear in the indicators of total or federal research because of the methodology defined by NSF's survey. Although these issues make the total and federal research numbers incomplete representations of research competitiveness, they nonetheless serve as good measures of an institution's overall commitment to and success in research. The numbers help us to understand the strength of research universities and provide two of the elements for grouping institutions.²²

Although federal research expenditure is a relatively straightforward measure, the total research number requires some explanation. Total research includes all those expenditures on research reported by the university to NSF, including corporate, state, and local as well as federal sources. This number creates some potential for differential reporting by institution depending on the definition of local and state expenditures for research, but for the purpose of this approach, the possible error does not appear too great. This research measure captures an important element for many institutions that have a large corporate support structure for their research or a mission that includes agricultural research funded by the state through a land grant system.¹³

Again, the Task Force recommends collecting this indicator as a total for the institution as well as normalizing that by the number of faculty as reported to IPEDS.

Indicator:

Level of academic challenge

Data source:

National Survey of Student Engagement Study (NSSE)

Frequency collected:

Annual Report; data for Top 20 will be reported biannually

<i>Data definition:</i>	Using a Likert scale, students are asked questions that assess the following: <ul style="list-style-type: none"> - Preparation for class - Number of assigned textbooks, books, or book-length packs of course readings - Number of written papers or reports of 20 pages or more - Number of written papers or reports between 5 and 19 pages - Number of written papers or reports of fewer than 5 pages - Coursework emphasizes: analyzing the basic elements of an idea, experience or theory - Coursework emphasizes: Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships - Coursework emphasizes: Making judgments about the value of information, arguments, or methods - Coursework emphasizes: Applying theories or concepts to practical problems or in new situations - Worked harder than you thought you could to meet an instructor’s standards or expectations - Campus environment emphasizes spending significant amounts of time studying and on academic work
<i>Comments:</i>	Backed by a grant from the Pew Charitable Trusts, the NSSE study originated with a group of educators looking for an alternative to <i>U.S. News</i> rankings. Since the data is not subject to change dramatically from one year to the next, we recommend the University report the data biannually for Top 20 purposes and increase the sample size for future years.
<i>Indicator:</i>	Number of Doctoral students produced
<i>Data source:</i>	<i>TheCenter</i>
<i>Frequency collected:</i>	Annually
<i>Data definition:</i>	Number of Doctor of Education, Doctor of Juridical Science, Doctor of Public Health, Doctor of Philosophy degrees awarded between July 1 and June 30 of a given year.
<i>Comments:</i>	Doctoral degrees awarded annually as defined and collected by <i>TheCenter</i> .
<i>Indicator:</i>	Number of Postdoctoral appointments
<i>Data source:</i>	<i>TheCenter</i>
<i>Frequency collected:</i>	Annually
<i>Data definition:</i>	Postdoctorates are defined as “individuals with science and engineering Ph.D.s, M.D.s, D.D.S.s, or D.V.M.s and foreign degrees equivalent to U.S. doctorates who devote their primary effort to their own research training through research activities or study in the department under temporary appointments carrying no academic rank.” The definition excludes clinical fellows and those in medical residency training programs unless the primary purpose of their appointment is for research training under a senior mentor.
<i>Indicator:</i>	Endowment Assets
<i>Data source:</i>	<i>TheCenter</i>
<i>Frequency collected:</i>	Annually
<i>Data definition:</i>	Endowment assets for the institution as collected by The National Association of College and University Business Officers (NACUBO) Endowment Study.
<i>Comments:</i>	NACUBO’s long history of reporting endowments of higher education institutions, their emphasis on using audited financial statements, and their focus on net assets (i.e., includes returns on investments and excludes investment fees and other withdrawals) were reasons this data set was selected.
<i>Indicator:</i>	Annual Giving
<i>Data source:</i>	<i>TheCenter</i>
<i>Frequency collected:</i>	Annually
<i>Data definition:</i>	The Council for Aid to Education’s annually produced Voluntary Support of Education Survey is used to report annual giving data. Included are all contributions actually received during the institution’s fiscal year in the form of cash; securities; company

products; and other property from alumni, non-alumni individuals, corporations, foundations, religious organizations, and other groups.

