



CREATING OUR FUTURE, 2010-2020:

THE STRATEGIC PLAN OF THE COLLEGE OF ARTS & SCIENCES

April 2010

CREATING OUR FUTURE, 2010-2020: BOSTON UNIVERSITY'S COLLEGE OF ARTS & SCIENCES

The College and Graduate School of Arts & Sciences (CAS) is the heart of Boston University, a world-class, globally engaged teaching and research university. The University's 2007 strategic plan, [*Choosing to Be Great: A Vision of Boston University, Past, Present, and Future*](#), commits BU to strengthening CAS as central to the quality of our academic programs with this pledge: "The largest commitment of new resources proposed as a result of the strategic planning process will support the growth of the faculty in the College of Arts & Sciences [by] as many as 100 new faculty members within a decade. In an era when many other universities are backing away from their commitment to the humanities and social sciences, we are recommitting ourselves to this institutional priority, as well as continuing to build on our strengths in the basic sciences." CAS is the core on which the promise to enhance the quality of our faculty, undergraduate and graduate programs, research, and global presence depends. We are an academic community that is proud of our past and invigorated with optimism about the future we will create.

THE CAS FRAMEWORK FOR THE FUTURE

Mission and Values of the College and Graduate School of Arts & Sciences

The mission of the College and Graduate School is to nurture the discovery, creation, transmission and application of knowledge and understanding across the humanities and the social, natural, and computational sciences. This mission applies to all of the College's members, from the most decorated senior scholars to our matriculating undergraduates, and unifies our three great core tasks of undergraduate education, graduate education, and pioneering research.

In order to fulfill this mission, the students, faculty, and staff of the College must strive to be a vibrant, supportive, and productive learning community across the great diversity of fields, approaches, and experiences encompassed by the institution. We also must choose to be active, engaged citizens of the larger communities to which we also belong—the University, the region, the country, and the world—in order for this mission to succeed.

CAS is Boston University's standard-bearer for the proud and successful tradition that is liberal education. The faculty and staff of the College are devoted to purposefully and vigorously pursuing the values and practices of liberal arts and sciences education, even as the concept of the liberal education faces challenges from critics who claim that this approach is outdated, impractical, or a luxury unlikely to prepare students for careers in the 21st century.

In fact, a liberal education is more important than ever. Only a *liberal education* ensures that students acquire the breadth and depth of knowledge and the fundamental intellectual and academic skills that prepare them with a strong foundation for life-long learning, development, discovery, and leadership. A liberal education aims to yield adults who, regardless of their field of expertise, might enjoy one or more of the arts, understand the nature and significance of the latest developments in science and technology, be able to engage in informed discussions of the crucial policy issues of the day, and travel the world with an appreciation and eye for cultural difference and similarity. For our current and future students, who will seek

to flourish in a world that will change in ways we cannot predict and in which they will live and work with people from around the world and very different backgrounds, there is no better preparation for a life of personal fulfillment and economic success than a liberal education.

The [CAS College Program](#) identifies the elements of a liberal education all CAS students are required to experience. These elements include competency in writing, mathematics, and a foreign language; a broad familiarity with subjects in the humanities and social, natural, and computational sciences; and in-depth knowledge in at least one academic field. These in turn frame the specific [requirements](#) of a CAS undergraduate education. While the liberal education requirements of Boston University's schools and colleges differ, CAS provides most of the courses and programs through which students fulfill them. We hold ourselves responsible for making sure all BU students have a first-class liberal education. Because of this responsibility and the fact that BU students based outside of CAS take up to 40 percent of their credits in CAS, in an important way *almost all Boston University students are CAS students*, especially during their first two years of college. Our strategic plan for the next 10 years is framed by the assumption that this will continue to be the case. Therefore, when we speak of "our" students, we are referring to all of these students.

All of Boston University's undergraduate schools and colleges offer a liberal education. CAS, in contrast to all of the others, offers a liberal education in the liberal arts (or liberal arts and sciences). A *liberal arts education* entails the following four distinctive characteristics.

- *First* and most narrowly, it refers to a liberal education in which students major and take most of their courses in the humanities and natural and social science fields conventionally defined within the boundaries of the liberal arts.
- *Second*, a liberal arts education is a special form of liberal education in which the major does not dominate the focus of study as is typical in professional degree programs, including even those framed by a liberal education. In a liberal arts education, a breadth of knowing and a breadth of ways of knowing are as central to the degree as is the major.
- *Third*, majors in a liberal arts education are not designed to prepare a student for a specific career or profession but instead to instill the academic skills and habits of mind essential to the successful pursuit of postgraduate education or other interests.
- *Fourth*, liberal arts and sciences colleges are designed with the expectation that undergraduates might explore a multitude of educational pathways and interests before declaring a major. In professional programs, in contrast, students are expected to make at least a broad field commitment before they apply. In 2009, 31 percent of CAS students were "undeclared" when they matriculated (35 percent in 2008) and a further 20 percent change their major in the first two years. Many will hold multiple and perhaps very diverse majors.

Liberal education and the *liberal arts* are widely understood as frameworks for undergraduate education, but they are in fact powerful frames for all of the missions of the College and Graduate School. For CAS faculty and graduate students in their capacity as teachers and advisors of undergraduates, the liberal education

mission means that their core work is not just to train specialists in their field, but also to educate a diverse population of students in the fundamentals of what is interesting and valuable about the knowledge and approaches of their fields. The values and practices of liberal education and the liberal arts should also inform research and scholarship by endowing scholars with a fundamental respect for diverse approaches to knowledge and an understanding that any one field is likely to yield only partial answers to fundamental and important questions. This framework for exploration and discovery should have practical effects on scholarship by advancing a broad vision, creativity, and the ability to participate in diverse and promising partnerships in the exploration, discovery, transmission, and application of knowledge.

Fundamental Commitments

We are proud to carry forward the ideals of the 1869 Boston University Charter that boldly dedicated us to encourage the pursuit of learning in the liberal arts and sciences regardless of race, gender, creed, class, or religion and to carry forward the goals of the 2007 BU Strategic Plan. Refreshed and adapted to CAS's mission, they are:

1. We will base our investment of human, financial, and physical capital on *carefully developed priorities* and a clear-eyed analysis of relevant data and information in the light of changing opportunities and challenges we encounter over time.
2. We will hire and *nurture the careers of faculty* members who are world-class leaders in research and scholarship, teaching, and other professional pursuits.
3. We will provide *outstanding undergraduate education* based on the principles of liberal education and the liberal arts, encompassing both the curricular or “classroom” experience and the co-curricular, broader life experiences that contribute to student learning, development, and success.
4. We will offer *leading doctoral, postdoctoral, and masters programs* within and across traditional disciplinary boundaries.
5. We will promote *pioneering research and scholarship* within and across traditional disciplinary boundaries.
6. We will strengthen our *leadership as an urban and global research and teaching university*, pursuing our research and educational missions in a manner that values and enhances BU's citizenship in our local, regional, national, and international communities.
7. We will manage and *enhance our financial resources and physical infrastructure* with intelligence and creativity in a manner that supports our primary missions.
8. We will build *wider and stronger connections with our alumni* to our mutual benefit, providing our alumni with life-long opportunities for continuing education, development, and community and ensuring that the Boston University community continues to grow and flourish.

The remainder of this strategic plan fleshes out our starting points, strategies, and goals for each of these commitments.

STRATEGIES FOR THE FUTURE

Commitment 1: We will base our investment of human, financial, and physical capital on carefully developed priorities and clear-eyed analysis of relevant data and information in the light of changing opportunities and challenges we encounter over time.

Comprising 25 departments and at least as many programs, centers, and institutes, the College of Arts & Sciences consists of an astounding range of areas of inquiry and methods of approach. (See Part II: CAS Supporting Strategic Plans.) While the College's breadth and diversity are recognized as strengths, they also pose challenges in hiring and other investments not faced by academic units defined by a single professional or academic focus.

The College leverages the breadth of its departments, programs, and centers by clustering scholars, teachers, and students in learning and discovery communities around common disciplines or interdisciplinary areas of inquiry. For this approach to be effective, the College's academic structures must be flexible as disciplines change, merge, separate, or disappear. We must therefore be clear-eyed in our willingness to amend the design of our infrastructure.

