

Executive summary

Doctoral education is critical to the educational and research missions of The University of Kansas, in that it prepares future thinkers, researchers, discoverers, innovators, creators, and educators. The doctoral students of today will be the next generation of humanists, scientists, artists – the researchers and innovators – of our nation and world. Our success in doctoral education defines our standing as a research institution, and our graduate students make it possible for us to complete the research and scholarship of today while at the same time creating tomorrow’s scholars.

The aim to elevate doctoral education at KU recognizes that the core goal of doctoral education is to “prepare citizen scholars as innovators of knowledge ready to enter the workforce and take a leadership role in meeting the needs and demands of the academy and the global society.” This is the overall goal proposed here.

Six Outcomes follow from this overarching goal, and lead to specific strategic action items to help us attain these outcomes. The Outcomes focus on *data-driven planning, standards* and *accountability* in programs, excellence in *mentoring, funding* for doctoral programs, *curricular design* and scrutiny, and *recruitment* of a diverse body of students.

Outcomes

1. Rigorous data-based planning and accountability for doctoral education.
2. Establishment of standards for milestones, completion, time to degree, outcomes, and placement.
3. Mentoring of students to become professionals and scholars inside and outside academia.
4. A comprehensive and sustainable funding model for doctoral education.
5. Engagement of alumni, their employers, and other stakeholders in refining curriculum and extracurricular opportunities for doctoral students.
6. Increased diversity of graduate student body and of graduates.

The Goal and Outcomes frame a set of proposed strategic actions and metrics for success in attaining the overarching Goal. KU’s strategic plan for doctoral education centers on four action items, including: (i) data-driven decision making, (ii) a comprehensive recruitment plan, (iii) a comprehensive and sustainable funding model for doctoral education, and (iv) the sizing of programs for appropriate mentoring and job placement prospects. The strategic action items proposed in this document are formed with the recognition that doctoral education is best managed at the department or program level; goals and actions must be determined and shaped at the discipline level. Thus, while central support for the strategic plan is necessary, many of the action items must be enacted and managed at the program level.

Background

KU is classified as a research university, very high research activity (Carnegie Classification of Institutions of Higher Education). As with any research university, its doctoral programs are critical to its success and standing among research universities in the United States. Moreover, the University's membership in the Association of American Universities (AAU) depends upon the research and doctoral program productivity of its faculty and students. Keeping research productivity high, and maintaining excellence in doctoral programs, are critical to the future of the institution. The strategic plan discussed in this document outlines a path toward excellence in doctoral education and training.

Understanding the state of doctoral education at KU requires integrating many sources of information, including: analyses of centrally-collected student data, admissions data, program progress data, outcomes data, the 2009 Graduate Student Satisfaction Survey (GSSS) of all currently enrolled graduate students, and national rankings such as the National Research Council's (NRC) Assessment of Research Doctoral Programs. The several sources of information paint a consistent picture:

- *Departments and programs vary greatly in quality* as measured by national rankings, selectivity of graduate admissions, funding availability, curricular coherence and consistency, mentor/advisee ratio, student satisfaction and completion/attrition rates, time to degree, and post-graduation placement. Several programs appear at or near the top of national rankings; many dwell in the lower half of the top-100 or the mid- to lower quartile of the country in the recent NRC ratings and rankings¹. The variation suggests that the University of Kansas has the ability to develop and maintain academic and research excellence, but does not or cannot necessarily exercise that ability consistently across its programs.
- *Funding shortages are endemic*. Funding for doctoral programs is inadequate. Recruiting the best students requires multi-year funding packages, the norm in the best doctoral programs nationwide. While some KU doctoral programs are able to make such recruitment offers, many either cannot or do not.
- *Merely adding funding would not solve all existing problems*. Research has shown that the biggest predictor of completion is active advising, not funding². Programs must address inconsistencies in advising and mentoring, curricular bottlenecks that lengthen time to degree and affect completion, and detrimental policies and practices that slow progress and hamper completion. Additional funding for graduate education is critical, but must be tied to specific strategic plans to improve recruitment, curriculum, advising, mentoring, completion and post-graduation placement.
- *Research must have primary importance in doctoral programs and in doctoral students' lives*. In some doctoral programs, teaching and other employment leave little time or attention for research. Curricula and student support should focus on

¹ See www.graduate.ku.edu for a summary of the recent NRC rankings of KU doctoral programs.

² Ehrenberg, Ronald G., Harriet Zuckerman, Jeffrey A. Groen, and Sharon M. Brucker. 2010. *Educating Scholars: Doctoral Education in the Humanities*. Princeton: Princeton University Press.

educating and training students for excellence in research, professionalism and teaching. A balance of all aspects of the doctoral training is essential.

- *Educational goals and missions must be department-specific and goal-driven.* Goals and planning must be carried out at the discipline level. Many programs cannot realistically provide comprehensive instruction across the full spectrum of their disciplines' subspecialties. Excellence in graduate education does not require programs that encompass every discipline and sub-discipline. But educational goals and curricula must be realistic, discipline-specific, and purposeful. Faculty within a department or program must act in order to define and shape their doctoral programs.

National Issues in Doctoral Education

Higher education in the United States faces several challenges in the coming years. While preparedness for both graduate and undergraduate education is generally declining, the number of jobs requiring a doctoral degree is expected to grow in the next five to seven years. Doctoral programs in the United States show alarmingly low and slow completion rates. Of those who begin a doctoral program, only 40 – 50% complete the program, and the number of years it takes to complete has systematically risen in most fields. On average, 30% of doctoral students take longer than seven years to complete the degree³.

We often think of doctoral education as creating the next generation of academic researchers. However, the facts indicate that upon completing a doctoral degree in the U.S., only about half take positions in higher education. Fifty percent of doctoral degree recipients end up with careers in business, industry, government or non-profit organizations. Moreover, while the number of non-tenure-track positions is growing, the number of tenure-track positions in academia is declining; a proportionally high number of new positions in higher education are in community colleges rather than research institutions. It is incumbent upon our programs to ensure that doctoral students receive appropriate professional training to be competitive for the wide range of careers that they are setting their sights upon.

