

April 3, 2015

Department of Psychological and Brain Sciences Strategic Plan Research and the Faculty

Vision for the Future

Research on the science of science (Boyack et al., 2005) confirms that “psychology” is a critical hub discipline, with dense connections to and broad impact on many other fields, including biology, physics, medicine, economics, law, sociology, education. This is a field that connects other disciplines and is the bridge between social science and policy and the sciences...For these reasons the quality of psychology at major universities is central to the success of the university in its undergraduate and graduate teaching and research and is particularly central to the integrative, innovative and cross-cutting collaborations believed to be loci of 21st century advances in all the sciences. The Department of Psychology at the University of Massachusetts is well-poised for its role for the future...” (Report of AQAD Review Committee, Dec 5, 2013)

Although the American Psychological Association describes psychology as “the study of the mind and behavior,” this phrase does not begin to capture the complexity of the phenomena being examined in the UMass Department of Psychological and Brain Sciences (PBS). PBS at UMass Amherst embraces a broad, integrated vision of the field. In order to understand behavior, one must understand its biological underpinnings as well as the broader contexts in which it occurs. Faculty research focuses on connections across levels of analysis, from the cellular and molecular to individual, relationship, family, and group levels. Further, faculty are committed to translation and dissemination of research to advance the common good. In order to better describe our department, we changed our name to the Department of Psychological and Brain Sciences in 2014.

The five-fold **mission** of the Department of Psychological and Brain Sciences is 1) to conduct high quality research that advances scientific knowledge in the broad disciplines of psychology and neuroscience and contributes to human health and well-being; 2) to educate undergraduate and graduate students in the field of psychology and neuroscience by providing a dynamic learning environment that includes classroom courses, research experience, and internships; 3) to train students through exposure to cutting edge technology for postgraduate study or employment in the increasingly technical workforce; 4) to carry out significant service-related responsibilities that directly benefit the profession, the department, and the university; and 5) to engage in professional outreach activities that benefit citizens of the Commonwealth. Our **vision** is that the Department of Psychological and Brain Sciences at UMass Amherst increasingly will be recognized for the cutting edge research and the excellent education that it provides for its students, as it connects robustly with campus priorities in the life sciences and diversity.

To accomplish our mission, the department is organized into five divisions (Behavioral Neuroscience, Cognitive Psychology, Developmental Science, Social Psychology, and Clinical Psychology). Although the divisions contribute to the administration of our large department, faculty research increasingly cuts across divisional boundaries, and new hires typically conduct research that is relevant to multiple divisions. This trend, encouraged by AQAD 2013 feedback, will increase in the foreseeable future. PBS comprehensively represents the subfields of psychology and links the study of behavior with the relevant underlying neurological and physiological processes. In addition to retaining a strong base of work that represents the breadth of the field, our vision for the department is growing in four specific ways, each of which adds connective tissue that links the current divisions and lowers the silos. The four areas of focus are 1) neuroscience, 2) developmental science, 3) cognitive science, and 4) diversity and inequality.

Neuroscience

Neuroscience is situated at the nexus of interdisciplinary endeavors making exciting advances in brain science and revealing the complex interactions of brain, behavior, and context. It provides understanding of the biological basis for behavior, learning, mental health, and a multitude of neurological diseases. Neuroscience cuts across the boundaries of biology, psychology, biochemistry and molecular biology, chemistry, physics, computer sciences and other disciplines, but it also cuts across all areas of psychology. A robust neuroscience presence is vital to maintaining the position of our department in the forefront of contemporary Departments of Psychology as well as neuroscience departments with an emphasis on behavior and mental health. The College of Natural Sciences has engaged in a strategic planning process for neuroscience on the Amherst campus. Approximately half of the faculty in the department have active research programs involving neuroscience, and all faculty represented in our current searches have neuroscience interests. Thus, neuroscience is a strong integrative research theme within PBS, and PBS is an important component of the University's neuroscience initiative.