We must also recognize our institutional limitations: We cannot reasonably expect to be leaders in research or graduate education in all disciplines or in all subfields of the disciplines we include. We must seek to achieve positions of leadership (a) by supporting the strengths for which Boston University is already known, (b) by identifying new directions that build on our strengths and take advantage of our opportunities and the realistic assessments of our likely success in marshalling the necessary human and capital resources in an effective and sustainable way, (c) by striking appropriate balances among the diverse missions of the College and BU, focusing in particular on our ability to serve our students and establish BU as a leader in research, and (d) by periodic critical evaluation of our programs in terms of progress, impact, and value. This analysis must take place at all levels with active participation from the department or program on up. The following are principles and starting points for setting priorities, based on this strategic approach, and are intended to direct the investment of the College's resources to maintain and extend our core strengths over the next decade:

Arenas for Investment

It would be difficult to exaggerate the complexity of the relationships among the departments, programs, centers, and institutes within CAS and throughout Boston University. Each unit has a unique role to play in advancing the missions of the College and BU, but they also share many crosscutting roles and obligations with each other and with other parts of the University. The College is not just a confederation of departments, but because faculty members tend to identify most strongly with their home departments or disciplines and our resources are stretched, they sometimes regard demands to collaborate with or serve needs that originate outside their department as burdensome or in conflict with their central academic mission.

Nevertheless the excellence of CAS and BU require this larger view and we, like our competitor research and teaching institutions, must work to get the balances right to achieve a coherent and functional whole.

During academic year 2009/10, each CAS unit developed a strategic plan through a process that involved deliberation at the unit level and discussions across departments and with the Dean. These documents, along with the CAS Strategic Plan, will be used to guide program and resource decisions across the College in the coming years, and will also frame evaluation of progress. (See Part II: CAS Supporting Strategic Plans.) But what standards or decision rules can we use to mesh so many diverse department- and program-level aspirations with each other and with those of the College and BU as a whole? Investments also will depend on the following considerations:

- Balance across Broad Disciplinary Areas. Excellence in the humanities and the social and natural sciences is critical to the College's research and education missions. While it is not possible to support every discipline equally, each of these broad areas of inquiry is essential to the overall quality of CAS. This need for balance also requires that departments and programs work together within and across disciplines in order to leverage available resources and attract new ones. The new divisional associate deans of the faculty will assist in this process.
- Support of Disciplinary and Interdisciplinary Research and Teaching. To remain competitive, the College and Boston University must support both discipline-based academic programs and interdisciplinary activity. There is no inherent conflict in supporting disciplinary versus interdisciplinary programs or initiatives. Increasingly, they depend on each other for vitality. In fact, many new faculty and graduate students have chosen to join BU because it promotes both disciplinary and interdisciplinary scholarship in creative, mutually reinforcing ways.
- Looking Beyond Departments. Student demand and curricular needs are not just departmental matters. All departments and faculty contribute to these broader needs, sometimes in large ways. We must recognize and support departments and faculty that make a real difference above and beyond their own departmental obligations and basic contributions to the larger good. Examples include departments that routinely provide instructors for interdisciplinary teaching or the Core Curriculum and those that offer the mathematics, writing, and foreign language instruction that is required of students to fulfill the College Program.

Defining and Weighing Priorities

The fair and equitable distribution of limited resources requires establishing priorities based on serving the institutional mission. The following standards are central to how we will define priorities and will thereby help guide the allocation of resources within the College. (See Appendix 1A –B: Faculty Data.)

- Meeting Student Needs and Demands. The primary drivers behind expanding the faculty and other resource investments include meeting student demand for courses, offering the courses promised in the curricula, and maintaining the infrastructure needed to achieve excellence in education. The College also must achieve a student/faculty ratio of 15:1 (FTE) overall to be competitive with its

institutional peers, and maintain a student/faculty ratio of not more than 20:1 within departments. Three departments (psychology, economics, math and statistics) have been identified as significantly exceeding that ratio and therefore in need of additional faculty funding.

- Targets for Increased Research Strength. Funding to maintain or expand a focus of research within and across departments will be allocated based on whether the research program (a) has a firmly established base, (b) leverages the special strengths and opportunities of Boston University, (c) will demonstrably improve the quality and reputation of BU's departments, research units, and doctoral programs (within CAS or across the University more broadly), and (d) is sustainable. CAS's departments, programs, and centers have identified their future research priorities in their strategic plans. In addition, a number of interdisciplinary initiatives have been identified at both university and college levels that leverage existing strengths in our faculty and, if nurtured appropriately, would elevate the research reputation of Boston University.
- Sustainability. New investments will be available for new research or teaching initiatives only if they have strong prospects for high impact and are plausibly sustainable. All proposals, no matter how promising or otherwise well suited to Boston University, must offer a business model that is likely to carry an initiative forward before the College can commit to an investment.

Currently Identified Interdisciplinary Streams

CAS, at times in partnership with other BU schools and colleges, possesses significant and unique interdisciplinary research and teaching resources. Some of these are organized through teaching and research programs, such as the area studies programs. Others are housed in major research centers, including the Center for Space Physics (CSP) and the Institute for Astrophysical Research (IAR) within CAS and the Photonics Center at the all-university level, while still others are major inter-university projects such as the Center for Integrated Space Weather Modeling (CISM) and the Center of Excellence for Learning in Education, Science, and Technology (CELEST). New interdisciplinary initiatives with potential for national prominence—given improved coordination, cooperation, and linkages across departments and programs—are currently under discussion or in development. These initiatives include the following:

- Life Sciences: Neuroscience and Systems Biology. These disciplines have been the subject of considerable attention and investment through initiatives organized at the university level. The major CAS partners in one or the other of these interdisciplinary efforts include the biology, chemistry, cognitive and neural systems, mathematics and statistics, physics, and psychology departments. The undergraduate neuroscience major is based in CAS; the Graduate Program in Neuroscience will be integrated into a new University-wide graduate program in neuroscience. The significance of these areas of inquiry extends beyond the science departments and programs. Both neuroscience and systems biology raise fundamental philosophical and social questions that are within the purview of scholars trained in other fields. The BU Center for the Philosophy and History of Science, for example, has a long tradition of sponsoring lectures and workshops on these themes; Neuphi is an ongoing forum housed in the Department of Philosophy that allows philosophers and scientists to discuss conceptual issues in the philosophy of neuroscience.

- Geosciences. Long central to the reputation of the College, the geosciences are well positioned to enter a new era of prominence at BU by bringing more coordination and focus to geosciences programs. This will be achieved in part by promoting a limited set of interdisciplinary areas of study to serve as major centers of coordination and collaboration. For example, because BU has long been recognized as a leader in the field of remote sensing, we aim to enhance the Center for Remote Sensing to lead us from strength to strength. Another example is terrestrial biogeosciences, a unique new program launched by faculty members in biology, earth sciences, and geography and environment that promises to grow in strength in the coming years. The BU Marine Sciences Program (BUMP) is a signature undergraduate program that has yet to achieve full sustainability, but already has earned a reputation for being an exciting center for education and research. CAS is participating in the beginning stages of a sustainable energy initiative coordinated through the College of Engineering (ENG) and also in partnership with the School of Management (SMG). An internal Geosciences Summit, to be held during academic year 2010/11, will provide the occasion for clarifying directions for the future.
- Computational Research and Education. Computational fields at BU are entering a new era of redefinition and expansion, including emphasis on the use of computational models and methods in the life sciences and, to a more limited degree, in the social sciences.
- Materials Science. Materials science currently is organized as the focus of the Division of Materials Science and Engineering in the College of Engineering. While there has been some movement toward increased collaboration among scientists and departments in ENG and CAS, additional work is required to further integrate the scholarship and leadership of CAS scientists in this endeavor.
- The Humanities and Humanistic Scholarship. Recognized nationally for its tradition of pursuing excellence in the humanities, Boston University's 2007 strategic plan affirmed the University's commitment to this course even while other universities are deemphasizing the humanities in favor of professional studies. CAS, with its broad reach across the humanities, will continue to promote the importance of humanities scholarship and teaching with a broad, humanistic approach to education that informs and complements advances in all fields, including the scientific and technical. At CAS, humanistic and scientific approaches to knowing are both seen as part of the continuum of the liberal arts, and serve to inform and interrogate each other constructively. To further this approach, the College will transform the [Boston University Humanities Foundation](#) into an institutional matrix to coordinate and energize our work in the humanities. (See Commitment 5.)
- The Creative Arts in the Liberal Arts and Sciences. The College emphasizes the importance of the creative arts in both teaching and scholarship and will advance the agenda outlined in the BU white paper, "The Creative Arts in the Liberal Arts and Sciences" (See Appendix 2: The Creative Arts in the Liberal Arts and Sciences). Among the areas of interdisciplinary strength in the creative arts are the following:

Literature and Literary Studies. Four CAS departments are focused on literature: classical studies, English, modern languages and comparative literature, and romance studies. In addition, the Creative Writing Program helps students develop as writers of fiction, poetry, and plays. CAS also houses the Editorial Institute as well as a number of departments that have specific strengths in literary studies. Over the next five years, the College will work to enhance BU's reputation as a center of literary and textual studies.