Local Data on Doctoral Education

Information about doctoral programs at KU comes from several sources. National and international ratings and rankings (e.g., [KU's rankings](#) in the recent National Research Council assessment of research doctoral programs) indicate that while some programs rank quite high, others rank in the middle or even lower quartiles of programs when compared to our programs in our peer comparison programs. In addition to ratings and rankings, we hold a wealth of information about our doctoral programs. Data include time to degree, time to specific program milestones, admissions and completion data, and

³ These data come from the July 2010 report of the Commission on the Future of Graduate Education in the United States, [The Path Forward: The Future of Graduate Education in the United States](#). Educational Testing Service & Council of Graduate Schools.

first placement data. While time to degree data must be examined individually by program, and standards for time to completion must be set for specific fields of study, a quick look at KU time to degree figures shows that average time in program varies tremendously by specific program and by specific year.

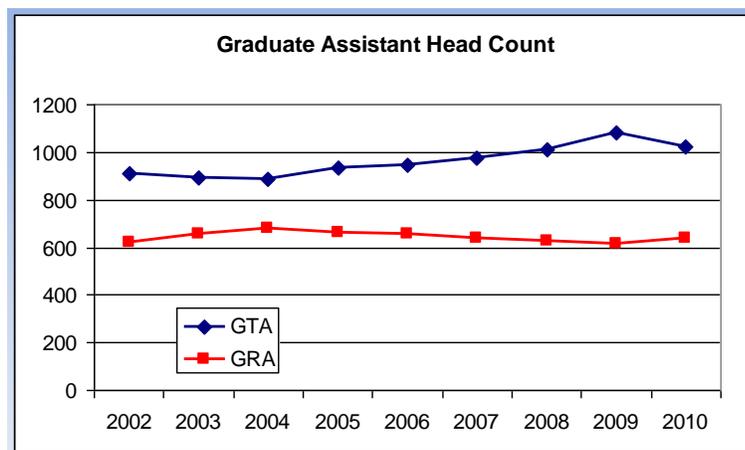
Table I KU Doctoral Program Data

Ranges of Average Time to Degree over 10 years

Humanities	7.9 – 9.4	Business	4.6 – 7.6
Social Sciences	6.0 – 7.5	Music	5.2 – 7.5
Natural Sciences	5.8 – 6.4	Arts	7.4 – 14.5
Engineering	5.4 – 8.8	Pharmacy	4.9 – 5.9
Social Welfare	4.2 – 11.9	Education	6.0 – 7.2

The Ph.D. is fundamentally a research degree⁴. All students in a Ph.D. program must demonstrate significant achievement in research through research projects and ultimately the dissertation. Research training is a significant portion of the education in a Ph.D. program. Yet only 10% of KU graduate students hold a Graduate Research Assistant (GRA) appointment (data from the 2008 fiscal year). This, compared with our regional AAU peers, places KU last in the percent of graduate students holding GRA positions. Another important aspect of Ph.D. training is that of teaching. Yet in the same year only 16.2% of graduate students held a Graduate Teaching Assistantship (GTA); KU ranks again last among our peers in GTA appointments. The number of students holding national fellowships is extremely low as well⁵.

Figure I Graduate Research Assistants and Graduate Teaching Assistants at KU⁶



⁴ KU offers other professional doctoral degrees that have varying research requirements.

⁵ KU currently has five students on NSF Graduate Research Fellowships. The Lawrence campus has four doctoral training grants and one post-doctoral training grant.

⁶ It should be pointed out that, while the number of GRAs remained flat, the total amount of funding going toward GRAs has increased in both tuition payments for GRAs and in stipend increases.

While funding is clearly in short supply, it is not the only challenge we face. The 2009 Graduate Student Satisfaction Survey of all enrolled graduate students identified several issues in graduate education from the students' perspectives. Many students who responded described inconsistent advising and mentoring, curricular bottlenecks deterring progress to degree, high teaching loads deterring progress to degree, and funding and space shortages. Many students praised their mentors; others complained bitterly that their advisors were taking inordinate amounts of time to read student work and provide feedback, or that it took months to be able to make an appointment to meet with their advisors. Graduate faculty must be active in doctoral student advising and mentoring. Poor mentoring was graduate students' most common complaint (Graduate Student Satisfaction Survey, 2009). Research has shown that mentoring is the best predictor of Ph.D. completion⁷, and so it is critical that we ensure that our doctoral students are appropriately advised and mentored.

Decentralized control over mentoring and curricular structure is the norm in doctoral education. Each doctoral program determines curriculum, policies and procedures; each faculty member determines his or her own mentoring style. Doctoral programs recruit (or fail to recruit) their own students; faculty members mentor as they determine to be adequate; different funding sources award disparate stipends and offer varying levels of health and tuition benefits; department chairs and graduate directors may be proactive or reactive; and some graduate programs admit students without regard for diverse and competitive job markets and their graduates' success within them.

The variety in graduate programs and goals of doctoral education precludes any "one size fits all" plan for improving graduate education. Improvement will instead come from working through many separate evaluation-planning-implementation cycles, each aimed at a separate, specific problem.

Elevating Doctoral Education

Recognizing that doctoral education overlaps with both the educational and research missions of the University, the Elevating Doctoral Education (EDE) work group consisted of members from Energizing the Educational Experience and Driving Discovery and Innovation work groups. In addition, the EDE work group included members from the Executive Council of Graduate Faculty, a few members of the graduate faculty at large from both the Lawrence and Medical Center campuses, and three doctoral students. The complete work group membership appears in Appendix A.

The EDE work group met three times during the months of January and February, 2011. Minutes of those meetings appear in Appendix B. During the first two meetings, the group focused on the major issues in doctoral education at KU and drafted the Goal and Outcomes, and proposed a set of Strategic Action Items. Before the third and final

⁷ Ehrenberg, Ronald G., Harriet Zuckerman, Jeffrey A. Groen, and Sharon M. Brucker. 2010. *Educating Scholars: Doctoral Education in the Humanities*. Princeton: Princeton University Press. Nettles, 2009

meeting, the group voted on the final Strategic Action Items; the results of this vote and ensuing discussion at the final meeting lead to the proposed strategic plan outlined below.