Developmental Science

Research in developmental science addresses 'what' develops, 'how' developmental change occurs, and contexts of development. The Developmental Science Initiative brings together researchers from within the department's Developmental division, other divisions within the department, and other departments across campus to build a multidisciplinary research and training program that approaches human development by integrating research across multiple domains (e.g., biological, physical, health, cognitive, affective, and social) and levels of analysis (neurological, behavioral, relational) to examine the influence of their interactions across the lifespan. Faculty use diverse methods (behavioral, clinical, neuroscience – from molecular to behavioral levels) to study a wide array of developmental outcomes (e.g., cognitive, affective, adjustment, relational, changes in brain structure and function) that make a difference in the daily lives of developing persons and their families. Teaching and training occur within the lab and the classroom at the undergraduate, graduate, and post-doctoral levels and provide students with an overview of current theory and research related to development across the life span. The goal of this initiative is to become one of the premier centers of scholarship, teaching, and outreach devoted to the understanding and fostering of human development. We are currently experiencing an exciting period of growth in this area, with the search for a senior faculty member to lead this initiative underway. A very active and talented group of young faculty have provided excellent leadership for this initiative. Over 1/3 of PBS faculty have research interests in developmental science, and a recent developmental science retreat attracted over 50 attendees from the department, other departments across campus, and the Five Colleges.

Cognitive Science

Cognitive science is the interdisciplinary study of the mind and its processes. Traditionally, it has included researchers from psychology, neuroscience, computer science, philosophy, linguistics, and communication disorders. PBS has existing strength in cognitive science and a history of close collaboration with linguistics and computer science. An Institute for Cognitive Science is currently under development, with faculty contributions from six departments spanning four colleges. The Institute will facilitate interdisciplinary research and education at our University and enhance the external visibility of UMass Amherst Cognitive Science.

Diversity and Inequality

The changing demographics of the United States and contentious relations across lines of race, class, ethnicity, nationality, religion, gender, and sexual orientation require that departments concerned with understanding brain, mind and behavior serve as sources of expertise relating to issues of diversity and inequality. PBS continues its strong commitment to diversity of all sorts, but seeks to enhance our profile in three ways: a) increased departmental participation in the UMass Center at Springfield, b) intentional recruitment of diverse faculty, and c) recruitment of faculty whose research includes topics relating to diversity, multiculturalism, and inequality. Increased presence at Springfield will allow us to enhance

recruitment of diverse research samples, while also connecting with and helping address community needs. The department currently has fewer than 10% faculty of color, and only two of them are from underrepresented minority groups. We are committed to increasing this proportion. We have been much more successful in attracting a diverse undergraduate (approximately 20.6% students of color) and graduate (approximately 26%) student body. Understanding the ways in which all kinds of diversity contextualize behavior is essential to progress in the field of psychological and brain sciences.

Faculty Achievements – Making Our Mark

PBS faculty are recognized as world-class contributors to their disciplines and sub-disciplines. Among our faculty are Fellows of the American Psychological Association (9), Association for Psychological Science (9), American Association for the Advancement of Science (2), National Council on Family Relations (2), and Gerontology Society of America (1). The faculty is productive, averaging 2.9 publications per year over the past 3 years. Of our 38 research-active faculty, 16 currently have active federal research grants supporting their research, totaling \$14.5 million, and an additional 14 have submitted grant proposals for external funding in the past 3 years. Faculty serve in leadership roles on journals, including Editor (1), Associate Editor (4), and Assistant Editor (1), as well as special issue editors and members of numerous editorial boards. Recent awards indicating national or international stature include the President's Award from the American Society of Primatologists (Novak), the Early Investigator Award from the Endocrine Society (Remage-Healey), the Morton Deutsch Award from the International Society for Justice Research (Janoff-Bulman), and the Gold Medal Award for Lifetime Achievement in Psychology in the Public Interest (Strickland). The clinical psychology program was accepted as a member in the Academy of Psychological Clinical Science, placing it among the best clinical science programs in the country.