Film Studies. Film studies is being reconfigured by the College of Communication and CAS. The emerging program will include a minor concentration in film studies and the addition of a dedicated faculty member, in addition to existing faculty from a number of departments with expertise in film.

Material Culture. This area, with key faculty and programmatic emphasis in archaeology, American and New England studies, art history, and history, is on track for increased prominence through the creation of a major in architectural studies.

Music and Musicology. The College of Fine Arts and CAS have long been linked by overlapping degrees in musicology and shared faculty members.

- International and Global Studies. CAS has a strong tradition in area studies and associated languages and in comparative and international studies. All CAS social science and humanities programs are global and international in their focus. (See Commitment 6.)
- Language Studies and Linguistics. CAS has renewed its commitment to the study of languages in conjunction with an emphasis on international and area studies. Through the integration of research and teaching in linguistics, the scientific study of language also will be offered. The College is identifying additional languages for further investment and has demonstrated its commitment to language studies by recruiting a new assistant dean and director of language instruction. (See Commitment 6.)
- Policy Studies. On the recommendation of the chairs and directors of the social science departments, the College will pursue the creation of strong interdisciplinary foci that will leverage the existing expertise in policy studies (with firm bases in economics, geography and environment, international relations, political science, and sociology). This area will provide opportunities to collaborate with schools and colleges across BU, in particular law, management, public health, social work, and the Global Health Initiative.
- Women's and Gender Studies. Boston University has tremendous strength in areas of inquiry that can broadly be characterized as women's and gender studies, with scholars representing more than a score of fields. A cross-college task force charged by Dean Sapiro in AY 2009/10 developed a plausible vision statement and proposal to guide development over the coming years (see Appendix 3: Invigorating a Community of Scholars).

Commitment 2: We will hire, promote, retain, and nurture the careers of faculty members who are world-class leaders in teaching, research and scholarship, and other professional pursuits.

The quality and reputation of CAS and Boston University ultimately depend on the quality and reputation of our faculty. Although our faculty ranks have always included scholars of national and international distinction, in recent decades we have come to expect that distinction to be the norm. Our choices over the next decade must be designed to push our reputation higher through excellence in recruitment and faculty support.

TENURED AND TENURE-TRACK FACULTY

The tenured and tenure-track faculty, that is, the faculty with the full responsibility for continual excellence in research and scholarship, teaching and mentoring, and professional service and leadership at the University and beyond, constitute the bedrock of our success and reputation as a first-class teaching and research university.

Faculty Recruitment

As promised in the 2007 BU Strategic Plan, we will increase the size of the tenure-track faculty from the current number of 523 during 2009/10 to over 600 by 2017. Success in reaching this target depends both on new resources provided by university funds and on our ability to attract endowed professorships and other gift funds. During this same period, we also will recruit about 200 new faculty members to replace those who will leave through retirement or other reasons. With as many as 300 new tenured and tenure-track faculty members joining CAS over the next decade, we have tremendous opportunities to shape our future. Strategies for meeting these opportunities and responsibilities to our best advantage include the following:

- Setting and Following Long-term Priorities. We will continue to develop annual hiring priorities within a context of long-term department, College, and University priorities and through a process that includes discussion and collaboration across departments and programs. This discussion across departments as part of the annual decision-making processes for curriculum and program planning is a mark of the unusual degree of collaborative decision-making at all levels within CAS. The annual Academic Planning Self-Study and the 2010 departmental, College, and University strategic plans will be guiding documents for setting long-term priorities as well as for responding to changing opportunities and challenges. As of now, we will continue to emphasize that positions are not “owned” by departments and that hiring priorities must be forward-looking.
- Advancing to the Future with New Generations. We will continue to recruit tenure-track faculty primarily at the junior level to ensure that our faculty is constantly refreshed with professors who have been recently trained in the latest advances in knowledge. Purposefully investing in new generations of scholars with strong career trajectories is our chosen route to advancing Boston University’s research prominence.

- Recruiting for Excellence. We will continue to use the best available research and national standards to ensure that the recruitment strategies and processes we use are designed to result in (a) hiring faculty of the highest caliber and likelihood of success and (b) populating our faculty ranks with the breadth of engaged and intellectually and socially diverse faculty that is the basis for a first-rate academic community. The CAS Office of the Dean is committed to ensuring that these expectations and practices are widely understood and executed.

Nurturing the Careers of Faculty

Maintaining this great academic community means supporting the faculty so they can carry out their best work and *believe* that Boston University is a great academic community in which to work. The following are initiatives toward this aim that are in progress:

- Starting Out Right. We will aim to recruit our top-choice faculty with strong market-driven compensation and support packages that provide the resources they need to launch their careers, even if that means recruiting somewhat fewer individuals in any given year. One measure of our success in this goal will be attracting a high percentage of our first-choice candidates.
- Mentoring for Successful Faculty Careers. We will continue to support faculty careers at BU by developing an effective formal mentoring program that is embedded in a general culture of critical encouragement. (For the CAS Mentoring Policy, see <http://www.bu.edu/cas/pdfs/faculty-staff/MentoringPolicy.pdf>.) All of our regular diagnostic tools are linked to the mentoring process to help faculty develop their career success: regular peer assessments of teaching, the annual merit review, and the mid-tenure review that is designed to be both diagnostic and remedial. By recruiting the best faculty and improving mentoring, we should see the strength of our faculty profiles at the time of mid-tenure review, tenure review, and beyond improve in every department.
- Improving Resources for Professional Support. CAS will engage in intensive efforts to seek gift and other forms of funding that will enable us at least to match peer institutions across the full spectrum of career development. This includes:
 - Endowed professorships that attract and retain the most prominent senior faculty;
 - Research, teaching, and office facilities and equipment that allow faculty to carry out their best work. In the sciences, this includes the development and support of major core instrumentation facilities that allow faculty to take advantage of continuing changes in technology; (See Commitment 7)
 - Professional development professorships and fellowships (such as those provided by the BU Humanities Foundation and the Peter Paul Professorships) that allow assistant professors the time and support to launch their careers, recently-tenured faculty to extend their skills and knowledge, and more senior faculty to refresh their research in a timely way;

- Flexible funding that can support research and other professional expenses that cannot be covered by grant funding; for example, access to libraries and archives; purchase of books, software, and equipment; travel for research and conference participation; publication expenses; funding to launch or pilot scholarly projects that might attract further extramural funding;
- Graduate student and postdoctoral fellowship support that are essential to the productivity and quality of faculty scholarship, as well as preparing talented young scholars for future careers; and
- Resources that allow us to invest in the academic and intellectual community in which faculty work, for example, by underwriting invited speakers and symposia and providing professional development opportunities.
- Balancing Career and Family. We will continue our efforts, in coordination with our partners across BU, to ensure that this university is a community in which faculty can maintain a balance between their professional and personal lives by accommodating their aspirations, needs, and concerns regarding quality of life.
- Improving our Personnel Processes. We will aim to make more progress in carrying out all of the decision processes in a manner that is humane, respectful, fair, judicious, and as transparent as possible at all levels.

Faculty Retention

Each year during the three-year period from 2006/07 through 2008/09, we experienced an average of 18 attempts by other universities to recruit our tenure-track faculty. Although we retained roughly two-thirds of the faculty who received outside offers, these retentions come at enormous financial cost in both salary and other forms of funding to support the research, training, facilities, and equipment needs of these professors. Another less visible but potentially crippling cost of retention efforts is the suggestion picked up by some faculty members that the route to obtaining appropriate support within BU is to seek outside offers.

We will continue to work vigorously to retain our best faculty, approaching this effort as strategically as we do faculty recruitment. The resources we use for faculty retentions come from the same sources as the resources we use for faculty recruitment and other high priority investments. Above all, the best way to retain our faculty is to support them well from the beginning and provide an intellectual and academic community that is difficult to leave.

LECTURERS AND “MODIFIED TITLE” FACULTY

We only recently have made focused efforts to improve the professional support and recognition for non-tenure track faculty members and their careers by addressing the fact that clear, coherent, or consistent standards and practices for the treatment and support of these groups of faculty have been lacking.

In the past two years, Boston University and CAS have taken decisive steps that lay the foundation for continued progress as we plan for the next 5 and 10 years. In 2009/10, CAS developed coherent standards for the ranks of lecturer, senior lecturer, and senior lecturer (master-level), compensation that rewards experience and professional contributions, and a new process for promotion patterned after that for regular faculty. We have extended the privilege of serving as a principal investigator on grants to the senior ranks of lecturers and research professors. We have coupled the commitment to career advancement for full-time lecturers with a counterpart commitment to convert part-time lecturer positions into full-time positions where lecturers are the most appropriate instructors in order to improve the quality of our education as well as the professional standing of lecturers.

