I. Introduction and Charge to the Committee.

President Wethington directed the Committee to review and assess graduate education at the University of Kentucky. Specifically, the Committee was charged with the responsibility of reexamining the goals and objectives set forth as strategic indicators in the University's Strategic Plan adopted by the Board of Trustees in 1993. These include graduate student numbers and composition, scholarships and funding mechanisms, and other matters related to the graduate program. The recommendations of the Committee were to be focused on changes necessary to enhance quality graduate education at the University of Kentucky.

II. Graduate Education Mission of the University of Kentucky.

The mission of the University of Kentucky, as a land-grant institution, is to provide teaching, research and service activities related to the needs of the Commonwealth and Nation, as well as internationally, as appropriate. The University of Kentucky has a statewide mission for graduate education, particularly at the doctoral level. Through the accomplishments of its research faculty and graduate students, the University of Kentucky is currently rated as a Carnegie I Research Institution.

Even though the quality of undergraduate education has received much attention, emphasis, and increased funding during the last few years, graduate student enrollment has been the University's enrollment growth area during this time period. Graduate enrollment increased from 18.4% of total student enrollment in 1989 to approximately 23% in 1994. However, insufficient additional financial support and resources have been provided to support that growth. The University makes its most forceful statements with the allocation of money and resources. In the past, insufficient institutional resources have been devoted to research and graduate education. To enhance the quality of graduate education, an environment must exist that provides faculty with a clear message that graduate education is important to the institution. Otherwise, the environment for research and graduate education will suffer and the University will not be viewed as having a serious commitment to graduate education.
A strong, high-quality graduate program is required to educate highly competitive scholars to meet both the current and future needs of the Commonwealth and Nation. Innovative graduate research programs develop new knowledge which can be immediately transferred to the classroom for educating undergraduate students. The role of the flagship University is to create new knowledge, not solely to disseminate knowledge to students. A synergism exists between the strength of the undergraduate and graduate programs. Undergraduates benefit from the new knowledge developed in graduate research programs and from interactions with quality faculty and graduate students who assist in their teaching. In addition, many undergraduate students have the opportunity to gain experience by collaborating in research activities with some of the nation's top scholars.

The reputations of major universities are dependent to a large degree on the quality of their research programs, faculty and graduate students. The core of a quality research university is its faculty and graduate programs. Program strength is equally dependent on the accomplishments of graduate students and faculty. Competitive research and graduate education programs are key to attaining the level of extramural funding and stature to which the University of Kentucky aspires. The level of extramural funding and the knowledge developed from research are key components which contribute to enhanced economic development of the Commonwealth. Efforts should be made by the University to increase the Commonwealth's understanding of the state-wide economic impact of graduate education and to increase its support for graduate education.

III. Interviews and Discussions with Individuals and Groups.

To obtain input from individuals concerned with issues of graduate education, the Committee scheduled an extended series of formal sessions. The time of each session was variable, but discussion was not limited because of time elements. The following were interviewed by the Committee:

- Vice President for Research and Graduate Studies.
- Chancellor of the Lexington Campus.
- Chancellor of the Medical Center.
- Dean of the Graduate School.
- Vice Chancellor for Research and Graduate Studies - Lexington Campus.
- Vice Chancellor for Research and Graduate Studies - Medical Center.
- Graduate Students (as a group).
- Directors of Graduate Studies and Chairs of Departments (as a group).
- Deans of the Colleges, Lexington Campus and Medical Center (as a group).
- Graduate Faculty (as a group).
- University Research Advisory Committee (as a group).
- Senate Council Ad Hoc Committee on the Status of Women (as a group).

- Panel on Diversity Issues composed of Associate Dean of the Graduate School for Recruitment and Diversity, Director of the Learning Services
Center, Chair of the Ad Hoc Committee on Minorities, and Special Assistant to the President for Academic Affairs.

The Committee solicited information from individual faculty members by phone, electronic mail or as written communications. As such input was received by individual committee members, it was communicated to the Committee at subsequent meetings.

IV. Written Resource Material Reviewed by the Committee.

The Committee reviewed a wide variety of written resource materials related to the overall graduate education program at the University of Kentucky, as well as national studies and reports related to graduate education.

The following is a partial list of documents reviewed by the Committee:

- University of Kentucky, Graduate School, Unit Self Study, 1988-93.
- Strategic Plan, University of Kentucky, March, 1993.
- President Wethington's Statement to the University Senate on Graduate Education, 1995.
- Annual Statistical Report, University of Kentucky Graduate School, Academic Year 1992-93.
- Annual Statistical Report, University of Kentucky Graduate School, Academic Year 1993-94.
- Annual Statistical Report, University of Kentucky Graduate School, Academic Year 1994-95.

Additional materials from unpublished surveys, journals, popular press articles and certain statistical data not included in the above list were provided to the Committee and reviewed by its members.

V. Current Status of the Graduate Program Relative to the University Strategic Plan.

In 1993 the University established the following Strategic Indicators for graduate education programs to be met within five years:

- Increase graduate student enrollment to 5,500.
- Increase doctoral enrollment to 1,850.
- Increase the annual number of graduate degrees awarded to 1,200, with 230 of
these being at the doctoral level.
- Increase the number of postdoctoral scholars to 130.

The University is progressing toward these goals, as indicated by the following graduate enrollment, composition and graduation data for 1995:

- Fall 1995 graduate student enrollment: 5,240.
- Fall 1995 doctoral student enrollment: 1,720.
- Total graduate degrees awarded in academic year 1994-95: 1,294.
- Fall 1995 postdoctoral scholars: 115.

The Committee feels that program quality, as discussed later, should drive numbers and that an overall enrollment cap is not warranted for graduate education at the University of Kentucky.

VI. Areas of Emphasis for Graduate Education.

To achieve the objectives delineated in the first section of this report, the Committee identified six key issues or "Areas of Emphasis" which will enhance the competitiveness, quality, production and efficiency of graduate education at the University of Kentucky. While the sources tapped for the preparation of this report were diverse, these six key categories resonated with the interviewees. These six "Areas of Emphasis" are as follows: (A) Quality of Graduate Students and of the Educational Experience, (B) Quality of Graduate Faculty and of the Research Environment, (C) Diversity, (D) Infrastructure Support, (E) Development (Fundraising), and (F) Program Accountability.