Vision for the Next Decade

Projected faculty hires will contribute to strength in our priority areas (neuroscience, developmental science, cognitive science, and diversity and inequality), while also acknowledging that other replacement hires in critical areas will be needed in order to insure that the department represents the field in a way that will provide appropriate training for students. To the extent possible, we will be seeking new faculty whose research connects with at least two divisions, adding to increasingly robust interactions and collaborations across the department. We are taking steps to decrease the number of undergraduate majors from over 1700 to approximately 1200, thus reducing teaching and service loads currently carried by faculty and enhancing opportunities for more personalized advising of students. We will also conduct a review of PBS teaching loads in light of those in other life sciences departments on campus.

Serving the Public Good and Increasing Impact

Many of the research topics pursued by our faculty have significant implications for the public good. Relevant topics include the psychology of peace and violence, the importance of sleep for children's well-being, stress in low income families and during critical developmental periods, binge drinking, attention deficit hyperactivity disorder, outcomes for children who have experienced early adversity, issues facing children who have experienced adoption or foster care, memory, implicit bias and stereotyping, and development of mathematical reasoning. Impact can be increased by providing funding for faculty to attend professional conferences and by providing opportunities for faculty to learn best practices in the art of dissemination. Many faculty already translate and disseminate their research for the media as a part of their ongoing work. We will use the department's enhanced communications efforts to publicize findings that have immediate significance for the public. The translational effort could be considerably enhanced university-wide if dissemination were more strongly recognized in the promotion and/or merit process and if faculty were more systematically trained to do this specialized kind of work. PBS faculty are working with cross-college efforts such as the Center for Research on Families and Public Engagement Project are providing important leadership in this arena; PBS faculty are well-represented in both efforts.

Realizing the Vision

What is our department's plan for realizing the vision?

**We have a number of hires on the horizon in the next five years. Our highest priority for new hires will be that they address one of our priorities and/or their expertise cuts across at least two divisions.

**We will continue to seek NIH and NSF funding, but will also explore options with other government branches, industry, and private foundations that might find our research topics compatible with their missions. We will also be aiming toward multi-investigator and training grants.

**By reaching out proactively to alumni, we will seek to identify potential donors.

**Clinical psychology will be proposing a professional master's program (Licensed Mental Health Counselor), which will be administered through CPE and help subsidize the clinical doctoral program and the operation of our training clinic.

How are we mitigating against the impact of the decline in federal funding for research?

NIH and NSF funding are increasingly competitive; fewer submissions are funded, necessitating time-consuming resubmissions and gaps between funding cycles. We are already taking the following actions:

**Supporting faculty in participating in CRF and ISSR faculty scholars programs for writing major grants

**Discussing further opportunities within the department for mentoring and peer support in grant writing

**Surveying faculty about unmet needs for pre-award and post-award grant support, with a commitment to realign staffing in order to make sure that those needs are met

**Realizing that research needs to be increasingly interdisciplinary and collaborative – but balancing this against the need for basic research in areas of significance

**Planning to sponsor more interactive discussions within the faculty about options “beyond the R01.”

Individuals discuss things of this sort within their labs and with specific colleagues, but we have not typically had department-wide dialogues of this sort. We will also encourage faculty to have direct contact with program officers at NIH and NSF, and will engage faculty who have strong funding records to share their expertise with the department.

**Planning further investigation of funding opportunities through private foundations and industry.

**Advocating for the availability of bridge funds for faculty who are between grants and for seed funding for faculty who need to conduct pilot work that will enable them to write competitive grant applications.

Do we have the right physical and administrative infrastructure to support the vision?

The administrative infrastructure of PBS requires retooling and significant investment in order for us to achieve our goals. The department currently has 45 tenure stream faculty, 9 FTE lecturers, 14 state-funded staff, 1710 undergraduate students, and 95 graduate students spread across six buildings (Tobin, Central animal facility, Bartlett, Morrill, Middlesex, and Life Sciences Lab 1). These buildings range from newly-opened (LSL) to scheduled-for-demolition (Bartlett), with corresponding variability in the quality of their facilities. With the transition to a new Department Chair in January, 2015, we upgraded our Associate Chair position to greater specificity (Associate Chair for Research) and expanded responsibility. With a growing number of our neuroscience faculty in LSL, the job has become much more complex because of the necessity to deal with multiple university offices in order to meet needs for space, equipment, and animal accommodations. A consistent representative from the department who knows the key actors and fully understands the changing dynamics of neuroscience research at UMass is critical to success.

