

REPORT OF THE CURRICULAR AND ACADEMIC RESTRUCTURING STEERING COMMITTEE

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Executive Summary

Framework and Process

The Provost and the Faculty Senate formed the Curriculum and Academic Restructuring Steering Committee (CARS) after a January 22nd, 2009 Special Faculty Meeting. The committee is chaired by the Dean of Arts and Sciences (Adam B. Jaffe) and consists of 8 faculty (Steven Burg, Susan Dibble, Timothy Hickey, Sarah Lamb, Robin Feuer Miller, Sacha Nelson, Ilan Troen, Sabine von Mering), 2 students (undergraduate Jason Gray and graduate student Jane Harries), and 1 administrator (Michaele Whelan, Vice-Provost). In addition to extensive research and analysis of institutional resources and activities, substantive proposals and advisory reports were generated by 5 subcommittees: Admissions and Recruiting; Business; GSAS Program Review/Special Faculty Advisory Committee; Summer Semester/Experiential Learning; University Degree Requirements and Advising. Each subcommittee included additional faculty, students, and administrators in their work. In total, about 43 faculty, 12 students, and 12 administrators participated directly in the work of CARS. Private consultations with departments and programs, as well as an online survey to which 107 faculty responded, and a series of open, university-wide “town meetings,” provided the Committee with important information, ideas, and perspectives that in turn shaped its proposals and recommendations.

The Committee was charged with recommending changes to the General Education requirements within the School of Arts and Sciences; changes to the curriculum in Arts and Sciences leading to greater synergies and flexibility and enabling the faculty budget to be reduced; the curriculum to be offered during a “third semester” occurring in the summer; reductions and changes in the Graduate School of Arts and Sciences' programs; and changes in the administrative and/or departmental structures of the Academy that will improve efficiency and/or result in financial savings or facilitate the needed reduction in faculty. With the President’s principles as important guidelines (<https://secureweb.brandeis.edu/transformation/principles.html>), the Committee developed 8 criteria that informed its review and recommendations: contribution to our multiple missions; contribution to

undergraduate experience; excellence; intrinsic essentiality; distinctiveness; synergies; and appropriateness of organizational structure.

Curricular Innovation

CARS has recommended a number of curricular innovations intended to respond to the interests of current and prospective students, and the faculty. These include recommendations now approved by the faculty and the Board of Trustees, such as the new undergraduate major in Business and an innovative program emphasizing intensive opportunities for experiential learning in the classroom, laboratory, and beyond, called the Justice Brandeis Semester. These follow upon the earlier adoption this year of a new major in Film Studies, and may be followed by other changes, such as the introduction of greater flexibility for students in the completion of major, minor, and general education requirements. The Committee also recommends implementation of an innovative new option for completion of the General Education Requirements for undergraduates, called the Independent General Education requirement (“IGER”). (To see more detail on all proposals, go to <https://secureweb.brandeis.edu/transformation/proposals/index.html>) Considered as a whole, the Committee’s recommendations reflect the faculty’s dedication to preserving and strengthening the university’s core educational mission: providing a high-quality undergraduate liberal arts education, supported and reinforced by its close connection to graduate research and training that prepares our students for productive, engaged lives as global citizens.

Increasing Flexibility and Collaboration

At several faculty meetings, the faculty conveyed that they would prefer a streamlining and pruning of our existing commitments, rather than a wholesale restructuring of the curriculum and the faculty. After much analysis and discussion, the Committee concluded that most possible cuts to existing degree programs either save no money or do too much harm. **As a result, we are not recommending the termination of any undergraduate major or graduate program.** Instead, the Committee focused on the following changes in policy, practice and organization that will make it easier to deliver the existing curriculum. (Specific action items directed toward the general recommendation are indicated in parentheses.)

- Elimination of barriers that prevent similar or related courses in another department or program from covering a curricular need in a given department, allowing deletion of similar or overlapping courses from the curriculum (Allow a given course to have multiple course designations from different departments; make wider use of joint appointments across departments.)
- Mandatory consultation and cooperation among programs and departments, so that needs of each program are met in the way that is best for the university (Consider modifying the Faculty Handbook to change or supplement the School Council structure with more effective multidisciplinary curriculum committees.)
- Recalibration of the balance between individual faculty’s interest in teaching particular topics and the university’s interest in having particular topics taught by specific faculty
- Increased flexibility in the fulfillment of programmatic requirements, so that the total number of courses that must be offered each year in order to mount a given major can be reduced, and/or the courses that do fulfill a specific requirement may vary year-to-year (Establishment of UCC guidelines for the structure of major requirements.)

- Reduction in the number of low-enrollment courses taught each semester (Enforcement of the minimum course size, requiring that courses that routinely under-enroll either be dropped from the curriculum or be taught as uncompensated overloads.)
- An increase in the number of different courses that each faculty member teaches in rotation, so that the number of distinct courses taught by the faculty as a whole over a three-year curriculum cycle can be maintained even as the total number of courses taught each year declines (Establish departmental standards for the minimum number of distinct courses taught by each faculty member in a 3-year cycle.)
- Explicit planning to identify curricular needs that can be supported or provided by Centers and Institutes (Create a faculty committee to study ways for C&I to work with A&S, and procedures for planning, transparency and reporting.)

Reorganization and Rescaling

We have identified three existing departments that we recommend be converted into interdepartmental programs: African and Afro-American Studies, American Studies, and Classical Studies. The changes outlined above to reduce barriers to effective use of resources are intended to ensure that interdepartmental programs will have the same access to the resources necessary to mount their curriculum as departments, and departments will not have the discretion arbitrarily to reserve resources at the expense of programs. Our rationale for this recommendation is as follows.

Organizing an inherently interdisciplinary subject area as a department limits the contributions of faculty outside that department to the subject, and, conversely, limits the contributions that the members of the interdisciplinary department can make to the study and teaching of the disciplines in which they are trained. This means that both the interdisciplinary subject area and the disciplinary departments are weaker than they could be. In our newly resource-constrained world, we simply cannot afford such limitations on the fullest use of the faculty resources we have. The reassignment of faculty from existing interdisciplinary departments to other departments will strengthen both the interdisciplinary majors in which they will still participate, and the disciplinary majors to which they will now also be assigned. This will make it easier for both to support their programs with the reduced overall faculty numbers that we all face.

Moreover, tenure-track faculty are better served by a discipline-based departmental home that provides multiple mentors and models for professional development. From that disciplinary base, association with an interdisciplinary program can then enrich and broaden a new scholar's development. Very small departments also inherently use faculty resources less effectively. Important administrative functions such as searches, mentoring and promotions occur infrequently or in limited ways, making it hard for organizational wisdom and experience on these crucial functions to develop within the unit.

We are not making recommendations about the appropriate homes for the faculty currently assigned to these departments. Under the Faculty Handbook, the reassignment of a faculty member to a new department occurs after consultation among the Dean, the affected faculty member, and the members of the potential new departmental homes. In the unlikely event that there is difficulty in finding a mutually satisfactory new home, the faculty member still retains tenure, whether in or outside an established disciplinary department.

CARS reviewed every department and program in A&S and has made recommendations regarding the allocation of targeted reductions in the number of faculty that will allow for a 10 percent reduction in the total number of faculty over the next five years. Because our first priority is to preserve the strength of the educational mission, our strategy calls for decisions to replace or not replace specific departing faculty to be made on a case-by-case basis. Moreover, with respect to tenure cases, CARS recommends that the university not use the ‘institutional need’ condition in the Faculty Handbook as a means for reducing the faculty. As is true now, each case should be evaluated on individual merits and the traditional standards for tenure should be maintained.

The Graduate School of Arts and Science

One of Brandeis’ fundamental challenges is that we are a major research university operating at a scale below that of any other institution that shares that aspiration. At any research university, graduate education and the research enterprise are expensive undertakings that rest on a broad base of revenue and other resources associated with undergraduates. For Brandeis, that resource and revenue base is too narrow to sustain the current level of support for graduate education.

In the last five years, we have significantly increased the level and duration of support for PhD students and some MFA students, moving the stipend levels closer to those of peer institutions, and increasing the number of years of funding in the humanities and social sciences from four to five. As a result of these increases, the deficit in GSAS has increased, even as tuition revenue has increased.

In order to improve this balance, the Committee considered seriously the possibility of closing one or more PhD programs. After careful analysis, we concluded that any such closure would (1) seriously endanger our undergraduate teaching mission because of the enormous role played by PhD students in undergraduate teaching, and (2) seriously weaken our scholarship mission and our reputation as a major research university. For these reasons, we have settled on recommendations that would continue the existing programs, subject to some further analyses of success, cost and undergraduate teaching contributions. We do recommend, however, reducing the size of most programs and explicitly linking PhD program size to generation of Master’s tuition revenue. Our analysis suggests that these recommendations can reduce the “deficit” in GSAS by about \$1.8 million by FY 2014.

Brandeis should be strategic in allocating its scarce resources to the programs that attract the best students. Therefore, we recommend institution of a new program that will achieve this result on a yearly basis: a pool of special fellowships that would be awarded each year, by an interdepartmental committee chaired by the Dean of GSAS, to applicants who are exceptionally qualified, would diversify the student body, or both.

Two final recommendations are that PhD stipend funding after the third year should be conditional on successful completion of the comprehensive examination, and that the Dean of GSAS convene a committee to review teaching loads, establish school-wide policy and create guidelines for the assignment of Teaching Fellows to courses.

Other Recommendations

The Committee made a number of other miscellaneous recommendations on such subjects as adjustments to faculty workloads to maintain equity, elimination of 4-year BA/MA programs, and programmatic changes with respect to particular majors.

Conclusion

The last few months have witnessed an extraordinary outpouring of interest and effort by the Brandeis community, all aimed at strengthening this institution that we love while at the same time improving its budgetary situation. Many innovative and exciting ideas have come forward, and we have already made real progress towards implementing some of those ideas. Much hard work remains, and many of the changes that we recommend will be painful and difficult to implement. Taken together, though, we believe that our recommendations create a platform for recruiting, stimulating, educating and graduating future students, maintaining our scholarly and creative endeavors, continuing to contribute to our social justice mission, and improving our fiscal balance.

1 Introduction

Many planning documents and reports, including the recent re-accreditation self-study, indicate that the university's ambitions and achievements have exceeded its limited resources, but that many of the risks taken have led to significant improvements and notable success. Indeed, the 2006 report from the evaluation team of the Commission on Institutions of Higher Education states, "there are difficult choices ahead to be faced. But Brandeis has grappled successfully with hard issues in the past and there is every expectation that they will do so in the future."(Evaluation report, p.1)

In these very difficult economic times, where unforeseen and precipitous declines in the market combined with crises in banking, lending, and philanthropy have adversely affected families, businesses, higher education and the nation, this statement seems both prophetic and reassuring. Just as *Brandeis 2000* reacted to multi-million dollar budget gaps and was charged with "the responsibility of reviewing ... the future of the University," with making "specific suggestions and proposals for improving University operations and their efficiency" and with considering "fresh ways in which Brandeis could strengthen and improve itself," so too did this Committee find itself at a critical juncture in time with a similar charge. (*B2000*, p.1)

Imagining the university of the future is both inspiring and daunting. Thinking about what we would create, if there were a blank slate, while delving into the realities of what we currently have, provided dual and often conflicting perspectives for our analysis. Originally, we thought we might be able to specialize and to eliminate programs entirely. As our analysis progressed, however, so too did our appreciation of the deep strengths of our curriculum and the capacity and innovation of our faculty. In spite of limited resources, our faculty has always responded to emerging fields and to our students' need for new knowledge; we have always been devoted both to undergraduate education and to scholarship, research, and training of our graduate students.

We recognize the historical dialectic between growth and retraction that has marked our progress as a university and, in some ways, we have come full circle: we affirm our mission of being a small, research university with active faculty and small, but vibrant programs. We acknowledge that some of the savings and efficiencies we envision will not come to pass for some time, but there is much to accomplish now, and we believe these recommendations will strengthen us and enable us to meet the challenges of the future with more students and fewer faculty.

The Curricular and Academic Restructuring Steering Committee ("CARS Committee") was appointed by Provost Marty Krauss and the Faculty Senate with the following charge:

The Curriculum and Academic Restructuring Steering Committee is charged with establishing and coordinating appropriate procedures, consistent with the Faculty Handbook, to recommend:

- changes to the General Education requirements within The School of Arts and Sciences;
- changes to the curriculum in Arts and Sciences that will lead to greater synergies and flexibility and that will enable the Arts and Sciences faculty budget to be reduced;
- the curriculum to be offered during a "third semester" occurring in the summer;
- reductions and changes in the Graduate School of Arts and Sciences' programs;

- changes in the administrative and/or departmental structures of the Academy that will improve efficiency and/or result in financial savings or facilitate the needed reduction in faculty.

Additional background for the Committee's deliberations is the set of guiding principles established by President Reinharz in his January 22nd statement to the faculty:

1. We do not plan to change the tenure system.
2. We will continue to pursue excellence by being a research university with an outstanding faculty and a smaller graduate program than we have now.
3. We will have a superb undergraduate college.
4. We will continue to be an integrated university that combines disciplinary and interdisciplinary studies.
5. We remain committed to liberal arts, to select professional schools, as well as pre-professional training and career enhancement.
6. We will remain a residential institution with a vibrant student life.
7. We will continue to be linked to the Jewish heritage, which was a founding principle of the university.
8. We will remain committed to furthering social justice.
9. We will make major efforts to extend our local-community and global reach.
10. We will continue to strive for diversity among our faculty and students.
11. We will establish financial self-sufficiency.

The Committee began its work by reaching out to the community through a new website and web-based discussion forums, and by establishing a number of subcommittees, composed of faculty, students and staff, to examine specific topics. We have also met in person with many students in Town Hall meetings and with faculty, both in public meetings and in individual meetings arranged by us to discuss specific aspects of the curriculum. We have collected a large amount of data on all aspects of the curriculum, faculty, budgets, graduate programs, and student choices regarding courses and majors/minors. We conducted a web-based survey to which 107 faculty responded with both generic and specific views on a wide variety of questions about the curriculum and how we organize ourselves. We reviewed previous strategic planning documents, particularly the report of the *Brandeis 2000* taskforce from 1996.

This report is intended as an overall summary of the Committee's work. It will incorporate by specific reference other subcommittee reports that have been circulated previously and are available on the Committee website, <https://secureweb.brandeis.edu/transformation>.

With this report, the Committee completes its initial assignment as best we could in the available time. We identify herein a number of issues that require further study before a recommendation can be made with confidence. We are prepared to play whatever role in such further study that the Provost and the Faculty Senate deem appropriate.

While we have striven to carry out the charge from the Provost and the principles of the President, it is inevitable that a Committee such as ours comes to shape and to focus its charge endogenously as the work progresses. In brief, we see our task as recommending changes to curricular commitments, and university policies and practices to (1) make our undergraduate and graduate programs

intellectually strong and attractive to prospective students; and (2) reduce the overall, long-term cost of delivering those programs. Pursuit of these twin goals obviously requires consideration of the tradeoffs inherent in pursuing strength while reducing cost. In making the requisite difficult choices about specific programs, the Committee identified the following (admittedly subjective) criteria to guide our decisions:

- contribution to our multiple missions (undergraduate curriculum, graduate education, scholarship and creativity, social justice);
- contribution to undergraduate experience (life outside the classroom);
- excellence (compared to comparable programs at peer institutions);
- intrinsic essentiality (program is required of an institution such as Brandeis)
- distinctiveness (especially with respect to Brandeis's profile);
- synergies (contributes to other programs in essential ways);
- cost;
- appropriateness of organizational structure (size of and relationships among programs, as these impact cost-effectiveness).