We will extend these reforms in career paths and career development processes throughout the entire range of non-tenure track faculty, including research and clinical faculty and the newly-created title of “Professor of the Practice” that will allow us to enrich our curricula and outreach efforts by bringing exceptional practitioners to CAS. We will work with departments and research centers to develop inclusive practices for research and clinical faculty; more transparent appointment, promotion, and compensation practices; and entitlements to sick and vacation leave. These efforts will be guided by the recently released Report of the BU Task Force on Non-Tenured Faculty (<http://www.bu.edu/ntf/>).

ACADEMIC RESEARCHERS

CAS accommodates the vast majority of BU’s post-doctoral scholars, most of whom are completing post-PhD training under mentorship of experienced CAS faculty. The College has implemented a new personnel system for post-doctoral scholars that includes more systematic career advancement practices for mentored post-docs and senior researchers and provides for equitable performance reviews and benefits entitlements.

STAFF

The faculty and students depend on the work of many other professional, technical, and administrative staff. Over the next five years, we aspire to:

- Provide better recognition of the centrality of professional, technical, and administrative staff in advancing the mission and realizing the goals of the College.
- Work with the central administration to improve job classification and advancement opportunities for staff members.
- Open greater opportunities for professional and leadership training for key staff.
- Encourage departments and research centers to develop ways of keeping staff up to date on important developments in the college and including them more fully in the academic life of their units.

Commitment 3: We will provide outstanding undergraduate education based in the principles of liberal education and the liberal arts, encompassing both the curricular or “classroom” experience and the co-curricular, broader life experiences that contribute to student learning, development and success.

Undergraduate education is the bedrock on which a university operates. As the liberal arts and sciences college of Boston University, CAS serves not only the students who pursue their degrees in this college, but all BU undergraduates by ensuring they will receive a first-class liberal education: Virtually all Boston University undergraduates are “our students,” regardless of their choice of degree. CAS takes upon itself the obligation to be a vigorous advocate of the liberal arts and a liberal education and a source of information and assistance for our partners across BU, especially in the professional schools, with regard to national standards and practices of liberal education. We applaud the renewed dedication to a common commitment to high-quality liberal education and a breadth of opportunities expressed in the recent *One BU* Task Force Report (<http://www.bu.edu/unlock/>) and look forward to continuing our role in serving all BU undergraduates.

Recruiting Great Boston University Students

The quality of Boston University students has risen dramatically over recent decades, and CAS students have been the leaders of the pack. BU has evolved from a local, commuter college to a fully residential national and international destination school. Our recruitment goals for entering classes are to attract the best quality students as measured by achieved and expected academic success, as well as candidates who embody the attributes of the “whole student” and together constitute a vibrant, diverse student body.

Because of intense competition with our impressive peer institutions, CAS has the lowest yield rate of all BU schools. In 2009, CAS received 22,560 applications and offered 12,015 acceptances (53.3 percent); 1,812 students enrolled for a yield of 15.1 percent. Within the next five years, the College expects to realize an acceptance rate of less than 50 percent with a yield rate of 20 percent. In recent years, the discount rate at CAS has hovered above 30 percent; this should drop to below 30 percent over the next five years.

What is the reputation of CAS as an undergraduate institution, and how do we rank among prospective students? None of the most widely used rankings passes muster with experts on higher education, and they usually refer to BU as a whole rather than CAS specifically. *US News and World Report* (August, 2009) ranks BU 56th among national research universities (tied with the University of Pittsburgh; one point behind George Washington University, the Ohio State University, and the University of Maryland; one point ahead of Pepperdine, Syracuse, and the University of Georgia). This clustering of disparate schools highlights the weakness of such rankings, and fails to reflect the quality and reputation of the CAS liberal arts and sciences program.

A more appropriate measure would be to identify our peer institutions by using actual applications and admissions data. Comparing BU admissions data with National Clearinghouse data on college admissions reveals that students who choose CAS come from a group that clusters in interest around the top research

universities in the country, private and public; the top urban universities in the premier cities; and the prominent Boston universities. CAS makes BU a “safety school” for the most prestigious and selective schools, and a competitor with a wide range of excellent colleges and universities. Clearly Boston University, through CAS, has a strong and growing reputation. (See Appendix 4: Undergraduate Education: CAS Admissions Peers.)

Retaining and Ensuring the Success of CAS Students

The College of Arts & Sciences is committed to retaining as many of its students as possible through graduation. While IPEDS data show that we are behind our peers in retention of students, we are resolved to significantly improve student retention over the next five years.

According to the latest (2009) data, the four-year graduation rate (from any BU school) for CAS students who matriculate as freshmen was 77 percent for the cohort entering in 2003/04, 79 percent for the 2004/05 cohort, and 80 percent for the 2005/06 cohort. The six-year graduation rate for the 2003/04 cohort was 81 percent, and the five-year rate of the 2004/05 cohort was 87 percent. We must make progress to match the retention rates of our peer institutions.

Close analysis of the cohort that entered in the fall of 2005 provides a clearer picture of the paths these students take: Overall, 67 percent graduated from CAS by the end of four years, 80 percent had graduated from any college in BU, 5 percent were still enrolled, and 15 percent had dropped out. Students who entered CAS with a declared major were more likely to graduate from CAS than students who had not yet declared at matriculation, while the original undecideds were more likely to have graduated from a different BU college. International students drop out at higher rates than domestic students (28% vs 14%).

Research shows there are many reasons why students leave; however, few leave because of poor academic standing. Some students who chose CAS as a “back-up” leave when their first-choice colleges eventually accept them. Students from outside the region leave to attend schools closer to their homes; others leave for financial reasons. Regardless of the specific reasons, students leave when we do not adequately engage their interests and needs or when they are not sufficiently integrated into the fabric of the Boston University community. Achieving “stickiness”—making sure all students have a reason to stay—is a project for all of BU, but CAS must play its part for its students. This level of engagement must occur as early as possible in a student’s career. Data show we lose too many students after their first year of college. The following initiatives should help improve retention:

Appoint a Retention Coordinator. Assign a staff member (perhaps in the Taylor Advising Center) to track students at risk of leaving BU, identify and address their needs, and collect and analyze data relating to retention, including exit interviews.

Institute the CAS First-Year Experience (CAS FYE). CAS FYE provides a framework for the entire first-year experience and is centered on the following major objective:

- Integrating first-year undergraduates into the BU community and its environs; fostering constructive relationships with faculty, staff, and other students; and making sure they find their place here and know where to seek help and support;
- Fostering an understanding of the standards and practices of college-level scholarship and providing support for their active growth; and
- Supporting appropriate professional development for faculty and staff to foster student development in the best way possible.

Full implementation of CAS FYE will require an infusion of funds for critical infrastructure, including funds to support programs.

Investing in Advising. CAS faculty members are known for their commitment to undergraduate advising. Even so, surveys indicate many students are disappointed with the overall quality of advising they receive; some faculty members also have expressed dissatisfaction with the CAS advising system. Our advising information systems are well behind national standards. Last year, Dean Sapiro empanelled a task force to identify best practices in advising among peer institutions. The panel will deliver its report this spring (2010). Expected recommendations include increasing the number of advising personnel and enhancing professional development and information systems. However, full implementation will require a substantial infusion of new funds.

Career Preparation for Arts and Sciences Students. Boston University is in the process of expanding and improving its career advising resources. Universities face special challenges in launching effective career preparation strategies for liberal arts and sciences students who by definition have not chosen a professional education undergraduate career, and choose majors that are not intended to offer career training. The liberal arts and sciences degree is intended to lay the best possible foundation for any number of careers, career pathways, and career changes over the course of a lifetime. Thus career advising for CAS students must begin by helping students identify their interests and skills, choose suitable paths through college to develop them, and forge paths toward the right post-graduate education and career choices.

Student Engagement and Leadership. CAS has long supported the integration of co-curricular activities into its education programs. The Core Curriculum, with its rich range of cultural, intellectual, and social events, is the signal example. Many departments and programs also seek ways to integrate students and faculty into communities of interest and engagement. The CAS Office of Programs and Leadership has been reoriented to offer leadership in this direction as part of the CAS FYE. This and other offices of CAS Student Academic Life, the Writing Program, and the university-level Educational Resource Center and Career Advising Service, will be integrated in a new Student Services Building (scheduled to open by 2012) to create a nurturing environment for student engagement and support.

Student Support Information Systems. Improved student support will require new information systems to eliminate paper records and improve record keeping and access. New systems also will improve advising

systems for students and their advisors, enable powerful alert systems to identify students in need of assistance, and provide comprehensive electronic resources to support student leadership.