A Plan for Improving Doctoral Education

The Elevating Doctoral Education work group (EDE) identified the overarching mission of doctoral education as:

Goal

“KU will prepare citizen scholars as innovators of knowledge ready to enter the workforce and take a leadership role in meeting the needs and demands of the academy and the global society.”

The EDE work group identified six Outcomes that specific strategic action items will seek to attain. The Outcomes focus on data, standards and accountability in programs, mentoring, funding for doctoral programs, curricular design and scrutiny, and recruitment of a diverse body of students.

Outcomes

1. Rigorous data-based planning and accountability for doctoral education.
2. Establishment of standards for milestones, completion, time to degree, outcomes, and placement.
3. Mentoring of students to become professionals and scholars inside and outside academia.
4. A comprehensive and sustainable funding model for doctoral education.
5. Engagement of alumni, their employers, and other stakeholders in refining curriculum and extracurricular opportunities for doctoral students.
6. Increased diversity of graduate student body and of graduates.

EDE proposes a set of strategic actions and metrics for success in attaining the Outcomes. KU’s strategic plan for improvement of doctoral education centers around four strategic action items: setting standards using data driven decision making, establishing comprehensive recruitment, instituting a comprehensive and sustainable funding model for doctoral education, and adjusting the size of programs maximize advising, mentoring and job-placement outcomes.

Data-driven goal and standard-setting

Ideal: Programs structure their requirements for a doctoral degree around the consistent and explicit goals of completion, appropriate time to degree, and of preparing students for appropriate employment post-graduation. For research-oriented doctoral degrees, the goal is generally to prepare future researchers.

Programs at KU that have high rankings and strong records of placing students have coherent doctoral requirements (e.g. requirements regarding course work, papers, examinations, research) that reflect a single, shared vision of an ideal graduate's preparation. High-ranking departments also have a shared understanding of the market for which they are preparing their students. Developing a coherent program requires faculty agreement about a field and its intellectual and experiential demands. Examples of coherent practices would include: ensuring that curricula and extracurricular research experiences match the program's research mission; ensuring that coursework prepares students for comprehensive examinations; and ensuring that all doctoral training activities help students develop the knowledge base that their particular dissertation research demands.

Time to degree is often viewed as a student issue: some students just finish faster than others. However, recent research shows that clarity of program requirements is a better predictor of time to degree than individual student attributes⁸. Outmoded and poorly focused program requirements (too many courses in too many areas, excessive requirements for pre-dissertation research, excessive requirements for comprehensive examination papers, etc.), or a failure to form a connection among these requirements, can delay graduation by several years. Excessive time to degree forces faculty to mentor too many students for too long; the resultant pile-up of students forces students to compete against each other for scarce departmental resources, such as faculty attention and financial support. Therefore, the removal of excessive requirements and attention to appropriate mentoring are essential to managing and controlling completion and time to degree.

The higher education literature indicates that clearly defined goals and measures in graduate programs positively affect completion and time to degree⁹. Our own experience with the KU Department of History's participation in the Carnegie Doctoral Completion Project indicates that the effort spent on defining and tracking plan of study positively affects the department's doctoral program.

Strategic Action Item 1: Set standards and policies for completion, time to degree, mentoring, outcomes, milestones and job placement; establish tracking and reporting procedures

Activities

1. Mandate plans of study, mentoring and retention plans
2. Mandate annual review of student progress
3. Use student progress, retention, job placement in fellowship disbursement
4. Establish standards for mentoring, dissertation committees, and dissertation supervision

⁸ Lovitts, 2007. *Making the Implicit Explicit*. Sterling, VA: Stylus

⁹ Golde, C. and Dore, T. 2001. *At Cross Purposes: What the experiences of doctoral students reveal about doctoral education* (www.phd-survey.org). Philadelphia, PA: A report prepared for The Pew Charitable Trusts.

Lovitts, B. 2007. *Making the Implicit Explicit*. Sterling, VA: Stylus

5. Set discipline-appropriate time to completion goals

Recruiting for excellence

Ideal: The University of Kansas attracts quality applications within the competitive world of graduate recruitment, and attracts and admits the best and brightest future researchers.

Active recruitment of doctoral students is necessary to build an excellent cohort of doctoral students in each and every program. Programs must build a body of prospective students, increase the applicant pool, select the most appropriate applicants to admit, and work with the admitted students to turn them into matriculated students. Recruitment begins with making connections with faculty at undergraduate institutions that can provide excellent applicants. Recruitment works best when done actively, by identifying, developing relationships with, and attracting potential applicants. Recruitment in doctoral programs takes place at the program or discipline level, and requires the active involvement of the program faculty.

Successful recruitment also requires expertise in the recruitment process. Central coordination and support of program/department recruitment efforts can help make active recruitment possible. Faculty, assisted by a recruitment coordinator, must learn about and attend recruitment fairs, including minority-oriented programs and conferences. The literature on recruitment indicates that a constant presence at minority conferences and recruitment fairs is necessary for effective recruitment¹⁰. Faculty also must develop research connections to their peers at potential “feeder” institutions, including minority-serving institutions.

Additionally, learning about and applying to KU’s graduate programs must be easy. KU’s departmental websites must actively and prominently aid recruitment, beginning with the departments’ home pages. The websites should allow applicants to form realistic expectations about curricular requirements, program length, and funding opportunities.

As finances permit, schools and programs should offer top applicants multi-year funding packages that combine fellowships with GTA and GRA appointments. The University Graduate Fellowship pilot program moves in this direction; this program combines two years of Graduate Studies fellowship funding with a commitment of three years of GTA/GRA funding from the College. Such hybrid funding allows graduate students to benefit from a variety of educational experiences as they prepare for careers, and permits programs to compete with our peers in recruiting quality students¹¹.