Working within this framework, the Committee identified a number of possible generic approaches to strengthening our programs while reducing cost:

1. Phasing in new, innovative programs that are intellectually vital and attractive to students, and improving the external marketing of these programs;
2. Phasing out specific undergraduate majors, minors, undergraduate degree requirements, and graduate degree offerings;
3. Modifying existing requirements to make them more flexible and less restrictive, eliminating redundancies and overlaps in the curriculum generally, and eliminating barriers that prevent sharing and cooperation;
4. Changing organizational structures to facilitate efficient use of resources, and reducing the scale of university support for given programs.

We have already presented a number of ideas under Category 1 to the faculty and the Board of Trustees, and these have been approved through appropriate review processes. In Section 2 of this report, we briefly highlight these new programs and describe their role as we see it in strengthening the curriculum.

The Committee has thought long and hard about possibilities for reducing our curricular commitments by phasing out specific programs.¹ After this review, we have concluded that there are programs that could be eliminated without doing significant harm to the university's missions,

¹ Throughout this report, we will use the generic noun "program" to refer to any curricular offering, including undergraduate majors, undergraduate minors, and all graduate degrees. If referring to "program" in the sense of an Interdepartmental Program such as HSSP (that offers an interdisciplinary major and/or minor), we will use the capitalized form to make that distinction clear.

but that elimination of these programs would not save any significant resources. Conversely, there are programs whose elimination would reduce resource costs, but would also do significant unacceptable harm to our missions. We have been unable to identify any programs whose elimination would save significant resources without doing unacceptable harm to our missions. Our conclusions in this regard are discussed further in this report.

A number of recommendations under Category 3 that focus on increased programmatic flexibility and cooperation are central to the vision of this Committee. Most of these have broad applicability, and relate to overall university policy rather than to any particular program. These are presented in Section 3.

The remainder of the report presents the recommendations that fall under Category 4. These represent the most difficult decisions that we had to make, but they are also the ones that have a direct impact on reducing costs. Section 4 introduces our general approach to faculty reductions, summarizes the reductions that we recommend, and discusses at a conceptual level our most important set of organizational changes, the conversion of three existing departments to interdepartmental programs. This is followed in Section 5 by a discussion of the Graduate School of Arts and Sciences and outlines our approach to restructuring GSAS to improve its net revenue position. Section 6 discusses recommendations with respect to specific A&S Departments and Interdepartmental Programs. Section 7 presents a small number of miscellaneous recommendations, and Section 8 concludes the report.

2 New Programs and Improved Marketing

The curricular changes and additions described below were developed to capitalize on existing academic strengths and to provide a rigorous and innovative curriculum, and to attract a new, broader applicant pool to Brandeis. The Senior Vice President for Students and Enrollment and the Dean of Admissions were consulted frequently and have affirmed that the Justice Brandeis Semester, the Independent General Education requirement (“IGER”) and the new majors in Film and Visual Media Studies and Business will better equip them to recruit more diverse and high-quality students.

2.1 *Curricular innovation*

Justice Brandeis Semester

Originally charged with investigating the viability of a third semester in the summer, the subcommittee of faculty, students and staff realized that this concept would create hardships for students who depend on the summertime for making money and also present difficulties for faculty who value this time to concentrate on scholarship and research. Instead, the subcommittee developed a more flexible model, the Justice Brandeis Semester, which offers students opportunities to engage in an intensive learning experience outside the classroom in all three semesters.

Enhancing the University’s commitment to social justice and global engagement, the JBS provides a potentially life-changing experience in which students, with faculty guidance, study a social problem, or make an artistic contribution to the community, or engage in scientific research, or experience a foreign culture. Consisting of at least 12 credits hours, the semester is immersive and culminates in a final project/product.

This program will be optional and could be offered beginning the summer of 2010. It will be reviewed as a whole in AY2013-2014 by the Undergraduate Curriculum Committee. Faculty and staff committees are being formed to address the academic parameters of the program and the logistics. (<https://secureweb.brandeis.edu/transformation/proposals/index.html>)

The Independent General Education requirement

The University Degree Requirements and Advising subcommittee of faculty, students and staff was charged to review and make recommendations regarding general university requirements at Brandeis. The subcommittee considered Brandeis's goals regarding producing well-educated students, as well as what might make Brandeis even more attractive to incoming students, and whether there are ways to lower costs without lowering the quality of the education our students receive.

The committee recommends that Brandeis maintain the existing set of General University Requirements as the standard path that most students will follow for gaining proficiencies central to a liberal arts education. The existing requirements are the result of many years of careful considerations. A change in our general requirements is not desirable from the perspective of reducing the size of the faculty, nor would it positively affect our recruitment.

In parallel with the continuation of these existing requirements, the subcommittee proposes a new Independent General Education requirement (“IGER”) option that offers students the opportunity to design their own general education curriculum. All students in the IGER program will still complete a major, delving deeply into an area of study chosen from the wide array of disciplinary and interdisciplinary majors offered at Brandeis. However, students in the IGER program may craft their own way of meeting the aims of Brandeis's General University Requirements. The IGER option is designed for exceptionally serious, intellectually curious and independent-minded students who are inspired by the opportunity to design their own course of study. (<https://secureweb.brandeis.edu/transformation/proposals/index.html>)

2.2 *New undergraduate majors*

Film and Visual Media Studies Major

A minor in Film Studies was established at Brandeis in 1994. Since then, the number of faculty dealing with the analysis of the moving image has expanded both in numbers and in fields, as has the interest and capacity of our students. The program is not a pre-professional one, but a liberal arts field of inquiry with two goals: “to provide an informed background in motion picture history and to develop a critical appreciation of the cultural meanings of film.” (2) Beginning in 2009-10, an interdisciplinary major in Film and Visual Media Studies, consisting of 9 courses, will be offered for three years with a review by the Undergraduate Curriculum Committee at the end of that period. (<https://secureweb.brandeis.edu/transformation/proposals/index.html>) While this new major was adopted earlier this year before CARS was formed, it is part of the curricular innovation so important to attracting prospective students.

Business Major

The faculty, student and staff subcommittee developed a proposal for a business major that in their words “is true to the character and vision of the University and uses capabilities we already possess. The program is rooted in the liberal arts and benefits from the intellectual capital at our professional schools.” Building on the framework of the Business Minor, the committee created a major with 10.5 courses and 50/50 distribution among a set of Business and society courses and a set of Business Administration courses. Beginning in fall 2010, an interdisciplinary major in Business will be offered for five years with a review by the Undergraduate Curriculum Committee at the end of that period. (<https://secureweb.brandeis.edu/transformation/proposals/index.html>)

2.3 *Improved Recruiting and Communications*

The faculty and student Subcommittee on Admissions and Recruitment had two charges: to review the way Brandeis is presented in recruitment materials and suggest ways the presentation might be improved (made more effective in attracting and recruiting students); and to present to CARS information about the nature of the potential applicant pool—its patterns of inquiry, application, admission and matriculation—and to suggest ways to increase each of these populations. The latter charge came to fruition with the new curriculum and the former is resulting in a new website for the University—one that is designed with recruitment in mind.

A major dimension of the new communication/recruitment strategy is a complete redesign of the admissions web presence, which was doing a poor job of communicating who we are, what we do, and why students should come here. The new webpage will focus on values and outcomes, specifically on these three elements: “COMMUNITY” ---to reflect the existence of real community among students on campus and extending to student-faculty collaboration; “OPPORTUNITY” ---to convey to students that Brandeis offers opportunities for intellectual exploration, and to explore who they “are” and what they wish to “become,” as well as focused study in the particular areas of their academic interest; and “SOCIAL JUSTICE” ---to emphasize that concern for social justice is found not only in the curriculum, but also in student initiatives and ongoing student organizations; the message is “social justice is part of the culture at Brandeis.” The site will feature recent alumni activities and demonstrate how these elements are unique and integral to Brandeis. Eight themes will organize and highlight the undergraduate curriculum, while emphasizing our strengths:

- Physical and Computational Sciences
- A Global University
- Health and Society
- The Humanities: Reason and Imagination
- Jewish Studies
- Justice and Public Life
- Visual and Performing Arts
- Preparation for Professional Life

Many faculty have been contacted already to identify and develop these themes. A test website will soon be available for community feedback.

3 Broad Recommendations for Flexibility, Reducing Redundancy and Barriers to Cooperation

More Efficient Delivery of the Curriculum

At the January 22nd Faculty Meeting, the sense of the faculty was that we would prefer a streamlining and pruning of our existing commitments rather than a wholesale restructuring of the curriculum and the faculty. In implementing this charge, the Committee has sought to identify specific curricular commitments that could be reduced, both at the level of stated degree programs, and at the level of areas of focus within departments and degree programs. After much analysis and discussion, we have concluded that most possible cuts either save no money or do too much harm. Instead, we have focused on changes in policy, practice and organization that we believe will make it easier to deliver the existing curriculum, and have then identified reductions in the long-run target number of faculty by department to achieve approximately the needed reductions.

The most important elements of our strategy to streamline and consolidate are:

- Elimination of barriers that prevent similar or related courses in another department or program from covering a curricular need in a given department, allowing deletion of similar or overlapping courses from the curriculum;
- Mandatory consultation and cooperation among programs and departments, so that needs of each program are met in the way that is best for the university;
- Recalibration of the balance between individual faculty's interest in teaching particular topics and the university's interest in having particular topics taught by specific faculty;
- Increased flexibility in the fulfillment of programmatic requirements, so that the total number of courses that must be offered each year in order to mount a given major can be reduced, and/or the courses that do fulfill a specific requirement may vary from year-to-year;
- Reduction in the number of courses taught with very small (less than 8) enrollments;
- An increase in the number of different courses that each faculty member teaches in rotation, so that the number of distinct courses taught by the faculty as a whole over a three-year curriculum cycle can be maintained even as the total number of courses taught each year declines;
- Explicit planning to identify curricular needs and opportunities for support of student and faculty research that can be provided by Centers and Institutes.

This approach is, we believe, the approach preferred by most faculty (relative to the alternative of radical curricular surgery). It will, however, create a need for the faculty and staff to accept important and difficult changes to the way we specify requirements, construct the course schedule, and assign teaching loads. It will require greater flexibility on the part of all programs

when determining what is truly necessary to mount “their” program. It will require willingness by both individual faculty and programs to stretch their conceptions of what they can be expected to teach. Because it relies heavily on consolidation and reduction in redundancy, it will necessitate the willingness to accept somewhat different versions of courses offered in another department or program as substitutes for courses that a program would prefer to offer in its own way. More generally, there will be a reduction in the degree of choice and control enjoyed by individual faculty in favor of greater collegial consultation over what they teach, how they teach, and whom they teach.

Specific Recommendations

Application of multiple course numbers to the same course. Our discussions and the faculty survey identified similar, duplicative or overlapping courses as an important area for streamlining. The obvious solution is for the faculty and departments to coordinate and agree to drop one course and make sure the course that is offered serves the needs of multiple constituencies. A perceived barrier to such coordination is that students may not find, or be reluctant to take, a course that is listed in another department. “Cross-listing” of courses is a partial solution to this problem, but is widely perceived to be inadequate. Many faculty feel that a better solution than cross-listing would be to assign course numbers from both departments to the same course, and allow students to register under either number. For example, CLAS 133a *Art and Archaeology in Ancient Greece* is currently cross-listed with Anthropology as a Classics course, but could also receive an ANTH course number. The committee is aware that the registrar has concerns about this approach. We recommend that the Dean and the UCC work with the registrar to find a way to make it work.

Wider usage of joint appointments. With the loss of some faculty, and the likely low rate of new appointments in the near future, it will be necessary to make the best use of each faculty member’s talents. The Committee recognizes that there are already a wide range of ‘degrees’ of joint appointment throughout the university. In some cases, a faculty member in one department may be able to fill a gap in another department’s curriculum. This can occur through the general coordination process described above, but in some cases, it may be desirable to establish formal joint appointments beyond those that already exist. Such joint appointments do not have to be fully equal appointments, with all that implies in terms of joint evaluation and multiplied service responsibilities. A faculty member could have, for example, a secondary appointment to a department, carrying a formal obligation to teach one course per year for that department, while remaining in their “home” department for merit review and departmental service purposes. Whatever model programs adopt, there should be a more formal attempt to make greater dual and multiple use of faculty efforts and abilities.

Establishment of multidisciplinary curriculum committees. Currently, the Dean and the School Councils attempt to coordinate curricular decisions across departments and programs. The survey made clear that faculty think that more such coordination could reduce duplication and improve the curriculum, but that the School Councils are not ideal vehicles for this function. Problems with the School Councils as curricular coordinators include:

- The existing schools are in many cases not the right units for such coordination. Curricula in programs such as Neuroscience, Women’s and Gender Studies, and International and Global Studies cross school boundaries;
- Programs that offer only a minor are not represented on the Councils;
- Councils in the Humanities and Social Sciences are large, and most issues of curricular coordination involve only a subset of their members.

For these reasons, we recommend that the faculty undertake the process of amending the Faculty Handbook, to either replace or complement the School Council structure with a new structure of curriculum committees designed specifically for this purpose. We have not had time, and do not see it as our mandate, to work out details such as the number and size of committees in the new structure, but we are convinced that a new structure is needed to effectuate the needed coordination. These committees would be charged with ensuring that the curricula of those programs within their purview are supported appropriately and efficiently. To carry out this charge, the curriculum committees would be empowered to require constituent departments to offer specific courses as necessary. If gaps need to be filled, the curriculum committee and the Dean would work together to identify the appropriate faculty to teach a particular needed course. The Faculty Handbook provides in Section III.C.2.a.iii that “faculty may be required to develop new courses, or to teach existing courses in order to meet [curricular] needs.” The Committee recognizes that some support, such as research assistance and funds for materials, may be needed to develop new courses.

Particularly over the next several years, it will be crucial that all new hiring be strategically focused to maximize contribution to the curriculum. From the perspective of staffing curricular needs, we recommend that the new curriculum committees therefore be asked to review all proposals for new positions, and advise the Dean about the highest priorities.

Increased flexibility in programmatic requirements. In response to the Committee’s request for streamlining suggestions, a number of programs suggested changes that they could make to their major requirements that would make it easier to mount the necessary curriculum. Such changes include eliminating the requirement to take specific courses, increasing the number of specific courses that qualify for a particular requirement, and increasing the number of topically appropriate courses from other programs that can be counted. (We are not suggesting that fewer total courses necessarily be required for a major, minor or graduate degree, just that there be more flexibility in how the program can be satisfied so that specific courses do not have to be offered or offered as frequently.) The Committee recognizes that time slots and days of the week affect course enrollments and that in the future, there will need to be some brief period of time between the first round of scheduling and the final round for programs to consult and minimize conflicts. Based on these examples, the Committee asked the Undergraduate Curriculum Committee to study whether general guidelines could be developed for the undergraduate majors, which would point to ways to reduce the burden of the majors on the curriculum.

In March, the UCC appointed a subcommittee of faculty, staff and students to review the range of requirements and general curricular guidelines for majors in the departments and programs. The

subcommittee first reviewed suggestions regarding streamlining and integration of programs submitted to CARS by departments and school councils earlier in the term. The recommendations developed maximize flexibility for students without compromising academic rigor. Departments and programs are asked to consider:

- reviewing the total number of courses required for the major, taking into account the knowledge, skills and experiences that students should have in different tracks, and the value of co/pre-requisites;
- expanding the number of cross-listed courses with more than one abbreviation;
- allowing students to fulfill a major requirement by taking a cross-listed course or by petitioning the UAH for approval of a course that they can justify;
- examining whether 90-level courses may count toward the major;
- examining whether existing courses in the 1-99 or 200+ range can be numbered in the 100 range so that both undergraduates and graduate students can enroll;
- replacing formal tracks within majors with suggested pathways for study to be determined by students' post-graduate goals.

An expanded document that elaborates on these points is available on the transformation website (<https://secureweb.brandeis.edu/transformation/proposals/index.html>).