A. Quality of Graduate Students and of the Educational Experience

A quality graduate program must begin with the identification, recruitment, and retention of students of high academic potential. Ideally, all graduate programs at the University should be inundated with applications from highly qualified candidates; however, the competition with other institutions for the best students is intense, and incentives must be available to attract the top students. Offering high-quality educational opportunities to residents of the Commonwealth is an important goal, but it is also crucial that the base for recruiting students remain as broad as possible. Students from other areas of the United States, as well as international students, bring unique expertise and differing viewpoints to the University and make important contributions to the graduate educational experience.

1. Recruitment of Quality Students

Highly qualified students applying to universities nationwide will inevitably be provided with a number of attractive opportunities for graduate
education. A combination of factors is generally important to students deciding among these offers. Location of the institution, reputation of the faculty, program offerings, and other factors may be important, but graduate student support in all its forms inevitably ranks as the major consideration.

Without a well-designed plan and the infusion of new resources, little progress in this area can be expected.

a. Stipends

While other factors are important in attracting the most highly qualified applicants, competitive stipends for teaching and research assistants remain among the most significant influences on students' decisions when selecting a graduate institution. Moreover, it is this factor which will likely have the greatest impact on raising the general level of graduate education quality at the University. It is possible for prestigious universities with long-nurtured reputations to retain vigorous graduate education programs without truly competitive stipends, but these institutions are few in number. Although the Committee applauds the efforts of the Graduate School to increase graduate teaching assistants' salaries, stipends in some areas continue to lag and remain non-competitive. The ascent toward excellence in graduate education at the University must begin with competitive stipends for graduate assistants.

b. Tuition

While competitive stipends are the first step toward excellence in graduate education, finding the means to offer every full-time graduate assistant a tuition-free education is equally essential. Currently, two barriers exist at the University of Kentucky which prevent the attainment of this goal. The first of these barriers concerns the manner by which graduate assistants receive tuition support. The second centers on the lack of an in-state University supported tuition for all research assistants at the University of Kentucky. The former of these two problems will be addressed first.

Under current University policy, all tuition support is managed by the Graduate School and is dispensed by the means of tuition scholarships in lieu of tuition waivers (tax-free tuition waivers per se cannot exist under the current federal internal revenue laws). Full-time teaching assistants (20 hours a week) receive both in-state and out-of-state tuition scholarships, while full-time research assistants can only receive out-of-state tuition scholarships. Similarly, half-time graduate assistants receive only half of the particular scholarship.
Real dollars must be expended from each UK budget in order to support these tuition scholarships. Budgeting of tuition scholarships for teaching assistants is relatively simple since the number of TAs is nearly constant and controlled by the Graduate School on behalf of the Lexington Campus and the Medical Center. However, the number of research assistants is far more variable—a function of extramural funding, enrollment, departmental savings, etc. Thus, under the current scholarship policy, budgeting for out-of-state tuition scholarships for research assistants is more difficult.

Prior to 1992, the budget formula for out-of-state tuition scholarships included a built-in growth factor to account for increases in tuition, extramural funding, and graduate student enrollment. This growth factor was eliminated at the time of the 1992-1993 budget shortfall. As a result, the out-of-state tuition scholarship pool, as managed by the Dean of the Graduate School, has been inadequate. For the past three years, this shortfall has been funded by the Chancellor of the Lexington Campus.

As part of its charge, the Committee was asked to address the standing policy of graduate tuition scholarships and offer a resolution to the out-of-state tuition deficit. One solution was advocated last year by the Vice Chancellor for Research and the Chancellor of the Lexington Campus. Under their proposed policy change, only research assistants meeting certain criteria would receive out-of-state tuition scholarships. The Committee steadfastly opposes any such measure and strongly believes the adoption of such a proposal would result in irrevocable damage to out-of-state research assistants—a populace which needs to flourish rather than be pruned in order for the quality of graduate education to thrive at the University of Kentucky.

During the interview process, the committee learned that many nearby states (including Ohio, Indiana, and Iowa) have enacted statutes permitting graduate students to be considered as employees of the university and, therefore, are required to pay in-state tuition only. Thus, every out-of-state graduate student receiving support at a public institution in these states is granted, in essence, a tax-free tuition waiver in the amount of the school's out-of-state graduate tuition. Teaching assistants as well as research assistants are included. In fact, if the Council on Higher Education were to propose legislation to adopt measures similar to the laws in Ohio and Indiana, the deficit in the tuition scholarship balance would be erased.

By adopting such means to implement out-of-state tuition
support, an additional benefit is derived which would immediately impact the issue of competitiveness in recruiting top quality graduate students. Since current tuition scholarships are controlled by the Graduate School, Directors of Graduate Study are unable to make firm offers to prospective out-of-state students guaranteeing tuition benefits. This problem is immediately resolved with the adoption of the aforementioned out-of-state tuition legislation. This solution will, however, require some time to implement and, in the interim, the Committee proposes that all qualified graduate assistants be provided with out-of-state tuition scholarships.

The second tuition problem exists in the standing policy of granting in-state tuition scholarships to teaching assistants, but not extending the same offer to research assistants. This policy stems from a proposal by then Chancellor Gallaher who proposed in-state tuition scholarships for teaching assistants but omitted the inclusion of research assistants in this benefit package. This policy not only creates the appearance that research assistants are somehow less important to our graduate programs, but sometimes encourages the best students to migrate toward teaching assistantships rather than research assistantships in programs where both TAs and RAs are prevalent. Furthermore, in those programs having primarily research assistants, the top students are frequently lost to competing institutions in other states.

To remedy this situation, the Committee strongly urges that funds be made available so that all research assistants are entitled to the same tuition scholarship privileges as are their teaching assistant counterparts. The Committee ascertained that a figure of roughly $1,900,000 is required to effect this recommendation. However, according to the Dean of the Graduate School, this figure could be considerably less since no mechanism currently exists to request in-state tuition scholarships for RAs in extramural grant proposals. If an in-state tuition scholarship program for RAs were to be adopted, researchers could then budget for these scholarships in their extramural grant proposals, thereby reducing the required amount.