We are naming an Associate Chair for Teaching, Learning, and Advising. This position is essential in order to serve our extremely large student body effectively and provide students with the level of instructional support and advising that they deserve. Although we currently have an Undergraduate Program Director and Graduate Program Director, there are broader curricular and programmatic issues that require bigger-picture thinking. Furthermore, despite heroic efforts on the part of our advising staff,

we continue to receive lower than desired student satisfaction ratings. The new Associate Chair will be tasked with addressing these broader issues, while also supporting the Department Chair in coordinating the teaching schedule. This will have to be done with ever-increasing attention to the financial implications of decisions related to course offerings.

The administrative positions in PBS have been stable for many years. Staff realignment will be essential in order to meet the current and future needs of the department. Going forward, staff will be trained in new ways of working collaboratively, sharing electronic files in secure and standardized ways, and getting the most out of technology. Several new staff functions will be implemented through a combination of realignment and training of existing staff, with the addition of positions where necessary.

Financial Strategy. As we enter into the RCM-like environment and work entrepreneurially to develop a portfolio of diversified income streams to support our department's mission, staff with training in business forecasting, strategic financial management, and a clear understanding of the university's financial allocation plan are essential.

Alumni Relations and Financial Development. PBS has thousands of alumni. Unless the alums take the initiative to stay in touch with us after graduation, we lose track of them, especially as their UMass emails become deactivated. (We strongly encourage the administration to allow students to retain their UMass email addresses permanently, as it will connect them more effectively with the university and vice versa.) Most of these alumni have never been tapped to become donors, and it is our intention to expend significant energy in connecting with them, cultivating their engagement with the department, and developing a stronger donor base to assist with faculty and student needs. This staff person will assist the newly formed committee on Alumni Relations and Financial Development.

Communications. We are in the process of re-designing our website through University Relations and OIT, moving it from an unsustainable proprietary platform to the university's platform. A committee is working on the conceptual design, but there will be a significant amount of work involved in revising and moving content, and in keeping the new website fresh and engaging. In addition, the department currently has no print materials for use in publicizing the department. The new Communications Task force is looking into the short-term and longer-term needs of the department for material in different media (print, web, social media, etc.) Tech-savvy staff with graphic design expertise are necessary in order to facilitate this function.

Information Technology. Additional IT staff support is essential. When our one full time IT support person is away from the office, ill, or on leave, we are left with little or no assistance. Tobin Hall alone houses several hundred computers used to meet our research, instructional, and administrative needs. Many of these computers are beyond their reasonable life expectancy and in need of continuous attention. OIT is creating new university-wide standards that will require more uniformity in computer set-ups in order to guarantee data security and protect from ever-increasing malware threats. Staff will need training in order to capitalize fully on the advantages of an electronic working environment. We are not staffed to deal with these new requirements, but we realize the importance of data security and understand the need to comply. Different areas in the department, most notably the Psychological Services Clinic, house very sensitive data (i.e., patient records). Because of the inadequacy of our departmental IT infrastructure, they have had to outsource their IT support needs to OIT at considerable cost.

Grant Development. Additional support for pre-award grant development is essential, as expectations for faculty grant-writing are increasing. At present, PBS addresses pre-award proposal development through a combination of the following: a) a small proportion of time from one departmental

staff person who also does purchasing and post-award support, b) CNS pre-award staff (e.g., Corliss Elizabeth) – whose work has been spectacular and greatly appreciated, and c) support by programs such as CRF or ISSR, when 2 to 3 faculty per year have developed grants as part of their Faculty Scholars programs. Going forward, some pre-award work (especially for more routine grants) will continue to occur in the department, and continuing training will be provided to our current staff in order to maximize effectiveness. More complex grants (e.g., NIH, NSF, grants with subcontracts, program project, center, training grants) will need to be supported by CNS staff. Post-award support will be provided in the department. All new faculty are now being trained in Summit so that they can track their own balances in their start-up, RTF, and grant budgets.