Finally, recruiting must be *ethical*. Some departments have been admitting applicants who have explicitly expressed interests in areas outside the faculty’s expertise,

¹⁰ Sloan Foundation, *Guide to the Successful Recruitment of Minority Students into Science and Engineering PhD Programs*,

¹¹ The STEM disciplines currently support many or most students in positions that allow them to make adequate progress toward degree with research-appropriate educational experiences. Many in fact employ hybrid funding, providing a combination of GTA and GRA positions to maximize available funding and educational opportunities.

without telling the applicants that the department offers no instruction in their areas of interest¹². Some recruit students regardless of their ability to mentor them or of the ultimate job market and placement statistics of the specific program.

Strategic Action Item 2: Institute active recruitment at department level, with central recruitment coordination and funding

Activities

1. Create efforts to increase the number and quality of applications to doctoral programs
2. Implement special efforts for international student recruitment
3. Implement special efforts for underrepresented student recruitment

Funding doctoral education

Ideal: Departments and schools should work to develop new sources of support for students. In the meantime, small funding supplements would reduce minor barriers to students' progress.

Comparison of funding with that of peer institutions indicates that funding is a major issue in KU's doctoral programs. The percent of our graduate students with GTA and/or GRA funding is below that of peers (as a measure of percent of the graduate student body), fellowship funding is scarce, and departments have relatively little flexibility in offering competitive funding packages to recruit students. Without competitive funding packages, KU's doctoral programs are at a disadvantage in bringing excellent students to KU to pursue doctoral studies.

While some departments only admit students that they can fund, others admit students irrespective of their ability to provide funding. Departments must make doctoral education a funding priority: some departments do this by not funding master's students admitted into their program, others limit the funding available to master's students until they are admitted into the doctoral program.

Departments must find additional mechanisms for supporting doctoral education and research. Schools should encourage departments to seek externally funded GRA and fellowship support for doctoral students. Schools and departments should work with KUEA in order to build relationships with potential private donors who might fund doctoral education¹³. Additional external funding possibilities should be explored, including national fellowships and potential corporate sponsors. Whenever possible, KU should move to a system of dissertation-year fellowships, at least in the departments with the heaviest GTA loads, providing funding for students to focus on the dissertation research at that critical time in their programs.

¹² Evidence for the claim primarily comes from the GSSS results.

¹³ State-wide publicity about the fruits of doctoral research could increase potential donors' interest; for example, the Office of Graduate Studies has received excellent feedback from regents and legislators following its annual Capitol Graduate Research Summit in Topeka cf. <http://www.news.ku.edu/2010/march/24/capitolresearch.shtml>.

Completing graduate school and preparing for post-graduation employment often requires small amounts of funding in addition to and faculty research grants. For example, students may need to travel (to research sites or to conferences) or to prepare materials for talks or papers. Funding for student research projects and student travel should be increased.

Strategic Action Item 3: Fund Doctoral Education

Activities

1. Increase targeted funding, such as first year and dissertation year fellowships, in investment in doctoral education
2. Increase external and internal fellowships
3. Make doctoral education and doctoral fellowships a priority in the next capital campaign
4. Create greater flexibility in the funding of GTA and GRA positions

Size of programs

Ideal: Departmental decisions about the size and scope of graduate programs should reflect departments' ability to train graduate students and place them in suitable positions. KU should develop and follow best practices in educating and training the next generation of scholars and researchers for jobs in government, industry, academia, and non-government organizations.

Insofar as graduate programs' first and foremost goal is to prepare students for post-graduation employment, departments should be "right-sized": The number of graduate students should depend upon faculty's ability to mentor students, the subfields in which faculty can adequately train students, and departments' ability to place students in appropriate positions after graduation. For some departments, this may mean increasing the size of the doctoral program; for others it may mean shrinking program size. At present, however, some departments accept graduate students in numbers proportional to their need for GTAs, rather than in proportion to their ability to educate, train and place their graduates. Allowing departmental teaching needs to drive graduate admissions creates an underclass of graduate students who progress too slowly (if at all) towards their final degree.

Heavy use of GTAs for undergraduate education works against right-sizing. Exclusive reliance on GTA-based funding has proven unsuccessful. Duke University's Doctoral Completion Project¹⁴ has shown that reducing teaching loads and providing one year of fellowship funding uniformly increases completion and decreases time to degree. The GSSS results document the hardships that students face when funding is solely GTA-based. In departments that primarily rely on GTA positions to fund their students, heavy teaching loads (two courses per semester) retard students' progress; as a result, students often exhaust their GTA eligibility well before graduation. Each student (many of whom

¹⁴ http://www.phdcompletion.org/resources/CGSNSF2008_Siegel.pdf

support families) then faces a draconian choice: working outside his or her discipline and thereby retarding academic progress still further, borrowing heavily (financially risky for humanities students), or dropping out. The policy issues are complex, but it is clear that the University needs to consider limits on employment as a GTA, recognizing that more semesters teaching may simply retard completion further.

As KU re-organizes undergraduate education, including the first year experience, general education and engaged learning experiences, doctoral students, in particular GTAs, will be dramatically affected. As the undergraduate curriculum is shaped, it will be necessary to develop a parallel model for graduate teaching assistants, recognizing that GTAs are delivering an educational experience to our undergraduates while simultaneously developing their own academic skills.

Setting the appropriate size of a program is about ensuring suitable mentoring for every doctoral student, and ensuring appropriate cohort and class size for the training of those students. Ultimately, it is the graduate faculty who determine how best to mentor doctoral students. The graduate faculty also determine the appropriate course curriculum and class size for their doctoral students. The GSSS results suggest that problems exist—a number of students commented on the difficulty of obtaining time with their advisors. Some students responding to the GSSS said that faculty take too long to read and return proposals and research papers; each such occurrence can add a month or two to a nominally five-year program. KU has not addressed the question of *who will mentor the mentors?* KU lacks comprehensive and consistent mechanisms to help its faculty learn how best to mentor graduate students, and lacks mechanisms to ensure that faculty make reasonable efforts to mentor students.

