

Task Force on the Graduate Student Experience

December 22, 2015

Abstract and Overview

Leona Rubin, Associate Vice Chancellor for Graduate Studies formed The Task Force on the Graduate Student Experience at the request of Chancellor R. Bowen Loftin in Spring 2015. The task force first met on May 1, 2015, to begin the organizing work of the task force. From that first meeting, the task force decided to focus on AAU metrics and MU strategic planning goals in light of the graduate student experience. Our premise was that graduate students that are well taken care of will be productive graduate students (and thus contribute to our metrics and goals). The task force moved through two phases. The first phase focused on data needed to make informed decisions. The second phase was the data analysis and recommendation formation phase. We spent most of the fall semester in four committees looking at multiple dimensions of the graduate student experience from funding, environment, recruitment and retention. The committees met and provided a list of recommendations where three overarching recommendations emerged with specific recommendations (or means) supporting each of the overarching recommendations. Those overarching recommendations, in order of priority, are:

- 1. Improve compensation and workload of graduate assistants**
- 2. Improve support structures for graduate students**
- 3. Improve and promote graduate education culture**

Throughout the process, there were several major graduate education-related incidents that affected our work. The first was the tuition waiver policy change from June 2015. The second was the graduate insurance subsidy decision and fallout in August 2015. In addition, the turmoil relating to race relations and our campus and system leadership changes in November 2015 also affected our work. These three incidents either caused the task force to reconsider its current direction/thoughts or to change the nature of our work. The solidarity movement of the graduate student body, the Forum on Graduate Rights (FGR), on campus caused by the graduate insurance subsidy incident did not change our charge *per se*, as the initial charges of this task force embodied the issues surfaced through their demands. The task force did not view its job to reply to the demands (we thought that responsibility lies with the Chancellor), however, we certainly took the message of the demands into account in our deliberations. The solidarity movement also prompted the Chancellor to add additional student members to the task force, taking the total from three to six graduate students on the task force. Additional student members were selected in direct consultation with Graduate Professional Council (GPC) and Graduate Student Association (GSA) leadership. Additionally, listening sessions for graduate students and Directors of Graduate Studies were conducted to collect anecdotal evidence regarding the graduate student experience. While other task force members attended the events, the co-chairs reported on the listening sessions at a task force meeting. Finally, our task force report references graduate student insurance, but does not address it directly as the Task Force on Graduate Insurance was formed in August to address those specifics.

Task Force Charge

Overview

This Graduate Student Experience Task Force was established to make recommendations on how we can improve the overall experience of all graduate students at Mizzou. We believe “experience” encompasses all aspects of a graduate student’s life while at MU including but not limited to:

- a. Quality of life issues:
 - a. Adequate funding: Graduate student stipends are traditionally considered insufficient for normal living expenses. Are there alternative funding models to be considered? Does one funding model fit all students in all cases? What impact does cost of living have on stipend value? What impact has the Affordable Care Act had on graduate student earnings at MU and are they seeking alternative sources of funding that impact their educational attainment?
 - b. Health Insurance: Health care continues to be a major expense, how have graduate students with dependents fared on our campus as they try to meet health care needs and costs?
 - c. Soft benefits: What other benefits would improve the student experience at MU: Discount food options in dining halls, maternity leave, vendor discounts?
 - d. Housing: Students continue to express concerns regarding available student housing or close to campus housing. While we have some local graduate student housing, is it managed and allocated in a way to address those with clear need for local housing? Do we adequately educate graduate students about quality off-campus housing?
 - e. Graduate student community: Do graduate students feel a part of this campus? How do graduate assistants perceive their role in delivering the missions of the university? In what ways, if any, should the university foster online graduate student community?
 - f. The role of the community of Columbia in shaping the graduate student experience including adequate housing, transportation, shopping, affordable day care and general inclusiveness of our students. What role can MU play in shaping these options?
- b. Non-academic campus resources:
 - a. Professional development or soft skills: How do students obtain these skills? What is the role of the academic unit, the Office of Graduate Studies or campus career focused offices in providing these skills?
 - b. Counseling: Graduate students are frequently isolated by their work; how do they learn about such important resources, whose role is it to ensure students have this information? What are the barriers to using the services on campus?
 - c. Teaching: We have expectations for graduate students to teach and we give them the most challenging assignments of teaching freshman in general education courses. What resources are available to help them teach? Do they know where these resources are and who is responsible for helping them find these resources?

- c. Academic Experiences:
 - a. Mentoring: Do our students feel they are receiving adequate mentoring, either by their advisor or by their departments or others?
 - b. Do they feel they have the resources to succeed? What are the challenges and roadblocks they experience?
 - c. Assistantships: Where is the priority given (student interest, department needs, faculty needs)? What is the student's responsibility in light of the assistantship – to the student's education, to the assistantship, elsewhere? What is a quality assistantship experience for the student that also serves the needs of the program/faculty?

Charge of the Task Force

- Examine the practices, compensation, and benefits provided to funded graduate students and make recommendations to ensure that these students are recruited, retained, recognized and rewarded for their contributions to meeting the University's mission.
- Examine common policies and processes on campus and in the community that impact quality of life issues for all graduate students.
- Explore how academic units and campus in general provides resources (professional, and educational) to graduate students.

Available Resources for the Task Force

1. Previous MU studies, as well as national comparisons when available
2. Survey data collected from graduates
3. Preliminary focus group data and assistance with new focus group studies
4. Access to graduate student data available through the Office of Graduate Studies or the Office for Institutional Research.
5. Resources and expertise from across campus
6. Information and data regarding best practices in graduate education

Once having reviewed the MU graduate student experience as a whole, and best practices in graduate education, and being mindful of the current resources available for new activities, the Task Force is expected to prioritize recommendations needed to improve the graduate student experience at MU and meet the goals of One Mizzou 2020, Vision for Excellence.

Appendix 1 outlines the members of the task force. Appendix 2 outlines the meeting schedule of the task force. Notes regarding each meeting can be found at <http://gradstudies.missouri.edu/gse-task-force/#meetings>. A list of data sources utilized by the task force can be found in Appendix 3.

Recommendations

The task force submits the following three overarching recommendations and subsequent means of improvement. The overarching recommendations are numbered to indicate prioritization by need. The means are also ordered by priority need. Because the purpose of the task force was to

examine and explore, additional recommendations and means were also identified. Although those additional recommendation and means did not emerge as a top priority, they are ideas worth considering once more pressing needs are met. Appendices 4-6 outline the ideas regarding those additional means through working documents of the task force committees. Finally, it is important to note that MU needs the proper graduate education structure to ensure sustainability of a positive graduate student experience provided by our recommendations. Although it was not implicitly our charge to review the graduate education structure, this report contains some thoughts for consideration in the summary section.

Overarching Recommendation 1: Improve compensation and workload of graduate assistants

Rationale:

Number of doctoral students produced is a Phase II indicator for the AAU. The key to increasing our graduate student output is to attract the highest quality graduates and ensure our graduates complete their degrees in a timely fashion. Providing adequate funding to our students will directly improve both of these metrics. Well-funded graduate students will lead to increased faculty research productivity through direct collaborative help and/or jointly authored publications/creative products. Increased funding will lead to improvements in two AAU Phase I indicators - increased competitively funded federal research support and increased citations. Increases in these indicators will also directly impact MU's chances of raising our metrics for other indicators, such as Membership in National Academies, National Research Council Faculty Quality Ratings, Faculty Awards, Fellowships and Memberships. Improving the financial position of our graduate students will also allow students time to focus on more activities to increase competitiveness on job market, such as writing and obtaining external funding for their research, writing papers or producing other creative works, participating in professional meetings or workshops, and more.

Means:

- A. **Increase stipends:** Minimum stipends for doctoral stipends should be increased to \$18,000 at the .5FTE level by the academic year 2019-2020 and masters' stipends should increase proportional to (same percentage increase as) the doctoral stipends. For this stipend to be effective, students should not be expected to pay health insurance out of this total. Fully-covered health insurance should be a part of the compensation package; this task force yielded further conversation on this matter to the Task Force on Graduate Student Insurance. In comparison to other AAU institutions, our doctoral stipend averages (after being normalized) were typically \$1,000-\$3,000 lower depending on type (TA, RA), discipline, and comparison regions (Midwest and South). An increase to \$18,000 by 2019-2020 makes us far more competitive and takes into account possible increases to stipends by our AAU colleagues over that time period. An extensive review of these minimum stipends should occur every 3 years to ensure our stipends remain competitive.