Enforcement of minimum course size. Currently, at the end of early enrollment, the registrar sends each department a list of all courses with fewer than 8 students enrolled. Departments are asked either to cancel these courses, or provide an explanation to the Dean as to why the course should not be cancelled. If a course is not cancelled prior to the beginning of the semester, it is not cancelled subsequently for enrollment reasons, because once students begin the “shopping” process, we do not want to pull the rug out from under them. In many cases, under-enrolled courses are allowed to go forward, either on the basis of a belief that more students will enroll, or because the course is judged necessary for a program and therefore necessary to offer. The Committee recommends strengthening of the policy on low-enrollment courses, as follows:

1. Any course that has fewer than 8 students enrolled in initial enrollment will be cancelled unless it is a required course, or unless it is a course that typically enrolls new students (incoming freshmen and graduate students) over the summer or in the early fall. If a course is kept in the schedule more than once with fewer than 8 students because it is a requirement, the program will be asked to change their requirements or the frequency of course offering.
2. If a course with less than 8 students in initial enrollment is not cancelled, then the faculty member and the department must agree that the course will not count as part of the faculty member's teaching load, if it ends up with an enrollment of less than 5 at the end of the year (i.e., courses that end up with 4 or fewer students will be treated as uncompensated overloads).
3. Faculty whose course is cancelled due to low enrollment should be reassigned to another course that will draw adequate students, take on substantial extra advising, independent studies or program coordination within the given term, or be required to teach an extra course within one year. Similarly, faculty who carry as part of their normal load a course

that ends up with 4 or fewer students should be required to take on extra advising etc. or teach an extra course within one year.

4. Faculty who repeatedly teach a total of 15 or fewer students across their courses per semester should be required to develop new courses of broad interest, including, if necessary, courses within their general competence but outside their specific expertise.

Minimum variety in course rotation. Another way to maintain the necessary richness of the curriculum as the number of courses offered decreases is to increase the variety of courses taught by each faculty member. Many faculty routinely rotate 4 to 6 courses through their repertoire, and/or create new courses frequently. Other faculty teach the same or close to the same small number of courses each year. Each department should develop a standard as to the minimum number of distinct courses that each faculty member should offer in any given three-year period.

Centers and Institutes

CARS sees centers as an integral part of the functioning of a modern university with significant research and educational components. At the same time, centers have resources that may be more effectively utilized to alleviate costs of core university functions, and should be engaged in exploring additional ways and means for contributing to the university's core mission.

While CARS appreciates that centers are often created and funded by donations with specific and even highly detailed requirements as well as maintained through sponsored research with similarly explicit requirements, CARS recommends examining the limits of flexibility in such arrangements with a view to ensuring the fullest integration of the centers into the fabric of the university's core and to maximizing their financial and academic contributions to the university's operations.

CARS did not have sufficient time to review each of the 14 centers/institutes reporting to the Provost and the 7 reporting to the Dean of Arts and Sciences. The Committee recommends that the Provost, in consultation with the Dean, form a faculty subcommittee to conduct a center-by-center review whose purposes are as follows:

- to guarantee that there are procedures for transparency in decision-making and governance;
- to ensure the participation of faculty from relevant departments and/or programs, as well as students when appropriate, in determining the academic components of the centers, including the allocation of resources for research and teaching;
- to establish annual reporting that is readily accessible to the university community;
- to develop a process for participation in annual A&S planning about curricular needs;
- to investigate possibilities for increased support for faculty appointments on a full or partial basis;
- to ensure appointment and compensation practices in accordance with university norms;
- to ensure the use of center resources to support the research activities of university faculty, as appropriate;

- to promote and ensure genuine outreach to the university as a whole, alerting all faculty and students to activities, funding opportunities for faculty research and summer stipends, available internships for students, etc.
- to create appropriate faculty committees, composed of faculty from several departments, as appropriate, for each center, if none is in place.

An essential underlying principle is that each center must cover all direct and indirect costs. By addressing these elements, the university will enhance its effectiveness and draw more fully on these significant resources available to the community.

4 Recommendations for Reorganization and Rescaling

4.1 General Approach

As discussed above, our general approach has been to break down barriers to more efficient use of resources, rather than eliminating curricular elements. In most cases, it is not possible to attribute specific savings of faculty resources to such improvements in how we operate. As a result, to achieve the needed reductions in faculty size, we have had to allocate reductions to virtually every existing department. Table One shows the current size and the long-run target size that we recommend for each department.

It is important to emphasize that we are *not* suggesting that hiring be frozen in a given department until it reaches its target size. Some existing vacancies, and some vacancies that may be created by departures, create curricular gaps that simply must be filled in order for us to meet existing commitments to majors, minors and graduate degree programs. In these cases, assuming that the overall progress towards our goals is great enough to permit some amount of recruitment, vacancies would be filled and decrease in department size to the target would not occur until subsequent departures.

In arriving at the numbers in Table One, we considered all of the criteria laid out in the Introduction. We analyzed extensive data on both current levels and trends in undergraduate and graduate course enrollments, numbers of majors, minors and graduate students, and levels of external support. We looked at the specific programs offered by the departments, and the structure of the curricula serving those programs. For those departments with graduate programs, we had the detailed quantitative and qualitative evaluations of each program compiled by the SFAC. We reviewed and considered the responses in the faculty survey. For those departments where we were contemplating the most serious changes, representatives from the Committee met with representatives from the departments.

We recognize that our judgments are based on limited data and curricula are complicated to analyze and to mount. We recommend that these targets be taken as starting points for planning for the transition to a smaller faculty. In the coming curriculum/budget planning cycle, in which each department will be asked to update its three-year curriculum plan and make budget requests for FY11, we recommend that an additional planning exercise be undertaken by each department, in which they construct a hypothetical three-year curriculum plan that could be mounted with the target faculty indicated herein. This exercise will serve two complementary purposes. First, comparison of the hypothetical plan to the actual plan will indicate what aspects

of the curriculum will eventually be lost, and allow the department and the dean to plan for those losses. Second, to the extent that the necessary losses are seen to be unacceptable, this analysis will provide a venue for discussions between the department and the Dean that will result in refinement and possible modification of the targets.

The transition from the current size of each department to its target size will occur through non-replacement of departing faculty. Our goal is to reach the target size within 5 years, consistent with the university's overall plan to achieve structural balance by 2014. The Committee recommends that incentives be developed that will make retirement attractive and financially feasible for faculty whose retirement would further the goals of this plan.

4.2 *Reorganization of Departments as Interdepartmental Programs*

We have identified three existing departments that we recommend be converted into interdepartmental programs. The specific rationales for each of these cases are discussed below, but several general points should be made about the benefits to the faculty and the curriculum of appropriate use of interdepartmental programs versus departments:

- Historically, interdepartmental programs may have been seen as some kind of administrative second-class citizen. We believe this to be the result of both the historical tradition of the importance of departments and some real barriers to effective functioning of interdepartmental programs that have existed at Brandeis.
- Whatever the historical situation, at Brandeis today it is clear that being an interdepartmental program is not an inferior status. Several of our largest, most successful, and most vibrant majors are interdepartmental programs, including International and Global Studies (IGS), Neuroscience, and Women's and Gender Studies (WGS).
- The changes in policy and practice outlined above to reduce barriers to effective use of resources are intended to ensure that interdepartmental programs will have the same access to the resources necessary to mount their curriculum as departments, and departments will not have the discretion arbitrarily to hoard resources at the expense of programs.
- For programs that are fundamentally interdisciplinary, the structure of such a program allows all of the implicated disciplines and all of the faculty in the implicated disciplines who are interested in the area of the program to participate fully in that program. Organizing an inherently interdisciplinary subject area as a department limits the contributions of faculty outside that department to the subject, and, conversely, limits the contributions that the members of the interdisciplinary department can make to the study and teaching of the disciplines in which they are trained. This means that both the interdisciplinary subject area and the disciplinary departments are weaker than they could be. In our newly resource-constrained world, we simply cannot afford such limitations on the fullest use of the faculty resources we have. The reassignment of faculty from existing interdisciplinary departments to other departments will strengthen both the interdisciplinary majors in which they will still participate, and the disciplinary majors to

which they will now also be assigned. This will make it easier for both to support their programs with the reduced overall faculty numbers that we all face.

- Hiring of tenure-track faculty into an interdisciplinary department rather than the department that corresponds to their disciplinary training makes effective mentoring and professional development more difficult, and thereby undermines success. Tenure-track faculty are better served by a discipline-based departmental home that provides multiple mentors and models for professional development. From that disciplinary base, association with an interdisciplinary program can then enrich and broaden a new scholar's development.
- Very small departments also inherently use faculty resources less effectively. Collective decision-making by very small groups is inordinately affected by interpersonal dynamics or the personalities of specific individuals. Important administrative functions such as searches, mentoring and promotions occur infrequently or in limited ways, making it hard for organizational wisdom and experience on these crucial functions to develop within the unit. It is impossible to rotate departmental functions in a reasonable way, so that tasks are either not done well, or else specific individuals must hold positions too long or too often. Assigning the faculty in such a small department to other departments based on discipline then allows wisdom and experience to be shared more effectively, and administrative tasks to be allocated more reasonably.

We are not making recommendations about the appropriate homes for the faculty currently assigned to these departments. Under the Faculty Handbook, the reassignment of a faculty member to a new department occurs after consultation among the Dean, the affected faculty member, and the members of the potential new departmental homes. In the unlikely event that there is difficulty in finding a mutually satisfactory new home, the faculty member still retains tenure.

5 Recommendations Regarding the Graduate School of Arts and Sciences

The Committee spent a significant amount of time studying GSAS, in addition to a tremendous amount of time and effort that was expended by the Special Faculty Advisory Committee ("SFAC") acting as a GSAS subcommittee of the CARS Committee. Members of SFAC met with faculty from many of the graduate programs, including all of the programs for whom significant changes were contemplated. SFAC provided the CARS Committee with a detailed report enumerating issues and evaluating the strengths and weaknesses of each program. The CARS Committee took this input and combined it with our overall analysis of the faculty and curricula of each department.

One of Brandeis' fundamental challenges is that we are a major research university operating at a scale below that of any other institution that shares that aspiration. At any research university, graduate education and the research enterprise are expensive undertakings that rest on a broad base of revenue and other resources associated with undergraduates. For Brandeis, that resource and revenue base is too narrow to sustain the current level of support for graduate education.

In the last five years, we have significantly increased the level and duration of support for PhD students and some MFA students, moving the stipend levels closer to those of peer institutions, and increasing the number of years of funding in the humanities and social sciences from four to five.² As a result of these increases, the deficit in GSAS has increased, even as tuition revenue has increased. For example, in 2005, GSAS brought in net tuition revenue from all graduate programs of \$3.8 million.³ It paid stipends, student wages and PhD student health insurance totaling \$4.6 million, yielding an overall “deficit” of about \$800K. We put the term deficit in quotation marks because this calculation does not attribute any staff or faculty costs to graduate education, so the totality of the university’s subsidy of graduate education is far larger than this number. But staying within this narrow conception of GSAS finances, for the current year the tuition revenue has increased to \$4.1 million while the expense has increased to \$5.9 million, so the “deficit” has increased to about \$1.8 million. For FY10, if we had not implemented a temporary reduction of approximately 50% in new PhD admissions, this deficit would have increased by approximately \$500K, reflecting the implementation of 5th-year funding mentioned above.

Improvement in the net revenue performance of GSAS is, therefore, a major goal of the CARS process. In order to improve this balance, the Committee considered seriously the possibility of closing one or more PhD programs. After careful analysis, we concluded that any such closure would (1) seriously endanger our undergraduate teaching mission because of the enormous role played by PhD students in undergraduate teaching, and (2) seriously weaken our scholarship mission and our reputation as a major research university. For these reasons, we have settled on recommendations that would continue the existing programs, subject to some further analyses of success, cost and undergraduate teaching contributions. We do recommend, however, reducing the size of most programs and explicitly linking PhD program size to generation of tuition revenue. Our analysis suggests that these recommendations can reduce the “deficit” in GSAS as defined above by about \$1.8 million by FY 2014.

5.1 *Size of PhD programs*

The current number of funded students in each program is the result of a combination of historical decisions and occurrences. The *Brandeis 2000* (“B2000”) process assigned a target size to each program, which is still the basis of decisions for determining the number of funded students and hence the number of new funded students admitted in a given year. The B2000 target sizes are now obsolete, for they no longer reflect the strengths and weaknesses of individual programs and their faculty. Moreover, the decision to move from four to five years of funding for PhD programs in the humanities and social sciences significantly increases the cost

² The terminal degree in Acting and in Theater Design is the MFA. Hence these programs are analogous to PhD programs in the humanities, social sciences and sciences. For brevity, when referring generically to these terminal-degree programs and students, we will say “PhD” programs and “PhD students,” but these should be read to include the theater MFA programs.

³ Most PhD students and some MFA students are granted full tuition waivers and hence do not generate net tuition. In the sciences, it is possible to secure government training grants that do pay some tuition, and we do have a small number of restricted gifts that pay PhD tuition. For the current year, 19% of GSAS net tuition came from PhD students, 65% from Master’s students, and the remainder from certificate and special students.

of such programs to the university. While that extra cost would have been a burden, it is particularly onerous in light of the current budget situation.

The actual implementation of the B2000 target sizes varies across programs. For programs outside the sciences where the university funds all students and does so for five years, this target, together with information on the plans of continuing students, yields a target for new matriculants each year. For some science programs, the university funds a fixed number of students; for the life sciences, the university provides a negotiated pool of funding and the programs decide how many students to fund and how many to admit. In general, such flexibility is a good thing, because it allows each program to utilize university support in the manner that it believes is best. However, these different models make it somewhat difficult to compare the level of university support across different programs.

Despite these complexities, it is important to articulate some general principles.

- First, the scale of university support should correlate with the level of undergraduate enrollment in a department. This both ties the missions of the university together, and “scales” the graduate program to the size of the department in a general way. This principle, especially in a time of scarce resources, avoids the circularity inherent in scaling the graduate program to the size of the faculty (which then is sometimes justified based on the need for graduate teaching). Some departments use PhD students for specific, significant service teaching roles such as the University Writing Seminars, calculus instruction, and chemistry labs. These needs are also a factor in determining the appropriate size of the PhD program, although alternative ways of serving these functions should also be considered.
- Second, the scale of support should be an increasing function of revenue brought into GSAS by the department, whether in training grant tuition, gift and endowment, or Master’s tuition. This creates an incentive for university-benefitting behavior and emphasizes the principle that we all must work to make GSAS financially viable.
- Third, for programs in the sciences, the size of the graduate program should also be related to the scale of grant-funded research in the department. Although specific practices regarding the use of university-funded and grant-funded PhD students vary across departments, generally the university funds new PhD students, who at some point and to some degree make a transition to being funded by faculty research grants. A flow of university-funded students is important to maintaining the viability of grant-funded research, and when the students move to being grant-funded, the university is relieved of the cost, and also benefits from indirect cost recovery on the grant-funded stipends.
- Fourth, our general principles of excellence and distinctiveness suggest we should provide greater support to programs that achieve more on these dimensions. In practice, we have found that it is sometimes difficult to reach consensus about relative excellence and distinctiveness, because there are multiple qualitative and quantitative indicators that don’t always point in the same direction. Where the indicators are clear, however, we have incorporated these considerations into our recommendations.

It is not possible to implement these principles in a precise or formulaic way. Rather, we have analyzed the current status and recent history of each program, and arrived at recommended overall target sizes for each program that reflect the combination of the specific circumstances of each program and the general principles listed above. Table Two provides some background information on the size of each program, and presents our recommendations for new target sizes to replace the B2000 targets.

As shown in Table Two, there are about 260 funded students this year. It is important to note, however, that current 5th-year students are not funded. Based on the number of students in years 1-5 over the past three years, the number of funded students going forward would be about 280 per year, if we continued recent admit rates. Our review and recalibration of each program would reduce this overall funded total by about 60 students, or about 20 percent. As discussed below, however, we expect the actual number funded to be higher than the approximately 220 shown in the table, based on additional allotments for programs that bring in more than a minimal number of Master's students.