Department Chair Support. The administrative workload in a department with 55 faculty, multiple programs, over 1700 undergraduate students, and over \$14M in grants is substantial. Currently, the most senior staff member in the department supports the Department Chair while also supervising the entire staff, serving as the HR officer for the department, and serving as receptionist in the chair's office. A full time staff person is needed for Department Chair support.

Are we able to recruit and retain the faculty we need?

In recent searches, we have been very successful in attracting numerous highly qualified applicants. CNS has made it possible for us to offer competitive salary and start-up packages. Candidates uniformly report feeling welcomed in the department and feel that there is a positive spirit of collegueship. (This spirit was also noted by the AQAD 2013 review team.) Many are attracted to the college-town atmosphere of Amherst and the positive reputation of its public schools. The two most significant challenges have been spousal hires and space.

Spousal Hires. The disestablishment of the Partner Employment Program has made hiring faculty with academic spouses extremely difficult. Faculty who move to large urban centers such as Boston with many colleges and universities find spousal employment much more easily, and often on their own. Because of our geographical location, UMass is the only game in town (in terms of major research institutions), and the liberal arts colleges in the area do not have resources that meet our needs. A successful hiring offer frequently necessitates attention to the candidate's partner. The candidate's department is often called upon to broker such hires, which may be in other departments or colleges on campus. Difficulty in addressing these issues leads to delays in hiring and lost opportunities.

Research Space. Our other big challenge has been research space, for faculty conducting both animal and human research. With regard to animal research, our department is currently caught in a perfect storm, brought about by several factors: a) need to move animal housing out of Tobin Hall in order to meet specific health requirements; b) delays in creating suitable vivaria in LSL and Morrill to house those animals, which could take an additional 24 months or more; c) impending closure of Bartlett Hall, which currently houses the labs of 6 tenure-stream PBS faculty members and 2 research-active emeritus faculty in a total of approximately 7500 square feet; d) need for renovation of 4th and 5th floor space in Tobin (currently used as wet labs and animal housing) to accommodate faculty dislocated by the Bartlett closure; and e) a challenging transition into LSL, where there are numerous competing stakeholders, often with conflicting claims to space. Leadership for clarifying allocations has been diffuse, but some steps toward clarity are being taken (e.g., Infrastructure Support committee). Even when discussions have seemed productive, funding is not necessarily in place to achieve the goals. In discussions with planning and space staff, it has been noted that proximity of wet labs to animal space and of researchers to each other is not high on the list of the University's priorities. We look forward to the behavioral neuroscientists being in close, if not contiguous, space, so that they and their trainees can benefit from discussions that only happen when colleagues have laboratories close to each other. Further,

we look forward to their wet labs being in proximity to their animal rooms to facilitate their research, since so much of their research requires transport between animal rooms and wet labs.

With regard to human research, our space in Tobin Hall is insufficient in size and will come under greater pressure when Bartlett is demolished. Research labs that have been remodeled for new incoming faculty are quite nice. Labs for long-time faculty (as well as public areas in the building) are in much poorer shape, and have ongoing problems with temperature control, ceiling tiles that are stained or falling down, peeling paint, broken light fixtures and clocks, crumbling cement steps leading into the building, and more.

We also desperately need administrative space that is conducive to our work. Most of the offices in Tobin Hall are along long corridors and work against the types of collaboration required by administrative staff and by advising staff working with students. We need redesigned space for student services that will allow for advising and activities such as peer counseling and tutoring. We also need redesigned space for administrative offices, so that staff can be situated in suites that facilitate interaction rather than in long corridors. We also need at least one more seminar room, as competition for meeting space is keen and our current rooms are always fully booked. We also have two adjacent seminar rooms desperately in need of upgraded furniture and projection capability as well as soundproofing between the two rooms.

Diversity

We are working hard to increase the diversity of our faculty. Three of our hires from last year and one from this year represent diverse populations. Nevertheless, the need for greater diversity in our faculty continues. Attention to diversity will continue to be a hiring priority, and diversity is one of our four programmatic priority areas. We also know that the greatest success in faculty retention comes when a cohort of diverse faculty can be hired together. We need faculty of color, regardless of whether they conduct research on multicultural issues; but we also need faculty (regardless of their own background) whose research and teaching expertise addresses multicultural issues.