- B. Ensure all qualifying graduate assistants have tuition waivers:** All graduate assistants on departmental stipends (.25FTE or higher) should receive full tuition waivers. Stated simply, our task force feels graduate assistants should not have to endure additional financial burden by tuition if they are on a qualifying assistantship.
- C. Eliminate supplemental fees for graduate assistants:** In addition to \$407.66 in incidental fees (health, recreation, activity, and IT), students in certain programs could see an additional \$30 to \$156 per credit charge in supplemental course fees. These supplemental fees cut into the already low wages our graduate students receive and therefore make it difficult for students to make ends meet. Although incidental fees cannot be waived, programs can, and are encouraged, to cover these fees as a part of benefits afforded graduate assistants.
- D. Adhere to equitable workloads by appointment:** Programs need to evaluate workloads of the graduate assistants to ensure they match the FTE appointment and to ensure they are comparable to similar institutions in their fields. On a weekly average, graduate students on .25FTE appointments should work a maximum of 10 hours and those on .5FTE appointments should work a maximum of 20 hours. In addition, Directors of Graduate Studies should be empowered to work on a student's behalf when workloads are excessive. The task force acknowledges that workload is easier to evaluate for teaching appointments versus research appointments. However, the research appointments both contribute to the academic program of a graduate student (e.g. research leading to thesis or dissertation) and to their "portable wealth" (e.g. publications) as an academic. To those ends, evaluating the career goals of the student (e.g. academia vs. outside academia) and scope of the thesis/dissertation in relation to the research assignment can help decipher workload fairness.
- E. Discuss issues related to appointment sizes (.25FTE vs. .5FTE):** This task force had several discussions regarding the role of the .25FTE appointment, as opposed to a "full time" .5FTE appointment. For example, questions emerged such as, "when did a .25FTE make sense and when was it harmful to students and their productivity?" There are graduate assistants on campus on .25FTE appointments making approximately \$6,000. From some of our listening sessions and anecdotal evidence, we know this has presented different types of issues. For example, the .25FTE appointment has forced some students to piece together anywhere from one to three additional part-time jobs outside the university. We feel this is counterproductive when students' focus is distracted from the university for the purpose of securing a living wage. In other cases, some students do not have time for additional jobs outside the university because they are working more than 10 hours (see recommendation 1D). Programs claim to not being able to transition students from .25FTE to .5FTE for various reasons including departmental funding and program architecture (e.g. students do not have time for additional assistantship duties given academic load of the curriculum). These claims need to be investigated and solutions found in light of the graduate student experience. For example, some programs fund students at the .5FTE level, but assign appointments at the .25FTE level to support students' research and scholarly pursuits. Such pursuits still contribute to the research mission of the university.

Overarching Recommendation 2: Improve support structures for graduate students

Rationale:

Improving support structures for graduate students can both improve recruitment of graduate students and increase their productivity. There are support structures necessary for both school and home life. In several ways, both in reports and anecdotally, many student support offices make decisions with only undergraduate students in mind. This is problematic given the clear differences in purpose and practice between undergraduate and graduate education. Additionally, literature is clear that mentoring of graduate students is important. Mentoring should occur for all aspects of graduate students' development including professionalization, research and teaching.

In regard to home life issues, the Graduate Professional Council has surfaced several issues over recent years. For housing in particular, the MU Graduate Housing Market Study (2015) found:

- Units are in old buildings and are generally small
- Twenty percent of graduate students living in MU housing said they wouldn't have come if there was no housing, 19% said they would have to leave if the housing was gone
- Over 75% of all graduate students say that providing housing is either "extremely important" or "somewhat important"

According to the 2014 MU Child Care Needs Assessment Survey:

- Cost was typically \$100-\$200 per week per child
- Sixty-seven percent of students indicated they have trouble accessing care
- Most prominent prohibitive feature was cost
- Approximately 60% of students said they would pay more for childcare close to campus and during the hours they need it

Means:

- A. **Improve access to housing and childcare for graduate students:** There is a clear need for safe, quiet, and reasonably priced graduate housing that is close to campus. The development of new housing options should not result in additional student fees. Current offices providing information about housing (e.g. Office of Off-campus Student Services) need to have specific and targeted options for graduate students. For example, graduate housing is a search option, but it is the last option in a long list of options. Even though MU offers 335 units of apartment housing for graduate students, family students, and undergrad students over 21, listening sessions revealed several cases where students thought those facilities were not well-maintained. Housing, in general, is an issue of particular issue for international students who also have issues with transportation.

In addition, affordable childcare options need to be available and shared with graduate students. According to the MU Graduate Professional Council, a lack of childcare on campus is and ought to be viewed as an issue of women's rights to higher education and

we support that notion. Beyond that, this task force believes all graduate student parents should be afforded the necessary resources to pursue higher education. Availability of childcare on campus has been a significant factor in some graduate students' decision to attend the University of Missouri. Flexible childcare options need to include possibilities for coverage during holidays, when children are mildly ill, and in the evenings. These options need to be close to campus, easily accessible for students, and meet all health and safety standards.

- B. Improve mentoring for graduate students:** Graduate programs and the Office of Graduate Studies needs to place an emphasis on mentoring graduate students in both graduate student research roles and teaching roles because of the importance of mentoring according to research. Comments from the Earned Masters and Doctorate surveys at MU highlights issues of mentoring and advocacy at the program level. Graduate programs with established standards for mentoring excellence achieving such standards should be rewarded. Directors of Graduate Studies should be given time and resources (e.g. professional development, release time/stipends) to assist faculty colleagues in improving their mentoring. Resources for programming should be provided to the Office of Graduate Studies to assist faculty and program-level leaders in effective mentoring and to provide research and teaching tools directly to graduate students. Finally, graduate faculty should document their mentoring activities to highlight the time needed and resources required to mentor graduate students successfully. This documentation will be important in justifying the time required to mentor graduate students both internally and to stakeholders outside the university.
- C. Improve communication with and for graduate students:** The Office of Graduate Studies should undertake a comprehensive review of the information provided to prospective and current graduate students as part of the Office of Graduate Studies' (OGS) website, consulting key audiences (e.g., current and prospective grad students, DGS's, etc.) to identify the information that is most needed and how to make this information available. Of particular concern is funding, waivers, insurance, housing, childcare, policies and advocate channels beyond the program level. Related, OGS should work on a communication structure to share information about courses, seminars and professional development events across departments. Such a structure could promote an interdisciplinary culture among our graduate students.

The Office of Graduate Studies (OGS) should also work with graduate programs in reviewing communication with students (both current and prospective) regarding programmatic policies, requirements, fees (included expected student travel to conferences). OGS should also work with key non-academic units (e.g. International Center) on coordinating activities and improving communication for graduate students. For example, international student events have overlapped with OGS orientation events. Finally, OGS should re-evaluate and change how we orientations are implemented so that students feel welcome, acclimated and connected to MU.

- D. Provide for interdisciplinary development:** As MU is known for its interdisciplinary nature, spaces and resources (and more opportunities) should be made available for

graduate students. As many funding agencies now look for interdisciplinary approaches, such a skill set can make our graduate students more marketable. A working document for fostering an interdisciplinary culture for graduate education and beyond can be found in Appendix 5. When new university initiatives are developed, such initiatives should weave interdisciplinary opportunities for graduate students. Programs such as Mizzou Advantage should be re-evaluated for its disciplinary inclusiveness (or lack thereof), so graduate students across all disciplines have opportunities to engage in interdisciplinary initiatives of the university. Finally, it should be noted that many students do not have adequate office space (only 55% of students earning graduate degrees agreed or strongly agreed to having adequate space). Focusing on adding more interdisciplinary spaces (e.g. Bond Life Sciences Center) for graduate students to work and collaborate will not only alleviate the space issue experienced by almost half of our graduate students, but will promote an overall interdisciplinary nature.

Overarching Recommendation 3: Improve and promote graduate education culture

Rationale:

As surfaced in the Overarching Recommendation 2, various sources indicated that offices and services on campus tended to focus on undergraduates when those offices and services are charged with serving all students. In listening sessions, we determined that the culture of graduate education needs to be improved at MU. For example, the Graduate Professional Council (GPC) is sometimes forgotten as a component of student government as the Missouri Student Association (MSA), the undergraduate student government entity, is sometimes confused as *the* student body government for all students.

Related, the struggles faced by our graduate students mirror those of graduate students at other universities as cited in higher education news. As the University of Missouri works to build its reputation from the media exposure of Fall 2015, it is important to build our reputation for the sake of the students seeking employment after earning degrees here. There are positive aspects and success stories about graduate education that need to be shared. Our Earned Masters and Doctorate data revealed a great deal of satisfaction with aspects of the experiences at MU. For scaled items regarding graduate teachers and preparation, a majority (70% in some; 80% or higher for most items) of students responded with either “agree” or “strongly agree” in the positive. We continue to have graduate student success stories, such as alumna Jeongmin Choi earning the 2015 national Council of Graduate Schools Dissertation of the Year for Biological and Life Sciences. It’s not only important to share these positives on campus, but elsewhere. We need to ensure the quality of MU graduate students are not the best kept secret in the country.