Comments: Not included in totals are public funds, earnings on investments held by the institution, and unfulfilled pledges.

Indicator: **SAT scores, Class rank, Graduation rank, Retention rate**

Data source: *US News*

Frequency collected: Annually

Data definition:

- SAT Scores: Scores are reported for first-time, first-year (freshman) students enrolled in fall 2001 who submitted national standardized (SAT/ACT) test scores. Information for all enrolled, degree-seeking, first-time, first-year (freshman) students who submitted test scores is included. Partial test scores (e.g., mathematics scores but not verbal for a category of students) or other standardized test results (such as TOEFL) are not included. SAT scores are re-centered scores. *U.S. News* compares the percent and number of students whose scores fall between the 25-75 percentile.
- Class rank: The percent of all degree-seeking, first-time, first-year (freshman) students who were ranked in the top tenth of their high school graduating class.
- Graduation rate: Data elements collected by the IPEDS Web-based Data Collection System's Graduation Rate Survey (GRS). The cohort is full-time first-time bachelor's (or equivalent) degree-seeking undergraduate students who enter in the fall semester. Included in the cohort are those who entered the institution during the summer term preceding the fall semester. The rate represents the total percent of students graduating within six years, and excludes those who are deceased, permanently disabled, armed forces, foreign aid service of the federal government, or official church missions
- Retention rate: Percentage of all full-time, first-time bachelor's (or equivalent) degree-seeking undergraduate students who enter in the fall semester or preceding summer term who return to the institution the following fall. The initial cohort may be adjusted for students who left for the following reasons: deceased, permanently disabled, armed forces, foreign aid service of the federal government, or official church missions. No other adjustments to the initial cohort are made.

Comments: For ACT scores reported, a data conversion table provided by the College Board is used to generate a comparable SAT equivalent score.

Indicator: **Honors**

Data source: Information provided by each awarding organization

Frequency collected: Annually

Data definition: The number of students who receive the following national awards, honors, and fellowships:

- Rhodes Scholars
- Truman
- Marshall
- Fulbright Fellows
- Morris K. Udall Scholars
- Barry M. Goldwater Scholars
- National Merit
- NSF Research Fellowships
- American Foundation of Pharmaceutical Education
- Howard Hughes Medical Institute Pre-Doctoral Fellowships
- Mellon Fellowship in Humanistic Studies

Indicator: **Faculty Academies Memberships**

Data source: *TheCenter*

Frequency collected: Annually

Data definition: The number of faculty who are members of the following national academies:

- National Academy of Sciences
- National Academy of Engineering
- Institute of Medicine

Comments: The data collected for these academy memberships includes active or emeritus faculty members at their affiliated work institution, as reported in the online membership directories. All three are private, non-profit organizations and serve as advisors to the federal government on science, technology, and medicine.

Indicator: **Faculty Awards**
Data source: *TheCenter*
Frequency collected: Annually
Data definition: The number of significant faculty awards from the following organizations:

- American Council of Learned Societies Fellows
- Beckman Young Investigators
- Burroughs-Wellcome Fund Career Award in the Biomedical Sciences
- Cottrell Scholars
- Fulbright American Scholars
- Getty Scholars in Residence
- Guggenheim Fellows
- Howard Hughes Medical Institute Investigators
- Lasker Medical Research Awards
- MacArthur Foundation Fellows
- National Endowment for the Humanities Fellows
- National Humanities Center Fellows
- NIH Merit Award and Outstanding Investigator Grant
- National Medal of Science and National Medal of Technology
- NSF CAREER Awards (excluding those who are also PECASE winners)
- Newberry Library Long-term Fellows
- Pew Scholars in Biomedicine
- Presidential Early Career Awards for Scientists and Engineers (PECASE)
- Robert Wood Johnson Policy Fellows
- Searle Scholars
- Sloan Research Fellows
- US Secretary of Agriculture Honor Awards
- Woodrow Wilson Fellows

Comments: The most recent award year is used for each faculty award program.