Thoughts about Tenured Faculty

CNS has begun important dialogues about next steps beyond tenure. A recent meeting of department chairs and heads elicited a spirited discussion about the ambiguity inherent in the Red Book criterion for promotion to full professor: “record of achievement sufficient to have gained substantial recognition on and off campus from scholars or professionals in his or her field.” At mid-career, mentoring which is routinely provided to assistant professors becomes a lower priority, and the desire for mentoring is much more individualized. Rather than need generalized mentoring on an ongoing basis, mid-career and senior faculty often need mentoring about very specific issues at very specific times. The role of the department chair is critical in providing some of this mentoring and in knowing who might have specific needs. It is critical for the department chair to have significant time allocated for faculty mentoring. Because of the size of our department, it may also be more important for other senior faculty to take on more formalized roles in mentoring, perhaps through a “mentor corps” of senior faculty who receive preparation and agree to take on this important role for their colleagues. It is important for the department to continue to have an open atmosphere so that the mentoring needs of all faculty are met, formally or informally. We are also committed to recognizing excellence among our faculty; the Departmental Personnel Committee will take a more proactive role in identifying and nominating faculty for honors and awards.

Creative Thinking about Faculty Retirement

The “Academy at Amherst” concept could be useful for enhancing a sense of community among retired faculty. Since most PBS faculty have active labs, an “Academy at Amherst” location in the library would serve a social function but not necessarily be helpful for advancing faculty scholarship in our disciplines.

Our recent research survey (in progress) inquires about faculty views regarding shared lab space. Solutions to this problem will continue to be highly individualized, depending on the nature of faculty research. Finding ways to engage senior faculty (e.g., through activities such as mentoring) and retain their connection post-retirement will be an important goal in coming years. From the department's perspective, bridge funding to hire new faculty when others are close to retirement would be extremely useful, especially when faculty have elected the phased retirement program and their retirement date has been set. Incentives to encourage faculty members to crystallize their retirement plans would be very useful.

**Unit Strategic Planning – Action Agenda
Department of Psychological and Brain Sciences (PBS) – Graduate Program**

Departmental Governance and Graduate Program Structure

PBS is divided into 5 disciplinary areas run by Division Heads. These areas are: Behavioral Neuroscience, Cognitive Psychology, Developmental Psychology, Social Psychology, and Clinical Psychology. All of the graduate students supervised by faculty in Behavioral Neuroscience are admitted through the interdisciplinary program in Neuroscience and Behavior (NSB), which has its own governance and program director. Moreover, many NSB graduate students working with PBS faculty members will not earn a degree in PBS programs. However, the affiliation of NSB with PBS underscores PBS as a hub department, integral to the operation of interdisciplinary programs.

Division Heads serve on the Department Executive Committee (EC), which (a) reviews all Departmental activities, (b) enacts policy changes that arise from the various standing committees, (c) develops strategic plans, and (d) addresses issues impacting the Department. A graduate student representative, elected by the graduate student body, is also a voting member of the EC. The Graduate Program Director (GPD) and the Graduate Studies Committee (GSC), chaired by the GPD, oversee graduate training. The GSC approves graduate admissions, insures that Departmental graduate requirements are fulfilled, regularly re-evaluates policies and procedures regarding graduate training, and conducts curricular reviews. However, Divisions retain substantial autonomy with respect to graduate training. Each Division has its own (a) admissions committee (though accepted students must also be approved by the GPD/GSC), (b) curricular requirements in addition to Departmental requirements, (c) comprehensive exam format, and (d) colloquium series.