Means:

1. **Elevate graduate education on campus:** The campus leadership and those offices charged to assist all students need to make graduate education a clear priority through visibility, prioritization, resources and decision-making. Offices with goals to serve all students should be cognizant of graduate student context when making decisions about

programs and services. Offices and programs can include graduate students, graduate faculty and/or graduate leadership in their decision-making processes. Campus level entities reviewing campus issues (e.g. Faculty Council and Dean's Council) should have regular contact with graduate education administrators, faculty, and student leadership.

One specific way to evaluate graduate education on campus is to promote the success stories of our students. Nationally and internationally recognized graduate students and programs bring attention to graduate education on campus and also increases the value of MU graduate degrees. The Office of Graduate Studies should be afforded strategic communication staff to facilitate the sharing of graduate student successes. Additional thoughts about promotion (and recruitment) can be found in Appendix 6.

- 2. Increase the level of transparency and shared governance afforded to graduate students:** Graduate students should be afforded the highest level of transparency appropriate for their roles as both students and providers of services (teaching, research, outreach). Such transparency should not only be at the campus level but through to the department level. One way to increase transparency is to increase shared governance, which could include involvement on search committees, having graduate student representatives at departmental faculty meetings, and sharing of appropriate data (e.g. budgets) related to decision-making. Such transparency can be educational in nature, particularly to those students continuing in academic roles beyond graduation. Increased transparency will also increase buy-in at the department, school and college levels.

Summary

As referenced in the introduction of the preceding section, the recommendations provided by this task force need the proper graduate education structure to ensure sustainability of a positive graduate student experience. We encourage an evaluation and conversation of the structure of the Office of Graduate Studies in light of the graduate student experience. It has become clear to us that things are not working under the current structure of the Office of Graduate Studies. We also know that a “mere reversal” to a Graduate School as it was in 2014 will not fix all of the problems, either. Whether it is a school or an office, we feel the MU graduate education structure needs to have the proper resources to support graduate education on campus. For example, a graduate education administrative lead who has duties at MU and the UM System cannot adequately effectively focus on graduate education issues on campus. Moreover, additional graduate school or office personnel will be needed to carry out a number of the recommendations outlined in this report. We also believe a graduate office or school should report directly to the Office of the Provost (chief academic officer) because graduate education is a major part of the university's academic environment.

Many – but not all – task force members believed a change back to a Graduate School is important. First, when the administrative lead changed from a Graduate School Dean to an Associate Vice Chancellor in 2014, it changed how that administrator interacts with other administrators. For example, the graduate education administrative lead no longer has a seat at the Dean's Council and therefore, a voice was lost from that venue of someone whose specific job it is to advocate for graduate education. Second, a Graduate School is an academic unit – an

Office of Graduate Studies is an administrative office. What are the implications for the graduate student experience in regard to advocacy for graduate students?

We also find graduate education to be rather decentralized at MU, which affords programs much flexibility, but creates difficulty in ensuring fair treatment of graduate students (e.g. recommendation 1D). In regard to the graduate student experience, it makes it difficult for a graduate office or school to identify both graduate student successes and problems. Many of our recommendations require some degree of centralization to work. Therefore, a conversation about striking the right balance between centralization and decentralization of graduate education should occur as a part of this broader conversation regarding structure.

Appendix 1: Members of the Task Force

(* denoted co-chairs)

- **Adriana Boersner**, Graduate Student, Political Sciences
- **Kenneth Bryant**, President, Graduate Student Association (GSA), Political Science
- **Heather Carver**, Professor and Chair, Theatre, College of Arts and Sciences
- **Sanda Erdelez**, Professor, School Information Science & Learning Technology, College of Education, 2012-2013 Graduate Faculty Senate President
- **Sheila Grant**, Professor, Biomedical Engineering, College of Engineering
- **Shirley Holdmeier**, Academic Advisor, Electrical and Computer Engineering, College of Engineering
- **Lois Huneycutt**, Associate Professor and DGS, History, College of Arts and Sciences
- **Laura King**, Curator's Professor, Psychological Sciences, College of Arts and Sciences
- **Tracy Kitchel***, Assistant Vice Provost for Graduate and Postdoctoral Affairs; Associate Professor, Agricultural Education & Leadership, College of Agriculture, Food and Natural Resources
- **Erica Lembke**, Associate Professor, Special Education, College of Education
- **Ashlie Lester**, Assistant Teaching Professor and DGS, Human Development and Family Studies, College of Human Environmental Sciences
- **Matt McCune**, Director of Communication, Graduate Professional Council (GPC), 2014 Public Relations Officer, Graduate Student Association (GSA), Physics and Astronomy
- **Mitch McKinney**, Professor & Chair, Communication, College of Arts and Sciences
- **Judith Miller**, Dean, School of Nursing
- **Wyvonnia Neeley**, Graduate Student, Human Development and Family Studies
- **Earnest Perry***, Associate Professor, School of Journalism; 2014-2015 Graduate Faculty Senate Vice President
- **Sandy Rikoon**, Interim Dean, College of Human Environmental Sciences; Curators Professor, Rural Sociology, College of Agriculture, Food and Natural Resources
- **Karen Schnatterly**, Emma S. Hibbs Distinguished Professor of Management, Trulaske College of Business
- **Alexandra Socanides**, Associate Professor, English, College of Arts and Sciences
- **Arianna Soldati**, Graduate Student, Geological Sciences
- **Hallie Thompson**, President, Graduate Professional Council (GPC), Plant Sciences
- **Ruth Tofle**, Professor and Chair, Architectural Studies, College of Human Environmental Sciences
- **Carol Ward**, Curator's Professor, Pathology & Anatomic Sciences, Medical School

Appendix 2: Meetings of the Task Force

- May 1, 2015
- May 27, 2015
- July 6, 2015
- August 14, 2015
- September 14, 2015
- October 1, 2015
- October 12, 2015
- October 29, 2015
- November 16, 2015
- December 7, 2015
- December 15, 2015

Appendix 3: List of Data Sources Available to the Task Force

- Information on the AAU (members, profile, white paper from Chancellor Deaton)
- Other university task force reports about the graduate student experience
- GPC resolutions and reports relating to our charge
- CGS Doctoral Initiative on Minority Attrition and Completion (DIMAC)
- MU Strategic Operating Planning (<http://strategicplan.missouri.edu/>)
- MU Task Force on Graduate School Restructuring (Sp/Su 2014) (<http://provost.missouri.edu/about/graduate-school-restructuring-task-force/index.php>)
- Mizzou Online Annual Report
- MU Family Friendly Campus Committee survey and proposal
- Compilation of MU Office of Graduate Studies Professional/Career Development
- MU Teaching Culture Study (2012)
- International Teaching Assistant Program
- EAB Brief: Allocation of Graduate Assistantships
- EAB Brief: Cost Drivers of Graduate Education
- Center for Measuring University Performance: The Top American Research Universities Annual Report
- EAB Brief: Budget Models and Funding Strategies of Graduate Schools of Arts and Sciences
- EAB Brief: Compensation and Benefits Packages for Graduate Assistants at Public Universities
- EAB Brief: Creative Competitive Benefits Packages for PhD Students
- EAB Brief: Graduate Student Data Collection and Reporting: Strategies for Maintaining Consistency Across Departments
- EAB Brief: Incorporating Social and Digital Media into Graduate and Evening Program Recruitment Efforts
- EAB Brief: Recruiting and Marketing Strategies to Increase Graduate Program Enrollment
- EAB Brief: Service to Improve the Graduate Student Experience
- EAB Brief: Supporting Graduate Students across Student Affairs
- The Art of Employment: How Liberal Arts Graduates Can Improve Their Labor Market Prospects
- MU Career Readiness Report
- MU Tuition Policy Change (June 2015)
- Comparison of Minimum Graduate Student Stipend by Year (14 Years)
- Comparison of Graduate Student Stipend by Program
- Demographics of MU Graduate Students (1997-2014)
- MU TOEFL Scores by Department (Enrolled Fall 2014)
- Overview of MU Fellowships by Type (with demographics) for 2013-2014 and 2014-2015
- MU Student Fee Overview (15 Years)
- MU Tuition Waiver and Fee Analysis for 3 Years, by Program

- MU Graduate Student Charges (fees, tuition) and Stipend Analysis with relative change in cost
- NSF Science and Engineering Doctorates (2013) Analysis (<http://www.nsf.gov/statistics/sed/2013/>)
- Student Debt Article (*The Economist*, 2015)
- MU Earned Masters and Doctorate Survey (overview of quantitative items and listing of additional comments of how graduate experience could be improved)
- CGS Report: Survey of Graduate Enrollment and Degrees
- MU Graduate Housing Market Study (2015)
- Analysis of AAU Assistantships, including comparisons by program
- MU International Student Barometer Study (2014)
- Library Student Fee proposal

Appendix 4: Working Document of Additional Financial Investments that Could Be Made for Graduate Students (Listed in No Particular Order – These Ideas Did Not Emerge as Top Recommendations)

Develop more competitive merit-based fellowship opportunities that provide competitive stipend amounts for students through advancement efforts, and publicize the criteria for existing fellowships so that both applicants and departments can more easily identify eligible candidates. Students should also be encouraged to apply for external fellowships such as those awarded by prestigious organizations such as the American Council for Learned Societies, the Fulbright Program, and the Ford Foundation.