Maintaining and Refreshing the Liberal Education Core: The CAS College Program

The [CAS College Program](#) provides a common, three-part framework for every undergraduate degree conferred by CAS: 1) *foundational skills and competencies* are skills graduates will need to continue to learn, create, and flourish; 2) *breadth of knowledge and modes of inquiry* are provided by the general education requirement; and 3) *depth of knowledge and expertise* are acquired through completing a major. The College Program also promotes exploration and discovery as a fundamental part of the undergraduate experience and provides multiple avenues for pursuing a degree within the common framework. We are confident of the strength this framework brings to a first-class liberal education through liberal arts and sciences degrees and continually seek ways to strengthen and improve its elements and the whole. Following are some of the directions these efforts will take over the next five years.

Foundational Skills and Competency: English-Language Writing, Communication and Information Literacy

The Arts & Sciences [Writing Program](#) was established in 2001/02 to provide fundamental instruction in writing for undergraduates in CAS and most other BU schools and colleges. The program is based on a two-semester sequence of thematically organized freshman seminars in reading, writing, and research, reinforced by individual and group tutorials in the Writing Center. The Writing Program moved into its second phase in 2008/09 through an initiative to refresh its program, expand its mission, and develop improved methods of assessment of student writing. The College will conduct a comprehensive formal review of the Writing Program within the next five years.

Writing Program initiatives for the next five years include the following:

- Lead College-wide efforts to provide a comprehensive approach to writing instruction throughout the undergraduate career;
- Expand the Writing Program's focus by introducing writing education across the arts and sciences disciplines, including the development of models of advanced or discipline-specific writing instruction;
- Develop and implement effective regimens for measuring the progress of individual students and evaluating the effectiveness of writing instruction; and
- Determine how the Writing Program can best serve graduate students.

The College will also explore how the disciplines of the Writing Program can be applied to other areas of communication competency, including oral communication skills and information literacy.

Foundational Skills and Competency: Numerical and Quantitative Reasoning

The need for numerical and quantitative competency has been addressed by requiring that students attain threshold competency in college algebra and trigonometry, statistics, or applied math before graduation. In addition, Mathematics and Computer Science (MSC) has been established as a separate undergraduate curriculum division in which all CAS students must take at least two courses toward completion of their general education requirements (see below).

CAS is aware that numerical, quantitative, and computational competency are increasingly considered essential skills for educated adults. CAS therefore is committed to ensuring that all of its students acquire these skills. Already, a number of programs have been introduced or modified to address this need, including the following:

- The development of inquiry-based introductions to geometry and number theory;
- The introduction of a course on quantitative reasoning (MA/CS 109) that combines traditionally separate elements of calculus, statistics, and computer science;
- The integration of mathematical thinking throughout the entire Core Curriculum, including the social sciences and humanities sequences; and
- The drafting of a joint white paper (“Quantitative Literacy at Boston University”) by the departments of mathematics and statistics and computer science.

CAS will establish a faculty task force on quantitative and numerical literacy to monitor these initiatives over the next five years. The task force also will formulate a set of concrete goals and recommendations for numerical/quantitative-related teaching and learning across CAS. The College will ensure that students in the increasingly computational-dependent fields in the natural and social sciences acquire the advanced computational skills these fields demand. Teaching and curriculum development for instructors assigned to lower-level math courses will be evaluated and adjusted to ensure program effectiveness.

Foundational Skills and Competency: Foreign Languages

CAS graduates are required to demonstrate proficiency in a second language equivalent to successful completion of a fourth-semester course. The College is committed to improving its language instruction practices by expecting proficiency with language skills at the foundational level and by actively promoting the benefits of learning a second language to students in BU schools and colleges that do not have language requirements. CAS supports a wide range of languages, but stands out as a center that advances language learning in the lesser-taught and strategic languages. CAS recently restructured its language departments, increased the number of classes in critical languages, reduced class size, increased contact hours, and added drill sections. The College also established a grant-funded “Globally Speaking” program offering low-stress, informal, non-credit instruction to all members of the BU community, a program that might entice students to

enroll in formal language programs. A new assistant dean for language instruction position has been created to help coordinate and improve all language instruction.

Other language-related initiatives to be implemented in coming years include the following:

- Establish a World Language Council (with CL, MCLC, RS, African Studies, and SED) to coordinate the teaching of American Sign Language across the university;
- Develop a comprehensive ten-year plan for all languages currently offered, introduce additional languages on a priority basis, and explore cooperative language instruction opportunities with local universities;
- Institutionalize the “Globally Speaking” program;
- Work with the Office of Residence Life to improve the quality of the language specialty housing experience;
- Seek gift funding to improve the services offered by Geddes Language Center; and
- Explore the feasibility of adopting formal, nationally recognized language-learning assessment tools (such as the American Council for the Teaching of Foreign Languages guidelines).

For related initiatives, see Commitment 6.

Breadth of Knowledge and Modes of Inquiry: General Education

The College is committed to making sure students acquire a breadth of knowledge across disciplines and multiple modes of scholarly inquiry. It is that breadth that allows a liberal education in the liberal arts to serve as a platform on which to build varied, productive, and creative lives. The CAS College Program requires all CAS students to experience three divisions of knowledge outside of their majors and offers two avenues for satisfying this requirement. The Divisional Studies Program lets students choose two courses in each of three divisional areas. The CAS Core Curriculum offers an integrated eight-course program of study in the humanities, sciences, and social sciences. CAS students also may pursue their general education requirement through BU’s College of General Studies or through the University Honors College.

The College is committed to continuing and strengthening all of the options for ensuring that our students gain a strong platform of breadth. Among the initiatives that are in progress or planned to advance this goal are:

- Stimulate continued discussion about the relationship of individual courses to the general education requirements, with particular focus on how faculty teaching these courses can ensure that they are accomplishing the general education goals of leading students to understand and appreciate diverse bodies of knowledge and ways of knowing.

- Continue to strengthen the Core Curriculum as a faculty-student learning community and university-wide model for an integrated general education curriculum including significant co-curricular and residential dimensions, and taking particular advantage of Boston's cultural resources.
- Complete the project of establishing an expanded roster of divisional courses, including some upper-level offerings, that meet agreed upon criteria for credit toward fulfillment of goals and requirements in general education.
- Work with the University Honors College to ensure that it will be a high-quality option for pursuing the CAS general education requirement.
- Complete a study of the question of whether CAS students should continue to be able to fulfill the general education portion of their degree through AP and IB credits or whether the breadth part of the degree should be fulfilled in the university context.

In a college dedicated to the liberal arts and sciences, however, the obligation to pursue a breadth of knowing and a breadth of ways of knowing should be inculcated in a way that renders the pursuit of knowledge beyond one's favorite subject a joy and personal mission rather than just a requirement to fulfill. We should explore ways to ensure that students' mentors and advisors help them push their breadth of knowledge into areas they might not have considered.

Depth of Knowledge and Expertise: The Major

The major gives students an opportunity to explore a specific academic interest deeply. The academic experience of most students is shaped by their major, even if their career ultimately takes them in other directions. CAS students can choose from among 70 majors.

The College has launched a number of initiatives to improve the learning experience for students within their majors. These measures include the following:

- Define protocols for the periodic, comprehensive review of all current majors;
- Design practices that create academic communities within majors that connect students with each other and with the faculty;
- Determine the minimum number of students for a major to be considered sustainable;
- Develop honors programs and other challenging opportunities in the major to allow qualified, exceptional undergraduates to pursue advanced work within their majors; and
- Develop capstone experiences that encourage students to synthesize and build on the knowledge they have gained while pursuing their major.

Undergraduate Education: Further Strategies for Quality

CAS is exploring a number of strategies to improve the quality of undergraduate education, including the following:

Improve Undergraduate Teaching and Pedagogy. The following initiatives will be introduced to ensure the continuous improvement of the quality of teaching within the College:

- Benchmark the highest teaching standards in the College as goals for all departments to pursue. CAS data and unit strategic plans reveal substantial variation in the standards and practices of departments and programs with respect to undergraduate teaching.
- Provide professional development for faculty. Continue to work with CET and other partners to help faculty improve teaching and mentoring skills.
- Address the educational needs of all students regardless of major. At BU, as at most universities, departments sometimes refer to their majors and minors as “their” students, defining courses not designed substantially for their majors’ needs as “service courses.” Although there should be a special bond among the faculty and majors in a program, the education needs and aspirations of all students are central to a department’s work whether they choose a class for general education, to complete a major, or for personal interest.

Establish Appropriate Class Sizes. The College will work with departments to establish class-size guidelines based on the unique requirements of course types to support appropriate pedagogies, student learning, and efficient use of resources. We will target increases in faculty and teaching fellow positions to support these efforts and redesign teaching schedules to support these goals.

Increase and Modernize Teaching Spaces. A recent study (Rickes and Associates) found that CAS lacks adequate teaching space. Few classrooms are equipped with the latest instructional technology, and deficiencies in teaching laboratories and studio classrooms have been identified. Many of these classroom deficiencies would be alleviated by the creation of a CAS academic center, which has been identified as a major CAS fundraising goal.