Indicator: **Patents and Licenses Income Received**
Data source: The Association of University Technology Managers, Inc. (AUTM) Survey
Frequency collected: Annually
Data definition:

- Patents: The number of U.S. patents issued or reissued to the institution in the year requested. A certificate of plant variety protection issued by the U.S.D.A. may also be included.
- License Income Received: Includes license issue fees, payments under options, annual minimums, running royalties, termination payments, the amount of equity received when cashed-in, and software and biological material end-user license fees equal to \$1,000 or more, but not research funding, patent expense reimbursement, a valuation of equity not cashed-in, software and biological material end-user license fees less than \$1,000, or trademark licensing royalties from university insignia.

Comments: License Income Received does not include income received in support of the cost to make and transfer materials under Material Transfer Agreements.

Indicator: **Faculty Diversity**
Data source: Integrated Postsecondary Education Data System
Frequency collected: Annually
Data definition:

- Number and percent of faculty by ethnicity, sex, discipline, and rank
- Number and percent of international faculty by sex, discipline, and rank
- Faculty salary by ethnicity, sex, discipline, and rank
- Faculty salary by intersection of ethnicity, sex, discipline, and rank

Indicator: **Staff Diversity**
Data source: Integrated Postsecondary Education Data System
Frequency collected: Annually
Data definition:
- Number and percent of staff by ethnicity, sex, position level, and EEO category
- Number and percent of international staff by sex, position level, EEO category and source of funding, and the intersections thereof
- Staff salary by ethnicity, sex, position level, and EEO category
- Staff salary by intersection of ethnicity, sex, position level, and EEO category

Indicator: **Student Diversity**
Source: Integrated Postsecondary Education Data System
Frequency collected: Annually
Data definition:
- Number and percent of students by ethnicity, sex, and discipline
- Number and percent of undergraduate students by ethnicity, sex, and major
- Number and percent of graduate students by ethnicity, sex, degree, and major
- Number and percent of professional students by ethnicity, sex, and degree
- Number and percent of out-of-state students and level by ethnicity, sex, degree, and major
- Number and percent of international students by ethnicity, sex, degree and major

Indicator: **Study Abroad**
Source: Institute of International Education
Frequency collected: Annually
Data definition: The percent of students who received academic credit toward their degree for study abroad regardless of whom sponsored the program or who awarded the initial credit. Ideally restricted to US students or permanent residents, and includes short term and curricular embedded sojourns, work abroad, internship abroad and research (thesis or dissertation) provided there is academic credit attached to these experiences

Indicator: **Student Success**
Source: Consortium for Student Retention Data Exchange
Frequency collected: Annually
Data definition:
- Minority freshman retention rate: Includes the percent of first-time, full-time, degree-seeking freshmen that started in the fall or summer before fall who continued the following fall. This includes students who entered with advanced standing such as college credit earned before graduation from high school.
- Minority 6-year graduation rate: The cumulative percentage of first-time freshmen in a given fall term who graduated within a designated six year span.

Comments: Each member is entitled to two reports: (1) an annual national student retention report and (2) a customized report containing benchmark data of a self-selected peer group of five to twenty institutions. The report includes aggregate statistics on Doctoral/Research-Extensive public institutions sorted by racial/ethnic subgroup. It shows the average ACT/SAT for each subgroup, the 2nd and 3rd year continuation (retention) rates and the 4th, 5th and 6th year graduation rates for each subgroup by Doctoral/Research-Extensive public institutions as a group. Member universities can also identify up to twenty other institutions with which they would like to be compared in a "Peer Report." Peer comparison on the entire group of Doctoral/Research-Extensive institutions is available. Where possible, we recommend sorting these data by sex and sex by discipline.