Explanation: Currently, MU offers a variety of multi-year fellowships for incoming graduate students. Most are limited to PhD Students. Some, such as the G. Ellsworth Huggins Fellowships, are paid out of endowed funds. Others such as the MA Fellowships, come from internal funds. There are other opportunities for students with special qualifications, such as students who participated in McNair Programs in their undergraduate studies, or Peace Corps returnees. Information about these fellowship opportunities and their eligibility criteria should be available to all graduate applicants.

There are other fellowships offered through interdisciplinary programs such as the Kinder Center for Constitutional Democracy, or the Life Sciences Program, but there is no central location where these fellowships are advertised. In addition, many departments and programs have full or partial fellowship opportunities for students in their programs. These opportunities should be publicized in the appropriate places and linked to the financial aid page in the Office of Research.

There are also two campus-wide dissertation completion fellowships, the Gamma Alpha Dissertation Fellowship and the Raymond White Dissertation Completion Fellowship. Neither of these are adequate to support a student for a year.

Clearly, the Office of Graduate Studies should be working with Development to create more opportunities for internally-funded fellowships. In addition, we recommend that the stipend levels on these fellowships be supplemented whenever possible. Currently the fellowships themselves pay in the range of \$13,500 per year, which is not high enough to attract the graduate students that we would most like to have matriculate here.

Justification: Competitive, merit-based fellowships (such as the Life Sciences Fellowships) will allow MU to be more competitive in attracting top graduate students to our university. Fellowships also allow students to concentrate on their studies, research, and creative activities rather than teaching or other employment. This focus in turn decreases students' time to degree completion and will decrease attrition rates.

Develop more competitive merit-based fellowship opportunities for students from underrepresented populations through advancement efforts, and increase the stipends of those already in place.

Explanation: Currently, MU offers several fellowships specifically designed to recruit and retain minority and underserved populations. These include the Thurgood Marshall, Ronald McNair, and Gus T. Ridgel fellowships. Yet MU has not increased its enrollment or graduation rates of minority doctoral students since 1992, although both numbers have more than doubled across all institutions surveyed by the Council of Graduate Schools Doctoral Initiative on Minority Attrition and Completion. Stipend levels have not remained competitive. Currently the Ridgel, for instance, pays students a stipend of about \$15,500 per year. This amount is not enough to attract the top candidates in underserved and underrepresented populations.

Justification: Increasing diversity on our campus will enhance the experiences of all graduate and undergraduate students at MU and beyond when these students become alumni.

Allow TA/RA stipends to be distributed over 12 months

Explanation: Currently, students working for Fall and Spring semesters are paid for 9 months of work, and their paychecks are distributed over just those 9 months. Faculty on 9-month appointments are able to have their pay distributed across the full 12 months, but this option is not currently universally available for graduate students.

Justification: This makes budgeting challenging for students who do not have the option of summer employment on campus through their home departments.

Offer competitive grants of up to \$1,000 for doctoral pilot research or experiences

Explanation: Currently there are no funds available on campus to support pilot research or experiences that will enable doctoral students to gather pilot data with which to craft successful proposals for extramural funding in support of their research, or to pursue other experiences (workshops, etc.) that will enable them to create a successful proposal and complete a degree in a timely fashion. Each student would be eligible for these funds one time only.

Justification: If students could apply for one-time funding in support of this type of work, they would be able to complete their research or creative activities for their dissertation

sooner and more effectively. This would be a powerful recruitment tool, as well as decreasing time to completion of their degrees. We recommend a sizeable number of these grants, which will provide great results for the amount invested.

Offer competitive grants of up to \$5,000 for dissertation research or experiences and up to \$1,500 for MA research or experiences

Explanation: Currently there are no funds available through the graduate division to support dissertation or master's thesis research. Funds are limited nationally, yet are necessary for many students in order to complete their doctoral or MA work. There is \$400 per student offered by the Office of Graduate Studies for travel for dissertation research, and the John Bies International Travel Scholarship offers up to \$2,000 for international travel for dissertation research, but there are no funds specifically targeted for other expenses associated with completing doctoral or master's research or creative activity.

Justification: Adequate funding with which to complete dissertation research is imperative for students to complete their degrees in a timely fashion. Availability of such funds would be a powerful recruitment tool. In addition, demonstrating success in obtaining funding will give our students a competitive edge on the job market upon completion. The experience of obtaining their own funding will improve MU graduate alumni chances of success in seeking research funds when they are in their careers.

Provide clear summary of all supplemental and incidental fees on Office of Graduate Research website that should be linked to each program website

Explanation: Currently there is no summary table outlining all fees for graduate students entering MU. This should be available in a central location and linked through the International Center as well as each program website.

Justification: Full understanding of all expenses necessary to complete their degrees will help students plan for their financial situations and decrease confusion or unforeseen expenses associated with the graduate experience. This will decrease stress and possibly decrease delays of progress and increase retention.

Require disclosure by programs on their website and informational materials of fees and other expected or required professional expenses not covered by the university (e.g. society memberships, publication costs, travel to meetings, etc.)

Explanation: Many graduate programs do not clearly describe fees for incoming students, nor do they disclose other expenses students will be (a) required to or (b) highly encouraged to incur to be successful their programs, such as professional society memberships, travel to professional meetings, publication costs, etc.

Justification: Full understanding of all expenses necessary to complete their degrees will help students plan for their financial situations and decrease confusion or unforeseen expenses associated with the graduate experience. This will decrease stress and possibly decrease delays of progress and increase retention.

Improve communication and information dissemination between Office of Graduate Research and International Center, especially about funding, fees and costs

Explanation: The International Center is the first point of contact for the over 1,000 international graduate students of MU. As of now, prospective graduate students have difficulty understanding and navigating the complicated MU tuition, supplemental fees and incidental fees system. An international student needs to know: (1) net income, (2) total cost of attending, including fees, (3) payroll schedule. Some of this information is already available but not easily searchable, while some is completely lacking. International graduate students need to be guided in understanding how different their financial situation would be being on a scholarship vs. an assistantship, what a tuition waiver does and does not cover, and what level of taxation they can expect.

Justification: Understanding the total cost of attending MU in advance allows students to do a sound financial planning in advance of their arrival. Hidden costs which come as a surprise to the newly arrived international graduate student put unnecessary financial strain on her/him, and take away from the student ability to perform her/his job due to financial stress. The International Center is the natural contact point between MU and its international graduate students, and shall therefore take on itself this informative mission. It would not be arduous to draft an informative financial document to distribute to prospective international students, and the positive impact on the international graduate student community would be tremendous.

Consolidate and summarize information on sources of support for travel and research available to graduate students, with deadlines, and make clearly available on Office of Graduate Education website

Explanation: There are multiple sources of support for travel for professional meetings and experiences. The Graduate Professional Council offers up to \$600 annually, Graduate Student Association \$200 maximum, Office of Graduate studies \$400 maximum, and student organizations can obtain up to \$2,000 per year through the ORG.. This represents excellent opportunities for students, yet there is no one location where students, including those MU is recruiting, can find these funds advertised.

Justification: Students can take advantage of the maximum available support for their professional activities if they can easily find what is available. This will enable them to engage in the professional networking needed to establish a successful career and national and international reputation which will help them obtain employment immediately upon graduation. It will also help them build professional networks that will improve recruitment for future students, and employment prospects for MU students.

Offer financial management/planning seminars for graduate students

Explanation: No such seminars are currently offered targeted at graduate students.

Justification: Knowledge of budgeting and money management can enable students to live and work effectively on stipends or other income, decreasing stress on students and enabling them to manage money in such a way that they can complete their degrees and graduate in a timely fashion while decreasing debt at graduation.

Provide endowed emergency short-term loans for graduate students

Explanation: Currently there is no facility offering short-term loans for graduate students who have dire short-term needs.

Justification: The ability to obtain funds quickly for a short time would ease temporary financial strain on students, and would enable them to keep pursuing their degrees rather than having to take time off and work, which will increase time to completion.

Appendix 5: Working Document on Improving Interdisciplinarity in Graduate Education

Why does an interdisciplinary environment have value?

Real problems are not solved in silos. Reaching across boundaries can generate creativity in problem-solving and allows use of complementary skills and knowledge bases. Given the value that addressing real world problems can create, it is unsurprising that these issues can attract large grants.