As a final remark, the Committee is cognizant of the budget request to fund in-state tuition for research assistants which the Graduate School has recently submitted. The Committee resolutely urges that this budget request be approved as soon as possible.

c. Fellowships, Scholarships, and Institutionally Funded
Research Assistants

Closely allied with the issue of quality graduate student recruitment and retention is the issue of fellowship and/or scholarship support. Currently, the Graduate School supports the following institutional fellowships: Dissertation Year Fellowships, Presidential Fellowships, Open Competition Fellowships, Enhancement Fellowships for Minorities and Women, the Lyman T. Johnson Fellowships, the Mathews and Singletary Fellowships. The Graduate School offers approximately 80 awards per year in these categories. In addition, the Graduate School offers approximately fifty $3000 Quality Achievement add-on awards to existing means of support (i.e., TA, RA, or fellowship) for outstanding students.

In the Committee interview sessions, nationally competitive fellowships were repeatedly mentioned as an effective means to recruit the best graduate applicants. In addition, concerns over the detrimental effect of heavy teaching responsibilities upon graduate education were also voiced. Clearly, supporting our best graduate prospects with fellowships alleviates this concern. The Committee found that the number and stipend amount of these fellowships is not competitive. These stipend levels, which are historically low, increased on average by barely $200 per month in the past six years, leaving the average stipend well below that of our benchmark institutions. The objectives regarding scholarship and graduate education within the University's strategic plan cannot be attained unless additional resources are found to secure a nationally competitive fellowship program.

One possible model to consider is that used successfully by the University in attracting National Merit Scholars into the undergraduate program. At present, the University budgets $1.5 million annually for merit scholarships for in-state students. A similar investment at the graduate education level will lead to a significant increase in the quality of graduate students from Kentucky pursuing graduate education at the University.

In a related issue, during the 1992 budget cut a policy was instituted to use indirect cost returns from research grants through UKRF to fund some 50 teaching assistants. The use of such funds to support the assistants is disturbing, and the Committee strongly urges the discontinuance of this policy. Nonetheless, the Committee recognizes the benefit of having the institution support research assistants, as is the practice in the Center for Computational
Sciences and the Center for Robotics and Manufacturing Systems. In fact, the Committee believes that the numbers of such positions should be increased in light of the decreasing pool of federal grant funding.

d. Summer, Research, and Travel Support

A recurring theme heard by the Committee was the lack of institutional support for graduate education during the summer. Not only does this include lack of formal support for most Directors of Graduate Study during the summer (see section on Infrastructure Support), but a lack of support for teaching assistants and fellowship recipients as well. The most productive time for teaching assistants in terms of research and scholarship is during the summer months when they are free of teaching and course work responsibilities. The committee endorses the pursuit of both internal and extramural funds to be applied towards summer support of graduate assistants.

To attract and retain excellent graduate students and to ensure their placement, the University must support their research programs while they are here in a variety of ways. Forms of support range from assistance in the purchase of research materials to travel to professional meetings to report the results of their work and network with colleagues. The Graduate School has traditionally maintained funds to provide such support. Unfortunately, this fund has always been relatively inadequate to the demands placed upon it by active graduate students, and in recent years actually has decreased.

The Committee recommends increasing the level of funding for research and travel support. Moreover, we recommend that the Graduate School develop procedures to fund requests based on an assessment of quality rather than the current system by which requests are funded in the order they are requested until funds are exhausted. The assessment process may be housed in the Graduate School itself or delegated to the academic colleges.

e. Health Insurance/Benefits

All UK students, undergraduate and graduate, are offered the same health insurance options. The graduate student body is very diverse and is comprised of many independent students with families. The present policy does not meet the needs of many graduate
students and is especially costly to students who are over 35 years of age and with families. The policy also does not cover injuries that occur in university-related activities. The Committee recommends that the University make available to the graduate student body a health insurance package comparable to the one offered faculty and staff. If RAs and TAs (~20% of graduate student body) were to be classified as employees, they could at least take advantage of the employee health insurance benefits. The Committee recommends that, at a minimum, the University should offer graduate students the opportunity to purchase health insurance benefits that specifically address the needs of graduate students and that are comparable to the policies offered faculty. Furthermore, it is hoped that graduate assistants would be entitled to some subsidy of the costs associated with such policies, similar to regular employees.

f. Additional Considerations

As a result of conducting extensive interviews with personnel essential to the recruitment process (including an open meeting with graduate students), a number of issues related to recruiting emerged. Several suggestions were made in regard to removing bureaucratic obstacles which hinder recruiting efforts. For example, the Committee heard recommendations concerning the streamlining of the current application procedure to the Graduate School. Specifically, the application process was seen as a possible deterrent to graduate students when compared to the process at other benchmark institutions. The recent move by the Graduate School toward a more visible presence on the World Wide Web, including the (hopefully near-term) development of an electronic application procedure, is a measure to counteract this deficiency.

The diversity of programs on campus dictates that decisions regarding admission criteria and approaches to the recruitment of students must be made by individual programs. However, the Graduate School should play an important role in coordinating these efforts and setting minimum standards for admission. The minimum standards for admission should be increased and, when possible, individual interviews of applicants to graduate degree programs is recommended.

2. Retention of Graduate Students

While the recruitment of highly qualified graduate students is a significant initial step in enhancing the quality of graduate education at the University, equally important is assuring that these students are able to complete degree programs. Efforts must be made to eliminate barriers for students working toward degrees so that they can fulfill the degree
requirements within a reasonable time period.

Many graduate students at the University of Kentucky perform important educational functions by serving as teaching assistants while they are pursuing their advanced degrees. From the discussions the Committee had with various segments of the academic community, it became apparent that teaching assignments varied greatly within programs and from program to program. In fact, workloads of many graduate students are unreasonably large to expect simultaneous satisfactory progress toward a degree. These high workloads clearly have adverse effects on some programs and act as a negative factor in the recruitment of students. Moreover, it seems inevitable that excessive teaching loads will also have a deleterious impact on the quality of teaching these teaching assistants provide. The University must move toward more uniform workload expectations for teaching assistants; these expectations must also be in keeping with the goals of permitting students thus employed to finish a graduate degree within a reasonable time frame.