Indicator: **Student Experience**
Source: National Survey of Student Engagement Study (NSSE)
Frequency collected: Annual Report. Data for Top 20 will be reported biannually
Data definition: Using a Likert scale, students are asked questions that assess the following:

Enriching educational experience

- Participating in co-curricular activities (organizations, publications, student government, sports, etc.)
- Practicum, internship, field experience, co-op experience, or clinical assignment
- Community service or volunteer work
- Foreign language coursework and study abroad
- Independent study or self-designed major
- Culminating senior experience (comprehensive exam, capstone course, thesis, project, etc.)
- Had serious conversations with students that have different religious beliefs, political opinions, or personal values
- Had serious conversations with students of a different race or ethnicity
- Used electronic technology (list-serv, chat group, Internet, etc.) to discuss or complete an assignment
- Campus environment encourages contact among students from different economic, social, and racial or ethnic backgrounds

Supportive educational environment

- Campus environment provides the support you need to help you succeed academically
- Campus environment helps you cope with your non-academic responsibilities (work, family, etc.)
- Campus environment provides the support you need to thrive socially
- Quality of relationships with other students
- Quality of relationships with faculty members
- Quality of relationships with administrative personnel and offices

Comments:

The NSSE does not allow for ranking among institutions that participate, and data on public and private institutions are mixed. Since the data are not subject to change from one year to the next, we recommend the University report the data biannually for Top 20 purposes and increase the sample size for future years. Survey items will be differentiated by sex, race, age, and college level.

Indicator:

Research and Service Expenditures

Data source:

University of Kentucky Budget Office

Frequency:

Annually

Data definition:

Sponsored project expenditures used for service as based on the University of Kentucky Research Foundation reporting mechanism collected in the six focus areas – Arts and Culture, Community Vitality and Civic Engagement, Economic Well Being, Education, Environment, and Health.

Comments:

Analysis of the data to include assessment of the scope and range of activities by geographic location as well as by sex, race, ethnicity, age, and disability status.

Indicator:

Educational Preparation and Training

Data source:

University of Kentucky Provost

Frequency:

Annually

Data definition:

- Educational Preparation: Total number of bachelor, master, doctoral and professional graduates of academic programs in programs in the six focus areas – Arts and Culture, Community Vitality and Civic Engagement, Economic Well Being, Education, Environment, and Health
- Training: Total number of non-credit courses, continuing educational courses, certificate programs, and other training efforts in the six focus areas: Arts and Culture, Community Vitality and Civic Engagement, Economic Well Being, Education, Environment, and Health

Comments:

Analysis of the data should include assessment of the scope and range of activities by geographic location as well as by sex, race, ethnicity, age, and disability status.

Indicator: **Outreach and Service Activities**
Data source: University of Kentucky Institutional Effectiveness Office
Frequency: Annually
Data definition: Reports from the University faculty and staff feeding a central data base which inventories activities that encompass outreach and service activities impacting the Commonwealth in the six focus areas – Arts and Culture, Community Vitality and Civic Engagement, Economic Well Being, Education, Environment, and Health
Comments: Analysis of the data to include assessment of the scope and range of activities by geographic location as well as by sex, race, ethnicity, age, and disability status.

Indicator: **Status Report**
Data source: University of Kentucky Institutional Effectiveness Office
Frequency: Biannually
Data definition: A status report that illustrates the efforts of the institution and connects those in a meaningful way to outcome data available at the state level through impact narratives.

NECESSARY GROWTH, INVESTMENTS, AND INFRASTRUCTURE

The University's quest to become one of the nation's most outstanding research universities will require significant new investments in a number of areas as well as wise stewardship of existing financial support.

As the institution identifies the areas in which it needs to progress, it must also specify the resources it will need to accelerate, or simply sustain, its advancement. Setting ambitious goals without garnering the necessary resources is a recipe for failure. This report is offered primarily as a blueprint for the University's success; however, in order for the blueprint to be translated into accomplishment, adequate tools and materials must be provided. These resources must be developed from multiple sources, including new general fund dollars, expanded private gifts and donations, increased investments from business and industry, and more federal revenue. In addition, the University must be deliberate and wise in deploying its existing resources in the most strategic and effective manner possible.

Although the Task Force was not charged with conducting a feasibility or resource study, the University must consider the *practical and financial implications of working toward its "Top 20" goal*. Therefore, the Task Force provides a very brief, preliminary analysis of need in several of the most important areas for infrastructure enhancement and institutional growth. For some of these areas, we attempt to quantify an estimate of needed resources; in others, we merely designate the types of new investments that will be necessary.