For the non-science programs, the last column provides an estimate of what the typical admit rate would be for new students, in order to maintain the target size in steady-state, assuming the overall average attrition rate. As is now the practice, the actual admit rate in any given year would fluctuate around this number, based on the actual experience with over/under admission in previous years and attrition.

Last fall, GSAS announced a two-year plan for a 50% reduction in admissions. Some programs chose to reduce 50% both years, some chose to reduce more in the current year with the expectation of more admits next year, and some admitted more than 50% with the expectation of a further reduced rate next year. In order to preserve the fairness of these choices, and because the current program sizes are in most cases above the target sizes, we recommend that the two-year plan be continued as originally planned. Admissions based on the new Target Sizes would then commence in the following admission cycle, for the Fall of 2011.⁴

As a rough approximation, the tuition from one Master's student (at the average discount rate) for one year pays the stipend of one PhD student for one year, or an enrollment of 5 Master's at any one time funds an additional PhD student for a 5-year commitment. Although we do not recommend a formulaic connection between Master's enrollments and PhD admissions, we do recommend that Master's enrollments be a factor. The numbers in the column "Committee Proposal for New Target Size" are intended to correspond to the target size for that program, if the program typically enrolls a minimal number of Master's students per year, which we would set at about 5. Programs that do not enroll at least 5 Master's students should be reviewed, and the Dean of GSAS would reduce their target size below the number in the table, if appropriate. Programs that typically enroll 10 or more Master's students would be in a position to request an increase in the target enrollment. We note that several existing programs already enroll at that rate; for these programs, the target size could be higher than those shown in Table Two beginning with admissions for 2011-12.

⁴ At that time some programs may still be well above their Target Size. We do not recommend zero admissions for those programs, but rather some negotiated transition over several years towards the ultimate Target Size.

The logic of the different target levels is as follows, with some additional detail provided in the discussion of the specific departments in the next section of the report. We see the minimum viable target size as 10. This size is assigned to Sociology, Anthropology and Politics. The Anthropology program, based in part on issues identified by the SFAC, has decided to suspend PhD admissions for two years (no admissions for Fall 2010 or 2011), and then re-evaluate its program to determine if time-to-degree, attrition, and placement are improved over recent experience. If so, admissions would resume as shown. The Politics program is undertaking a revamping of the program to focus more on a specialized Master's program that exploits the department's strengths. It anticipates a reduced number of PhD students, many of which may be drawn from among the most successful Master's students.

The English program target size is larger than others because English carries a significant load of teaching in the UWS program, and because it is our flagship humanities PhD program. The History program target size is set higher than most others in the humanities and social sciences to facilitate the merger of the former American History and Comparative History programs, which is just now being undertaken. The Math program is set at a relatively large size to reflect the possibility that it will receive a renewed GANN training grant, and because of the significant amount of teaching undertaken by Math PhD students. The Committee did not, however, undertake any analysis of whether the service teaching provided by Math students could be provided more effectively or at lower cost by other means. If the GANN grant application is not successful, we recommend further study of the question of whether the large size of the Math PhD program is appropriate and cost-effective.

Music and NEJS are programs that, in different ways, house multiple programs within them, and they have been assigned slightly larger targets than the minimum size for this reason. Both programs also have active Master's recruiting and can be expected to achieve larger doctoral size on that basis. Psychology carries a larger undergraduate teaching load than most other departments, and also can be expected to achieve an increased allotment based on its active Master's program.

The Theater MFA program currently pays stipends to its Acting students but not its Design students, and Theater Design students in peer programs are paid stipends. The Program, the SFAC and this Committee are all convinced that this situation is not sustainable; the university must find a way to pay stipends to Theater Design students. Unfortunately, the finances of GSAS do not offer a way to achieve this, and the overall cost of theater at Brandeis (including the Brandeis Theater Company) militates against directing more resources to theater at the current time. Therefore, as discussed below in the section on the Theater Department, the Committee endorses the ongoing efforts of the Department to determine if the resources necessary to initiate stipends in the Design program can be found within the Theater Department and the Theater Company.

The chemistry program is reduced slightly in size, reflecting the general reduction in funded slots, and the weakness of its applicant pool; the number of 20 doctoral students appears to be the minimum number that can sustain the current laboratory teaching model. The small computer science PhD program is entirely funded by its Master's revenue, and so was not reduced. The Life Sciences program, which is actually four distinct PhD programs (Molecular and Cell Biology; Biochemistry; Biophysics and Structural Biology; and Neuroscience), was reduced

slightly. The physics program was not reduced because the recent addition of the multimillion dollar NSF-funded Materials Research Science and Engineering Center (MRSEC) creates a need for additional students.

5.2 Pool for “Dean’s decision” admits each year

The Committee agonized considerably over the feasibility of rewarding the programs that attract the best students by allowing them more admissions. Our recommendations for target size reflect such considerations to only a limited extent, in part because such comparisons are difficult to make, and in part because we believe that this is an area in which past performance is not necessarily a predictor of future success. We do believe, however, that Brandeis should be strategic in allocating its scarce resources to the programs that, in a given year, attract the best students. Therefore, we recommend the institution of a new program that will achieve this result on a yearly basis.

We recommend the creation of a pool of special fellowships that would be awarded each year, by an interdepartmental committee chaired by the Dean of GSAS, to applicants who are exceptionally qualified, who would diversify the student body, or both. All programs that do not have access to significant external funding would be eligible each year to submit any of the applications that they have received as candidates for these “University” Fellowships. In addition to the standard academic year stipend award, the winners would receive funding for their first two summers, as a way of improving our chances of landing these top candidates. Once these Fellows are chosen, the programs would then pursue their allotted number of new admits, over and above any who may have received the University Fellowship. In this way, whichever programs attract the strongest and most diverse pool of candidates in a given year will automatically have an opportunity to admit one or more additional students, and programs will not have to agonize over “wasting” an admissions offer on a very strong candidate who might be unlikely to come. In subsequent years, continuing University Fellows would not count towards the Target Size for their program.

5.3 Other Recommendations Regarding GSAS

Published Milestone or Milestones that must be achieved to continue funding. GSAS has tried for years to tighten requirements for annual re-admission, so that we do not continue students who fail to make satisfactory progress. The detailed review of the programs undertaken by the SFAC showed that some programs continue to carry students who are not making progress. Rigor varies by department, but attrition---an overall rate of one-third---often comes *after* the University has invested years of fellowship support. A recommendation for a simple policy that would mitigate this problem is that PhD stipend funding after the third year should be conditional on successful completion of the comprehensive examination.⁵ The annual re-admission policy must be tightened; programs must implement a more careful review of students and terminate funding for those who have incompletes (under the new GSAS rules on

⁵ For programs where specific requirements such as extensive language training make this infeasible, the timing of this requirement could be modified, but every program should have a policy, approved by the Dean of GSAS, regarding the timing of milestone completion.

incompletes) or those who fail to make satisfactory progress in meeting the specific requirements of a given program.

Review of teaching loads and Teaching Fellow assignments across programs. Currently, the total number of teaching assignments required of PhD students in programs with 5-year funding varies from as few as 4 to as many as 8. While some amount of variation may be an appropriate reflection of disciplinary differences, the SFAC concluded that much of the current variation is arbitrary or reflects historical differences that are no longer present or no longer relevant. The Committee recommends that the Dean of GSAS convene a committee to review teaching loads and establish school-wide policy. A related issue is that the assignment of Teaching Fellows to courses based on enrollment and other considerations also varies considerably across programs. The committee created to look at the teaching issues should also establish school-wide guidelines for the assignment of Teaching Fellows to courses.

6 Specific Recommendations for Departments and Interdepartmental Programs

African and Afro-American Studies

African and Afro-American Studies at Brandeis has a distinguished and active faculty who offer "opportunities to explore cultural expressions, economic issues, religious practices, social arrangements, intellectual developments and political trends among Africans and people of African descent" (<http://www.brandeis.edu/departments/afroamerstudies/>). The department is one of two very small departments at Brandeis, with only five faculty members, three of whom have joint appointments with other departments. Although AAAS graduates relatively few majors (just 7 in AY 2007-2008), average enrollment in its courses is strong.

In terms of the CARS criteria for deliberation, AAAS faculty and curriculum satisfy with distinction many of the criteria that CARS has sought to apply in its deliberations. AAAS contributes to multiple missions (especially the undergraduate curriculum, scholarship and social justice), to the undergraduate experience, to synergies with other departments and programs, and to the general excellence of the university. Moreover, a program in African and African American studies is essential to an institution such as Brandeis. In addition, AAAS has been one of the few departments at Brandeis successful in recruiting faculty of color, particularly African American faculty.

The committee believes, however, that the organizational structure of AAAS as a stand-alone department is not optimal, in part because the department is so small and in part because AAAS is a fundamentally interdisciplinary enterprise that has the potential to become even more robust and influential if integrated more fully into disciplines and departments across the university. It is thus the recommendation of the CARS committee to transform AAAS into an interdepartmental program, while continuing to offer an interdisciplinary major and minor, increasing the size of the faculty, and integrating AAAS faculty and courses more extensively into related disciplines. As an interdepartmental program, AAAS would join the ranks of some of Brandeis's most distinguished academic programs that thrive in an interdepartmental structure, such as Women's and Gender Studies, Neuroscience, and Health: Science, Society and Policy.

Regarding size: there are currently only two Brandeis departments that are extremely small in size: AAAS (with five faculty members, three of whom have joint appointments and thus partial commitments in other departments) and Classical Studies (with four faculty members). Although both of these departments offer a thriving curriculum, they are too small to function well as administrative units. This year, for instance, when three AAAS faculty members had the opportunity to go on research leave, there were only two department faculty members remaining at Brandeis. The very small size also means that there are few people to draw upon to take on important departmental roles such as department chair. It is the recommendation of the CARS committee that both of these two uniquely small departments become interdepartmental programs, and this would mean that there no longer would be any Brandeis departments with fewer than eight or nine faculty.

Importantly, AAAS is also already fundamentally an interdisciplinary enterprise. Its faculty members hold degrees in History, Literature and Politics. Almost all of Brandeis's other area studies programs function as interdisciplinary programs rather than as departments;⁶ and interdepartmental programs in African and African American Studies are very common in U.S. universities. In 2006, for instance, Princeton University established an interdisciplinary center in African American Studies, arguing that an interdepartmental program in AAS could be stronger and more effective than a department. The rationale is described in a September 18, 2006 Princeton news release:

By establishing a center and expanded curriculum for African American studies, Princeton will be able to diffuse the study of race issues throughout its liberal arts education in a manner unique to the field. . . . The committee recommended that we become a center rather than a department because we felt that a center could do everything that departments do and more," said Professor of English Valerie Smith, the director of African American studies. "We wanted to be able to appoint faculty solely in AAS, as a department would be able to do, but we also imagined ourselves having a broad impact on the University curriculum." . . . Many institutions have academic departments dedicated to black studies, but philosophy professor K. Anthony Appiah, who chaired the president's advisory committee, said a center will give African American studies at Princeton a greater ability to reach students and faculty in numerous disciplines.
(<http://www.princeton.edu/main/news/archive/S15/85/91C70/index.xml?section=topstories>)

If African and Afro-American Studies at Brandeis were to become an interdepartmental program, faculty members specializing in African studies, African American studies and race from diverse departments (including Anthropology, Education, English and American Literature, French and Francophone Studies, Heller, and Sociology) could join the program, significantly increasing its size and fostering new synergies across the university. Furthermore, CARS is recommending that the university further invest in African and Afro-American Studies by undertaking a new search for a tenure-track scholar in AAAS and Women's and Gender Studies.

⁶ The exceptions have been American Studies, African and Afro-American Studies, and Near Eastern and Judaic Studies, and CARS is recommending that both AMST and AAAS now become interdisciplinary programs. The NEJS Department is unique due to its large size and distinctiveness at Brandeis, and the fact that it offers five different graduate degree programs.

This search, funded in part by a WGS endowment, is for a scholar whose research and teaching at the intersections of race and gender will support the missions of both programs.

In addition, by joining departments such as History and Politics, AAAS faculty would strengthen the receiving departments. Finally, by joining departments with graduate programs, the distinguished AAAS faculty could contribute more extensively to the important Brandeis mission of graduate education.

Recommendations:

- Transform African and Afro-American Studies from a department to an interdepartmental program that offers the same interdisciplinary undergraduate major and minor as are offered now by the department.
- Reassign the faculty without existing joint appointments to other departments, through careful consultation with each faculty member and receiving departments. (Three out of the five current faculty members already have joint appointments with other departments; the other two faculty members have PhDs in Politics and History and would strengthen the receiving departments.)
- Hire one additional new faculty member to contribute to the program, instituting the joint AAAS-WGS hire (discipline open) that has been previously discussed, for a scholar whose research and teaching at the intersections of race and gender will support the missions of both programs.
- Recruit new faculty into the interdisciplinary African and African American Studies Program, from departments, programs and schools such as Anthropology, Education, English and American Literature, French and Francophone Studies, Heller and Sociology, thereby potentially doubling the size of Brandeis's AAAS faculty.

Rationale:

By recommending that the small AAAS department be transformed into a larger interdepartmental program, it is the intention of the CARS committee to strengthen African and Afro-American Studies at Brandeis, by increasing the size of its faculty and augmenting synergies across campus, while at the same time strengthening departments such as History and Politics that might receive AAAS faculty members.

American Studies

The American Studies Department has an active and distinguished faculty and offers a thriving interdisciplinary major. In AY 2007-08 American Studies awarded 54 majors and had a total undergraduate enrollment of 1,289 (the 7th highest among all departments and programs). American Studies faculty members are instrumental in several interdisciplinary programs, including Environmental Studies, Journalism, and Legal Studies. In addition, AMST cross-lists courses with seventeen other departments and programs across the university. In terms of the CARS criteria for deliberation, the American Studies faculty and curriculum unquestionably contribute in very important ways to Brandeis's multiple missions--especially the undergraduate curriculum, scholarship and social justice--and clearly meet the criterion of excellence. American

Studies also ranks very high in terms of synergies, contributing to many other programs in essential ways.

The CARS committee recommends that American Studies be transformed from a department into an interdepartmental program that continues to offer an interdisciplinary major, as a means of strengthening several academic units, while diminishing the need to hire new faculty and allowing the size of the current faculty gradually to reduce over time. We outline our reasons for this recommendation below.

American Studies is a fundamentally interdisciplinary enterprise; its faculty members at Brandeis have degrees in diverse disciplines such as history, politics, law and English. While American Studies departments do exist at several universities, it is much more common to find American Studies interdepartmental programs. The *Guide to American Studies Resources* includes a directory of domestic American Studies programs (<http://asa.press.jhu.edu/gasr/programs.html>); the majority of these are organized as interdisciplinary programs rather than departments. For instance, American Studies programs rather than departments exist at distinguished institutions such as Harvard, Yale, Boston University, Boston College, Tufts, Stanford, Cornell, Columbia, New York University, and University of Virginia, to name just a few. Almost all of Brandeis's other area studies programs (including Latin American and Latino Studies, East Asian Studies, European Cultural Studies, etc.) function as interdisciplinary programs rather than as departments. The exceptions have been American Studies and African and Afro-American Studies, and CARS is recommending that both AMST and AAAS now become interdisciplinary programs.⁷

Transforming American Studies into an interdepartmental program would facilitate several strengthening and cost-savings moves:

- 1) By making American Studies an interdepartmental program, Americanist faculty from diverse departments (such as African and African American Studies, English and American Literature, History, NEJS, Politics and Sociology) could join the program, contributing to it over future years and thus **reducing the need to replace current AMST faculty as they retire or if they depart.**
- 2) If American Studies is transformed into an interdepartmental program, its existing faculty could be reassigned (after careful consultation) to other departments, thereby **reducing the need to hire or replace faculty in receiving departments.** Such reassignments would strengthen the receiving departments, and in many cases would help fill gaping needs that cannot currently be met through hiring new faculty. History in particular is one of the very few Brandeis departments that has decreased in size rather than grown over the past decade. It is sorely in need of new faculty members, and yet it will be difficult for Brandeis to hire new faculty over the next several years. If the four historians in American Studies were to join the History faculty, the History Department

⁷ The NEJS Department is also in some respects an area studies department; see previous footnote.

would be significantly strengthened. Consolidating in this way would also allow the non-replacement of at least one Politics faculty member.