“NSF has long recognized the value of interdisciplinary research in pushing fields forward and accelerating scientific discovery. Important research ideas often transcend the scope of a single discipline or program. NSF also understands that the integration of research and education through interdisciplinary training prepares a workforce that undertakes scientific challenges in innovative ways. Thus, NSF gives high priority to promoting interdisciplinary research and supports it through a number of specific solicitations. NSF also encourages researchers to submit unsolicited interdisciplinary proposals for ideas that are in novel or emerging areas extending beyond any particular current NSF program.” (Casual empiricism: 20 of 27 NSF Grants for Graduate Students are interdisciplinary; 14 of 15 NSF grants are for Post-Docs; and the vast majority of funding opportunities are interdisciplinary in nature)

“Interdisciplinarity, in particular, is heralded as an educational paradigm that can meet the ecological challenges of the coming century (Palmer et al. 2005).”
(<http://bioscience.oxfordjournals.org/content/56/9/757.full>)

“Interdisciplinary education exposes students to research in multiple disciplines, trains them in collaborative methods through team research, and promotes new forms of communication and collaboration among disciplines. The goal of interdisciplinary education is to develop new researchers and educators in “science at the leading edge” to effectively address pressing societal and environmental problems (Leshner 2004).”
(<http://bioscience.oxfordjournals.org/content/56/9/757.full>)

“Many of the world’s great problems require an interdisciplinary approach in order to solve them. This is true of problems in the ‘real world’ – e.g. problems to do with health, politics, engineering or cities – but also important intellectual problems – e.g. the relation between reasoning and emotion, the study of culture and identity, the link between music and learning. Much research has shown that the most creative thinkers are those people who can make links between different areas of study, thought, commerce, arts, etc. For example, Prof Sir Ken Robinson says, 'Creativity depends on interactions between feeling and thinking, and across different disciplinary boundaries and fields of ideas' (Robinson, Ken; 2011; *Out of Our Minds*;

Capstone). It is these sorts of creative thinkers that are most valued in business, politics, media, creative industries, engineering, research etc.” (<http://www.ucl.ac.uk/basc/faq/interdisciplinarity>)

The ability to think and work across silos involves understanding of others. As such, the skills related to communication across disciplines can be built on to communicate across different student, faculty and staff groups. Specifically, these skills should facilitate better communication and work relations for under-represented minority students.

Further, this is in line with MU SOP Levers 1.1, 1.2, 1.4, 2.2 and 2.5, and will lead to fulfilling 1.3.

How do we measure ‘interdisciplinary’ scholarship?

Note that any interdisciplinary effort is likely to take some time to bear fruit.

“Collaboration among researchers in multiple disciplines is the essence of interdisciplinarity. Collaboration entails the collective conception, development, and pursuit of a research problem. Doing this effectively requires time to develop a common language, resolve epistemological differences, and define research expectations. Collaborative initiatives have typically been the realm of established senior scientists (Dubrow and Harris 2006), but now are occurring earlier in academic careers, including undergraduate and graduate education.” (<http://bioscience.oxfordjournals.org/content/56/9/757.full>). While we are currently relying heavily on AAU metrics, we do not believe that they will capture the benefit of interdisciplinary scholarship.

What structure or overarching organization can support or foster interdisciplinary scholarship?

Despite the recent Graduate Studies re-organization, in order to foster, support and protect interdisciplinary work, we recommend moving Grad Studies back to a College (see recommendation 1E). While the current Office is functional for data recording and supervision, it is handicapped in providing leadership in interdisciplinary initiatives.

Specific Recommendations:

In order to promote, and provide opportunities for graduate students to become involved in interdisciplinary scholarship, the faculty must be involved as well. As a result, the following recommendations include faculty and graduate students and ways to promote or facilitate interdisciplinary scholarship.

ISSUE #1:

Overarching recommendation:

Establish and promote interdisciplinary collaboration places to facilitate graduate student collaboration and scholarship to enhance the graduate student experience.

Evidence and support:

Space that facilitates both casual interactions and planned collaboration for graduate students can benefit their experience, as without designated space, these interactions and collaborations might not occur. Advanced technology available in these spaces can also improve the graduate student experience, as technology is a key facilitator of collaboration and ease of communication. Colocation can provide for serendipity in collaboration, as well.

Colocation impacts the likelihood of scientific collaboration. In a study at the Harvard Medical School system of hospitals and research centers, a field experiment was conducted examining the opportunity to apply for a research grant. It was found that random colocation significantly increases the likelihood of pair-level co-application by almost 70%. Even “a brief and focused intervention facilitating face-to-face interactions can provide information that impacts the formation of scientific collaborations.”

Boudreau, Kevin; Ganguli Prokopovych, Ina; Gaule, Patrick; Guinan, Eva Catharina; Lakhani, Karim R

Colocation and Scientific Collaboration: Evidence from a Field Experiment. Harvard Business School. Working Paper, No. 13-023, August 2012. <http://nrs.harvard.edu/urn-3:HUL.InstRepos:9502859>

Targeted Recommendations:

According to Knoll Workplace Research, the most common types of collaborative spaces includes three categories:

https://www.knoll.com/media/315/283/CollaborativeWorkplace_wp.pdf

1. Traditional. Extra large spaces 97%; Medium 95%; Small 95%; Huddle Room 78%
2. Specialty. Video conference 86%; Project space 76%; Brainstorm 51%
3. Extra-Curricular. Café 81%; Outdoor 51%; Game Room 43%

	COSTS	BENEFITS
<p>The most common types of collaborative space include three categories</p> <p>Figure 3. Three quarters of participating organizations offer at least seven types of group space, including the newer categories of videoconference and café spaces.</p> <p>Note: Participants were asked to indicate which types of collaborative space exist within their current standard from a list that included ten spaces plus an "other" category to which they could add new types. Figure 2 shows the percentage of respondents indicating their use of each workspace type within their current planning model. The "other" category was selected by 27% of respondents and included 22 subcategories of those listed here: other, all-purpose, lounge, specialty conference space and 17 other types.</p>	<p>ere ing of ng, ng / b</p> <p>-Existing Space -Existing committee: Space Utilization Committee -Might require some renovation</p>	<p>-In line with achieving MU SOP lever 3.1 -Lever 3.1.1 is ongoing</p>

emphasize more graduate use is in proximity of places. Geographically convenient library spaces with 24/7 access and technology opportunities would be an ideal location. The Space Utilization Committee is ideally suited to determine the campus location.		
Provide technology access in campus collaboration places. Technology is the key feature of highly-used collaborative space. (See MU SOP/Vision 2020: 3.2 “Invest in new technologies that promote collaborative and interdisciplinary research and teaching.”) Some areas may have low levels of technology such as access to shared computers. However, it is essential for the positive graduate student experience to also provide graduate students with access to highly sophisticated state of the art technology for their scholarship. Centralized access to sophisticated technology include three-D visualization, three-D printing and fabrication, video conferencing, etc. Multiple video conference places are important because graduate students need professional places where they can be interviewed for jobs. Resources can be best utilized when the cost of software licenses are negotiated campus-wide.	-New computers, software, video conferencing facilities, other tech enhancements	-Better Grad Student placements -In line with achieving MU SOP lever 3.2 and 3.3 -Lever 3.2.1, 3.2.4, 3.3.1, 3.3.3 are ongoing
Encourage high-use of campus collaboration places. Consider proximity, privacy, size of the area, and casual feel of the place. Centralized campus places with 24/7 access could have lockers to store personal items. This would require directives/policies/incentives for use.	- (see next point)	-Encouragement of use of space is necessary to ensure its success
Create a workgroup dedicated to developing the design program for graduate student collaborative spaces, policies and incentives for use as recommended. This group would work with the Campus Space Utilization Committee and review strategic plan recommendations regarding core facilities.	-New committee under the GSO -Faculty and staff time	
Address need for space in home departments. We believe graduate students with appointments should have space in their home departments, as faculty with appointments have, and for the same reason. For graduate students without appointments if space is not available in their home school or college, consider shared workplaces and or centralized spaces. Spaces in the Library for example should be considered.	-Department leadership and staff time -possible sacrifice of existing space -Possible renovation of spaces required	-Grad students better able to do their jobs -Happier undergrad students