For the University to progress on the various indicators recommended by the Task Force, the following nine categories of resources and infrastructure must be enhanced:

I. Enrollment Growth

The University must increase enrollments at both the undergraduate and graduate/first professional levels. If it is to help the Commonwealth attain the Council on Postsecondary Education (CPE) goal of increasing the number of Kentuckians annually receiving post-secondary education by 80,000 by the year 2020, UK must enroll and graduate far more undergraduates. Currently, it enrolls about 20 percent of all undergraduates in the Commonwealth. Even if we assume that its percentage of total will decline to 15 percent (with increasing percentages absorbed by KCTCS and other institutions), UK will need to enroll almost 6,200 more undergraduates annually by 2020 if it is to contribute its reasonable and proper share toward the 80,000 student increase.

Similarly, the University will need to increase its enrollment and productivity of graduate and first professional students if 1) it is to prepare the additional number of college faculty required by system-level growth and 2) it is to supply the intellectual capital that Kentucky needs to participate more vigorously in the knowledge-based economy.

The University has projected conservative enrollment growth for both undergraduate (3 percent) and graduate/professional students (5 percent) for the 2001 to 2006 period. This rate of growth will need to be increased (with the exception of first professionals, where a 5 percent level of growth is probably adequate, given projections that Kentucky's population will grow only slightly in coming years) if the University is to join the ranks of those public universities that lead the nation in doctoral student productivity and if it is to contribute to educating more Kentuckians at the baccalaureate level. As approximate targets, by 2020 the University will need to increase:

- Total enrollment of graduate/doctoral students by approximately 750 students, an expansion of 4 percent;
- Annual production of Ph.D. graduates by 120 students, an increase of approximately 50 percent;
- Total enrollment of undergraduate students by approximately 6,200, an increase of 35 percent.

II. More Faculty

To serve larger enrollments, improve retention rates, and promote better graduation rates, the University will need to maximize the effectiveness of its current faculty and increase the number of full-time regular faculty. Almost without exception, the size of the faculty of the University of Kentucky lags behind those public universities that exceed UK's research accomplishments and educational productivity. This problem is compounded by the fact that UK's faculty are spread across an array of undergraduate, graduate, and professional programs that rivals most of our larger benchmark and aspiration institutions. Relative to these universities, UK's faculty members are spread thin, especially in graduate programs. Assuming that this distribution could be corrected to some degree through a long-term, strategic replacement strategy, the University will still require a substantial increase in the number of its full-time graduate faculty.

Based on current student/faculty and degrees completed/faculty ratios and the projected enrollment and doctoral degree productivity increases (above), UK will require:

- 230 more full-time faculty, an increase of 13 percent over current levels;
- Of the 230 new faculty, 150 of these faculty to be "instructional faculty," which includes regular title, and special title appointments;
- Most, if not all, of these new faculty need to be in Ph.D.-granting and first professional disciplines.

III. Research Space and Facilities

By 2020, the University will need to generate approximately \$600 million in research and development expenditures if it is to have a chance of capturing a Top 20 ranking in this category (FY 2001, UK's research and development expenditures were about \$216 million). This figure is based on assumptions of increasing availability of federal funding, modest annual inflation, and an increasing UK market share of external (primarily federal) research funding.

Based on a recent research space model developed by the Council on Postsecondary Education that computes the needed assignable square feet (ASF) of research space per \$100,000 of non-institutional research and development support, it is possible to calculate the difference between current and needed ASF if the institution is to achieve its research and development projections. Assuming that the University can improve the ratio of external to institutional research and development support to benchmark levels, and using the Council's model for calculating needed research space, UK will need 1,623,300 ASF in 2020. The University currently lists about 742,000 ASF in its research facilities, although much of this space is not in a condition that allows sophisticated, modern-day research to be conducted. With the completion of several research buildings now under construction or soon-to-be constructed (Mechanical Engineering, Plant Sciences, BBSRB, and Allied Health), UK's research capacity should increase by more than 100,000 ASF within the next three-four years. An additional 700,000 ASF will be required to be brought on line in the next 20 years.