3) By joining departments with graduate programs, the distinguished American Studies faculty could contribute more extensively to the important Brandeis mission of graduate education.

Recommendations:

- Transform American Studies from a department to an interdepartmental program that offers the same interdisciplinary undergraduate major and minor as are offered now by the department.
- Reassign most of the faculty to existing departments, through careful consultation with each faculty member and receiving departments. (Tenured and tenure-track faculty are generally affiliated with a department, although contract faculty and occasionally tenure-line faculty may be affiliated with an interdepartmental program only.)
- In order to contribute to the CARS faculty reduction target of 35, reduce the size of the current faculty by four over time, through managed non-replacements following retirements or departures.
- Recruit new faculty into the interdisciplinary American Studies Program (from departments and programs such as African and Afro-American Studies, English and American Literature, History, NEJS, Politics and Sociology), so that American Studies at Brandeis will continue to thrive and grow, without having to hire new faculty.

Rationale:

Transforming American Studies from a department to an interdepartmental program would strengthen several academic units at Brandeis without requiring additional hiring while allowing the size of the current faculty to decrease by approximately four. American Studies would continue to thrive and even to grow as an interdisciplinary program and major, as Americanists from many different Brandeis departments could join the program faculty. The History and Politics Departments would be significantly strengthened, filling some gaping needs, by incorporating current American Studies faculty with degrees in History and Politics into their departments.

Anthropology

The faculty of the Department of Anthropology is research active, productive, and engaged in extensive undergraduate teaching and graduate training. Average enrollment in department courses is strong, with very large enrollments in its introductory courses, one of which is part of the required core for the interdisciplinary major in International and Global Studies. In terms of the number of majors graduated each year, it is one of the smaller social science departments. Nonetheless, the department makes a significant positive contribution to the undergraduate educational mission. Its faculty also contribute extensively to numerous interdisciplinary programs, currently chairing Cultural Production, International and Global Studies, Latin American and Latino Studies, South Asian Studies, and the new MA Program in Global Studies.

The department is in the midst of a major reorganization of its PhD program, in response to relatively high attrition rates and the high average “years to degree” of those who have completed the PhD. That reorganization addresses recruitment, curricular and mentoring issues, as well as the question of funding beyond the fifth year. The department has “frozen” admissions to the PhD program until 2012, contingent on a positive re-assessment of the program in fall 2011. (The plan does allow for admission of one exceptionally promising MA student each year, if such a candidate materializes; something that is crucial to achieving a target of five MA students each year.)

Recommendations:

To meet the imperative of reducing the size of the Arts and Sciences faculty, and reducing university expenditures on graduate student support, CARS recommends that, if the Anthropology PhD program is re-assessed positively in fall 2011:

- GSAS should fund approximately 10 Anthropology PhD students at any given time, implying a steady-state matriculation rate of 2.5 PhD students per year beginning in fall 2012. This represents a reduction from the average over the past three years of 13 university-funded PhD students in years 1 through 5 of the study.
- The department enroll five MA students each year, in order to increase revenue and resources for the PhD program, and create a pool of more easily-evaluated potential applicants to the PhD program (who will require at least one less year of stipend support).
- The Anthropology faculty be reduced by one position over the five year period in which the overall goal of reducing the Arts and Sciences budget is to be achieved. This reduction is to be achieved through carefully managed non-replacement of departing faculty, even as one new faculty person is hired in medical anthropology. Careful management of this process should avoid any negative consequences for either the undergraduate or graduate curriculum.

Biochemistry

Biochemistry is the smallest but among the most distinguished departments in the school of science. Despite small size, it enjoys a national reputation for the caliber of its faculty and the excellence of its externally funded research program. Three of its faculty have had 100% of their salaries funded from outside sources for many years, though they all contribute to teaching the Biochemistry curriculum.

Balancing its excellence and relatively low total cost, CARS notes that many smaller Universities lacking medical schools do not have stand alone biochemistry departments, and that the department is nearly too small to function well as an independent organizational entity. In addition, it maintains low undergraduate enrollments, although some members have taught large enrollment chemistry courses and routinely teach overloads. CARS explored the possibility of eliminating a separate Biochemistry department by merging its faculty with those in Biology and/or Chemistry, but concluded this would not achieve significant savings. The graduate program is already run as part of an umbrella life sciences program and its administrative staff (several of whom are devoted to sponsored research) already serve interdepartmental roles. In light of several recent faculty departures, the Committee recommends an increase of one faculty.

Recommendations:

- In light of several recent faculty departures, the Committee recommends an increase of one position to help maintain the size of the department.
- CARS recommends continued efforts to better coordinate course offerings in the life sciences to minimize redundancy and to enhance undergraduate enrollments.
- Consonant with proposed reductions throughout the graduate school, CARS recommends a reduction in the size of the life sciences graduate program from 37 University funded positions in recent years back to the Brandeis 2000 target of 32 funded positions. It is hoped that sponsored research and training grants will continue to allow this program to support additional students.
- CARS also recommends that the department explore enhanced Master's admissions through the existing M.S. program as well as through novel programs such as a potential Masters program in Biotechnology.

Biology

The Biology department is one of the largest departments at Brandeis. It has the largest faculty with 26 tenured and tenure track and 3 long term contract faculty and the second largest enrollment with 1800 students taking Biology courses each year. The average class size is 37, second only to Economics. With 109 undergraduate degrees awarded last year, it is second only to Economics in number of majors.

The Biology faculty have a strong research program that brought in \$13.7M in external funding last year with 73 active awards. One member of the department has had 100% outside salary funding for many years. They support most of their graduate students on research grant funding and they have been successful in winning large training grants to support many of their students in the first three years. With 61 post-docs and 209 graduate students, they have the largest graduate program at Brandeis.

Most Brandeis students pursuing a pre-medical course of study are Biology majors and this accounts in large part for the large enrollments in the introductory Biology courses (18a, 18b, 22a, 22b, 42a). The high quality of the Biology program is in large part responsible for the high percentage of Brandeis students that are accepted to Medical School, and this has helped maintain our selectivity as an institution. The Biology program, with Biochemistry, Chemistry and Physics, also supports the Pre-medical post-bac program, which prepares students for Medical School.

Recommendations:

- Allow the faculty size to decrease by 3 over the next five years by managed non-replacement of faculty who retire or leave.
- Decrease the number of University funded graduate fellowships in Life Sciences from an average of 37 (total) to 32 per year.
- The department should be able to continue to fulfill its teaching mission with three fewer faculty. If the number of Master's and post-bac students increases substantially, the

number of University funded graduate fellowships could potentially be restored to 37 or even increased.

Rationale:

These reductions will help us meet our goals of reducing the faculty size by around 35 and decreasing the cost of GSAS. The department should be able to continue to fulfill its teaching mission with three fewer faculty.

Chemistry

The Chemistry department fosters significant faculty scholarship, mounts what has been historically a strong Ph.D. program relative to its modest size and performs extensive service teaching to non-majors including premedical students and those majoring in other sciences. It also provides rigorous training to its undergraduate majors, although it has fewer majors than any department in the sciences, and among the fewest of any department in Arts and Sciences (about 10 per year).

CARS concluded with little debate that the current undergraduate programs in Chemistry score highly on many of our evaluative criteria. Specifically, they contribute to multiple missions and are essential components of any University offering training in the sciences.

SFAC, in their report to CARS, raised significant concerns about the trajectory of the Chemistry graduate program. The Ph.D. program has difficulty competing for top applicants and operates with a high attrition rate. It is the most costly graduate program in the University, approximately \$650,000 this year. This must be balanced, however, by recognition that its students carry significant teaching responsibilities in the undergraduate lecture and laboratory courses. The cost of meeting these teaching needs through alternative staffing is likely to be high. In addition, graduate students are integral to departmental scholarship supported by external funding. Enabling faculty to compete successfully for that funding depends upon ample graduate research assistants. The Chemistry faculty contribute not only to sponsored research within the department but also to interdisciplinary programs like those supported by the MRSEC and IGERT grants.

An external review conducted in 2007 prompted the department to propose a plan to rebuild the chemistry department requiring a multi-million dollar University investment, but in the current economic environment this kind of expansion is untenable. The department has argued that without such investment, the future of the Brandeis Chemistry Ph.D. Program is questionable. CARS is concerned about the current quality of this graduate program although it recognizes that metrics applied to other programs (e.g. academic placements) may not be the most relevant ones, and that the program fills important needs with respect to teaching and faculty scholarship. In light of the complexities of the situation, further study is needed to evaluate what it would take to make this a thriving, top quality program and to evaluate the range of other options available for meeting undergraduate teaching needs and supporting faculty scholarship.

Recommendations:

- Reduce the number of University-funded graduate student slots from the recent level of about 25 to 20. This is in line with the Brandeis 2000 targets and the estimated minimum required for undergraduate teaching obligations.
- Realize additional steady-state savings through strategic non-replacement of 1 faculty member over the coming years.
- Recommend that the Provost convene an additional ad hoc subcommittee of CARS to allow further study of the range of options available and their financial and curricular implications.

Classical Studies

Classical Studies (Classics) is a vibrant, small department that consists of four full-time faculty members who each teach a variety of courses, including frequent overloads. They offer a wide range of courses in languages, literature, art, archaeology, philosophy, history, religion, and mythology. Classics has developed initiatives with Theater Arts, Fine Arts, Anthropology and other departments.

The prize winning faculty of Classics (all four members of the department have been honored, whether by the profession at large or at Brandeis for teaching) are interdisciplinary at the core, much like NEJS, AMST, and AAAS, but their overarching focus is to, in the words of one of its members, “preserve and study the roots of western civilization.” Unlike those other departments, however, each of the members of the department is interdisciplinary and teaches in several of these different areas. At the last BOT meeting in March a new, revenue-generating MA in Greek and Roman Studies was approved; this will target teachers of Latin and Greek in the Boston area. They already mount a successful outreach program, as well as a certificate program.

Classics offers some courses with high enrollments. They graduate approximately 8 majors per year. They teach over 300 students per year. Thus the small classes are compensated for by some larger ones. They have offered approximately three USEMs per year.

This department satisfies, amply and with distinction, most all of criteria that CARS has sought to apply to its deliberations. Classics contributes to multiple missions, to the undergraduate experience, to the general excellence of the university. Moreover, its discipline is essential to a university of our caliber. Its programs are distinctive and synergistic. However, it is clear to the committee that its organizational structure is not optimal, since a separate department of four is exceedingly small, and some important decisions must be made with committees that are enlarged by the Dean.

We therefore suggest that the Classics faculty, while keeping its excellent majors and minors intact, join another department or departments. Its major would continue to exist, although CARS suggests that it could become an even more broadly conceived program in Classical and Ancient Studies. Although no such move can be perfect, we could imagine them joining, together or individually, NEJS, ROMS, GRALL, Philosophy or Anthropology, or some other department(s) of their choice. This decision should be made by the members of department in consultation with the Dean and with relevant faculty in other departments. We also recommend that, over time, the faculty devoted to Classics be reduced from 4 to 3. We believe that their previous, heroic, USEM contribution of 3 courses per year in fact shows that they could continue

to mount their distinctive program with one fewer faculty member. The committee recognizes the irony of this reward for a sterling contribution. But with a genuine need to reduce faculty, we are forced to come to this recommendation. We hope this reduction will occur either through retirement or departure.

Recommendations:

- Transform Classics from a department to an interdepartmental program and assign the faculty to another department or departments
- Admit students to the new MA program
- Consider broadening the major still further with a possible new name such as Classical and Ancient Studies
- Reduce faculty from 4 to 3 over time with carefully managed retirements and departures

Computer Science

The computer science department is one of the smaller departments in the school of science in terms of numbers of faculty, undergraduate majors, and total undergraduate enrollments. Perhaps reflecting national trends, applications and matriculation to the Ph.D. program have declined in recent years. However, the department possesses a cohesive and entrepreneurial faculty that have managed to more than offset costs for its Ph.D. program with highly successful Master's programs. An external review of the department conducted last year suggested the need for significant faculty growth. It is recognized that this is unlikely to be realistic in the current climate. The department has, however, been working to implement other review recommendations including strengthening the focus of the department, and forging links with other departments at Brandeis and with other Computer Science programs in the area. The department now also houses Brandeis's faculty in the undergraduate program in Language and Linguistics and the new Master's program in Computational Linguistics.

The department has also been working to enhance its undergraduate enrollment by reducing the required number of courses for its BA and BS degrees (from 14 to 9 and from 19 to 14 respectively).

Recommendations

- Support the department's efforts to further develop Master's programs, especially those providing linkages to other programs such as Computational Linguistics and the new program in IT Entrepreneurship. Biotechnology might represent another productive area for a linked Master's Program.
- Reevaluate the strength of core and linked graduate programs in 3 years.
- Support proposed reductions in course requirements and assess the impact of these changes in enrollment and student preparedness in 3-5 years.
- Explore further synergy with programs at the Olin College of Engineering.
- Long-term reductions in steady-state faculty through non-replacement of 2 positions are warranted in the absence of renewed growth of the undergraduate teaching mission and/or if current attempts to augment graduate programs are unsuccessful.

Economics

The Economics department consists of about 12.2 tenure track faculty and 3 long term contract faculty teaching around 1850 students each year. This is the largest teaching contribution of any department, with Biology close behind at around 1800 per year followed by Chemistry, Politics, and Psychology at around 1500 per year. The average class size for Economics is also the largest of any department at 39 students per class, though eight other departments have class sizes over 30. It is not clear whether the new Business major will increase or decrease the number of students taking Economics courses. We do expect that Economics will remain one of the largest majors on campus and will continue to provide courses for a large percentage of our students.

The graduate programs in Economics are handled through IBS and so PhD students in International Economics and Finance are not supported by Arts and Sciences fellowships. IBS relies on its Master's programs to fund all of the costs of the Economics PhD program.

Economics has five required courses for the major: 2a (taken by the majority of all Brandeis undergraduates), 8b, 80a, 82b, and 83a. The latter 4 courses enroll on the order of 150 students each per year, and are taught in two sections each semester to limit class size to 35-40 students. This class size is necessary to allow significant class interaction in these highly analytical courses. Nonetheless, such courses are routinely taught as large lecture courses at large universities.

Recommendations:

- Despite the loss in student/faculty interaction, we recommend dropping the extra sections of 8b, 80a, 82b and 83a, teaching each course in only a single large lecture each semester. This would decrease the total sections taught by 8-10 or approximately 2 faculty FTE. Given the other kinds of choices we face as we need to reduce the faculty, this seems an acceptable tradeoff. It is also a reversible choice if and when the budget situation improves.
- Allow the faculty size to decrease by 2 over the next five years by managed non-replacement of faculty who retire or leave.
- As discussed further below, we recommend studying how the Statistics for Economic Analysis course (83a) could be replaced with an integrated college-wide statistics course.

Rationale:

These two recommendations for the Economics department will allow it to contribute to the University-wide reduction of 35 FTE over the next five years.

English and American Literature

The faculty of the Department of English and American Literature (DEAL) is research active in a wide spectrum of fields, productive, and engaged in extensive undergraduate teaching and a substantial amount of graduate training. The Department is home to a number of programs, including the majors in English and American Literature, and the major in Creative Writing, as

well as the University Writing Program. An average of 54 majors and 17 minors graduate each year, up to one fifth of the majors and about one half of the minors are in Creative Writing. Faculty also contribute a significant number of courses to other programs, such as WMGS, Film Studies, and Comparative Literature.