A problem noted by several faculty members and some graduate students was the inability to offer requisite courses on a regular basis for their degree programs. In some instances, the faculty of the program are overextended and more faculty involvement in the graduate program is clearly warranted. In others, an insufficient number of students (five enrolled students is the minimum number required to offer a graduate course in all colleges) is available on a recurring basis to justify offering some courses. While careful advanced planning of the curriculum will alleviate these problems in some cases, a general solution must be sought.

3. Quality of Graduate Programs

Assessment of graduate programs reveals many factors that contribute to the quality of graduate education. The reputation of colleagues including peers, faculty, and postdoctoral scholars plays a major role in recruitment of competitive graduate students. Further, the nature of interactions of graduate students with colleagues impacts retention and performance. A collegial, nurturing, yet competitive, environment is essential. This review of the graduate student environment at the University of Kentucky has identified areas of concern that impact graduate programs.

As noted earlier, course offerings that meet the needs of individual students attempting to complete their graduate programs in a timely fashion have been disrupted by a variety of demands on the faculty. Course offerings responsive to employment needs are often limited. An example of this problem is the need to prepare future faculty for institutions of higher learning that are not research-based universities. Quality programs for this type of doctoral degree are not in place and it is a recommendation of this Committee that a solution to this deficiency be sought. New technologies in
communications now allow for development of course offerings to enhance graduate education at off campus sites, but these offerings are very limited at present.

Availability and management of facilities is another important component of the graduate student experience. Key issues of concern to graduate students of the University of Kentucky are state-of-the-art facilities (see Section D - Infrastructure Support) including the library and its holdings, computational facilities and access to them, laboratories and instrumentation, and office space. Service to students, such as support staff for library holdings, and an improved spirit of service in general from administration, staff, and faculty is very important.

The quality of graduate programs is dependent on critical, objective evaluation, followed by implementation of recommendations. Program evaluation standards must be established and employed to determine which programs are performing at competitive levels and are thus deserving of the limited resources available to support graduate programs.

Recommendations on Quality of Graduate Students and of the Educational Experience

The Committee strongly recommends that:

- The University offer competitive stipends for graduate students serving the University as graduate assistants. Graduate stipends should be increased to a level which is at least equal to the median of our benchmark institutions. However, the Committee believes stipends should be increased beyond the benchmark average if we hope to be competitive with the best research institutions and to achieve the scholarship goals outlined in the University's Strategic Plan.
- Funding be sought immediately for in-state tuition scholarships for all graduate research assistants as is currently provided for teaching assistants.
- The administration urge the Council on Higher Education to develop and propose legislation similar to the programs in Ohio and Indiana regarding "waivers" for out-of-state tuition for all graduate assistants. In parallel with this effort, as a stop-gap measure, the Committee recommends that funding for the out-of-state tuition pool for graduate assistants be provided, including the inherent annual increase to account for growth in tuition costs and graduate student numbers.
- The University initiate a recruitment program for highly qualified graduate students, similar to the successful program used to recruit National Merit..
Scholars at the undergraduate level.

- In addition to increasing graduate student support and stipends, other incentives, including scholarships and fellowships, must be provided.
- At a minimum, all graduate students be permitted to purchase the same health insurance policies offered to UK faculty and staff.
- A system of more uniform workloads for teaching assistants should be instituted.
- While admission standards should be determined by the various program areas, minimum standards for admission into graduate programs should be increased.

B. Quality of Graduate Faculty and of the Research Environment

To enhance the quality of graduate education, an environment must exist that provides faculty with a clear message that graduate education is important to the institution. Many faculty perceive that such an environment does not exist at the University of Kentucky. As a result, the Committee feels strongly that an institutional effort must be made to assure all faculty that graduate education is valued at this institution. This environment is created by numerous intangibles as well as by the allocation of resources. It is difficult to point to one specific item or items. Clearly, however, no one questions that graduate education and research are foremost in the mission of the University of North Carolina, for example. The University of Kentucky needs to promote an environment which enhances graduate education and research. Faculty represent the engine that drives graduate education, therefore, the University controls faculty excellence at the levels of recruitment and development.

1. Faculty Recruitment

The University of Kentucky has traditionally done well in recruiting outstanding entry-level faculty. Clearly, that means that the University has been capable of meeting market conditions in entry level salaries, start-up funding, facilities, and initial fringe benefits package. Recently, however, even in arts and humanities, where start-up costs are generally modest, they have been lacking. Moreover, in many areas of the sciences, start-up costs have been woefully inadequate, often resulting in vacancies which cannot be filled. In addition, the failure of the University to maintain competitive salaries for existing faculty, to nurture faculty development, and to maintain an environment perceived as supportive of graduate education is often perceived by prospective candidates and inhibits effective recruitment.

Another factor that frequently acts as a barrier to recruiting and retaining faculty is the "trailing spouse." Highly qualified faculty recruits often choose not to come to the University of Kentucky because their partner is employed elsewhere and cannot find employment in Lexington or because two faculty positions are required and only one is available. While the
Career Center has been helpful, its successes are limited and of little help for two-faculty families. To help solve the problem of recruitment of outstanding two-faculty families, the Committee recommends that the University adopt a policy that has been employed successfully at other universities by providing an appropriate position in another department or center. Such an effort would do much to augment our recruitment initiatives.

2. Faculty Retention

The University has often had difficulties in the retention of outstanding faculty. It is common to hear the comment, "The University of Kentucky is great at training faculty for other institutions." As these faculty leave, the University generally hires an entry level assistant professor. While the Committee is supportive of the investment in attracting outstanding faculty to campus, it recommends that the University improve its approach to the retention of outstanding faculty. To achieve this, the University will have to improve the environment for research and graduate education, adopt a proactive rather than a reactive philosophy to faculty retention, recognize and deal with salary compression, and use its resources in a more effective and selective manner.