Provide New Opportunities for Undergraduate Research and Experiential Learning. Research suggests that integrating research and exploratory learning into the curriculum as early as the freshman year boosts academic motivation and success. Boston University already invests in undergraduate research opportunities through the Undergraduate Research Opportunities Program (UROP), grant-supported research experiences for undergraduates (REUs), and field-based courses. We will seek to expand research and experiential learning opportunities to give all students access to at least one of these experiences if they want them. This will involve integrating research and experiential learning into more courses, supporting field-based and service-learning courses, and special attention to opportunities beyond the sciences. CAS will

encourage further exploration of ideas currently under discussion to adopt Boston and its cultural, scientific, and physical resources as a laboratory for learning.

Promote Cross-College Collaboration. The College has been working closely with the other BU schools and colleges to expand learning opportunities for its students. Examples include development of the new majors in studies and architectural studies and the Double Degree Program in CFA and CAS.

Link Graduate and Undergraduate Education: The “BU Advantage.” CAS will leverage its graduate programs to enrich the undergraduate experience in the following ways:

- Enlist Graduate Students as Teachers and Mentors for Undergraduates. CAS will explore further ways to extend the mentoring and partnering roles of graduate students and postdoctoral fellows, not to replace the efforts of faculty, but to extend and enrich them for the sake of both graduate and undergraduate students.
- Graduate-Level Coursework for Undergraduates. Develop department-based guidelines for allowing qualified undergraduates, for example departmental honors students, to take graduate courses as part of their undergraduate course of study.
- 3+1 and 3+2 Programs. Develop more programs that combine undergraduate CAS study with a masters-level professional degree at BU.
- Preparation and Advising for Graduate and Professional Study. Many CAS undergraduates pursue graduate or professional education in fields other than their undergraduate major. It can be more difficult for them to access the best faculty help to achieve their goals compared with students who plan to continue in the field of their undergraduate major. We will explore ways to coordinate advising for graduate study at the College level.

Deepen and Broaden Academic Community. Build on the CAS tradition of recognizing the importance of relationships among faculty, staff, and graduate and undergraduate students. This is what leads our faculty to invest in each other and in their students. This is what engages students to stretch themselves and seek out the best BU has to offer. From the faculty who invite students to their homes or special venues for valuable co-curricular activities, sometimes with the help of the CAS Academic Enhancement Fund; to those who give freely of their time during special student-oriented events in the College, such as annual open houses for prospective students, CAS Café for freshmen, and the annual Aristophanes play reading and concert in the Classical Studies Department; to the many events organized by the Core Curriculum, scores of CAS faculty strive to create the academic community that enriches undergraduate education. Our plan is to further support and encourage this investment in community.

Commitment 4: We will offer leading doctoral, postdoctoral, and masters programs within and across traditional disciplinary boundaries.

Boston University's Graduate School of Arts & Sciences (GRS) awards degrees through 50 professional MA and MFA programs and 30 PhD and MA/PhD programs in the natural sciences, social sciences, and humanities. In keeping with the collaborative teaching and research culture that exists across BU, CAS partners in many graduate programs across the University, such as PhD programs in molecular biology, cell biology & biochemistry; bioinformatics; and neuroscience; and MA programs in collaboration with the School of Public Health. In AY2009/10, the student population of GRS included 486 professional master's degree students, 1425 MA/PhD and PhD students, and 110 students in BA/MA, dual degree, or non-degree programs.

Doctoral Education

The presence of prominent graduate programs is a usually necessary condition for attracting the best scholars to a university, and first-class doctoral students are important for maintaining first-class research enterprises. Most doctoral candidates expect to enter academic careers, although an increasing number of professional positions demand the advanced knowledge, research skills, and experience that a doctoral education provides. While there was a time when faculty regarded it as a failure if a doctoral student did not enter the professoriate, today successful graduate programs must take account of the wider range of professional positions that demand a doctoral education.

The College's doctoral programs range in size from programs with 10-20 students (primarily in the humanities, such as musicology, editorial studies, French language and literature, Earth science, and classics) to programs with more than 70 students (primarily in the natural and social sciences, including biology, psychology, economics, chemistry, and physics). (See Appendix 5A: Doctoral Program Populations.)

Most CAS departments could attract and sustain larger doctoral programs with an increase in quality if graduate financial aid was available to support more students. Despite the relative paucity of graduate fellowship funds, many programs attract remarkably strong cohorts of graduate students.

Overall Quality and Visibility

Boston University's recognition as a major graduate research institution is a relatively recent development. It is difficult to get an accurate view of the current reputation and prestige of our doctoral programs. The National Research Council (NRC) rankings of 1995, based on 1993 data, therefore out of date for a university that has undergone such changes, ranked 12 GRS programs in the top 50 of their fields according to the reputation of the quality of the faculty, and economics, religion, and art history ranked in the top 25. Like all graduate schools, we await the new NRC rankings, although the gap between data collection and report will be substantial. As questionable as most academics find the data, seven GRS doctoral programs appear in the top 50 of the *U.S. News and World Report* rankings, including economics, ranked 24th in its field. French, English, bioinformatics and computational biology, mathematics, and biostatistics are ranked in the top 10 of their fields by the Academic Analytics data on faculty productivity as reported in the *Chronicle of Higher Education*.

During the next five years, we will systematically examine our indicators of quality—quality of entering graduate students, time-to-degree, placement, and other achievement indicators—to develop our own assessment of the quality of our doctoral programs. Our aim for the coming decade is to move a larger number of our graduate programs up in the rankings of quality, prestige, and influence in their fields.

A strategy for increasing the quality and reputation of the Graduate School should focus on three tactics. First, identify a small number of programs that can achieve the breadth and depth of quality that will earn those programs stable overall national and international recognition by their peers as at least “top 25” programs. Second, identify a limited number of subfields within a larger number of programs that can leverage national and international recognition as leaders. In such cases, while the program as a whole may not achieve recognition that is as high as these fields, these programs will attract the best graduate students and faculty in those areas. Third, although raising the prominence of targeted graduate programs requires a strategic concentration of resources, we will not sacrifice the qualities that support excellence in undergraduate education, which requires some degree of breadth.

Attracting and Supporting the Highest-Quality Doctoral Students

The Graduate School received 4,285 applications for doctoral programs (post-BA and post-MA) for 2009/10 admission, with a 28 percent acceptance rate overall, but only a 22 percent yield, in part a reflection of the small amount of financial aid available. The acceptance rate and yield vary substantially across programs. (See Appendix 5B: Doctoral Program Admissions, 2009, and Appendix 5C: GRS Fellowship Offers and Yield.)

The academic quality of the entering classes of doctoral students varies significantly across programs. The relative strength of the verbal and quantitative GRE’s varies across the disciplines in expected ways, but comparison of the averages among our entering classes and ETS studies of averages within disciplinary groups (http://www.ets.org/Media/Tests/GRE/pdf/gre_0910_guide.pdf) indicates we are attracting high-caliber students. Further analysis will inform our study of program quality and goals (Appendix 5D: GRE Scores by Doctoral Program).

Degree completion

The quality of a graduate program is best measured by the successes of its graduates. Considering all doctoral students who matriculated after 1990, the attrition from GRS doctoral programs is 31 percent. (Continuing students are included in the denominator of that ratio; calculated attrition rises to 46 percent if continuing students are excluded; this biases the calculation high, as the median time to attrition of 2.0 years is much shorter than the time to degree). Attrition in the various doctoral programs varies substantially from, for example, 14 percent in MCBB and 16 percent in psychology to between 40-52 percent in computer science, French language and literature, classical studies, economics, and applied linguistics. (See Appendix 5E: Time to Degree and Attrition.) We should aim to reduce this attrition rate through a combination of recruiting students with better fit to our programs and improved financial and academic support, depending on the diagnosis in particular programs.

The median time to degree for all PhD recipients is 6.0 years; the average is 6.6 years. Although different methodologies complicate comparison, these results appear to be reasonably consistent with the results from the Council of Graduate Schools' ongoing PhD Completion Project (See http://www.phdcompletion.org/information/Executive_Summary_Demographics_Book_II.pdf. Quantitative data are available from <http://www.phdcompletion.org>.) The distributions in time-to-degree for various programs show a strong peak at five to seven years, but some have long tails (see Appendix 5F: Time to Degree and Attrition). To encourage communication, attentiveness, and realistic assessment, the Graduate School requires that after specified time limits (seven years for the post-BA doctoral degree, three years for the MA degree) continuing students must petition annually for extension of time to complete degree requirements. Closer attention to this extension process will help us reduce the frequency of long-time students. Other outcome measures, such as graduate student placements and professional accomplishment, are reported in the strategic plans of the individual units.