Average enrollment in the department's courses is strong, with very large enrollments in a number of courses. The department contributes in many ways to our multiple missions and to the general excellence of the university. Many of its members have a strong profile in the profession at large. It certainly would be unthinkable to have a university that did not offer a major in English. Brandeis's program in Creative Writing, though necessarily small, is highly regarded as a strong undergraduate major/minor that also contributes greatly to the undergraduate student experience, with student publications, notable writers-in-residence, and regular poetry readings.

The graduate program, which is the only graduate program at Brandeis that is exclusively/purely in the humanities, ranks among the top programs in the university, with a very good placement record (12 out of 13 recent graduates placed in academia, many in tenure-track jobs at middle-tier institutions). The department has begun accepting MA students three years ago, and is committed to growing its MA programs. This includes a terminal Master of Arts in English, and a joint MA with Women's and Gender Studies. English also contributes to the Master of Arts in Teaching.

The Ph.D. program in English ranks second in cost at \$435,000 per year in F09. The size of the program is linked to the use of PhD students to teach the required first-year University Writing Seminar (UWS). English graduate students represent a major cohort of instructors in the UWS program (typically 25 per year). It is important to note that our PhD students are, on the whole, doing an excellent job teaching the UWS courses. The Overall Instructor Ratings for the UWS courses over recent semesters have been impressively high: 4.23 (Fall 2007), 4.37 (Spring 2008) and 4.12 (Fall 2008). Still, further study is needed to assess whether teaching UWS with contract or adjunct faculty would ultimately be more cost-efficient.

With the help of a grant from the *Davis Educational Foundation*, the members of the writing program are currently exploring how to improve the writing skills of Brandeis graduates by extending the systematic application of writing pedagogy into upper-level writing-intensive courses across the curriculum and developing a set of standards for teaching and evaluating writing in the various disciplines. CARS recommends that a review of the UWS and writing intensive requirements be undertaken after completion of the Davis grant in the summer of 2010.

To address relatively low satisfaction among its graduate students, the department should continue to explore initiatives such as the "Annual English Department Graduate Conference" (which will be taking place for the seventh time on October 09, 2009). The establishment of the Mandel Humanities Center should help improve graduate student satisfaction in such programs as English. It should enable the establishment of regular journal clubs, talks, lunches, etc. that would help create a vibrant community.

The Department emphasizes its commitment to the teaching of "Anglophone writing" on its website. The study of world literature written in English is an area that CARS has identified for more analysis to get maximum value and avoid redundancy. The chairs of humanities

departments and the council should meet with the Dean and discuss how duplications could be avoided in the future.

The department already allows for a number of cross-listed and elective courses from other departments/programs to count towards its majors/minors. On the survey, faculty who identified themselves as members of the department favored cross-listing with a wide array of programs, most importantly Comparative Literature, Cultural Production, Women's and Gender Studies, Philosophy, and Film Studies, but also IGS, HIST, ENV, INET, ECS, HOID, ROMS, GRALL, ED, and JOUR. CARS recommends that the department study these interdisciplinary connections and seek cross-listings where appropriate.

Recommendations:

- As part of the general reduction in the size and cost of GSAS, the target size of the English PhD program should be reduced to 20, which corresponds to approximately 5 admits per year in steady state under average attrition. The department would need to matriculate five Master's students per year in order to sustain this size. An increase in the target size of the program, and hence the number admitted each year, could be sought if the number of Master's students reached approximately 10.
- The issue of the most cost-effective way of teaching University Writing Seminars (UWS) should be revisited after the Davis research grant ends in 2010. At that point, the quality of UWS instruction as well as the writing-intensive requirement should be reviewed. It should be determined whether some (or all) UWS should instead be taught by contract faculty (ABD and recent PhDs), if this is determined to provide significant savings.
- Over time, the faculty (currently the third largest in the humanities) could be reduced by one FTE without compromising the undergraduate and graduate offerings.
- Explore potential for cross-listing with other departments and programs, including such programs as European Cultural Studies.
- Analyze issues of actual and potential overlap in teaching of 'world literature' across various departments/programs. Identify mechanism for successful future planning.

Fine Arts

Fine Arts is a program that successfully unites artistic excellence with intellectual inquiry. It offers courses that are both challenging and vital to the overall experience of Brandeis students.

The CARS committee would like to acknowledge the accomplishments and robustness of the Fine Arts Program. In our discussion, the Fine Arts Department was used as an example of a highly successful program offering a wide range of popular courses in studio art and the history of art that reach out to the entire student body.

With the success of the post-baccalaureate program, one of the finest in the country, and the Fine Arts Department's talented students and faculty, Brandeis is given an opportunity to be proud of their role in the liberal arts experience.

The suggestions from Fine Arts for participation in the JBS program are a welcome addition to our discussions about how to build an exciting semester for students interested in this new part of the Brandeis experience.

Recommendations:

- Reduce the faculty by one over time, through careful non-replacement of faculty who retire or depart
- Work with Music and Theater to develop an interdisciplinary Creative Arts Major.

German, Russian and Asian Languages and Literatures

The Department of German, Russian and Asian Languages and Literatures (GRALL) currently supports a number of majors and interdisciplinary programs, including: German Language and Literature, Russian Language and Literature, Russian and East European Studies, European Cultural Studies, East Asian Studies and South Asian Studies. Its faculty is responsible for Brandeis's language instruction in German, Russian, Chinese and Japanese, and its faculty are also instrumental in Brandeis's interdepartmental program in Comparative Literature. The department consists of 2 tenured faculty, 2.75 tenure-track faculty, and 5 long-term contract faculty. Although few students major in the programs supported by GRALL, GRALL courses generally receive very strong teaching evaluations. Further, the CARS committee believes that any university of Brandeis's caliber must make available to its students the study of German, Russian, and Asian languages and literatures. The tenured and tenure-track faculty are also highly involved in scholarly research and publishing. The department thus meets most all of the criteria used by CARS in its evaluation of departments and programs, including contribution to multiple missions, excellence, intrinsic essentiality and synergies with other programs.

The CARS committee has several suggestions for the GRALL department aimed primarily at enhancing studies in German and Russian and helping the university meet the imperative of reducing the size of the Arts and Sciences faculty. Currently Brandeis offers two distinct programs of study related to Russian: a Russian Language and Literature major, and a Russian and East European Studies minor, each graduating just a few students per year. CARS recommends that the two programs be combined to become a broader and more flexible single interdepartmental program in Russian Studies. Similarly, the current German Language and Literature major could be expanded to become an interdisciplinary major in German Studies. The existing European Cultural Studies Program would also continue to share courses with and support the two new Russian Studies and German Studies programs. In addition, CARS recommends striving where possible to better utilize the Center for German and European Studies to support these two new interdisciplinary programs. The department's faculty would work to rename the department, reflecting its expanded broader focus. Possible names to consider could include: German, Russian and Asian Studies, or European and Asian Studies.

To help the university reduce the size of the Arts and Sciences faculty, CARS recommends in addition that the number of German and Russian tenured faculty be reduced by one over the coming years, by managed non-replacement of faculty who retire or depart. It is possible that one new tenure-track faculty member could be hired with a dual specialty in both German and Russian literature, if eventually two Russian and German faculty members depart.

In addition, CARS recommends that the open position in Chinese literature, language and culture be filled, as Brandeis will not be able to adequately sustain its Chinese language and East Asian Studies programs without courses in Chinese literature.

Recommendations:

- Change the current Russian Language and Literature and German Language and Literature majors to become broader interdisciplinary programs offering majors in Russian Studies and German Studies.
- Merge the current Russian and East European Studies interdepartmental program into the new Russian Studies Program.
- Fill the open position in Chinese literature, language and culture.
- Reduce the tenured/tenure-track faculty in German and Russian by one, through careful, managed non-replacement of faculty who retire or depart. If two such faculty members depart, consider hiring one new faculty member with the ability to teach literature courses in both German and Russian.

History

History has long been a distinguished and productive department. It defines the objective of its major as “to provide students with a broad introduction to the historical origins of the modern world.” The department has a faculty weighted towards American History, with a smaller faculty in Comparative History with a European focus, and who together have won numerous awards for their scholarship. Graduates from both the B.A. and doctoral programs have gone on to successful careers in a wide variety of fields, including prominent places within the historical profession at distinguished institutions. The department enjoys high popularity with over 1,100 undergraduate enrollments in 2007-2008 and 93 graduating majors. The mean class size of 36 is among the highest. At the same time, it is successful in attracting highly qualified candidates for graduate study. History fulfills most all of the criteria established for CARS to a high degree.

Recommendations:

- We endorse the movement within the department to combine the American History and Comparative History doctoral programs.
- With the contemplated reorganization of AMST and AAAS, CARS notes that History welcomes the opportunity to integrate historians from American Studies and African and Afro-American Studies. This should offer, over time, the opportunity to reduce the current History faculty by 2 through careful, managed non-replacement of faculty who retire or depart. At the same time, CARS recommends that the position in British Empire be filled at an early opportunity, and that the Latin American History position be increased to full time.
- CARS also recommends reductions in the graduate program to a target size of 16 total. This corresponds to an average steady-state admit rate of about 4 per year, assuming average attrition. Even with this reduction, History will be the largest doctoral program in the social sciences at Brandeis. We recognize, however, that this represents a significant reduction from the historical combined size of the two programs, and note that the size could be increased if the department is able to

- increase its Master's program admissions to 10 or more per year, and if the department is successful in nominating outstanding applicants for the small pool of special "dean's decision" admits through the new University Fellowship program.
- CARS also recommends that the TA teaching load in American History (currently 4 courses) be increased as part of the general re-examination of teaching loads in GSAS. Some graduate students may find useful training and service in UWS courses, thereby exploiting and further developing a skill necessary for the professional historian.
 - In this period of departmental reorganization, with the changes in internal programs and the possible integration of historians from American Studies and African and Afro-American Studies, the department may be poised to consider extending beyond its American and European-centric focus. CARS noted that there was interest in considering the incorporation of historians from the Classical Studies department. It also notes that the affiliations with historians from NEJS and from other cultures and regions in the world could be strengthened to produce new synergies. The fact that History previously offered four to five USEMS should allow for some new course development in these areas.

Mathematics

The Mathematics department consists of nine tenure track faculty and five long term contract faculty. Most of the contract faculty are permanent rotating post-doc positions, a common model among top Mathematics departments as most new PhDs are expected to spend two to four years as a post-doc before applying for tenure track positions. The department has a strong record of placing its PhD graduates in top academic positions.

The department contributes to the liberal arts mission by teaching Mathematics classes required by Physics, Chemistry, Biology, Computer Science, and other departments. It also has a very strong graduate program with an excellent record of placement with 29 of 31 recent graduates getting academic positions and a few of these in first tier departments. The department was awarded a GAAN training grant from the Department of Education to support its graduate students. This award is ending and the department is applying for a renewal.

The graduate students are largely responsible for staffing the Calculus courses that are required for many of the Science majors. About 250 students take the first semester Calculus course each year (Math 10a) and around 150 take the second semester course. These courses have an average size of around 20 and require frequent exams and daily grading of homework.

The Mathematics department also teaches many other courses that are either required or often taken by non-Mathematics majors. These include the upper level Calculus courses, the Probability and Statistics courses, the Differential Equations courses, the Mathematics for Elementary and Middle School Teachers course, and many others. On top of these "service" courses, the Mathematics faculty teaches a highly structured sequence of courses for their undergraduates and graduate students. Last year there were 26 students graduating with Math majors and 6 PhDs awarded.

As with Chemistry and English, one could ask whether the significant service teaching provided by the large number of math PhD students could be provided cost-effectively by contract faculty. We have not investigated this issue, because with the GAAN funding the size of the program could not shrink significantly below its current level. If this funding were not available, however, this question merits study.

Recommendations:

- Allow the faculty size to decrease by 1 over the next five years by managed non-replacement of faculty who retire or leave.
- With reduced faculty, the department will have to investigate new ways of providing its graduate and undergraduate curriculum. We leave it to the department to consider the tradeoffs between narrowing curricular focus and the need to teach courses as independent studies or overloads. The structured nature of the curriculum suggests that alternate year PhD admissions, as is used in IBS, would be helpful by allowing more courses to be offered in alternate years rather than every year.
- If the GAAN grant is renewed, maintain the target size for the PhD program at 20 funded students, implying an annual admit rate of about 5 at average attrition rates. If the GAAN grant is not renewed, investigate whether the size of the program is justified by the teaching provided, or whether significant savings could be achieved by replacing PhD students with contract faculty.

Rationale:

The CARS committee recommendations allow the Mathematics department to contribute to the University-wide reduction of 35 faculty over the coming five years. The department will be able to meet its substantial teaching obligations with one fewer tenure track faculty, but may need to restructure its curriculum somewhat.

Music

The Music Department is regarded as a highly specialized and prestigious department at Brandeis. Students in all areas of music offered by the department receive an excellent and solid education, and the nationally acclaimed graduate programs focus specifically on composition, theory, and musicology. The faculty in Music are among the most praise worthy artists in the country and world. Brandeis is proud of this department and its contribution to the School of Creative Arts.

The Graduate Program in Music offers graduate programs in two areas: composition and theory, and musicology. The department also offers, in conjunction with the program in Women's and Gender Studies, a joint MA in Music & Women's and Gender Studies.

The department offers three degree programs in composition and theory: MA (normally one year), MFA (normally two years), and PhD (normally two or more years following the completion of MFA requirements). The programs are designed to help students develop a command of the craft of composition. That objective is supported by studies in theory and analysis and in electro-acoustic music.

The department offers three degree programs in musicology: MA (normally one year), MFA (normally two years), and PhD (normally two or more years following the completion of MFA requirements). The programs offer an integrated approach to the understanding of the nature, structural basis, and historical development of music. Students may elect to emphasize or concentrate in music history, or in theory and analysis. In the music history program, a variety of techniques and methodologies, including source studies, style development, and historiography, are applied to different repertoires and historical problems. The theory and analysis program features work in the history of theory as well as analytic work in the context of theory construction involving the evaluation of pretonal, tonal, and contemporary analytic models. Courses consist of proseminars and seminars: proseminars survey an array of topics illustrating the representative avenues of research and methodological approaches, and seminars typically concentrate on a single topic.

The department offers an interdisciplinary program with women's and gender studies, leading to a joint MA in music & women's and gender studies. Topics include feminist theory, gender studies, cultural history, and the investigation of work by and about women.

CARS is aware of the increase in the Music Department's M.A. revenue and takes note of the distinctive quality of its M.A. program. The cost of the two Ph.D. programs is 270K and this figure is high in comparison to other programs. If the Music department could possibly increase the opportunities for undergraduates and consider reducing the cost of the graduate programs, then it would meet the criteria set out by the CARS committee.

Recommendations:

- We recommend that the Music Department develop 100-level courses intended for both undergraduate and graduate students, as a way of both enriching the undergraduate curriculum and supporting the Master's programs. The courses with low enrollments should be offered less frequently in order to free up faculty to teach more courses that could reach out to more undergraduate students who are interested in music in a broader sense.
- Consistent with practice at other universities, the full-time teaching load for performance faculty should be 5 courses.
- In order to contribute to the CARS faculty reduction target of 35, we recommend that the faculty in the performance area be reduced by 1 FTE over time.
- We recommend working with Theater and Fine Arts to develop a Creative Arts Major.
- As part of the overall GSAS goal, we recommend a combined target program size for music of 12 students if they maintain Master's admissions at about 5 per year. This corresponds to an average admit rate of about 3 Ph.D. students per year at average attrition rates; this could be accomplished by alternating 3 musicology admissions one year and 3 composition admissions the next, or by dividing the admits in some way. We recognize that this is a significant reduction from the program's previous size, but if the department sustains Master's admissions of about 10 per year, it could request an increase in program size.