Mentoring is essential to graduate program excellence. Consistent, dedicated, effective mentoring should be mandatory, not optional. How, then, should KU develop effective mentoring practices and train its faculty in following them?

Strategic Action Item 4: Monitor and adjust size of programs based on academic merit, and ability to mentor successful students to graduation and employment

Activities

1. Review program job prospects and placements to inform program admissions, size of admitting classes, and learner outcomes
2. Review program student-faculty ratios to ensure students who are admitted can be properly mentored in their research, their courses and curricula, and their teaching responsibilities
3. Manage GTA workloads across the university; set guidelines concerning discipline-appropriate GTA workloads across the University
4. Mentor the mentors to ensure the use of best practices in doctoral student advising and mentoring across the programs

Summary and Conclusions

The Elevating Doctoral Education work group has proposed a set of strategic action items that, if put into place, will increase the quality and caliber of the doctoral programs at KU. The Goal and Outcomes frame a set of proposed strategic actions and metrics for success in doctoral training and education that will enable our graduates to find professional positions upon timely completion of their degrees. If and when the proposals set forth in this document are implemented, the work group feels that the profile of doctoral programs will gradually shift and KU will be better situated as a research extensive public institution of higher education committed to the enhancement of our local, regional and national economies. As has been stated throughout this document, the strategic action items proposed recognize that doctoral education is best managed at the department or program level, where goals and actions must be determined and shaped at the discipline level. The strategic plan calls for central support and sharing of best practices to make improvement possible, but the introspection, hard work and heavy lifting must take place at the discipline level, and quality assurance must be controlled locally.

Strategic Action Item 1 – EDE

Strategic Action: Set standards and policies for completion, time to degree, mentoring outcomes, milestones and doctoral student job placement; establish tracking and reporting procedures

Why (optional): Delays caused by inadequate mentoring or inadequate preparation for job placement can limit job opportunities for KU doctorates or cause early attrition of doctoral students in whom significant KU investments have been made.

Working Group: Elevating Doctoral Education

List of Units Responsible/Involved: Academic departments, academic schools/College, Graduate Studies, OIRP, SIS, OUR

List of Stakeholders Affected: Faculty in departments with doctoral programs, doctoral students, schools/College deans, graduate studies, SIS, OUR

Comments of Urgent Issues: Delayed time to degree, or the loss of KU students to attrition, undermines KU’s reputation and limits KU’s post-graduate alumni base

Key Activities and Timeline						
Provide broad summaries of the key activities for this strategic action.						
	Contact	2011-12	2012-13	2013-14	2014-15	2015-16
<u>Activity 1:</u> Mandate plans of study (POS), mentoring and retention plans		Collect milestones through PtD and develop discipline-appropriate timelines;	Disseminate milestone data and timelines to departments; Require mentoring plans in doctoral programs	Develop plans of study (POS) for all doctoral students; Build IT framework for plans of study	Track POS through Advising Tool; Require annual evaluation of students based on POS and annual progress	Programs evaluate curriculum, disbursement of fellowships, faculty mentoring, based on learner outcomes and placements
<u>Activity 2:</u>		Develop	Collect	Examine	Implement	

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Mandate annual review of student progress		learner outcomes rubrics; see above	learner outcomes data and analyze at program level	curriculum based on student outcomes;	curricular redesign based on learning outcomes and POS on an on-going basis	
<u>Activity 3:</u> Use student progress, retention, job placement in fellowship disbursement		Build IT framework for collection of placement information and/or exit interviews	Begin collection and dissemination of placement	Develop reports of PtD, POS, learner outcomes, placement	Articulate disbursement of fellowships using progress to degree, POS, learner outcomes, placement	Adjust fellowship disbursement as needed based on PtD, POS, learner outcomes, placement
<u>Activity 4:</u> Establish standards for mentoring, dissertation committees and dissertation supervision			Develop standards for dissertation committees and primary advisors based on learner outcomes data	Develop university-wide program of mentoring the mentors	Develop and set program-specific mentoring expectations for faculty around POS and annual evaluation of students	Programs evaluate faculty mentoring based on progress of students on the POS and learner outcomes
<u>Activity 5:</u> Set discipline-appropriate time to completion goals		Review time to completion trends over 10 year period by doctoral program	Departments produce benchmarking data for time to completion nationally; identify "peer"	Review discipline-specific peer institutional completion and time to degree data	Set discipline-specific completion and time to degree goals	

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Relevant Outcomes: (could be one or all of the items listed on the [EDE strategic planning website.](#))

<ul style="list-style-type: none"> ▪ Outcome #1: <ul style="list-style-type: none"> ○ Metric 1-a: ○ Metric 1-b: ○ Metric 1-c: 	<p>Rigorous data-based planning and accountability for doctoral education</p> <p>Time to milestones; Time to degree by program</p> <p>Attrition and Completion rates by program</p> <p>Faculty participation in doctoral committees; ratio of mentors to students</p>
<ul style="list-style-type: none"> ▪ Outcome #2 <ul style="list-style-type: none"> ○ Metric 2-a: ○ Metric 2-b: ○ Metric 2-c: 	<p>Establishment of standards for milestones, completion, time to degree, outcomes, and placement</p> <p>Time to milestones; time to degree by program</p> <p>Attrition and completion rates by program</p> <p>Number of first placements in degree-appropriate positions</p>
<ul style="list-style-type: none"> ▪ Outcome #3: <ul style="list-style-type: none"> ○ Metric 3-a: ○ Metric 3-b: ○ Metric 3-d: ○ Metric 3-e: 	<p>Mentoring of students to become professionals and scholars inside and outside academia</p> <p>Attrition and completion rates by program</p> <p>Numbers of first and 5 years post-graduation placements in academic and nonacademic research positions</p> <p>Number of departments that implement plan of study for doctoral students</p> <p>Number of graduates who feel prepared for each type of potential job placement, based on Doctoral Completion Survey data</p>

Strategic Action Item 2 – EDE

Strategic Action: Institute active recruitment at department level, with central recruitment coordination and funding

Why (optional): Attracting a pool of excellent and diverse doctoral students requires active recruitment by the program faculty; faculty need resources and mechanisms to accomplish their recruitment goals.