The Committee believes that the key to this approach must begin with the department chairs and the center/program directors. Too often it appears as though the University reacts to its outstanding faculty's behavior rather than being consciously aware of that behavior and rewarding it continuously. Chairs and program directors are perhaps the essential link in creating an environment which encourages graduate education and scholarly productivity. However, chairs frequently do not have the resources or training to do their jobs effectively. The Committee recommends that three things be done to correct this problem: first, the position of chair be given sufficient resources and rewards to attract better candidates; second, the institution adopt a professional development program for chairs; and third, that a part of the evaluation of chairs be related to their leadership in promoting faculty development and retention. Such training programs for chairs are already available in many disciplines and provide insights into resource management, reward allocation, people management, and strategic planning. If chairs had professional development programs available, the Committee believes they would be better managers and more effective in dealing with faculty development. Chairs should be provided resources that would permit them to reward faculty in a variety of ways. The chair should have the best perception of what his/her faculty require to stay productive in graduate education and scholarly activities.

As stated above, the loss of outstanding faculty generally leads to the recruitment of junior faculty who, while having great potential, are untried. Given salary compression and current market conditions in many academic
disciplines, the Committee recommends that, where appropriate, the University hire associate or full professors rather than hiring at the entry level, particularly in doctoral program departments. Faculty with proven track records will cost more initially than entry-level faculty, but the net cost of such faculty in the long-term actually may be less. Furthermore, hiring faculty at the more senior level provides a clear signal to other faculty that the University is serious about graduate education and research.

While the University of Kentucky has many outstanding faculty, it has few "stars." For example, in the sciences the University currently has only one member of the National Academy of Sciences, but this individual will retire in 1996. Such individuals are essential to attract the finest faculty and students since they provide a focus around which other faculty develop and are nurtured. It is crucial that the University begin to attract such faculty if we are to move research and graduate education to the next level. Therefore, the Committee recommends that an aggressive development program be initiated to create five endowed chairs or professorships per year over the next ten years to attract fifty outstanding scholars to our campus. This initiative would have an exceptional impact on the institution.

### Recommendations on Quality of Graduate Faculty and of the Research Environment

The Committee recommends that:

- The University increase efforts to retain its outstanding senior research faculty.
- A professional development program be provided for all departmental chairs and center directors, and allow increased discretion over resources allocated to them so they can reward productive faculty.
- The University, through the development process, create five chairs or professorships per year over the next ten years as a means of attracting outstanding scholars to the University of Kentucky.
- The University adopt a policy of providing positions for qualified "trailing faculty spouses."

### C. Diversity

The Committee encourages the University of Kentucky to continue its efforts to establish a genuinely diverse and hospitable learning environment. African American students and faculty, international students, non-traditional students, economically disadvantaged students, and men and women in programs in which they have been traditionally underrepresented need the University’s unwavering
support academically as well as financially. The University must be persistent and creative in seeking ways to promote diversity and to establish a supportive climate, regardless of race, class, gender, or culture. Certainly, different strategies and goals will have to be employed to attract minority faculty and graduate students who will contribute to the advancement of the local intellectual community.

The University has taken some positive steps to foster diversity. The Office of Recruitment and Diversity and Fellowship Programs have contributed significantly to the University’s diversity efforts. However, based on the 1994-95 Annual Statistical Report, it is clear that there is much work to be done. There are still a significant number of graduate student programs across the campus which have experienced minimal diversity. Given the challenges of recruitment, it is apparent that a more coordinated effort must be organized in order to establish a critical mass of students.

The Office of Recruitment and Diversity deserves high marks for the work it is doing, especially since the Associate Dean’s position is only part-time. However, this Office should not be expected to bear the sole responsibility of promoting a multicultural environment at the University of Kentucky. Deans, Chairs, Directors of Graduate Study, and even graduate students must get more actively involved in the recruiting effort. This concerted effort should include systemic plans which involve accountability at the department and college levels. This effort must be augmented by a long-term commitment at the University level as has been articulated in the University’s Strategic Plan. Elevating the Associate Dean’s position in the Office of Recruitment and Diversity to full time would be a positive development considering the growth expectation and support system necessary to establish a more diverse student-centered community. Moreover, the Office of Recruitment and Diversity must be assured of receiving a recurring budget.

The University should aggressively seek ways to recruit more women and African American senior faculty who bring research reputations that will draw a more diverse graduate student body. Senior faculty are needed to mentor African American and women graduate students. Lack of minority senior faculty reduces the pool of qualified graduate students who may have otherwise been interested in attending the University of Kentucky.

Equally important as recruitment is the retention of minority faculty and graduate students. The University’s climate must continually improve in order to assure success with retention efforts. While 58.6% of all master’s degrees are awarded to women, only 37.1% of all doctoral degrees are awarded to women (1993-94 data from UK Graduate School). A doctoral student cohort was followed over the 10-year period beginning in 1984-85 and ending in 1995. Among this cohort, 80% of men and 67.4% of women passed their qualifying exam while 65.8% of men and 54.7% of women earned their doctorate. The reasons for the under-representation of women in the doctoral program and the lower completion rate by women are unclear and need further study.
The Committee believes that the climate minorities and women graduate students encounter at this university is a factor related to their retention. According to the 1991 SACS Self-Study of graduate students, more women than men experienced comments of a sexual/racial nature being made on campus. These problems have to be addressed for the University to be successful in its retention efforts. While programs to deal with these issues have been initiated in some Colleges, they must be expanded throughout the University.

Another issue affecting the retention of minority graduate students involves financial problems which often force them to abandon their graduate studies. Fellowship and scholarship programs such as the recently initiated Commonwealth Incentive Awards for minorities and women must be assured of receiving a recurring budget. This is extremely necessary for establishing a critical mass of students.

Additionally, retention efforts would also improve with the organization of a support system (e.g., mentoring programs, community family program) that will ease the adjustment for minorities who are new to the community. If organized properly, this program could be rewarding for students and faculty, and at the same time build bridges to Lexington's African American community.