Technology is the key feature of highly-used collaborative space

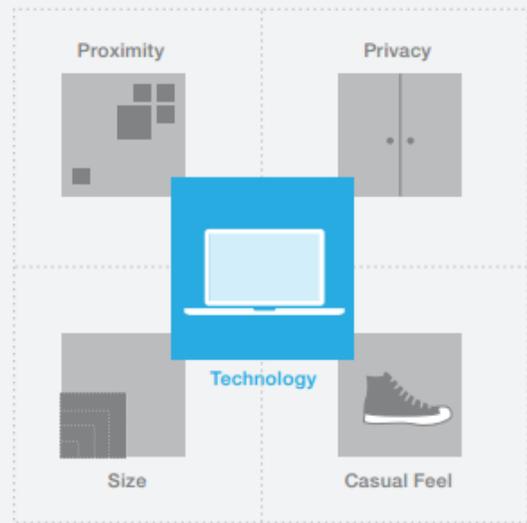


Figure 6. The five meeting space characteristics that drive high space utilization emphasize technology and include planning and design issues.

https://www.knoll.com/media/315/283/CollaborativeWorkplace_wp.pdf

ISSUE #2:

Overarching recommendation:

Interdisciplinary conversations and education of how to work interdisciplinarily, to enhance success of interdisciplinary work and to enhance the graduate student experience

Evidence and support:

Successful interdisciplinary scholarship won't happen overnight, nor will it spring out of anyone's head, full-blown. Sharing best practices, problems, and 'how to' is critical to success. Training both for those interested as well as those involved is necessary to be able to reap the maximum benefits for this complex task

Targeted Recommendations:

	COSTS	BENEFITS
Offer training for those interested in interdisciplinary work, including both the importance of space, frequent meetings, sharing of vocabulary, and identification of the interdisciplinary topic to be addressed, the timeline, etc.	-Either the OGS or a new committee under the OGS is required to coordinate this -Faculty and staff time -Publication of these events, with incentives to show up	-Without training in this, these measures are less likely to be successful -In line with MO SOP 1.1.1, 1.1.2, 1.4.3, 3.2.1
Offer training for those already involved in interdisciplinary scholarship both based on their request for training, but also based on what an outside review identifies as what training might be important.	-See above	
Offer monthly interdisciplinary coffee round tables so those both participating in and wanting to participate in interdisciplinary scholarship can share their best practices, common problems (eg terminology and language), and how to have difficult conversations in an interdisciplinary context. This is especially important for those who have identified barriers and overcome them to share how that was done.	-See above	
Suggest formats for interdisciplinary teaching, team teaching etc, and how the teaching credits vs prep and in-class time were divided up. (Multiple formats are possible, but identifying them prior to the start of the teaching project are very important).	-See above	
Suggest formats for structures to research complex problems. Many formal and informal agreements need to be made, but starting from a blank slate (reinventing the wheel) is a waste of time. Offering training specifically to those involved in the research of complex problems is essential to their success.	-See above	

ISSUE #3:

Overarching Recommendation:

What are barriers to, and what can incentives for interdisciplinary scholarship, in order to enhance the graduate student experience

- **Lower barriers and increase incentives to interdisciplinary scholarship**

Evidence and Support:

We want to make sure we consider the incentives and disincentives for interdisciplinary work. It may be that grant income could increase, because of the broader impact that interdisciplinary work can have. However, publishing might be more problematic. While we can recommend department and university incentives, attention to the impact of interdisciplinary work at the field/national/international level is needed. One balancing effect is that of national grants. The NSF, for example, highly values interdisciplinary work, and supports it at the graduate student, post doc and research project levels. The opportunity for more, larger grants may offset some of the disincentives.

This has a significant down side:

Academic Analytics, a data base currently used on campus to monitor department and tenured or tenure track faculty performance, is built to provide scholarship information by discipline for tenure track faculty. For example in some disciplines professional conferences “count” and in others they do not “count.” Similarly, among interdisciplinary research partners, there are different identified journals for publication that are often ranked lower (or if at all in Academic Analytics) than discipline-specific journals. These are examples of how interdisciplinary work can be a deterrent for professional advancement and discouragement to interdisciplinary work as faculty may encourage graduate students to give preference to work in their specialized discipline benefiting more assured professional advancement.

Mizzou Advantage, created to foster interdisciplinary work, preferences some departments and colleges, and ignores others. It was also initiated through a top-down process, making many on campus feel that they were not properly engaged in the process.

A graduating PhD student who has not published in their ‘mainstream’ journals (or is working toward that) will be placed poorly. It may be more difficult to publish if doing interdisciplinary studies with a large team.

A promising prospective junior faculty hire will be difficult to recruit if they don’t see a path toward being rewarded for publishing in their mainstream journals. Recruitment of graduate students may also be difficult if the type of projects available do not seem doable in the time it takes to get a graduate degree.

Many of our targeted recommendations are focused on promoting and incentivizing faculty. This relates to the interdisciplinary opportunities for graduate students in that if faculty aren't being supported to do interdisciplinary scholarship, graduate students really can't engage in interdisciplinary scholarship. Additionally, in an environment where interdisciplinary work is not supported among faculty, the institution's culture and value for interdisciplinary work will be clear: do not do it.

NOTE: just because some of these suggestions do not lie directly in the AAU indices, they strengthen MU as a research university, and will in turn benefit the more formal metrics. This effort needs to be driven by Associate and Full Professors, for whom the need for discipline-based publications are less than they are for graduate students (who need to publish in their discipline to place well) and for Assistant Professors (who need to publish in their discipline to get tenure). These more junior colleagues will still be encouraged to participate in interdisciplinary work, as it can bring new ideas to their home field, but their publishing efforts need to be more discipline focused at the earlier stages of their career.

Other ideas to be incorporated:

Interdisciplinary work can expand research and teaching opportunities in more applied areas of scholarship. Evidence of this working is the natural connections between the sciences, engineering, business, and the arts with "biomimicry."

Recommendations

- Campus travel funds for graduate students to attend interdisciplinary professional conferences.
- Campus research forums that celebrate interdisciplinary research productivity. We have competitions for science posters and presentations in the visual arts but we are missing the forum for interdisciplinary competitions combining knowledge areas.
- Our Mizzou campus could invest in both a graduate student and their chosen mentor working between disciplines interested in the broad topics such as diversity and inclusion.

Targeted Recommendations:

	COSTS	BENEFITS
A ‘safety zone’ for junior faculty coming up for tenure who have not met their home department’s expectations for tenure, but they have contributed significantly to interdisciplinary scholarship should not be denied tenure out of hand. What would this ‘safety zone’ look like?	-Department and College expectations for tenure would need to change	-In line with fulfilling MUSOP 2.2, 2.3, 2.5
Redefine P&T slightly in order to better support interdisciplinary goals for MU (this would be long-term).	-Department and College expectations for tenure would need to change	
Targeted raises for interdisciplinary scholarship in coordination with the Mizzou 2020 plan could reward faculty for expanding collaborations and continuing productive collaborations. Criteria would have to be clearly developed if this is suggested as a funding priority for the strategic plan and then for the BAAC.	-Identify these on cvs (MyVita) -Financial cost of raises, if it’s not shifting an existing pool of funds for raises	
Awards could be developed for both faculty and students, encouraging interdisciplinary culture overall. These awards would be housed through the OGS and also through University-wide platforms.	-Develop awards, clear qualifications -A new committee?	
Grants currently available through Mizzou Advantage should be revisited for contribution to greater interdisciplinary scholarship. What is the future of Mizzou Advantage as an entity? Are there other mechanisms currently in place that could be expanded?	-Redefine pieces of Mizzou Advantage -Committee? -The current area champions would need to be involved	
Grants for interdisciplinary graduate students should be made available to support graduate student participation, and attract strong graduate students to our programs.	-Define -Find money for grants	
Supplemental fees and incentives: If a student is participating in interdisciplinary scholarship, only have them paying what fees those in their home department pay. Fees might be waived for graduate students in one department, but if the student takes classes in another department, they might be assessed fees by that department. This raises a disincentive barrier to taking classes outside of the student’s home department for the student paying more money. However, departments would have the <u>disincentive</u> to offer interdisciplinary courses without supplemental fees from graduate students in other program areas.	-OGS and departments would need to cooperate -OGS would need to keep track	
Remedies outside of Mizzou, where interdisciplinary work isn’t as valued, as it does not fit in traditional hiring and promotion ‘accepted journals’ patterns, are virtually impossible. This reduces impact and stature of Mizzou	-Awareness	

faculty nationally. May need to work with outside agencies and organizations in order to change traditional standards. This is a long-term change, but will eventually move in that direction due to open access.		
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ISSUE #4:

Overarching recommendation:

Identify and share information about classes and faculty that can address interdisciplinary work, improve current interdisciplinary programs and create new interdisciplinary programs.

Evidence and Support:

There are a number of similar research and stats classes, especially across campus that are very similar, that, if students knew about, would enable them to either take a methods class with students from other disciplines, or to be aware of a methods class that they would like to take, but isn't offered in their home department. This would increase both the opportunity for cross-department collaboration by graduate students, open up more methods classes to those students, and introduce them to faculty outside of their own department. In this last vein, a number of students who do not currently take classes outside of their home department are not aware who is doctoral faculty and who isn't, so when it comes time for them to put a committee together, they are not aware of a valuable outside committee member. This would alleviate that problem, as would a directory of doctoral faculty and their specialties across campus.