2.1.1 Vision

As summarized in our “look in the mirror” report, our Department has competitive advantages in graduate education on which we intend to build. In particular, our faculty members are extremely competitive on most primary scholarship metrics, which speaks to the quality of training that our students receive and the support of graduate research. To grow this strength, we will strive to take the following actions:

- Maintain and build scholarship programs, like the immensely successful one sponsored by our Center for Research on Families (CRF), to support faculty grant submissions (which in turn should allow for greater financial support for graduate students)
- Reallocate current staff resources away from antiquated tasks like typing and more toward mission-relevant tasks like grant submission support
- Find creative ways to get more grants into the Department by creating or bringing back incentives for faculty to submit grants; for example, we propose to:
 - Enhance awareness about, and compliance with, our various Departmental course release policies during semesters in which a faculty member submits a major extramural grant; although several of such polices exist, awareness of them has appeared to wane
 - Consider the feasibility of an RTF addition (e.g., \$2.5K) to a faculty member for each major extramural grant *submitted*; we believe that the monies will be returned (and beyond) via the Departmental share of indirect costs with a higher grant success rate
 - Enhance awareness that faculty are returned 10% RTF from grants received; this policy may not be universally understood, and it represents an incentive in itself

We are also competitive with regard to recruiting excellent, diverse students for whom we provide quality mentoring and the support that they need to complete graduate school in reasonable time and obtain training-relevant jobs. Our “look in the mirror” revealed strengths in our selective admission process with high enrollment yield, highly competitive graduation rates and years to degree (in relation to other University programs and peer universities), and student disclosures that they would choose UMass again. However, we also noted a challenge of having limited financial resources for recruiting prospective graduate students and for funding scholarship activities (e.g., conference travel) for current graduate students. To address this challenge, we will strive to take action in the following ways:

- Re-think our admissions processes within and across our divisions/programs; for example:
 - Foster increased interaction/communication across our Divisional lines; we propose that the GSC (led by the GPD) initiate intentional discussion among Division Heads to foster such cross talk
 - Create a funding pool *across* divisions/programs to support the organization of a *common* recruitment day/weekend involving all divisions that is high on flash and substance
 - Increase our Web presence through an informative and easily navigated page devoted to recruitment (with associated re-allocation of Department staff to the endeavor)
- When corresponding with applicants, put our best foot forward in terms of what we can *promise* in terms of funding, and note that we will restrict future recruitment commitments to available funding (letting current and prospective students now that we will not overcommit as we see them through to their terminal degree)

Our “look in the mirror” made it painfully clear that one of the main reasons that strong applicants enroll with our competitors is because of our low stipends, lack of summer support, and high curriculum fees. To put it bluntly, we do not fare well against our competitors in this regard. Stipend comparisons to peer institutions from a 2009 informal survey of Department Chairs through COGDOP (Council of Graduate Departments of Psychology) revealed that the UMass Psychology Department was considerably lower than all but one other Research 1 peer institution.

Based on a survey of students (n=24) who enrolled elsewhere after applying to UMass from 2012-2014, 7 (29%) indicated that it was because the other program offered a better financial package or lower fees. The other two reasons cannot be addressed directly, as they reflect a better fit to the program (10; 42%) and a better geographical location of the program (7; 29%). Fortunately, we are still able to recruit excellent students with a diverse and gender-balanced student body, and a good number of these students are able to obtain competitive *external* fellowships. Thus, we are confident in the training that we have to offer the top students; we just need to do better at getting more of them to choose UMass PBS. Below (in section 2.1.2) we provide thoughts on ways to increase our financial offers, which would address the negative sequelae of our uncompetitive stipends.

On average, we feel that PBS is right-sized in terms of our current admission numbers (~11-16 new students/year). We value graduate training, as well as the role that graduate students play in contributing to new scientific knowledge. Although we would like to retain flexibility in admission numbers based on variables that change from year to year (e.g., lab openings, faculty grant support, faculty sabbaticals/leaves), we are committed to maintaining a vibrant department that trains the next generations of scientists. With respect to this training, we are also committed to training students for careers in research and/or academic teaching (and our “look in the mirror” told us that our students

largely go on to be employed in training-relevant positions; 90% of our most recent 131 students who earned their doctorates). To continue realizing this training goal, we will:

- Train on research and teaching skills that can generalize to multiple settings (including, but certainly not limited to R1 research institutions—other settings could include research hospitals, research firms/industry, teaching colleges, etc.)
- Formalize even further our efforts to train in teaching practices

Our “look in the mirror” also made it clear that we need more TAs to support our large classes. Support for our largest classes is exceedingly low and, thus, pedagogically disadvantageous. Unfortunately, we could not figure out a creative way to remedy this without asking for more financial resources. Thus, we request guidance from the higher administration as to where such additional funds could derive. We believe it is vital to increase TA support and to provide more resources for our TAs to get up to speed for the job.