Working Group: Elevating Doctoral Education

List of Units Responsible/Involved: Academic departments, academic schools/College, Graduate Studies, Provost’s Office, KUEA, OIRP, SIS

List of Stakeholders Affected: Faculty in departments with doctoral programs, doctoral students, schools/College deans, graduate studies, SIS, OUR; External funding agencies, KS industries, federal, state and local governments

Comments of Urgent Issues: KU can become more competitive for doctoral applicants from international backgrounds, underrepresented groups, and top-ranked programs by pooling resources to ensure we are well-represented at domestic and international recruiting venues and preparing discipline-appropriate funding packages (GRA/GTA combinations) with competitive stipends that increase the diversity and size of our applicant pools and matriculates.

Key Activities and Timeline						
Provide broad summaries of the key activities for this strategic action.						
	Contact	2011-12	2012-13	2013-14	2014-15	2015-16
<u>Activity 1:</u> Create efforts to increase the number and quality of applications to doctoral		Hire a central recruiter to coordinate efforts between academic	Offer recruitment workshops to faculty and staff members to train	Continue to offer services to departments for recruitment support	Survey admitted doctoral students who chose to go elsewhere for	

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programs		units	them on recruitment strategies		doctoral training to determine why they did not place KU as their first choice.	
<u>Activity 2:</u> Implement special efforts for international student recruitment	International Recruitment Advisory Committee	Assess recruiting venues that attract high-quality international students	Develop web recruiting presence	Provide international travel funds to programs to recruit international students for a diverse set of disciplines	Identify barriers to international student success (e.g., funding, visa restrictions, etc.)	Lobby to remove barriers to success of international students
<u>Activity 3:</u> Implement special efforts for underrepresented student recruitment		Assess recruiting venues that attract high-quality underrepresented students	Develop web recruiting presence	Provide incentives to programs to recruit students from underrepresented groups	Identify barriers to student success (funding, family responsibilities, etc.)	Work to remove barriers to the success of underrepresented students

Relevant Outcomes: (could be one or all of the items listed on the [EDE strategic planning website.](#))

▪ Outcome #1:

- Metric 1-a:
- Metric 1-b:
- Metric 1-c:
- Metric 1-d:

Increased diversity of graduate student body and of graduates	
Number of applications and yields of doctoral students from diverse backgrounds	
Number of fellowships designed to enhance graduate student diversity	
Number and funding amounts for doctoral studies, including, training grants, external graduate fellowships, and students funded through faculty research grants	
Number of doctoral graduates from diverse backgrounds	

Strategic Action Item 3 – EDE

Strategic Action: Fund doctoral education

Why (optional): Inadequate funding leads to an inability to recruit the best students and can lead to increases in time to degree.

Working Group: Elevating Doctoral Education

List of Units Responsible/Involved: Academic departments, academic schools/College, Graduate Studies, Provost’s Office, KUEA, OIRP, SIS, OUR, Bursar

List of Stakeholders Affected: Faculty in departments with doctoral programs, doctoral students, schools/College deans, graduate studies, SIS, OUR; External funding agencies, KS industries, federal, state and local governments

Comments of Urgent Issues: KU can become more competitive for top-ranked graduate students by preparing discipline-appropriate funding packages (GRA/GTA combinations) with competitive stipends that incentivize timely completion and support research.

Key Activities and Timeline						
Provide broad summaries of the key activities for this strategic action.						
	Contact	2011-12	2012-13	2013-14	2014-15	2015-16
<u>Activity 1:</u> Increase targeted funding, such as first year and dissertation year fellowships		Analyze the current level of institutional support for doctoral education	Develop and consider models for institutional investment in doctoral education	Analyze dissertation enrollment to develop funding models that incentivize completion	Develop a fund for first year/dissertation year funding	
<u>Activity 2:</u> Increase		Develop a method	Develop incentives for	Increase the number of		Provide seed grants and

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external and internal fellowships		for central tracking of internal and external fellowships	applying for external fellowships and remove barriers to accepting fellowships	external fellowship proposals across campus		matching funds for external funding proposals
<u>Activity 3:</u> Make doctoral education a priority in the Capital Campaign		Develop Vision, Value, Difference Statements for doctoral programs	Identify dynamic graduate students and faculty members who can speak well about their research in front of donors	Develop multi-media testimonials to the value of doctoral fellowships	Set goals for endowed fellowships per School	Contact program alumni and other industry partners to raise funds for doctoral students
<u>Activity 4:</u> Create greater flexibility in the funding of GTA and GRA positions			Academic units develop support plans that fit with graduate training and teaching expectations	Review plans and reallocate funds based on these support plans	Work with General Education redesign to determine effect on GTA assignments	Reassign GTA and GRA distribution based upon GEN ED and departmental needs

Relevant Outcomes: (could be one or all of the items listed on the [EDE strategic planning website.](#))

■ Outcome #1:

- Metric 1-a:
- Metric 1-c:
- Metric 1-d:

Comprehensive and sustainable funding model for doctoral education
Proportion of students funded with GTA, GRA or fellowships
Number of endowed doctoral assistantships/fellowships
Amount and number of doctoral support recruitment packages

Strategic Action Item 4 – EDE

Strategic Action: Monitor and adjust the size of graduate programs based on unit's academic merit, and ability to mentor students successfully to graduation and employment

Why (optional): Delays caused by inadequate mentoring (e.g., high student to faculty ratios, lack of engagement from mentors, advising errors, etc.), or inadequate preparation for job placement, can limit job opportunities for KU doctorates or cause early attrition of doctoral students in whom significant KU investments have been made.