Master's Degrees

The Graduate School offers or participates in 50 MA degree programs across the humanities and natural and social sciences, including three joint MA/JD programs and two MA/MBA programs, an MFA in Creative Writing, and GRS participation in the intercollegiate MS program in bioinformatics. Except for the MFA in Creative Writing, which is a terminal scholarly as well as professional degree, the master's degree is intended to provide professional training, education, and credentials. Increasingly, the master's degree has supplanted the bachelor's degree as the credential for entry or advancement in many professional fields (see Appendix 5G: Masters Program Populations).

The Graduate School encompasses two professional master's degrees that deserve special attention because they provide important nationally recognized professional credentials with a clear and limited set of competitor schools. These two programs depend on our ability to attract faculty who are skilled and recognized professionals in their fields as well as scholars with academic credentials, and we continue to seek ways to regularize and stabilize the recruitment and BU career paths of these faculty in the future.

- MFA in Creative Writing. This is one of the premier creative writing programs in the country, focusing on fiction, poetry, and playwriting. The playwriting focus, located at Boston Playwrights Theater, has a growing relationship with the College of Fine Arts, which will be further developed in the future.
- MA in International Relations. International relations has a suite of professional master's programs taught by a faculty including both scholars and practitioners in international relations. With affiliate status in the Association of Professional Schools of International Affairs (APSIA), we will seek optimal ways to balance the needs of the professional degree and undergraduate program and consider further developments that would satisfy APSIA's standards for ranking.

The admissions rate for MA students for fall 2009 was 52 percent, with a yield of 23 percent (these figures vary significantly across programs). Fifteen programs accept the majority of applicants; seven accept less than 15 percent. Six programs yield 75 percent or more of admitted students; seven yielded none (See Appendix 5H: Masters Programs Admissions and .Appendix 5I: GRE Scores for Admitted Masters Students).

Attrition among terminal master's degree students is 11 percent overall, much smaller than the attrition rate for doctoral students. Programs with high attrition rates (25 percent or more leaving without a degree) are applied linguistics, cognitive and neural systems, MCBB, philosophy, political economy, and religious studies. For all programs, the median time to degree completion is two years (2.1 years average).

Postdoctoral Fellows

For the past two years, the College has conducted a study to define and improve postdoctoral and research staff positions to provide better support for this important cohort. The findings of that study are now being implemented, and the College also is engaged in a University-wide task force to establish institutional supports for postdoctoral researchers and trainees.

International Students

Twenty-nine percent of Arts & Sciences graduate students are international. International students, who often are advanced in their fields and gifted scholars, enrich our programs and contribute to the vitality of the academic community. However, many of these students face challenges, such as language issues, legal problems relating to immigration status, and culture shock, above and beyond the usual demands of academic life. In light of this, the College has implemented programs to address the needs of international students, including a nine-day International Teaching Fellow Orientation, and a continuing teaching and English language tutorial program with support from BU's Center for English Language and Orientation Programs (CELOP). The College is committed to improving support for these students.

Strategic Plan for Graduate Education

In the coming years, the Graduate School will 1) continue to offer academic programs of the highest standards, 2) attract and retain students of the highest quality and potential, 3) support students financially and through a commitment to creating a vibrant academic community in which they can carry out their studies, 4) mentor and train students in their professional development and teaching skills, and 5) provide sufficient classroom, office, library, and laboratory facilities and equipment.

The Graduate School will undertake a program of periodic review and assessment of every graduate degree, a process started in the summer of 2008 with a faculty committee that outlined evaluation criteria for doctoral and master's degree programs. The Graduate School has begun developing data systems that can be used for individual and comparative program analysis. We will continue to develop online systems for data and analysis available to departments and plan to build capacity to track outcomes, such as placement and alumni careers.

The restructuring of the CAS Office of the Dean to include a redefined associate dean of the Graduate School (with responsibility for research and outreach assigned to another associate dean) ensures that the Graduate School will receive dedicated administrative stewardship. Under this newly refocused approach, the Graduate School will pursue the following objectives:

Increase Financial Support for Graduate Education. Attracting the best students will require not only an increase in the number of fellowships available, but also an increase in stipends to a competitive level and the provision of “duty-free” fellowships, such as Dean’s fellowships, for the top candidates. The Graduate School will work to increase the availability of graduate financial aid through endowment and gift funds, corporate and foundation sources, and an increase in research and training grant funding.

Define Operational Standards for GRS. GRS will engage programs and faculty in discussion of improvements in GRS operational procedures and policies. These definitions will provide the foundation on which GRS will devise tactics to increase quality, reduce attrition and time to degree, and increase success. They will include the following:

- Minimal standards of size, quality, and resources for the existence of a graduate program;
- Appropriate size targets for graduate programs that take account of program strength, the quality of students they attract, the needs and prospects in the academic fields, and available human, financial, and facilities resources; and
- Changes in rules and procedures that will support improvements in the quality of programs, such as those involving time to degree.

Support Interdisciplinary and Cross-College Graduate Education. GRS will continue to advance and participate in interdisciplinary and cross-college graduate programs. This will require improved systems for coordination and integration with departments and lowering the barriers across departments and colleges. The Graduate School will explore the development of distance and hybrid MA programs with the Metropolitan College and other interested units.

Increase Financial Support for Graduate Students. CAS needs 100 new teaching fellowships to maintain program quality and meet its educational obligations, and any progress we can make in this direction will also serve the critical need of attracting and serving top-quality graduate students. Moreover, GRS will work with others across BU to establish within five years consistent institutional practices for the support of graduate education and professional development, including graduate student stipends that are fair and consistent across the University and sufficient to meet actual living expenses; a proportional tuition schedule that accommodates the normal practices of graduate study; policies to support the graduate student life experience, such as adequate medical coverage and parental leave; and additional funding for travel related to research and participation in professional conferences.

Increase Opportunities for Professional Development. GRS will expand its efforts to provide a systematic program of graduate student mentoring and training for professional development and support that will reach graduate students in all our programs. All graduate programs must meet appropriate standards for professional mentoring and providing appropriate networking opportunities and placement services. GRS will seek to provide or will collaborate with partners across BU to develop or expand high-quality professional development programs that will cover how to conduct research, including grant-seeking and research ethics; teaching and mentoring skills; and career planning. Current programs that will play important roles in this

future include 699 courses for teaching fellows (TFs), TF orientation and workshops, BU's Responsible Conduct of Research Program, departmental offerings such as the chemistry introductory seminar CH 801 the dissertation workshop SO 952, and student-initiated and -directed activities such as career planning and social and professional networking events organized by the Graduate Student Organization.

Improve the Quality of Life for Graduate Students. In addition to efforts to improve financial support for graduate students, GRS will continue to work with the Graduate Student Organization (GSO) on a range of issues to improve the quality of life and community among graduate students, including matters related to healthcare and parental leave and creating opportunities for social life within the graduate student community.

Commitment 5: We will promote pioneering research and scholarship within and across traditional disciplinary boundaries.

The College of Arts & Sciences is a powerhouse of research that spans the humanities and the natural and social sciences. The total dollar amount of new grants and contracts generated in FY 2009 was \$85,677,728, an increase of \$8,147,497 (10.5%) over the previous year. However impressive these numbers may seem, they do not adequately reflect the quantity or quality of CAS research activity, because research done in the humanities and much of the social sciences typically is not supported by grants or contracts. Even in the sciences, where a considerable amount of the research could not proceed without the support generated by grants, comparing dollars generated through grants is a far from accurate means of assessing research productivity and success because of differences in the costs of doing research in different fields.

CAS department and program strategic plans hold many indicators of research productivity and success, including publications, citations, awards, and honors. By any measure, CAS makes a critical contribution to Boston University's growing reputation for leadership in research and scholarship in many fields.

The College's scholarly profile is on the rise thanks in part to the outstanding research activity of new generations of faculty in departments that until recently did not place uniformly high research expectations on faculty. The next five years should witness a significant rise in the research profile of CAS as it builds on its reputation for pioneering scholarship. To that end, the College will implement the following initiatives:

Provide Better Infrastructure and Organizational Support for Scholarship. The creation of a dedicated associate dean for research and outreach will ensure focused leadership of CAS research activity. Within the next two years, the College also will install a new research and grants administrator with responsibility for supporting faculty and students in fields that traditionally have been underserved by grants activity. The College will explore clustering services and support for research to more effectively assist faculty and students. These efforts will be reinforced at the university level through initiatives of the Office of the Vice President and Associate Provost for Research, the Office of Sponsored Programs, BU Corporate and Foundation Relations, and other offices to improve infrastructure and organizational support for research.