Near Eastern and Judaic Studies

The NEJS department has a distinguished and special history at Brandeis. It encompasses three fields of study: 1) the study of the Jewish people, including their history, religion, literature and place in civilization; 2) the history, languages and culture of the Bible and ancient Near East; and 3) the modern Middle East. The department offers numerous degrees at the undergraduate, Master's and doctoral levels: a major and a minor in NEJS, a minor in Yiddish and East European Jewish Culture, an MA degree in NEJS, two joint MA degrees (one with Hornstein and one with Women's and Gender Studies), a PhD in NEJS (in three different programs: Bible and Ancient Near East [BANE], Modern Middle East [MME], and Jewish Studies [JS]), and a joint PhD in NEJS and Sociology. The department also offers language courses in Hebrew, Arabic, Yiddish, Akkadian, Ugaritic and Hittite. NEJS is also the primary department at Brandeis offering courses in religion, specializing in particular in Judaism, Christianity and Islam. NEJS is Brandeis's second largest department after Biology with 26 FTEs, and it teaches some 1300 undergraduates per year. The department meets most all of the criteria used by CARS in its evaluation of departments and programs, including contribution to multiple missions, excellence, distinctiveness with respect to Brandeis's profile, and synergies with other programs.

The CARS committee has several suggestions for the NEJS department, aimed primarily at enhancing its undergraduate curriculum, helping the university meet the imperative of reducing the size of the Arts and Sciences faculty, and strengthening its PhD programs.

Undergraduate enrollments in NEJS courses vary; there are many robust courses with up to 40 students or more, and yet many other courses with very low enrollments. At the close of the Fall 2009 pre-registration period, for instance, 10 NEJS courses had fewer than 8 students enrolled. The CARS committee recommends that the NEJS department work to create an even more appealing undergraduate curriculum, expanding the focus of its most specialized courses and developing new courses of broad interest to a wide range of undergraduates. NEJS faculty could also contribute core courses to interdepartmental programs, such as *Introduction to World Religions* for REL and (as one NEJS professor began this year) *Women in Culture and Society* for WGS. CARS also recommends that, whenever possible, courses in very specialized languages such as Akkadian and Ugaritic be taught as independent study courses as overloads, as indeed has often been the practice within the department.

To help the university reduce the size of the Arts and Sciences faculty, CARS recommends that the number of NEJS faculty be reduced by 4 over the coming years, by managed non-replacement of faculty who retire or depart. The numerous low-enrollment courses in the NEJS department as well as the fact that NEJS has increased its faculty over the past five years suggest that NEJS could continue to mount its distinctive programs with four fewer faculty members if necessary. It is possible that at least one of the reductions could come in the field of Hebrew language, as a new tenure-track hire was recently made in Hebrew literature, reducing the need for Hebrew language faculty to teach literature courses, and that two or three reductions could come in the field of Jewish Studies.

CARS and the SFAC committee also have recommendations regarding ways to strengthen the NEJS doctoral programs, especially in Judaic Studies. Despite the large number of faculty in NEJS and the resulting large number of courses offered, there are few 200-level courses and none that are required. Thus the graduate program is diffuse and lacking in clear central expectations for its students. It is recommended that a required common core seminar be

developed. In addition, it is recommended that the department develop regularized qualifying exam procedures and require that this exam be completed by no later than the third year. The Modern Middle East PhD program is currently in suspension, due to the departure and retirement of some of the key faculty. (Faculty outside NEJS who focus on the Modern Middle East do not currently participate in the NEJS MME program.) NEJS has a highly profitable Master's program, and indeed it generates revenue that covers most of the cost of the PhD program.

Recommendations:

- To meet the imperative of reducing the size of the Arts and Sciences faculty, reduce the NEJS faculty by four positions over the coming years, by managed non-replacement of faculty who retire or depart.
- A position in history of the Islamic world or Islamic studies should be filled (to replace an announced departure of a retiring faculty member, although NEJS might or might not be the appropriate home for such a faculty member).
- Eliminate the excess of low enrollment courses in NEJS, through creating an even more appealing undergraduate curriculum, contributing core courses to interdepartmental programs, and developing a core common seminar for PhD students.
- Set a target size for the NEJS PhD program of 12 university-funded students, which would correspond to 3 admits per year in steady state under average attrition. This number could be increased if the department sustains Master's admissions at a rate of 10 or more per year, a number it has routinely achieved in recent years.
- Strengthen the PhD program, particularly in the Jewish Studies track, by offering more 200-level courses, a required common core seminar, and required qualifying exams by no later than the end of the third year.
- Eliminate the Modern Middle East (MME) program as a PhD-granting track, converting it into an interdepartmental Islamic and Middle East Studies Program supported by an interdepartmental faculty committee and ties with the Crown Center and the Schusterman Center. This interdisciplinary program would help train graduate students from a range of disciplines, and could perhaps be productively merged with the existing undergraduate Islamic and Middle East Studies Program.
- The NEJS department provided the highest number of USEMs (7 in 07/08). New disciplinary courses with broad appeal could be developed instead.

Philosophy

The Department of Philosophy (PHIL) has had a distinguished tradition at Brandeis and by the very nature of its inquiries contributes to our core Brandeis missions and values. It is presently an undergraduate department, but has just developed a revenue generating Master's degree program. CARS had initially proposed that such a degree be developed and was pleased to see that such a program was already underway. We urge the department to promote this new Master's program among graduating scientists as well as humanists and social scientists, since such a program will have an appeal to pre-meds and undergraduate neuroscience majors, as well as to those considering law school, etc.

Of the criteria with which CARS has sought to frame its deliberations, Philosophy clearly meets many. The department contributes to our multiple missions and to the general excellence of the university. Several of its members have a strong profile in the profession at large, and several faculty members teach courses with high enrollments. Moreover, it would be strange to have a university like Brandeis that did not offer a major in Philosophy. The department's mission, boldly and eloquently stated, is "the systematic study of ideas fundamental to all the other disciplines taught at the university—the sciences, the social sciences, humanities, and the arts."

At the same time, the committee believes that the department could find ways to be more synergistic with other departments and schools within the university, including the Creative Arts, than they are currently, and that in terms of cost and organization there is room for modest reorganization and renewal. As to their contribution to the undergraduate experience outside the classroom, we could not readily identify any particular program or activity that stems from Philosophy. Perhaps the department might come up with some ideas on that score, especially since it is primarily an undergraduate department.

CARS has several recommendations that we think might improve the department further. We urge the department to seek greater curricular variety through a more aggressive course rotation. Certain small courses should be offered with less frequency and new courses brought into the curriculum that might have stronger enrollments. The department should seek stronger curricular connections with other departments. We suggest too that the distribution requirements within the major be eliminated or redefined. The department has traditionally offered 3 USEMs per year. That fact, combined with certain instances of small, frequently offered courses, has led the committee to the recommendation that the department be reduced by two faculty over time. This should not affect its ability to offer a strong major in Philosophy.

Recommendations:

- Seek more aggressive course rotation to avoid frequent teaching of under-enrolled courses
- Eliminate or reformulate distribution requirements within the major
- Develop some attractive new courses
- Reduce the faculty by two positions over the coming years, by managed non-replacement of faculty who retire or depart
- Seek synergies with other departments

Physics

The Physics department has 17 tenure track faculty and 2 long term contract faculty. The tenure track faculty have vibrant research programs in three areas: Condensed Matter, High Energy Physics, and Astrophysics. This year the 9 faculty in the Condensed Matter group, working with faculty in the Chemistry department, were awarded an NSF grant for \$8.9M over five years to build a Materials Research Science and Engineering Center. This is the smallest of the 25 departments in the nation to win this prestigious award and the only one without an engineering program. The High Energy Physics group of 6 faculty also has a strong funding record and has been continuously funded for forty years. The Astrophysics group with 2 faculty likewise receives funding to use the large radio astronomy observatories. The PhD program

places about half of its graduates in academic jobs at places like Princeton, Columbia and Cambridge, while the other half goes to positions in industry.

In the area of undergraduate teaching, Physics has two roles. First it provides basic physics courses to students majoring in Biology, Chemistry, Biochemistry and other disciplines. Many of these students are pursuing a pre-medical track. About 180 students each year take the year long Physics lecture courses and also the associated laboratory courses. Second, the Physics department provides courses for its majors and graduate students, and in this regard it is a rather small program with 16 majors graduating last year and 17 graduate students in total.

Recommendations:

- Allow the faculty size to decrease by 4 over the next five years by managed non-replacement of faculty who retire or depart.
- The target number of University funded graduate fellowships should remain constant to support the new five year MRSEC grant.
- Investigate a joint engineering/physics program with Olin College of Engineering

Politics

The Department of Politics has a strong presence on the Brandeis campus; its undergraduate enrollments are strong, and it awards over twice as many majors per year as another, related department that has substantially more faculty. It is the fifth largest major at Brandeis. The department eloquently encourages its many majors “to familiarize themselves with the ways others have engaged important issues” in the past and “to develop an understanding of the various ways societies organize themselves to manage conflict and cooperation, and to make and implement public policy.” This is a tall order, and as such it connects the department to many other disciplines throughout the university. In terms of our CARS criteria for deliberation, the Politics Department meets all of them to some degree.

Nevertheless, the CARS committee has noted certain broad areas of overlap within the university curriculum as well as areas of sparseness. With these surfeits and deficits in mind, CARS has viewed the Department of Politics as one which, like another department within the social sciences, could absorb faculty from departments which we have recommended should become interdepartmental programs offering interdisciplinary majors. Thus CARS is recommending that Politics absorb faculty from two other departments. Such an absorption will necessarily change the department and some of its requirements for the major.

In recent years, the department has worked to improve its graduate program by the introduction of a revenue generating Master’s degree. Its Ph.D. program, formerly rather weak, has grown stronger in the last five years with some recent strong placements and a declining “years to degree.” The committee notes that most of the courses designated for the graduate students can also be taken by undergraduates only by petition. The committee applauds the number of courses outside the department which undergraduate majors are encouraged to take, but wonders if the numbers of such courses could be even higher and if there could be more courses from other departments cross-listed with Politics.

Were the department not to absorb any other faculty from other departments, CARS recommends that at least 2 reductions in the current faculty could occur over time. Politics has offered 3 USEMs per year, and the departments which may join them offer a combined total of 3. Six courses that are, unfortunately, no longer necessary to the curriculum offer further opportunities for reduction in faculty size. Although the lack of the necessity of teaching USEMs is not a reason in itself to warrant faculty reductions, it does provide a potential for such reductions which departments across the board are urged to consider. Moreover, with a newly enlarged and reconstituted department, that number could become even higher as further retirements and departures occur and curricula are consolidated. At the same time, CARS recommends that Politics fill the Kraft chair in the area of Arab Politics.

The department suspended PhD admissions for the current year and is in the process of reorienting its graduate training towards a larger and more focused Master's program and a small PhD program. It is hoped that the Master's program itself may become a recruitment area for students who decide to continue on for the Ph.D.

Recommendations:

- Consider enlarging the list of cross-listed courses which can count toward the major.
- Allow reductions in the current size of the Politics faculty by 2 over the next five years by managed non-replacement of faculty who retire or leave (before consideration of the effect of mergers with other departments).
- Fill Kraft chair in Arab politics.
- Upon resumption of admissions to the Ph.D. program, admit 2.5 students per year with further potential increases dependent upon the size and success of the Master's program.

Psychology

Psychology is currently the largest social science department in terms of the number of faculty, and also has the second-largest total undergraduate enrollment and number of majors graduated in the social sciences (after Economics; third-highest in the university). It has the most funded-research activity, by far, in the social sciences, with \$1.4 million in indirect cost recovery last year. The department recently learned that it is likely to be awarded a second NIH training grant.

Adoption of the Business major is likely to create additional demand for enrollment in Psych 150b, which is already heavily enrolled by Psychology majors. CARS supports discussions already underway in the department concerning reduction of the requirements for the major from 11 to 10 or even 9 courses, and recommends creating an option recognizing that not all undergraduate majors are seeking preparation for graduate study, perhaps by creating a special "track" for those students who are planning on pursuing graduate study.

The department has a relatively large PhD program. Unlike other departments with significant external funding, PhD students are funded by the university for 5 years rather than being moved onto grant funding as they move to the research stage of their work. The department is in the process of expanding its MA program to between 10 and 15 students, encouraging use of MA

students to support faculty research activities, and considering new certificate programs in Gerontology and Quantitative Methods, all actions that are supported and encouraged by CARS.

Overall, the department clearly meets the criteria established by CARS for evaluation of departments and programs. To meet the imperative of reducing the size of the Arts and Sciences faculty, and reducing expenditures of university funds on graduate student support, CARS proposes the following:

Recommendations:

- Reduce the Psychology faculty in size by two positions, through carefully managed non-replacement of departing faculty. This may require modification of the major requirements, so that students can complete it even as fewer courses are taught each year.
- Reduce the target total number of university-funded PhD students in the department to 12, which implies a matriculation rate of about 3 new PhD students per year under normal attrition rates. This target size could be increased to reflect Master's admissions at a rate of about 10 per year or more.
- Move to the "science" model of PhD stipends, in which advanced students working in externally funded labs be supported by research grants rather than university funds.

Romance Studies

Romance Studies offers instruction in language, culture and literatures through its programs in French and Francophone Studies, Italian Studies, Hispanic Studies and European Cultural Studies. With a total undergraduate enrollment of more than 1,500 in 2007-2008, it reaches a significant portion of undergraduate students on campus.

With 18 FTE tenured, tenure track or multiyear contract faculty, together with the largest budget (300K) for adjunct faculty, ROMS is one of the largest faculty groups. It invests a major portion of its resources in preparing undergraduates to fulfill their foreign language requirements, and it does this with success. We expect that the interest in the Spanish program may increase due to a widespread and growing interest in the language. French continues to enjoy popularity. While the number studying Italian is smaller, it is nevertheless significant with students expressing enthusiasm for the language instruction. Beyond language acquisition, the yield in majors is small for such a concentration of faculty, with 20 majors and 32 minors in 2007-2008, and no doctoral program. The mean class size of 14 provides a blurred view of the distribution of students. The foundational courses in language acquisition have high enrollments.

Recommendations:

- Indeed, CARS notes with concern that class size may be greater than desirable in such language courses and suggests that the current cap of 25 be reduced, when possible, to 22 or less. On the other hand, CARS notes with concern that the literature and culture courses in ROMS are less populated than acceptable by faculty norms and requirements. Far too many classes in these subjects have less than 8 students with too many with even 5 or less.

- CARS strongly recommends that the curriculum be reconsidered to ensure that small classes be offered less frequently and newer subjects be introduced. It is also strongly suggested that more upper level literature and culture courses be offered in English, thereby enhancing the use of scarce faculty resources by making them available to more members of the student body. Previous USEM courses could be adapted to new electives with broad appeal. The ROMS majors (in French and Francophone Studies, Hispanic Studies and Italian Studies) could be made more flexible by reducing the number of literature courses required in the foreign language while permitting more in English. It is important that a way be found to increase enrollments in these courses. More courses in English could simultaneously increase enrollments as well as the number of majors by attracting students from other departments interested in expanding their knowledge of the rich and varied subject matter offered by the department.
- CARS also recommends that ROMS explore the Justice Brandeis Semester summer program as yet another potential area for expanding enrollments in both language and upper level courses.
- Given the need for reduction, CARS believes that 1 faculty reduction in French should be made over time.
- At the same time, the department may seek to make even greater use of undergraduate peer assistants to mitigate the higher than desirable enrollments in heavily populated foundational language courses.

Sociology

The Sociology Department has strong undergraduate enrollments and supports a number of interdisciplinary programs, including Health: Science, Society and Policy; Social Justice and Social Policy; Peace and Conflict Studies; and Women's and Gender Studies. Several of its faculty have a very strong profile in the profession. The undergraduate major is highly flexible, allowing students to focus the major on areas of particular interest. The department is strengthening the professional preparation of its disciplinary PhD students, offers joint PhD programs with NEJS and Heller, and is working to expand its MA program.