It could be argued that Mizzou Advantage has been non-inclusive thus far. It is possible to tweak it to enable the initiative to work better. In addition to updating Mizzou Advantage, departments should review how they are assessed, specifically with regard to understanding and rewarding interdisciplinary scholarship and with regard to the admission/placement numbers. Admitting more graduate students than a department can place is a disservice to the department and the graduate student.

As interdisciplinary scholarship provides so many benefits, we need to consider other ways of bringing it into our curriculum, programs, and scholarship. This is an effort in line with several of the levers of the MU SOP as well as a large effort on the part of the National Science Foundation.

Logistically, the issues of time to degree and the structure of the dissertation have been topics of discussion in a number of departments.

Targeted recommendations:

- **Sub area 1: Taking classes and related access to faculty knowledge across campus; Teaching classes to undergraduate students, Interdisciplinary Professional Development:**

Taking classes and related access to faculty knowledge across campus

	COSTS	BENEFITS
Identify research methods and statistics classes taught across campus, with an organized and updated list of who teaches what when. Currently: there is either overlap or redundancy for a number of methods/stats classes, as well as some departments that don't offer the breadth of methods or stats classes that their graduate students need.	-OGS or a new committee -DGS -generally low costs	-More class sharing provides opportunities for interdisciplinary work
For other required classes (or important classes) , such as courses around Diversity and Inclusion, or Ethics, develop a menu of acceptable courses across campus that can serve in these roles. This would look like the Entrepreneurship Certificate, or Scientific Communication, in that the menu would include courses from many departments, and could be for one course, or for several (and a certificate).	-OGS or a new committee -DGS -generally low costs	-More class sharing provides opportunities for interdisciplinary work
Identify doctoral faculty and their specialties across campus so grad students needing an outside committee member have a place to look. Currently, some grad students have difficulty identifying outside members for committees, or rely on chairs for recommendations.	-OGS or a new committee -DGS -generally low costs	-better, more helpful grad student committees - provides opportunities for interdisciplinary work

Teaching classes to undergraduate students:

Continued support is needed for graduate student interdisciplinary work in writing intensive appointments and also for interdisciplinary graduate student coursework that helps them advance with teaching and securing grants. While deliberation is still in process in how we promote inclusion among faculty, graduate students should receive this same training.

<p>For Grad Student Instructors (primarily those who are solely responsible for a course, rather than graders): to improve preparation and quality of teaching, each department should provide:</p> <ul style="list-style-type: none"> • Determination of appropriate course/s to teach • The ability to sit in on at least one session of the course before teaching it independently • Syllabus or material help for the Graduate Instructor • A Teaching Mentor that can discuss the syllabus, teaching and evaluation methods, common problems, etc • The Teaching Mentor sits in on sessions periodically (recording at least one?) • If current issues are either important to the class, or are university-pervasive, assist the Graduate Student with advice on how to handle the particular issue. • Provide guidance on how your department does office space, keys, ordering of material, in-class technology, etc. 	- Faculty/DGS/OGS time	- Improved Grad Teaching -More responsive grad teaching
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<p>Note: the Office of Graduate Studies already provides:</p> <p>Grad Assistant Teaching Orientation http://gradstudies.missouri.edu/professional-development/build-your-skills/teach-mentor-preparing-faculty/graduate-assistant-teaching-orientation/</p> <p>Minor in College Teaching http://gradstudies.missouri.edu/professional-development/build-your-skills/teach-mentor-preparing-faculty/minor-college-teaching/</p> <p>These recommendations supplement these with course-specific, department specific information, and an on-the-ground Teaching Mentor.</p>		
<p>Compile a list of all courses taught by graduate students, and in what role. This will not only keep track of how much we owe (and need) graduate student teaching, but for some departments and courses, might allow the graduate students to teach in a related department, if their knowledge-based credentials are sufficient. This would also allow graduate students to learn interdisciplinary teaching.</p>	<p>- Faculty/DGS/OGS time</p>	<p>- provides opportunities for interdisciplinary teaching -potentially helpful for departments that occasionally have trouble filling all sections of required courses</p>

Interdisciplinary Professional Development

<p>Grad Student Professional development has a number of current aspects (http://gradstudies.missouri.edu/professional-development/) a quasi-informal interdisciplinary sharing environment can facilitate this. This can be similar to the Freshman Interest Groups (FIGs) or Learning Communities that are primarily focused on undergraduate students. These “Graduate Interest Groups” (GIGs) can include issues such as different dimensions of current interdisciplinary programs, current issues, careers and professional development, publishing, time management, etc.</p> <p>Some of these can be residential, or in shared/nearby departments, or in the library, or in spaces available under Issue #1. They can also be in conjunction with other grad student events (eg sponsored by the GPC) to increase attendance at non-residential GIGs.</p>	<p>- Faculty/DGS/OGS time (will be related to, but can learn from the FIGs)</p>	<p>- provides opportunities for interdisciplinary work</p>
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- **Sub Issue 2: Programs/Departments: Mizzou Advantage and Program Review**

Mizzou Advantage

It has been suggested that Mizzou Advantage has failed to function as an inclusive campus initiative. A number of departments or Colleges have expressed discontent with their exclusion and feelings of being ostracized or non-central, no matter the relative strength of their programs. However, Mizzou Advantage was established to foster interdisciplinary work. Questions to ask for improving this initiative and constructing similar initiatives are: Are advisory boards from a narrow set of colleges and departments on campus (when broader representation would be beneficial)? Are faculty and graduate students doing what they were already doing, rather than shifting them to be more interdisciplinary (so is Mizzou Advantage really having an impact)? Are they for one project rather than leading to a stream of projects? Is there ongoing management of the website for current information?

	COSTS	BENEFITS
<p>Encourage (incentivize) more involved and educated (with regard to what other departments are doing on campus, or at least creative enough to see potential linkages with the under-represented departments) champions who can bring in faculty in departments or Colleges who are currently excluded but who can bring value to the project. Without an active presence reaching out, this is unlikely to happen.</p> <p>MA needs to use their advisory boards better. They need to be more interdisciplinary, and actually get involved</p>	<p>-time from current Mizzou Adv coordinators and staff</p> <p>-time from faculty in the ‘ostracized’ departments to meet with the MizzouAdv champions</p>	<p>-better use of Mizzou Adv money</p> <p>-more units involved in interdisciplinary work</p>

Program Review.

The current Program Review process needs to be expanded to include an emphasis on creating an interdisciplinary environment. Currently, every 5 years each department undergoes a review (faculty performance, assessment of degrees completed, graduate student placement, including comparisons to national data, etc). We recommend a review of the measures and indicators used, to see what there is with respect to interdisciplinary environment in the department, incentives for interdisciplinary classes/teaching (even team teaching), demand trends for both attracting and placing grad students, etc. Data is available via the Council of Graduate Schools (<http://cgsnet.org/benchmarking>) or the IPEDS data from the National Center for Education Statistics (<http://nces.ed.gov/ipeds/datacenter/Default>).

This relates to questions of whether our programs are serving graduate students well. Are there strong programs that do not have many graduate students because funding has been pulled? Are there programs that admit students that they know won’t get placed in an area that is related to their graduate degree? Are there problems with program size as it relates to graduate student opportunities?

	COSTS	BENEFITS
Review the program review process and what it reviews with regard to:	-Department heads and staff	-In line with MU SOP 1.3, 2.2, and 2.3
Support and recognition for interdisciplinary scholarship (faculty and graduate students levels)	-funding for grants, awards and raises	
Assess current funding levels for graduate students by departments	-OGS? -money	
Departmental understanding of graduate student admissions vs graduate student placements. Departments who admit more students than they place should be discouraged from doing so.	-Department time, DGS time	
Support and recognition for diversity and inclusion efforts in teaching, research and service	-funding for grants, awards and raises	

- **Sub issue 3: Problem-focused graduate degrees:**

Since interdisciplinary research facilitates addressing real world problems, and fosters creativity, the ability to offer course selections and offer degrees in interdisciplinary areas is an important implementation of interdisciplinarity. There are a number of schools that are pursuing this in different ways. There are a number of variables, including the nature of the problem, the structure of classes, and the organization of the problem-centered entity.

Nature of the problem, or problem definitions: this can be any significant problem (real world or intellectual). Other programs range from a school whose purpose is to create an environment for solving any problem (and all the steps required to do so) (<http://dschool.stanford.edu/our-point-of-view/>), to specific problem focused programs whose question is so overarching that each year the program can choose a different focus, while remaining in the same overall problem area (see Appendix 2, Wesleyan’s program on the environment), to programs that are built on menus of courses to be selected, and seminars from faculty from different disciplines (<https://www.purdue.edu/gradschool/oigp/>).