In addition to new research space and facilities, the University will need to continue to renovate and improve its existing research labs. Renovation costs will average more than \$200/sq. ft, and a reasonable estimate is that at least half of the University's current research space requires renovation and upgrading.

IV. Educational Facilities – Classrooms, Residence Halls

As student enrollments increase, so also do requirements for on-campus housing and dining facilities, classrooms, student service facilities, recreational opportunities, cultural venues, offices, parking, and utility structures. The Task Force did not attempt to assess the magnitude of these needs, but given the size of the projected increases itemized above, they will be considerable and must be included in future capital project requests and campus master planning.

V. Support Staff for additional faculty and a greater number of students

Increases in enrollments and faculty must, of course, be accompanied by increases in the clerical, technical, professional, service, and student-support staff that are essential in order to maintain

outstanding services to students, supply excellent assistance to faculty, and provide the expertise for a comprehensive, 21st-century research program.

If we use the current ratio of faculty to all staff (excluding hospital and auxiliary), the projected increase of 230 faculty (see II above) would translate into an increase of 630 staff. Auxiliaries such as housing and dining services must also plan for additional staff to accommodate the expanded student enrollments.

VI. Infrastructure – Library, Communications, Academic and Administrative Computing

Excellent libraries, information services, communication technology, and computing are indispensable resources for a comprehensive research university. The University must guarantee that its faculty, staff, and students have access to appropriate desktop and workstation computing equipment, up-to-date software, well-instrumented computer labs, and high-speed networks with broad bandwidth. High-performance supercomputers are also essential to a small, but important, group of researchers, and the University of Kentucky can take legitimate pride in being a leader in this area.

The University's library must continue to provide access to research and educational material in both print and digital formats. The cost of subscribing to research databases, electronic texts, and journals is growing exponentially, but the need for these sources is obvious if the University is to become and stay a leader in knowledge preservation and management.

Finally, the University is laboring with antiquated and deteriorating administrative computing systems. It must purchase and implement an enterprise wide system of administrative and management computing that includes financial (FRS), human resources (HRS), and student information (SIS) suites, in addition to suites in other important areas such as development, facilities and equipment, faculty information, and research. The time, staff effort, and expense of converting to these systems across an entire institution are well known, but so are the costs of unduly delaying such implementation. Furthermore, the University must simultaneously devote the time and resources necessary to make the data warehouse a reality; the importance of readily available data for assessing progress across the university must not be overlooked.

VII. Financial Support for Students

Attracting and retaining outstanding undergraduate, graduate and professional students will require the University to extend its investments in both need- and merit-based scholarships and fellowships. Recruitment of top-flight doctoral students is predicated on the ability of the University to provide full support to these students either through institutional assistants/fellowships or external grants

and contracts. If we assume that the University will support at least a third of the additional 750 graduate students it plans to enroll on institutional funds, it will need approximately \$7.5 to \$10 million in recurring support.

At the undergraduate level, the University will need to increase its institutional scholarship support by a similar level if it is to recruit the outstanding, diverse group of students that it must educate to be successful on behalf of the Commonwealth. These scholarships are likely to depend to a very substantial degree on private donations, either through annual giving or dedicated endowments. UK trails its benchmarks by a large margin in terms of merit-based scholarship funding; it will require a very aggressive development effort to make up this gap and to move up the ranks of institutions offering nationally competitive levels of support for outstanding students.

VIII. Research and Teaching Equipment

The University must insure that its faculty and students have the modern research and teaching equipment essential for comprehensive research institutions to be successful. Purchasing, replacing, and maintaining research/teaching equipment are expensive activities, and the useful life of this equipment is becoming more and more limited as new discoveries and refinements are introduced at an ever-accelerating pace. In addition, major investments in equipment are necessary annually as part of new faculty “start-up” packages and for matching requirements on large federal research grants.

The University has benefited greatly from periodic state bond issues that have allowed the purchase of major equipment. A \$20 million dollar bond was issued in 1987; this was followed by a \$17.5 million dollar major equipment initiative in 2000. Such equipment bonds have been extremely useful in enabling the University to maintain its inventory of technologically sophisticated research equipment. They must be continued.