Working Group: Elevating Doctoral Education

List of Units Responsible/Involved: Academic departments, academic schools/College, Graduate Studies, OIRP, SIS, OUR

List of Stakeholders Affected: Faculty in departments with doctoral programs, doctoral students, schools/College deans, graduate studies, SIS, OUR

Comments of Urgent Issues: Delayed time to degree, the loss of KU students to attrition, or underprepared graduates who enter the workforce, undermine KU's reputation and limit KU's post-graduate alumni base and post-graduate alumni salary potential

Key Activities and Timeline						
Provide broad summaries of the key activities for this strategic action.						
	Cont act	2011-12	2012-13	2013-14	2014-15	2015-16
<u>Activity 1:</u> Review program job prospects and placements to inform admissions, & size		Collect placement data by program	Review national trends in job markets by program	Adjust admissions to match market and needs	Continue to adjust and monitor	

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<p><u>Activity 2:</u> Review program faculty to student ratios to ensure students who are admitted can be properly mentored in their research, their curricula and their teaching responsibilities</p>		<p>Collect data regarding graduate student to faculty ratios per year in the program;</p>	<p>Collect information on program specific mentoring expectations</p>	<p>Pilot a mentoring program with two departments</p>	<p>Institute a mentor the mentor program in select departments</p>	<p>Expand the mentoring program to other departments</p>
<p><u>Activity 3:</u> Mentor the mentors to ensure the use of best practices in doctoral student advising and mentoring across the programs</p>		<p>Provide discipline specific reports on admission, time in program, completion and job placement</p>	<p>Encourage doctoral programs to admit students based on these data</p>	<p>Provide best practices in mentoring</p>	<p>Require program level mentoring plans</p>	<p>Monitor mentoring plans</p>
<p><u>Activity 4:</u> Set and manage GTA</p>		<p>Collect GTA load information</p>	<p>Compare GTA load to that of peer</p>	<p>Analyze effect of Gen Ed</p>	<p>Adjust GTA assignment and</p>	<p>Examine effect of Gen Ed requirements</p>

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workloads across the university		n across disciplines and develop guidelines	institutions	reform on GTA assignment	disbursement based on new Gen Ed requirements	on GTA workload
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Relevant Outcomes: (could be one or all of the items listed on the [EDE strategic planning website.](#))

<ul style="list-style-type: none"> ▪ Outcome #1: <ul style="list-style-type: none"> ○ Metric 1-a: ○ Metric 1-c: ▪ Outcome #2 <ul style="list-style-type: none"> ○ Metric 2-b: ▪ Outcome #3: <ul style="list-style-type: none"> ○ Metric 3-a: ○ Metric 3-b: ○ Metric 3-d: 	<p>Rigorous data-based planning and accountability for doctoral education</p> <hr/> <p>Development of Plans of Study and departmental mentoring plans</p> <hr/> <p>Time to completion and completion rates;</p> <hr/> <p>Engagement of alumni, their employers, and other stakeholders in refining curriculum and extracurricular opportunities for doctoral students.</p> <hr/> <p>Number of placements in degree-appropriate positions and other positions</p> <hr/> <p>Mentoring of students to become professionals and scholars inside and outside academia</p> <hr/> <p>Mentoring as measured in the Graduate Student Satisfaction Survey (GSSS) and Doctoral Completion Survey (DCS)</p> <hr/> <p>Numbers of first placements and five years post-graduation in academic and nonacademic research positions</p> <hr/> <p>Surveys of effectiveness of faculty mentor workshops</p>
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Appendix A: Elevating Doctoral Education Work Group Membership

First name	Last name	Title	Department
Sara	Rosen	Dean & Professor	Graduate Studies
Robert	Goldstein	Distinguished Professor	Geology
Joe	Heppert	Professor & Associate Vice Chancellor	Chemistry / Research & Graduate Studies
Doug	Wright	Professor	Anatomy & Cell Biology, KUMC
Michael	Baskett	Associate Professor	Film & Media Studies
Maria	Carlson	Professor	Slavic Languages & Literatures
Allen	Rawitch	Vice Chancellor for Academic Affairs and Dean of Graduate Studies	Office of Academic Affairs, KUMC
Rodolfo	Torres	Professor	Mathematics
Christian	Schöneich	Professor and Chair	Pharmaceutical Chemistry
Daryl Lynn	Dance	Doctoral Student	English
Jarod	Hart	Doctoral Student	Mathematics
Erin	Lewis	Doctoral Student	Mechanical Engineering
Staff Support			
Becca	Peterson	Executive Assistant Dean	College of Liberal Arts & Sciences
John	Augusto	Assistant Dean	Graduate Studies

Appendix B: Minutes of EDE Work Group Meetings

Elevating Doctoral Education Work Group Meeting 1 **Walnut Room, Kansas Union** **Thursday, January 13, 2011, 8 am to 10 am**

Attendance

Sara Rosen, chair; Becca Peterson and John Augusto, staff; Joe Heppert, Doug Wright, Michael Baskett, Maria Carlson, Allen Rawitch, Rodolfo Torres, and Daryl Lynn Dance. Chris Haufler, co-chair of the Energizing the Educational Environment also participated in the meeting.

Agenda

The group opened with introductions followed by Sara Rosen providing an overview of the strategic planning process and the specific charge of the Doctoral Education Work Group. The Group discussed a PowerPoint presentation that was led by Sara Rosen which provided an overview of the national and local issues with doctoral education. The group concluded with a discussion about the goal, strategic action items, and Benchmarks & Measures that this work group will need to define.

Data Considered in Discussions

Sara Rosen led a discussion that summarized national data presented in *The Path Forward* a study that was conducted by the Council of Graduate Schools and Educational Testing Service. The focus of the study was on the future of doctoral education.

The PowerPoint presentation also had data concerning KU doctoral programs. This data included time to degree, curriculum reform and the funding of doctoral students at KU. The presentation concluded with Sara Rosen providing recommendations for doctoral education at KU. The recommendations presented were: using data to measure doctoral degree programs, doctoral student recruitment, ensuring clear goals for doctoral programs through curriculum reform, and funding for doctoral education at KU.