The organization of a support system would also demonstrate the University's effort to retain and encourage the scholarly growth of African American faculty. It could acquaint new faculty with the University's policies and procedures and offer advice on teaching, research, and the tenure process. Minority faculty are expected to make various contributions to the campus and community. Efforts should be made to ensure that their committee and service responsibilities are commensurate with those of other faculty. Moreover, the commitment to retain outstanding minority faculty should be reflected in merit raises, research support, and professional treatment of these scholars. A number of African American faculty leave the University before they are considered for tenure. The University must focus on recruitment and retention of minority faculty or the effort to achieve graduate student/faculty diversity will proceed at a slow pace.

It will be necessary to expand services for nontraditional and part-time students. Services should be expanded to include, as examples, available on-campus child care (including expanded hours in the evening), more available night classes, and high-security, in-close parking for commuting students.

Although the Strategic Plan includes a comprehensive statement in support of diversity, it is imperative that the University be more aggressive in institutionalizing efforts to make this goal a reality. Diversity is an asset to competing in an expanding world market. Similarly, it is absolutely necessary for the University of Kentucky to incorporate the talent and skills of a diverse society in order to establish a strong graduate program.
Recommendations on Diversity

The Committee recommends that:

- Institutional data relevant to the graduate program be collected and analyzed by gender, race and gender/race to monitor gender and race issues.
- Task forces be utilized to propose strategies to improve the climate and reduce the attrition rates of women and minorities.
- Educational programs and information on policies regarding sexual harassment and discrimination be provided for faculty, staff and graduate students.
- Systemic plans be developed to recruit and retain minority graduate students which involve accountability at the Department and College levels, and the larger University commitment to this goal be demonstrated by strengthening the resource base for these programs.
- The University aggressively recruit additional women and African American senior faculty, including endowed chairs and professorships, that will attract a more diverse graduate student body.
- A support system be organized which will ease the adjustment for minorities new to the community (such as, mentoring programs, community family program).

D. Infrastructure Support

A vital and integral aspect of graduate education at the University of Kentucky is its infrastructure and supporting programs, such as information and computer technology, research facilities, library resources, grant support programs and procedures, teaching assistantship allocation policies, travel assistance, and administrative and staff support. Even the strongest graduate program will be impaired if the supporting personnel, programs, and procedures undermine the program's objectives. In reviewing this University's graduate education infrastructure, this committee identified the following areas requiring attention:

1. Computer and Information Technology

An issue for both faculty and graduate students alike is the lack of connectivity in graduate offices. Access to the World Wide Web, gopher database services, and other on-line services is essential to the conduct of research in nearly every graduate program offered at the University of Kentucky. In terms of recruiting the best graduate students, Internet access is simply an expectation.

The Committee does not believe that a computer on the desk of every graduate student (or even every faculty member) is an entitlement. However, the Committee does feel that the University should be more aggressive in offering students and faculty the opportunity to purchase
computers at cost. The purchase of high performance/high visibility computational engines should not supplant the fundamental need for basic connectivity to every graduate assistant and research faculty member. Simply stated, the Committee strongly believes that ethernet connectivity should be viewed by the administration as a fundamental utility as necessary to the conduct of quality scholarship as electricity, heat, or lighting. The Committee discovered general disenchantment with the level of user support and responsiveness.

2. Research Facilities

The Committee observed much concern over the state of existing research facilities and the need for renovation/modernization. Inadequate or antiquated research facilities are insurmountable barriers to the competitive recruitment of both future faculty and graduate students as well as to the retention of our best research faculty. The 1986 $20 million bond issue for the acquisition of specialized research equipment had an incontestable, positive impact on the quality of graduate education and research at the University of Kentucky. However, the bond issue occurred ten years ago and, while the University at that time supported instituting a recurring means for major equipment acquisition, this has not been done. Moreover, support for the current research emphasis of many new faculty is woefully inadequate.

3. Library

Common complaints among graduate students and faculty were that especially front-line staff of the library were woefully undertrained. Large numbers of uncataloged materials were being stacked in the central library basement and the library’s on-line catalog failed to include materials from one or more associated libraries in the area.

4. Research Support Services and Research Accounting

Faculty opinions regarding Research Support Services were disparate. While relations between some departments and research support personnel were positive, research faculty in other departments have encountered extreme difficulties from certain personnel, particularly when dealing with non-traditional funding agencies. With the uncertainties surrounding the future of federal funding, the process of procuring extramural funding from non-traditional sources must be streamlined. Moreover, the system used in research accounting must be modernized so that departments are not required to maintain independent records for current and accurate financial information.

5. Directors of Graduate Studies Summer Support
Course reduction or other modest measures generally have been used by Colleges to compensate directors of graduate studies for their extra work load. The Committee found pervasive support from faculty and administrators who were interviewed that the accumulating work responsibilities borne by most directors of graduate studies--and certainly those with large doctoral programs--had effectively transformed their position into a year-round appointment.

**Recommendations for Improvement of Infrastructure Support**

- The University expeditiously complete the ethernet networking of all faculty, graduate student offices and classrooms.
- The University continue to sponsor internal research facility enhancements such as Research Committee Grants, Research Maintenance Contracts, and Major Research Equipment Competitions.
- The University channel a greater percentage of renovation funds into research and graduate laboratory modernization.
- The University lobby for a bond issue similar to the 1986 directive for procurement of major research equipment and that a five-year recurring program for the acquisition of such equipment be permanently adopted.
- The library director augment training of library personnel to promote a more user-friendly attitude among its staff to assist graduate students and faculty in their research and teaching responsibilities.
- The library director hasten the cataloging of library materials, especially the accumulating materials in the Government Documents section, to make research sources more readily available for graduate students and faculty.
- Cross-referencing of library resources at the Lexington Theological Seminary be instituted.
- The President appoint a committee to review and evaluate Research Accounting at the University and recommend processes to modernize and streamline procedures.
- The University include in its annual budget funds sufficient for summer compensation to directors of graduate studies appropriate to their workload.

**E. Development (Fundraising)**

The discussions resulting from interviews by this committee support and amplify the findings and recommendations put forth in the most recent University Self Study, Section 3, on Resources Related to the Support of Graduate Education, which states that "severe resource limitation" is a striking feature of graduate education at this institution. Thus, it is clear that an infusion of a considerable amount of new resources is required to establish an environment that encourages competitive graduate education and research at the University of Kentucky.
Without a doubt, the Commonwealth of Kentucky has a responsibility to support graduate education. Clearly, as outlined throughout this document, additional funds are required beyond what the Commonwealth can support. Thus, the University should add to its development plan as a high priority the raising of endowment funds directed to support graduate fellowships, endowed chairs and professorships.