IX. Compensation

Retaining the University’s outstanding faculty is essential to sustain progress toward its Top 20 goal. Although two completed rounds of the RCTF Endowment Program have enabled UK to attract greater numbers of excellent senior faculty, it has not had as dramatic an impact on the retention of current faculty. Added to a series of only modest state budget increases, the recent budget cuts have placed the University in a dangerously noncompetitive situation with respect to faculty compensation. Since the establishment of the University’s new benchmarks in 1998, it has lost ground in comparative faculty salaries, from 6.5 percent below the benchmark median in 1998 to 12.2 percent below the median

in 2000. The average 2000 UK salary lagged the benchmark median by \$9,050. Unless this gap can be closed, the University will suffer a destructive and extremely demoralizing exodus of its best faculty.

Competitive compensation for staff must also be provided if the University is to attract and retain high quality support staff.

We have set forth in this report the goals we believe must be accomplished to attain national eminence in research and teaching, the means that must be employed to achieve them, and the indicators by which progress can be measured. We have emphasized the essentiality of creating a truly diverse academic environment, not only in terms of simple justice and equity, but also because we believe such an environment can help promote learning and academic achievement. Few great accomplishments come without cost, and we have pointed out the substantial additional resources necessary to attain national prominence.

We were also challenged to address the University's special obligations to the Commonwealth of Kentucky. The vision of the University states our aspiration to be “an institution recognized nationally and internationally for excellence in teaching, research, and public service, and a sustaining resource for the intellectual, social, cultural, and economic development of the Commonwealth.” Attaining national prominence without addressing the urgent needs of the state would leave us short of achieving our full mission. The Task Force wholeheartedly believes that the University must be connected in a positive way to the future of Kentucky, and we have recommended measures to evaluate our contribution to the Commonwealth.

The University must serve as a model of the behavior we hope to see reflected in the state. If we hope for engaged communities that value a commitment to service, we must see that value expressed in our own actions. We must lead by example. There are at present obstacles to the commitment to service we envision. Many faculty view themselves primarily as researchers and teachers. Some fear that a focus on service will bring few rewards and may even jeopardize their careers. Such perceptions are sometimes encouraged by an academic culture that runs counter to the idea of an engaged institution. The Task Force recommends that discussion take place at all levels and in all units on campus to ensure that the University develops a climate in which research, teaching, and service are highly valued. Existing obstacles must be removed and a reward system established that allows the University to accomplish the dual missions of achieving premier status as a research university and serving the needs of the state.

The University must take seriously Governor Patton's and the Legislature's call to become a premiere, nationally recognized research institution. The University must also take seriously President Todd's call to serve the Commonwealth. The tripartite mission of research, teaching, and service collectively must inform our efforts to attain higher levels of excellence. The Top 20 Task Force

respectfully submits this report in the hope that it will lead to a concentrated, sustained campus-wide effort to achieve national prominence and fulfill our land grant mission.

As with all efforts of this size and scope, there are individuals who, often behind the scenes, assure that the project moves forward and without whom the task would either not have been completed or would have been so much harder. The Top 20 Task Force wishes to thank a number of such individuals. ***Maria Kemplin***'s attention to detail, superb research and writing skills, and dedication to making this the best report it could be were invaluable. She tackled each task with enthusiasm and devotion, and this effort became her full time obsession for the past four months. ***Kelly Bevins*** spent untold hours working on data sources and helping the Task Force find useful information to support its work. She went the extra mile many times. ***Lisa Collins*** arranged each of the Task Force's meetings and summarized each meeting with precision and accuracy. ***Pat Whitlow*** scheduled all of the meetings of the Task Force and sent numerous emails to keep the group in touch. ***Mary Kelly*** maintained the Task Force's Web site and was always willing to add material to the site. Thank you ***Amanda Long*** for sharing and scheduling our meeting place and making us comfortable and welcome. ***Bill Wells, Bill Runkle, Tommy Johnson*** and ***Rich Rice*** from the Audio Visual Department were always on time, every time with equipment that worked beautifully.

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