Outcomes of Discussion

The group discussed the draft goal for Doctoral Education and agreed that the goal should remain broad. The group also discussed potential Outcomes. The EDE work group will consider Outcomes, Benchmarks and Measures and possible Strategic Action Items for the next meeting.

Next Steps

The EDE work group will meet again in approximately two weeks; meeting to be scheduled. The next meeting will discuss Outcomes, Benchmarks and Measures and Strategic Action Items. Committee members are asked to complete the Outcomes, Benchmarks and Measures and Strategic Action Items worksheet and return it to Sara Rosen before the next meeting.

Supporting Documents or Links

The Path Forward: <http://www.fgereport.org/>
PowerPoint presentation on doctoral education at KU

Elevating Doctoral Education Work Group Meeting 2

CLAS Conference Room
February 4, 2011, 8 am to 10 am

Attendance

Sara Rosen, chair; Becca Peterson and John Augusto, staff; Joe Heppert, Doug Wright, Michael Baskett, Christian Schöneich, Maria Carlson, Rodolfo Torres, Erin Lewis, Jarod Hart, and Daryl Lynn Dance. Robert Goldstein attended by phone and Chris Haufler, co-chair of the Energizing the Educational Environment also participated in the meeting.

Agenda

The meeting opened with an update and overview provided by Sara Rosen. The group received a name update to Elevating Doctoral Education. The group discussed an updated draft of the goal and outcomes. The group then turned to a discussion of the Strategic Action Items where the Work Group broke into two groups and reviewed the current draft of Strategic Action Items. These two smaller groups came back after a 20 minute discussion to summarize their discussion. The meeting concluded with Sara Rosen summarizing their reports and providing a timeline for future action items.

Data Considered in Discussions

No new data was presented at this meeting.

Outcomes of Discussion

The group updated the Goal and Outcomes. In addition, the following Strategic Action Items (see below) were discussed.

1. Track outcomes, milestones and doctoral student job placement.
2. Set policies that reduce time to completion and increase quality of mentoring
 - a. Set strict (and reduced) time limits
 - b. Mandate plans of study and mentoring plans
 - c. Mandate annual review of student progress
 - d. student retention plans
 - e. use student progress, retention, job placement in fellowship disbursement
 - f. Create a lab-environment for dissertation supervision in non-lab-based fields
 - g. Set higher standards for dissertation committees and dissertation supervision
3. Decrease/manage GTA workload across the university
 - a. hiring non-tenure track faculty to support the undergraduate mission
 - b. reducing general education requirements
 - c. policies that limit GTA workloads
4. Reduce size of programs and number of students through elimination or merger of programs; set size of programs based upon placement data.
5. Fund doctoral education
 - a. Reinvest tuition dollars (GRA tuition, post-comp tuition) to support doctoral education
 - b. KUEA development officer charged with raising funds for doctoral education
 - c. Increase external and internal fellowships
6. Focus doctoral education on intersections of new innovations.
7. Institute active recruitment at department level, with central recruitment coordination and funding, particularly for international recruitment.

Next Steps

Rosen will summarize the suggestions made to the goal, outcomes and strategic actions. Committee members will be sent this draft and vote on which strategic action items to keep, which ones to remove and any new updates. The Work Group will meet the first week of March to finalize Goal, Outcomes, Strategic Action Items and Benchmarks.

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Elevating Doctoral Education Work Group Meeting 3

Governor's Room, Kansas Union

February 28, 2011, 4 pm to 6 pm

Attendance

Sara Rosen, chair; Becca Peterson and John Augusto, staff; Joe Heppert, Allen Rawitch, Doug Wright, Christian Schöneich, Maria Carlson, Rodolfo Torres, Erin Lewis, Jarod Hart, and Daryl Lynn Dance. Robert Goldstein attended by phone and Chris Haufler, co-chair of the Energizing the Educational Environment also participated in the meeting. Michael Baskett was not able to attend the meeting.

Agenda

The meeting opened with an update and overview provided by Sara Rosen. The group discussed the current draft of Strategic Action Items. Included was a discussion of the voting results as well as some of the activities within each SAI. The meeting ended with a finalized list of SAIs. Dean Rosen stated that she, Rebecca Peterson and John Augusto would create the final report and that she would send out a draft of that final report in March.

Outcomes of Discussion

The Work Group drafted these as the final draft of Strategic Action Items:

1. Fund Doctoral Education
a) Reinvest GRA tuition dollars to support doctoral education
b) Reinvest post-comp tuition dollars to support doctoral education
c) Increase external and internal fellowships
d) Make doctoral education a priority in the Capital Campaign
e) Create greater flexibility in the funding of GTA and GRA positions
2. Institute active recruitment at department level, with central recruitment coordination and funding.
a) Create efforts to increase the number and quality of applications to doctoral programs
b) Implement special efforts for international student recruitment
c) Implement special efforts for underrepresented student recruitment
3. Set standards and policies for completion, time to degree, mentoring outcomes, milestones and doctoral student job placement; establish tracking and reporting procedures.
a) Mandate plans of study, mentoring and retention plans; link mentoring responsibilities to faculty teaching loads
b) Mandate annual review of student progress
c) Use student progress, retention, job placement in fellowship disbursement
d) Establish standards for mentoring, dissertation committees, and dissertation supervision
e) Set discipline-appropriate time to completion goals
4. Monitor and adjust the size of graduate programs based on unit's ability to mentor students successfully.
a) Set and manage guidelines concerning discipline-appropriate GTA workloads across the university
b) Adjust doctoral program size to fit job prospects and placements to inform program admissions and learner outcomes
c) Review program faculty to student ratios to ensure students who are admitted can be properly mentored in their research, their curricula and their teaching responsibilities.

Next Steps

Dean Rosen will work with Rebecca Peterson and John Augusto to draft the final report and supporting materials. A draft of the report will be sent to the committee for review and comment. A draft is due to the Provost's Office on Monday, March 13, 2011.