**Recommendation for Development (Fundraising)**

The Committee recommends that:

- The University add to its development plan as a high priority the raising of endowment funds directed to support graduate fellowships and endowed chairs and professorships.

**F. Program Accountability**

In addition to the pressing needs for resources and support outlined above, there are a number of initiatives the Committee recommends to ensure accountability and the best use of these resources.

1. **Enhanced Program Review Procedures.**

   New demands for accountability in higher education are made daily. Strategic decisions of the sort suggested in this report demand high quality information about our programs and practices. While current program reviews have been honest and helpful, the Committee recommends an enhanced graduate program review process to provide the data base for the difficult decisions that await us in the near and far term. Some of the suggested procedures are currently employed in selected reviews. They need to be made a part of all reviews.

   Program review teams should include experts from outside the University as well as internal colleagues from related disciplines, selected by the program in consultation with the Dean of the Graduate School. Internal program reviews would become a part, and only a part, of the data employed by the team. Program reviews which include identification of action items endorsed by the University (e.g., to develop program areas, address deficiencies) would require a midterm review by selected members of the review team to assess progress.

   Finally, realistic program reviews should become explicit parts of justifications for any addition or reduction in program size or support. The Committee notes that a major problem in the current review process is the failure to take seriously review recommendations. Without implementation of recommendations the process is truly inconsequential.
2. **Setting Priorities.**

The type of excellence we all seek cannot be achieved without some setting of priorities for allocation of new, and reallocation of existing resources. Equally shared mediocrity is a goal none of us seek. The Committee recommends the following process for identifying priority areas for enhancement.

a. The priority-setting process should be a bottom-up process organized around a graduate faculty charged with the goal of recommending areas for enhancement.

b. The process should ask the following types of questions: Where are current areas of strength that warrant enhancement? What areas of opportunity exist where quick action could greatly enhance our contributions, reputation, resources, or quality? Are there areas of weakness that we must enhance to fulfill our mission? Do we anticipate threats or demands being made on the institution that should be addressed now through program development? Where are the areas of need for those with graduate degrees (as indicated by placement records, trend analyses\(^1\), and so on)? Of course, all these questions should be asked within the context of the University’s Strategic Plan.

c. Once areas are identified for enhancement, new and reallocated resources should be devoted to the following:
- appointment of senior scholars
- priority support for graduate students
- investment in facilities.

3. **Encouraging Multidisciplinary Efforts.**

The Committee begins this section with a caveat. Effective multidisciplinary efforts demand quality in the core programs that join to form them. Caution must be exercised so that resources are not drained from the latter in a misguided attempt to create the former. Having said that, the Committee recognizes that in a time of shrinking extramural funding sources and increasing demands for Ph.D.s with broader, more versatile skills, the University must aggressively encourage multidisciplinary research and teaching efforts at the graduate level.

In addition to facilitation strategies, the University must remove barriers to multidisciplinary efforts. The best example presented to the Committee of such a barrier was the current policies the Council on Higher Education uses to credit graduate degrees. These require that graduate students working in multidisciplinary centers only be “credited” to one academic home. The result is that faculty and academic programs which provide most or all of the financial and facility support for these students often receive no credit for the effort or the degrees produced. Clearly, such policies discourage participation in multidisciplinary efforts to the detriment of students, graduate education, the University and the society such efforts aim to serve. Hence, the Committee recommends that the President and his staff work with the Council on Higher Education and Academic Deans to revise reporting procedures to allow appropriate division of graduate student effort between academic departments and multidisciplinary centers and institutes.

**Program Accountability Recommendations:**

The Committee recommends that:

- Reviewers from other institutions be included on all graduate program reviews.
- Reporting procedures be revised to allow appropriate division of graduate student effort between academic departments and multidisciplinary centers and institutes.
- Priority areas for investment in graduate education consistent with the mission and strengths of the institution be identified.

**VII. Strategic Areas for the Future Development of Graduate Education**

The Committee's review makes clear there are important areas of concern in need of immediate debate and action to ensure the continued health of graduate education at the University of Kentucky. The Committee is not prepared to make specific recommendations in these areas because they must arise from a conversation that fully engages the graduate faculty and the administration. Although recommendations are not being made for these areas, the Committee believes they are important concerns and strongly recommends efforts be made to place these issues prominently on the University's agenda.

1. **Rethinking the Form of the Master's Degree.**

   As the University strives to improve the quality, clarify the focus, and enhance the contributions of graduate education, it needs to rethink some traditional structures. Most analyses suggest one of the real “growth” areas for graduate education in the next decade will be in providing more focused and
applied master's degrees. In addition, legitimate questions are being asked about the role of the traditional master's degree that serves primarily as a prerequisite for the doctoral degree. The Committee recommends that programs be encouraged to consider the creation of more focused/applied master's programs to meet the present and future needs of external constituencies. Some programs may restructure current master's degree toward this end. All programs should be encouraged to assess the function of current master's degrees with an eye to elimination of some.

2. Strategic Allocation of Teaching/Research Assistant Resources.

Rigorous program reviews, tied to the University's Strategic Plan identifying areas of priority and excellence, should drive the allocation of institutional resources for teaching and research assistants. Clearly, selected programs have large undergraduate teaching needs driven by service courses. Alternative approaches to meeting these teaching needs should be explored. The allocation of teaching and research assistants to programs with and without large service teaching demands must ultimately be guided by strategic efforts to enhance excellence in graduate education, not undergraduate teaching needs.


The question, of course, is not whether, but how programs will integrate new communication technologies into the practice of graduate education. From the use of instructional technologies on campus to distance education, to rethinking the nature of the education process itself as a more learner-centered process, the promise of change is both exciting and daunting.