To meet the imperative of reducing the size of the Arts and Sciences faculty, and reducing expenditures of university funds on graduate student support, CARS proposes the following:

Recommendations:

- The faculty be reduced in size by one position, by means of managed non-replacement of departing faculty.
- The target total number of university-funded PhD students in the department be 10, which implies a steady-state matriculation rate of about 2.5 new PhD students per year, assuming average attrition.
- The department work with GSAS to develop a strategy for enrolling five MA students each year, in order to increase revenue and resources for the PhD program, and create a pool of more easily-evaluated potential applicants to the PhD program who will require at least one less year of stipend support.

- The Sociology faculty might also consider working with the Heller School to develop a joint MA program in HSSP, a field of growing interest, or exploring the model developed by psychology in which faculty members identify specific areas of research interest in which they would be interested in supervising Master's students.

Theater Arts

The faculty of the Department of Theater Arts is made up of artists of high renown beyond Boston who continue to be active and successful in the world of theater arts. The Department offers an undergraduate major and minor with multiple tracks (including Acting, Dance and Movement, Design/Tech, Directing, Educational Theater, Sound Design, Stage Management, Musical Theater, and Movement and Dance Theater Composition), as well as two 3-year Master of Fine Arts degrees, one in Acting, and one in Theater Design.

The Department also houses the Brandeis Theater Company (BTC), the production and performing ensemble comprised of the students, guest artists, faculty and staff that puts up four productions every year. The BTC provides the venue for most of the graduate education, and also enriches the undergraduate theater experience. The department fulfills almost all of CARS criteria, including undergraduate and graduate education in the name of social justice, as it “views the theater as a centuries-old system for creating awareness of groups and their place in the wider universe of experience.” CARS agrees that the theater company provides an invaluable enrichment of the student experience on campus. It also provides theater students the opportunity to participate in professional productions alongside professional actors.

The MFA program in Acting was restructured four years ago, reducing the number of students from 30 to 10 and instituting a \$10,000 stipend. This restructuring has resulted in a successful vitalization of the undergraduate major, as faculty shifted its emphasis towards undergraduates. It graduates on average 16 majors and 14 minors every year. This is an important step in the right direction. Nevertheless, CARS recommends that the department develop significantly more courses with general appeal that will help attract even more undergraduate students to the program. The Design faculty should also become more involved in teaching in the undergraduate programs. In general CARS recommends that the department center its focus on trying to find as many ways as possible to attract more undergraduates, perhaps through the development of a new interdisciplinary creative arts major.

Restructuring and revitalizing the MFA program in Design would cost \$120-\$180K per year, depending on the number of students matriculated. The department is currently studying the options for mounting an array of viable graduate programs within Theater Arts, given the financial constraints and the expense of the Brandeis Theater Company.

The department relies heavily on adjunct and contract faculty. It has only four tenure-line faculty and ranks second-highest— after ROMS— in the use of faculty on multi-year contracts, and highest in A&S in the use of part-time adjuncts. On average, 50% of its faculty are employed part-time. Full-time performance faculty often teach between four and six different courses per semester, although enrollment is necessarily small in the “practicum” sections.

Many students in the newly-established Film Studies major will also seek training in theater arts. CARS recommends that Theater Arts should work closely with Film Studies to accommodate future student interests and coordinate fundraising.

Recommendations:

- The Department of Theater Arts should be strongly encouraged to continue and accelerate reaching out to undergraduates in skills and methods courses, as well as creating more accessible courses for undergraduate non-majors such as Public Speaking and large popular theater courses.
- CARS recommends continued study of the options for mounting an array of viable graduate programs within Theater Arts, given the financial constraints and the expense of the Brandeis Theater Company.
- Ongoing fundraising initiatives for the Film Studies program should be coordinated closely with Theater Arts. A coordinating committee between Theater and Film should be established to identify funding options and devise a strategic long-term plan.
- Some specialized faculty are already being shared with other universities. Such sharing should be explored further, especially for courses with very small enrollments.
- Over time, the tenured faculty could be reduced by one FTE without compromising the undergraduate and graduate offerings.
- Work closely with Film Studies to accommodate future student interests and coordinate fundraising.
- Invite Scott Edmiston, the Director of the Brandeis Office of the Arts, who is one of the most sought-after directors in New England, to become more formally involved in the theater arts program.
- Create an interdisciplinary major in Creative Arts, which could be very attractive to students with interests in fine arts, theater, and music

Existing Interdepartmental Programs

Over the last five years, the number of majors awarded by Interdepartmental Programs at Brandeis has increased more than 4-fold (from 45 in 2004 to 189 in 2008). Over this same period, the total number of majors awarded by departments actually fell slightly, even as more majors total were awarded because of the increase in multi-majoring. Clearly, these programs are thriving, and students are voting for them with their feet.

The Business program is our biggest minor by quite a margin. The Education major and minor are poised to grow, as education is listed as fourth preference (after business, film, and journalism) by graduating high school seniors. Environmental Studies is similarly poised to grow, with a new faculty initiative in Climate Change, and eventually planned new courses, for example in Environmental Politics. The Environmental Field Semester will likely enjoy great popularity as a Justice Brandeis Semester. Film Studies will be a major recruitment tool, and is already coupled with a successful fundraising initiative.

The successful collaboration between Heller and A&S in Health: Science, Society and Policy (HSSP), one of Brandeis's most popular majors, is a great model that should be considered for other such ventures. Islamic and Middle Eastern Studies also has potential for growth as an interdepartmental program. Student interest in this field is growing. Success in this program will come with a need to invest in our Arabic language program. The Crown Center will eventually be able to fill an endowed chair in Arab Politics that would greatly benefit this program.

International and Global Studies (IGS) is now our fifth-largest major, larger than Politics. A new long-term contract faculty hired this spring will anchor and provide needed guidance and continuity in advising and administration to the program. A faculty group is currently looking at Internet Studies and Journalism, and considering the possibilities of folding both into a new major in the area of communications.

The Language and Linguistics program has undergone significant change in recent years, with the departure of long-standing faculty and the hiring of two new assistant professors. The new faculty have strong interests on the formal and computational side of linguistics, and are now housed in the Computer Science department. They have launched a new Master's program in Computational Linguistics, which draws on our faculty strength and serves a growing area of academic and commercial interest.

Latin American and Latino Studies is a high-priority program, because demographic change suggests increasing interest by students. Hiring in this area will have to be a priority for the Politics Department, and faculty strength in History and Hispanic studies must also be maintained. Legal Studies is our biggest minor after Business. We devote a lot of resources to the internship program. The Program could be even better used in promoting the institution.

A very successful interdepartmental program is the program in Neuroscience, an undergraduate major spanning Biology and Psychology (and other sciences to a lesser extent) that also has graduate programs and training grants revenue. The Religious Studies Minor costs us \$10,000 a year. Although the program is constituted primarily of cross-listed courses from other departments, it offers a core course in World Religion and another in Buddhism, for which we regularly hire adjunct instructors. Although it is a revenue loss, it is a program that fits well with our overall image. CARS also recommends exploring whether NEJS faculty members could be recruited to teach the World Religion course, as suggested in the NEJS section above. We also recommend merging the existing Russian and East European Studies minor with the current Russian Language and Literature major to become a broader Russian Studies Program offering both a major and minor. Women's and Gender Studies is a very well-organized program with some external funding offering a major, minor and M.A. The Master's program has historically been structured as a joint Master's (with Anthropology, English, History, Music, NEJS, Psychology, Sociology, Social Policy and Sustainable International Development). The program is now considering a stand-alone M.A.

As mentioned above, we began our review of the interdepartmental programs with the intention to identify those that should be closed because their contributions to our missions were not sufficient to justify their costs. After further study, we could not identify any that should be closed on this basis. We did identify a number of programs that are not essential to the curriculum, but none of them appear to impose significant costs, because students complete them by taking courses that would

exist anyway for other reasons. Nonetheless, if a point came where non-trivial costs were necessary to maintain these programs, we would recommend that their termination be seriously considered. The programs that we identified in this category are Medieval and Renaissance Studies, Language and Linguistics, Internet Studies, Peace and Conflict Studies, and History of Ideas.

7 Miscellaneous Recommendations

In the course of our deliberations, we have identified a small number of smaller recommendations that do not fit squarely within our previous rubrics, though they are important. We list them here.

1. As we strive to deliver our ambitious curriculum with fewer faculty, it is imperative that the workload be shared. According to the Faculty Handbook, the responsibilities of faculty include teaching, advising, scholarship or creative activity, and service. While the number of courses taught is specified in each department, expectations regarding the other activities are more qualitative. Nonetheless, if a faculty member's contributions in any of those areas are significantly and consistently below expectations, there should be an adjustment of responsibilities in another area to compensate. The Committee recommends that the Dean work with the Faculty Senate to develop a policy for adjustment of teaching loads and other work responsibilities for faculty whose contributions in any of our areas of responsibilities are below expectations.
2. We currently teach statistics in the Economics, Psychology, Math and Biology departments. The departments of Politics and Sociology would benefit from access to statistics training for their students. While the statistical applications used in different fields differ, much of the basic theory and implementation is similar. Therefore, we recommend a committee be established to design a combined statistics curriculum, in which shared material could be taught in common lectures, with specialized disciplinary material covered in sections, perhaps by graduate students.
3. The School of Creative Arts does not offer any interdisciplinary majors. And, although each department offers exciting and challenging majors, each carries rigorous requirements, which are appropriate for the disciplines but also a barrier to some students. Therefore, we recommend the institution of an interdisciplinary major in Creative Arts that would be offered jointly by faculty from all three departments in the School, intended to offer interdisciplinary study of the arts for students who wish to combine elements from the different arts.
4. The Committee observed that European Cultural Studies (ECS) is a highly successful major. Unlike the Comparative Literature Major, which requires study of different literatures in more than one language, ECS offers study of multiple literatures and cultures in translation. We see no reason, however, why this model should be limited to Europe. We recommend that ECS be broadened into a major with the same comparative focus on literature and culture in translation, but open to all the literatures and cultures we teach. (A possible name for the new major could be Comparative Cultural Studies ("CCS"), but we leave that to the faculty who would develop the new major.)

5. Numerous departments at Brandeis offer students some version of a 4-year BA/MA option. The Committee believes that such programs are generally not appropriate, with the work done to earn the MA closer to an undergraduate honors degree than a true graduate degree. Further, the existence of these options precludes the development of 5-year BA/MA programs, which might offer students an attractive and strong option for achieving the MA degree, while also providing revenue possibilities for GSAS. We recommend that the 4-year BA/MA option be phased out.
6. The demise of our flagship USEM program in fact frees up numerous faculty for teaching within their own disciplines and programs. Although we did not specifically take this into account in determining future reductions in faculty size, it is a factor. Moreover, faculty should try to use the freed-up space in the curriculum to develop new, popular courses that will attract students and not to further slow down rotations of traditionally small courses. Chairs, program directors and the future curricular councils should play an active role in this kind of development.
7. We noted in the section on NEJS that the Modern Middle East (MME) track in the NEJS PhD program is currently in suspension because of the departure of previous NEJS faculty who supported it. The Committee notes that the advent of the Crown and Schusterman Centers, and the addition of faculty interested in the modern Middle East to the Politics and Economics departments suggests that PhD study of the modern Middle East should adopt an interdepartmental framework. This framework could be similar to what has been created in Israel studies by the Schusterman Center, where students enrolled in multiple disciplinary PhD programs are supported and meet to collectively develop their interests and expertise with respect to the region.

8 Conclusion

The last few months have witnessed an extraordinary outpouring of interest and effort by the Brandeis community, all aimed at strengthening this institution that we love while at the same time improving its budgetary situation. Many innovative and exciting ideas have come forward, and we have already made real progress towards implementing some of those ideas. Much hard work remains, and many of the changes that we recommend will be painful and difficult to implement. Some may prove impractical. We were working under extreme time constraints, which meant that we could not delve as deeply into the issues, or study details as thoroughly in some cases as we would have liked. Still, taken together, we believe that our recommendations create a platform for recruiting, stimulating, educating and graduating future students, maintaining our scholarly and creative endeavors, continuing to contribute to our social justice mission, and improving our fiscal balance. We look forward to the continuing input of faculty and students to this ongoing discussion. Curricula are always works in progress.

TABLE ONE

Recommendations for Long-Term Allocation of Faculty Across Departments

School	Department	Current			Steady-state Target Size	
		TT and Tenured Faculty	Faculty on multi-year contracts	Total Long-term Faculty		
CA	FA	11.00	1.00	12.0	11.0	
	MUS	7.00	3.50	10.5	9.5	
	THA	4.00	9.77	13.8	13.0	
HUM	ENG	14.75	1.00	15.8	15.0	
	GRALL	4.75	5.00	9.8	9.8	Shrink Russian/German literature by one, but add Chinese literature
	NEJS	17.50	8.50	26.0	22.0	Includes IMES position that may or may not be in NEJS
	PHIL	10.00	0.00	10.0	8.0	
	ROMS	7.00	12.00	19.0	18.0	Reduction would be in Francophone Studies
SCI	BIOCHEM	8.00	1.00	9.0	10.0	
	BIOLOGY	26.00	3.00	29.0	26.0	
	CHEM	12.00	2.00	14.0	13.0	
	COSCI	12.00	1.00	13.0	11.0	
	MATH	9.00	5.00	14.0	13.0	
	PHYS	17.00	2.00	19.0	15.0	
SS	ANTHR	8.00	1.00	9.0	8.0	Includes hire in Medical Anthropology
	ECON	12.21	3.00	15.2	13.2	
	HIST	12.50	0.00	12.5	12.0	Includes British Empire and FT Latin America
	POL	12.50	1.00	13.5	12.5	Includes Kraft Chair
	PSYCH	13.25	3.00	16.3	14.3	
	SOC	9.25	0.00	9.3	8.3	
To be reorganized as interdepartmental programs	AAAS	3.50	0.00	3.5	4.5	Fill Race and Gender position; additional faculty from other departments would also join program
	AMSTD	8.00	2.00	10.0	6.0	Additional faculty from other departments would also join program.
	CLAS	3.00	1.00	4.0	3.0	
Other		3.25	11.60	14.9	14.9	
Grand Total		245.46	77.37	322.8	290.8	
Computer Science numbers include Linguistics Program						
Dean of A&S and Dean of GSAS are counted in their home departments						
For departments that receive faculty from AAAS, American Studies and Classical Studies, target size would be increased to reflect those additions, as appropriate.						

TABLE TWO
RECOMMENDED PHD PROGRAM TARGET SIZE

	B2000 Target	Funded Students 08-09 ³	Average Students in Years 1 to 5 06/07 to 08/09	Average Funded Students 06/07 to 08/09	Committee Proposal for New Target Size ⁴	Average expected admit rate, if historical average attrition prevails ⁵
Anth	10	12	13		10	2.5
Eng	32	28	28		20	5.0
History ¹	30	24	31		16	4.0
Math	21	21	21		20	5.0
Music ²	24	22	25		12	3.0
NEJS	16	15	17		12	3.0
Pol	12	13	14		10	2.5
Psych	18	17	21		12	3.0
Soc	10	11	12		10	2.5
Theater	none	10	10		10	n.a.
Chem	22	26		25	20	See note 7.
COSCI	10	10		10	10	See note 7.
LifeSci	32	38		37	32	See note 7.
Phys	16	16		17	16	See note 7.
University Fellowship					12	3.0
Total	253	262		281	222	
			(total for both columns)			

Notes:

1. Combines AHist and CHist
2. Combines Musicology and Music Composition
3. Includes funding for 7 slots from Schusterman, Crown and other gifts
4. Based on minimum expected Master's enrollment; targets can be increased based on Master's enrollment as discussed in the text
5. Estimated by dividing target size by 5 and adjusting for average attrition rate of .15 by fifth year.
6. 10 slots for Acting MFA; see text for discussion of stipends for Theater Design students
7. For these programs, admission target for each year is Target Size minus projected number of funded students beyond the first year.