2.1.2 Realizing the Vision

Improving support for our graduate students is both challenging and vital. We do not wish to admit fewer students; thus, we are aware that our financial support for current and future students needs to improve. We considered the following *possible* actions in light of realistic financial constraints:

- Conduct a careful review of the PBS budget to determine what resources could go to the graduate program and the students in it
- Create endowed funds to support graduate student research; we have a recent initiative under way in honor of Dr. Keith Rayner, and we plan to continue to step up activity in financial development
- For core faculty no longer engaging in graduate research training, re-allocate their time resources to undergraduate teaching
 - Doing better at this (and our self-assessment suggests that our practices are variable at best, and far too lenient at worst) could allow for research active faculty to spend more time on grant-writing (see above) and other student-focused initiatives that could improve graduate financial support, training quality, and professional development

We can also pursue sponsored research activity that could help us fund graduate students.

- We formerly had training grants in PBS and NSB, and we will weigh the benefits and costs of resurrecting such activity
- We look forward to working with the Graduate School on this, as they have discussed a forthcoming page on their new Website that will be devoted to helping faculty who wish to write a training grant

We can institute a formal Department-wide program in which all graduate students apply for external funding (e.g., NSF, NIH, Ford Fellowship) in their first or second year.

- Our Social Psychology Division currently has this requirement, and other faculty members push for this less formally
- Recent data suggest that our students are competitive; since 2008, 7 students have received NSF fellowships, 1 a NIH fellowship, 1 a Ford fellowship, and 4 others

Our Department can also pursue fee-paying master’s programs as a source of revenue to support doctoral education.

- The Clinical Division has made significant strides toward developing a Licensed Mental Health Clinician (LMHC) masters program for which there is great market demand
- We also wonder if we can leverage our reputation to create a self-sustaining masters program (i.e., one that does not require our core faculty to devote their time or resources beyond start-up) in applied behavioral statistics or quantitative methodology/analysis—market research on job opportunities for students with such a degree is still required, and we could use our experience with the LMHC program to guide our foray into this other option

Like many science-based disciplines, we have a strong emphasis on preparing our doctoral students for careers as faculty members at R1 universities like UMass. We also appreciate the reality that these jobs can be scarce and that some of our students aspire to other career trajectories. To help students prepare for a variety of career paths (i.e., alternatives to the professoriate), we will pursue:

- Creating a Department-level colloquium series, with assistance from the Graduate School, on research career alternatives both for the purpose of education *and* networking
- Continuing to create and develop professional development series at Divisional and Departmental levels, including inviting graduate alumni back to talk about their alternative career paths, or even have them give Skype talks if we cannot afford to have them visit in person
- Providing a course release to a faculty member for organizing a Department workshop/panel like the forthcoming ISSR event, *Social Science Research Beyond the Academy* (we are also participating in the inaugural April 2015 ISSR event by way of former PBS students coming back to be panel presenters and current PBS students presenting their research)
- Continuing to foster teaching competence independently (by supervising TAs and mentoring students to teach online Continuing Education courses) and in collaboration with the Center for Teaching and Faculty Development (CFTFD) and the Center for the Integration of Research, Teaching, and Learning (CIRTL)
- Improving our ability to communicate with our trainees about alternative careers, and to recruit new faculty who have an openness for such communication (in the service of the latter, we will train our graduate students to ask the “right” mentorship questions during interviews)—we aspire to do a better job of hiring faculty who are open to fostering career development versus training students only in their own mold
- Improving Departmental morale, collegiality, and team-building via non-work social events (e.g., fitness activities, social hours)