Currently, inadequate attention is being paid to providing on-campus facilities and support services to those attempting to make effective use of instructional technology. Policies that encompass both on-campus enhancement of access to the latest communication technologies and enhanced remote access will prove most effective and economical. In implementing such a comprehensive policy, the University must always keep at center-stage the concern for quality and its role as the primary provider of graduate education in the State. In developing guidelines to address these concerns, the University need not reinvent the wheel. A number of organizations have produced guidelines in this area which can be adapted to meet current needs (e.g., see the guiding principles for distance learning just released by the American Council on Education). Most important, a clear set of principles must guide our decision about how and what to offer in a distance learning format. Assuming the ongoing development of such a set of principles, the Committee recommends the following in regard to graduate distance education,

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especially:

- procedures be developed to ensure that all proposed and existing offerings of credit courses and degree programs in a distance education format undergo full review by appropriate committees of the graduate faculty, the graduate council, and the graduate dean before implementation (even if the course or program currently is offered on-campus).
- creation of a task force with strong graduate faculty representation to work with other higher education institutions in the state to remove institutional barriers to cooperation in the delivery of distance graduate education (e.g., policies to guarantee equitable distribution of costs and income from such programs).
- development of policies that both recognize (e.g., through distribution of effort agreements) and reward the additional effort required to develop and offer graduate education in distance education formats.

New communication and instructional technologies promise to transform higher education in both on-campus and distance learning programs. No one can anticipate the full range of such changes. At the least, the community must maintain a dialogue about our principles, put in place procedures that ensure full review of offerings by the graduate faculty, cooperate with our sister institutions, and ensure fair policies in our evaluation of faculty effort in this area.

VIII. Summary of Prioritized Recommendations for Graduate Program Enhancement.

To move graduate education at the University of Kentucky to the next level and meet the needs of the Commonwealth and nation in the future, specific actions are needed. Many factors will influence the implementation of recommendations in this report. However, a plan must be developed to resolve existing problems and increase our competitiveness in research and graduate education for the future. The recommendations are grouped into (1) those requiring immediate attention, and (2) subsidiary recommendations which are also important to the long-term viability of graduate education at the University. Specific recommendations are made which respond aggressively to the lack of attention given to graduate education at the University of Kentucky in the past.

A. The following highest priority recommendations are listed in rank order and should be addressed as soon as feasible. The Committee unanimously recommends that:

- Funding be sought immediately for in-state tuition scholarships for all graduate research assistants as is currently provided for teaching assistants.
- The administration urge the Council on Higher Education to develop and
propose legislation similar to the programs in Ohio and Indiana regarding "waivers" for out-of-state tuition for all graduate assistants. In parallel with this effort, as a stop-gap measure, the committee recommends that funding for the out-of-state tuition pool for graduate assistants be provided, including the inherent annual increase to account for growth in tuition costs and graduate student numbers.

- Competitive stipends be offered for graduate students serving the University as graduate assistants. Graduate stipends should be increased to a level which is at least equal to the median of our benchmark institutions and other incentives, including scholarships and fellowships, must be provided.
- The University, through the development process, create five chairs or professorships per year over the next ten years as a means of attracting and retaining outstanding scholars to the University of Kentucky.
- The University create a multiyear fellowship program for highly qualified graduate students, similar to the successful program used to recruit National Merit Scholars at the undergraduate level.
- At a minimum, all graduate students be permitted to purchase the same health insurance benefits offered to University of Kentucky faculty and staff.
- The University increase efforts to retain its outstanding senior research faculty through the addition and reallocation of institutional resources.

- Systemic plans which involve accountability at the Department and College levels be developed to recruit and retain minority graduate students, and the larger University commitment to this goal be demonstrated by strengthening the resource base for these programs.
- The University lobby for a bond issue similar to the 1986 directive for procurement of major research equipment and that a five-year recurring program for the acquisition of such equipment be permanently adopted.
- The University aggressively recruit additional women and African American senior faculty, including the use of endowed chairs and professorships, that will attract a more diverse graduate student body.

B. The following recommendations are necessary for the long-term health of graduate education. The recommendations are listed by "Area of Emphasis" as discussed in the report and are ranked in priority order within each area. The Committee further unanimously recommends that:

Quality of Graduate Student and of the Educational Experience.

- A system of more uniform workloads for teaching assistants be instituted.
- While admission standards should be determined by the various program areas, minimum standards for admission into graduate programs should be increased.
Quality of Graduate Faculty and of the Research Environment.

- A professional development program be provided for all departmental chairs and center directors.
- The University adopt a policy of providing positions for qualified "trailing faculty spouses."

Diversity.

- A support system be organized which will ease the adjustment for minorities new to the community (such as mentoring programs, community family program).
- Educational programs and information on policies regarding sexual harassment and discrimination be provided for faculty, staff and graduate students.
- Task forces be utilized to propose strategies to improve the climate and reduce the attrition rates of women and minorities.
- Institutional data relevant to the graduate program be collected and analyzed by gender, race and gender/race to monitor gender and race issues.

Infrastructure Support.

- The University include in its annual budget funds sufficient for summer compensation to directors of graduate studies appropriate to their workload.
- The University expeditiously complete the ethernet networking of all faculty, graduate student offices and classrooms.
- The University continue to sponsor internal research facility enhancements such as Research Committee Grants, Research Maintenance Contracts, and Major Research Equipment Competitions.
- The President appoint a committee to review and evaluate Research Accounting at the University and recommend processes to modernize and streamline procedures.
- The University channel a greater percentage of renovation funds into research and graduate laboratory modernization.
- The library director augment training of library personnel to promote a more user-friendly attitude among its staff to assist graduate students and faculty in their research and teaching responsibilities.
- The library director hasten the cataloging of library materials, especially the accumulating materials in the Government Documents section and cross-reference library resources at the Lexington Theological Seminary.

Program Accountability.

- Priority areas for investment in graduate education consistent with the
mission and strengths of the institution be identified.

- Reporting procedures be revised to allow appropriate division of graduate student effort between academic departments and multidisciplinary centers and institutes.
- Reviewers from other institutions be included on all graduate program reviews.

Sincere appreciation is expressed to Melanie Collins for her conscientious efforts in providing staff support to the Committee.

This report was submitted to President Charles T. Wethington, Jr. by the Committee on Graduate Education May 1, 1996.

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