Structure of classes: This often takes the structure of core courses (from at least two different disciplines) and a theme area of specialization which also has menus of courses. Some schools take the certificate approach (even at the graduate level, e.g. Duke). This relies on a primary discipline plus additional courses for the certificate.

Organization of the problem-centered entity: Some programs have centers, institutes or think tanks as central features, providing organization and structure to the programs. Problem-based learning involves working with corporate partners, agencies, NGOs, etc. This provides the real world anchor, as well as opportunities for experiential learning for graduate students, as well as internships or possible graduate students funding. Some schools have Colleges of Graduate Studies who manage these programs.

In summary,

- 1) The types of problems are unlimited, from student/faculty generated that might be short lived, to years long complex problems (Environment and Sustainability, World Health, Immigration and Employment, Terrorism, Social Justice) where the specific focus shifts every year to follow the state of the field.
- 2) Program structures range from a home discipline plus certificate degree, to several menus of core courses and specialization (also menu) courses, to stackable sets of courses.
- 3) Formal structures range from reinstituting a College of Graduate Studies, to an Interdisciplinary College of Graduate Studies, a Center, an Institute or an Interdisciplinary Think Tank.

	COSTS	BENEFITS
<ul style="list-style-type: none"> • Identify a combination of faculty and problem to begin planning for problem-based scholarship. This endeavor requires at least one faculty champion. If it can build off of a Mizzou Advantage effort already in place that would be a running start. 	<ul style="list-style-type: none"> -For all of these, a new Interdisciplinary Task Force (can probably be the one that does the training in Issue 2) -If it involves MizzouAdv, it won't be starting from 0 	<ul style="list-style-type: none"> -In line with ongoing priority lever 1.1.1, 1.1.2, 1.2.2, 1.2.5, and 1.4.3
<ul style="list-style-type: none"> • Identify courses (as in the Entrepreneurship Certificate) that can be combined into a set of menus for interdisciplinary degrees from courses currently offered 	<ul style="list-style-type: none"> -That new committee 	<ul style="list-style-type: none"> -In line with ongoing priority lever 1.1.2,
<ul style="list-style-type: none"> • Assess grant opportunities, and apply 	<ul style="list-style-type: none"> -That new committee -Advancement (central and units) -Grant writers 	<ul style="list-style-type: none"> -Money
<ul style="list-style-type: none"> • Assess fundraising opportunities around problems that donors care about and see if there is a faculty champion match 	<ul style="list-style-type: none"> -That new committee -Advancement (central and units) 	<ul style="list-style-type: none"> -Money
<ul style="list-style-type: none"> • Identify corporate, government and NGO relevant partners for the 'real world' part of the problem, and partner with them on the problem, graduate student opportunities (experiential learning and internships) as well as support for the project. 	<ul style="list-style-type: none"> -That new committee -Advancement (central and units) 	<ul style="list-style-type: none"> -Money
<ul style="list-style-type: none"> • Maintain awareness of including underrepresented minorities in these projects 		

- **Sub Issue 4: Degree Logistics**

There are several degree-related logistical questions that deserve conversation. They are not necessarily related to interdisciplinary work, but will need to be included in the conversation of what interdisciplinary programs and degrees should look like. The time-to degree issue is important as some schools offer funding for only a certain period of time. Additionally, the longer a student is in a program, the more debt they are likely to accumulate. All graduate degree-offering colleges/departments should review their time to each degree offered, and ensure it is close to national averages if data exists. We recognize some programs do not have these national averages because they are already interdisciplinary.

Additionally, primarily for the PhD, different units are offering a 3-article dissertation, rather than one stand-alone work. Different colleges/departments should assess where their field is on this question, and discuss their preferences. As new, interdisciplinary PhDs are offered, this discussion should be a part of the set up and creation of the problem-centered area.

	COSTS	BENEFITS
Time to degree (masters, PhD, online and resident). We need to ensure that we are within national standards by field. Departments should check national standards by field (the Council of Graduate Schools has this information) and address timelines.	-DGS -OGS -Departments	
Dissertation or 3 articles. The choice here impacts time to degree and ‘ease’ of publication. Graduate degree-granting units should have this discussion (including the input on time to degree above with placement data) and determine the best option for that unit.	-DGS -OGS -Departments	

Other Items:

- 1) Tie thoughts and ultimately recommendations to areas where there are already funds or requests for funds.
- 2) Online students. Many online students are already engaged in industry. How can we capitalize on their interdisciplinary networks, their experiences?
- 3) The lack of resources (journals and databases) to support our research. MU Libraries should be adequately funded so as to provide the journals and databases necessary for research and learning at a doctoral research university.

Appendix 6: Recommendations for Improvements Relating to Recruitment and Placement of Graduate Students

- The Office of Graduate Studies should undertake a comprehensive review of the information provided to prospective graduate students as part of the Graduate Studies' website, consulting key audiences (e.g., current and prospective grad students, DGS's, etc.) to identify the information that is most needed and how to make this information available most effectively. Areas of particular concern include:
 - Graduate Student Funding
 - Research & Teaching Assistantships
 - Scholarships & Fellowships
 - Fee Waivers
 - Graduate Student Health Benefits
 - Graduate Student Housing (campus and community directory / resources)
 - Child Care (campus and community directory / resources)
- In conjunction with the International Programs office, the Office of Graduate Studies should undertake a comprehensive review of all information provided to prospective international graduate student applicants, consulting key audiences (e.g., current international grad students and other international affairs personnel) to identify the information that is most needed by international graduate students and how to make this information available most effectively. Areas of particular concern include:
 - International graduate student employment and funding sources
 - International graduate student housing
- In conjunction with MU Marketing & Communications, the Office of Graduate Studies should develop a comprehensive strategic communications plan that promotes graduate education and research in general to be used primarily in the recruitment of prospective graduate students. These messages should:
 - Highlight case studies and “success stories” focusing on graduate student research and career impact of Mizzou grad students;
 - Feature current graduate students who explain “What it Means to Be a Mizzou Grad Student” for prospective grad students.
- In conjunction with MU Marketing & Communications, the Office of Graduate Studies should develop a comprehensive strategic communications plan that seeks to develop a positive image of our academic community, focusing specifically on campus diversity and inclusion and highlighting graduate research and education of students and faculty from underrepresented and marginalized groups. This plan may utilize streaming video for web communications, national broadcast advertising as part of MU's strategic communications (e.g., feature ads during national sports broadcasts), print advertising targeted to the broader academic community (e.g., Chronicle of Higher Ed, Inside Higher Ed, etc.).
 - A strategic advertising plan focusing on the above themes is needed, particularly at the present time, to address the negative publicity MU has received in the national media that may deter the recruitment of students of color and other marginalized groups.

- The Office of Graduate Studies should consult with each Department to assist Director of Graduate Studies with the development of recruitment resources, including:
 - A recruitment video customized for each department that can be featured on the department’s website and sent to prospective grad students (here, a general video template would be developed and then each department could insert its own tailored information)
 - A recruitment brochure (accessible as a printed and electronic piece) that can be tailored for each department (again, a general brochure template developed with each department inserting its own information, highlighting key faculty, visuals, etc.).
 - Recruitment seminars should be developed to assist DGS’s with “best practices” for recruitment
 - Funds should be made available to departments for recruitments of prospective graduate students
- The Office of Graduate Studies should compile program-level data and develop reporting templates that will be useful for prospective graduate students and will also assist graduate programs with their own strategic planning. Both program specific and combined graduate program data should be updated annually and posted to the Graduate Studies’ website and individual program websites that report the following graduate program statistics:
 - **Admissions and Enrollment Data**, including:
 - Total number of graduate students applied
 - Total number of graduate students admitted
 - Total number of graduate students enrolled
 - Enrollment Demographics, including:
 - Total number of graduate students per program
 - Gender of graduate students per program
 - Citizenship (US / International) of graduate students per program
 - Ethnicity of graduate students per program
 - **Attrition and Completion** rate per cohort year for each program
 - **Graduate Program Outcomes**, including:
 - Total number of graduates students enrolled per year
 - Total number of graduates per year
 - Time-to-degree for those earning graduate degrees
 - Total number of those enrolled leaving program without degree
 - Program Outcomes indicated by gender, citizenship and ethnicity
 - **Ph.D. Graduate Placement** data should report “first placement” of graduates per program according to defined categories (e.g., Academic, Post Doc / Additional Training, Industry, Govt / Non Profit, Other).
 - Ph.D. Graduate Placement data should report level or type of institution for academic placements
 - Graduate Placement data should report most frequent employers (e.g., Top 10 or Top 25) for each placement sector

A “best practice” model for reporting graduate program statistics is provided by the Northwestern University Graduate School and can be found at:
<http://www.tgs.northwestern.edu/academics/phd-program-statistics.html>