Review Existing Research Centers and Institutes and the Development of Standards for the Creation of Research Centers and Institutes. The Vice President for Research has initiated reviews of all centers and

institutes and is working toward the development of guidelines for defining appropriate practices and standards for their operation. CAS will be actively involved in this process.

Develop Appropriate Policies for Use of Indirect Cost Return (IDC) and Other Financial Investments in Research. At this time there are multiple practices, often independently negotiated, that determine the disbursement of IDC and other investment in research. Within five years, the College will implement standard policies and practices to manage these funds.

Identify Obstacles to Progress in Research and Seek Solutions. The College will identify where critical shortages of research facilities or equipment are impeding progress in research. Problem areas already identified include the Cummington St. science district; the critical shortage of laboratory facilities and equipment in biology, chemistry, psychology, and biological anthropology; and a wide range of instrument challenges, including appropriate access to research telescope facilities. The solution to these shortages may involve university-wide or multiple-school collaboration to raise funds through gifts, grants, or corporate partnerships.

Increase Undergraduate Participation in Research. Among the benefits for undergraduates at a major research university is the opportunity to work directly with leading scholars and researchers. The College will work to increase the availability of these opportunities for its undergraduates. (See Commitment 3.)

Position the Boston University Humanities Foundation (BUHF) as a College-wide Center of Humanities Scholarship. BUHF has been a major support for research for faculty and students in the humanities through its fellowship and grants programs. Since 2008, BUHF has been charged with taking a more active role in advancing the humanities at BU. Over the next ten 10 years, the College will work with BUHF to position the foundation as a focal point and engine for supporting and advancing scholarship in the humanities and humanistic scholarship across the disciplines. The College will work closely with BUHF to achieve the following objectives:

- Establish BUHF as an umbrella organization through which CAS humanities workshops, lecture series, and small centers operate;
- Promote events, venues and research that bring scholars together from across disciplines to investigate important humanistic issues and themes raised by research in the natural and social sciences;
- Increase BUHF's endowment; and
- Create a facility for BUHF to serve as a physical center for humanities scholarship and interaction.

Commitment 6: We will strengthen our leadership as an urban and global research and teaching university, pursuing our research and educational missions in a manner that values and enhances BU's citizenship in our local, regional, national, and international communities.

The 2007 Boston University Strategic Plan committed BU to leadership as an urban and global research university, and CAS must play a central role in advancing that commitment.

CAS as Part of Boston's University

Boston University's location makes it a destination university. Recognizing this important advantage, CAS is committed to finding ways to connect what the College does as a leading research and education center to the City of Boston and New England. CAS faculty members have initiated informal discussions about taking advantage of Boston as a laboratory for learning and have offered the following proposals:

- Restore and enhance the New England focus of the Program in American and New England Studies, creating strong linkages with local arts and cultural institutions;
- Advance interdisciplinary research and education in the geosciences through development of projects that involve observation and monitoring of the local environment; and
- Increase the availability of service learning and community-based research opportunities.

CAS faculty and students are involved in a variety of community outreach activities, notably in coordination with local schools, but with the creation of the new position of associate dean for research and outreach, CAS will introduce more structure and visibility to its involvement with the community, creating a stronger framework for faculty and student involvement. Over the next five years, the College will improve the coordination of its outreach activities within CAS and in cooperation with the School of Education and other BU schools and colleges.

Through the First Year Experience, CAS will take an active role in introducing new BU students to the Boston community. Activities will include faculty- and staff-led field trips to explore and learn about the Boston area.

CAS: An International Center in an International University

CAS is a major contributor to the international character of Boston University. CAS students and faculty come from all over the globe, and each year hundreds of undergraduates participate in study abroad programs. CAS faculty members are engaged in overseas research and participate in international collaborative programs. The College is proud of its many scientists who involve their students in fieldwork in such places as the glaciers of Antarctica, the Tiputini Biodiversity Station in Ecuador, or the ecosystems of the Caribbean Sea.

Finally, while many universities talk about internationalizing the curriculum, international and global studies have long been central to the research and teaching of almost all CAS humanities and social science departments and programs.

CAS is home to many interdisciplinary area studies programs, centers and institutes, including African Studies, Asian Studies, the Latin American Studies Program, and the Institute for the Study of Muslim Societies & Civilizations. The Department of International Relations houses CAS's largest undergraduate major. At a time when many universities are cutting back on teaching and research in foreign languages, CAS teaches 23 languages, with strong emphasis on lesser-taught strategic languages.

To enhance its local, regional, and international standing, the College will engage in the following initiatives over the next five years:

International Opportunities:

- Continue to collaborate with International Programs to increase the integration of BU study abroad programs with Boston-based undergraduate curricula.
- Seek additional funding to support opportunities for CAS faculty to conduct research and participate in international scholarly exchanges, as well as opportunities for students to participate in study abroad programs, collaborative courses, and investigations with faculty.
- Further develop the College's relationship with the University of Warwick and explore new project development.
- Encourage the growth of other international relationships.
- Successfully conclude deliberations and implement sustainable strategies for the BU Marine Program Marine Semester.

Language, Culture, and Area Studies Programs:

- Identify the appropriate roster of language programs for support and the appropriate level of support in conjunction with area studies programs.
- Maintain the African Studies Center at a Title VI level and successfully compete for at least one more Title VI program.
- Leverage the existing faculty strength in European studies by creating a BU Center for the Study of Europe.

- Create a CAS International Council with representation from relevant programs to oversee the development of international, global, and area studies.

Commitment 7: We will manage and *enhance our financial resources and physical infrastructure* with intelligence and creativity in a manner that supports our primary missions.

The 2007 BU Strategic Plan emphasized that with all of its strengths, BU's major weaknesses lie in its physical and financial infrastructure. Until only a few decades ago, Boston University was in effect a local institution that neither attracted nor generated significant income or wealth. Many of the College's challenges flow from these facts. CAS facilities are inadequate in many respects, there are too few professorships to help retain and nurture the careers of the best faculty, a shortage of graduate fellowships makes it difficult to recruit the best graduate students, and additional funding is needed to enable undergraduates to pursue their dreams.

Despite these challenges, the success with which Boston University and CAS navigated the recent financial crisis reveals a core of efficiency, creativity, and good decision-making and management that has maintained these institutions in solid financial health, allowing the mission of education to continue undeterred. CAS will continue along its current path of using annual planning mechanisms in the context of this strategic plan to deploy resources in pursuit of carefully developed priorities. We will find ways to leverage resources for optimal impact by clustering services where appropriate and finding other shared and collaborative solutions.

With respect to facilities, a recent survey of College needs provides a crucial starting point for advocacy and planning. We also are engaging in more systematic analysis of our deferred maintenance issues. Our vision for the CAS of 10 years from now includes:

- A new student services center at 100 Bay State Road that, within three years, will house CAS Student Academic Life and its services, as well as the Arts & Sciences Writing Program. This will open spaces within the CAS building that can be used to accommodate CAS administration and possibly other occupants.
- A major academic center that will address many of our needs for appropriately sized and well-mediated classrooms, as well as spaces for a key set of departments and programs. This center, which will require significant gift funding to become a reality, will also create opportunities for addressing critical facilities needs in the "backfill" areas.
- Improvements to teaching and research laboratory space in the Cummington St. science district and sufficient new office space for faculty and graduate students in the many social science and humanities departments along Bay State Road.
- A new home for the Boston University Humanities Foundation.

- Sustaining support to fulfill the potential of our very special spaces: the Boston Playwrights Theater, the Coit Observatory, the Geddes Language Center, and the possibility of a CAS rooftop environmental center including expansion and upgrading of the greenhouse.

Commitment 8: We will build wider and stronger connections with our alumni to our mutual benefit, providing our alumni with life-long opportunities for continuing education, development, and community and ensuring that the Boston University community continues to grow and flourish.

Only in recent years have we begun to work as an institution to nurture the strong ties with our alumni to enrich their lives and to ensure the health of Boston University. We will strengthen these ties by engaging in regular communications through an improved CAS alumni magazine, *arts&sciences*, as well as through active participation in university-level communications media such as *Bostonia*, *BUniverse*, *BU Today*, and others. We will emphasize the continued growth of lively and interesting programs for enjoyment and continuing education in the Boston area, such as the “Discoveries Lecture Series” and the “Arts, Culture, and Ideas” series. We will find ways to bring alumni back to campus as active participants in the education of future generations through career mentoring programs and similar organizations. We will seek to make the case to our alumni that supporting the future of Boston University and its students and faculty through its research and teaching programs is a worthwhile investment in the future.

CREATING OUR FUTURE: THE NEXT FIVE YEARS

Our mission, values, and commitments are clear. We know our direction for the future. What we accomplish depends on coordinated and thoughtful efforts to shape our everyday decisions according to the framework we have set, and on our ability to attract significant new resources.