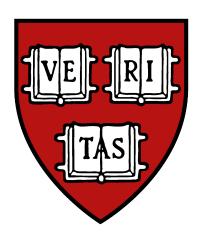
FACULTY OF ARTS AND SCIENCES DEAN'S ANNUAL REPORT



FISCAL YEAR 2011
HARVARD UNIVERSITY

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Dear colleagues and friends,

It is my pleasure to share with you the Dean's Annual Report. This document summarizes the activities of the various units of the Faculty of Arts and Sciences and provides an overview of the financial results for fiscal year 2011 (July 2010 through June 2011). A financial management report for fiscal year 2011 accompanies this report.

As I have for the past two years, I begin this report with an overview of the context in which the past year's activities took place. It will come as no surprise that the activities of last academic year continued to show the effects of the global financial crisis and the need to focus on our core activities. Still, we have maintained the size of our faculty and our commitment to their teaching and research. We have expanded support for our graduate students, and we have continued to lead the nation in undergraduate financial aid and the excellence of our undergraduate programs. Emerging from the effects of the global financial crisis, we now have a robust, informed, and thoughtful academic planning process that supports the setting of our priorities and better informs our decisions regarding the use of our diminished resources. I am grateful to Dean for Faculty Affairs Nina Zipser for her leadership in this effort and for her ongoing partnership with Dean for Administration and Finance Leslie Kirwan, and I am grateful to all of you who helped to make these new processes successful.

Let me now address in specifics the state of our financial resources. Initiated in response to the consequences of the global financial crisis that began in the fall of 2008, the Faculty of Arts and Sciences has pursued a three-year financial plan, of which FY2011 was the third and final year. The initial year, FY2009, focused primarily on arresting expense growth and directing diminished resources to support our core mission. In FY2010, the FAS took on the harder work of developing policies and procedures that enable coordinated, long-term planning and efficiency, and making available the kind of data this activity requires.

At the start of FY2011, which was expected to be the most financially difficult year by far of the three, we had projected a \$35 million unrestricted deficit. This in itself reflected enormous progress. Prior to the start of the interventions that began in FY2009, we had projected a \$220 million unrestricted deficit for FY2011 had we remained on our prior course of expense growth. Over the course of FY2011, our collective efforts further reduced the unrestricted deficit from the projected \$35 million to \$16 million. A number of activities contributed to this improved position, including the enhanced support of relevant FAS core activities provided by our centers, successful savings goals in larger FAS tubs, increased current-use giving from our loyal alumni, and savings from improvements in utilities rates and reductions to our debt service obligations.

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This is an enormous accomplishment, and one of which we should all be proud; however, it is accompanied by a number of significant concerns that must be acknowledged. The most obvious of these is the continuing instability of the U.S. economy. The threat of a government shutdown followed by the downgrading of America's coveted AAA credit rating are poignant reminders that we look to a future of unprecedented uncertainty. Although this year's Harvard Management Company report provided better than expected results, this must be understood in the context of a widely erratic stock market and an unsettled federal budget. What is certain is that the costs to attract, support, and retain world-class faculty and graduate students continue to grow, as do our fixed costs. Furthermore, our facilities and information technology infrastructure require significant investment. Now more than ever we must manage our resources to ensure institutional resilience and protect the traditions that make Harvard the unparalleled institution it has been for 375 years.

The changes we have made over the past three years have been critically important to the financial health of the institution and its sustainability over the long term, and I am aware that these critical changes have required sacrifices from the faculty. While it is impossible for us to roll back to the expense model in place before the financial crisis, our improved academic planning and budgeting processes are effective tools to help us think about the future. Identifying our academic priorities first and then matching them to available funds through the budget process allows us an opportunity to maintain the gains we have made while responding to the critical and evolving needs of our programs. I have confidence in these processes, and I ask that you continue your planning discussions with the candor and sense of constructive partnership that has characterized them over the past three years. We must make choices, but together we can ensure that they are informed and well-reasoned ones.

Although we have completed our three-year financial plan, we have not completely eliminated the deficit, which at the end of FY2011 remained at approximately \$16 million. Last year, I stated that with continued discipline throughout the organization and absent a second downturn in the economy or changes to University guidance, the FAS was on track to eliminate the remaining structural deficit by the end of FY2012. I believe this still to be the case, and I am grateful to all departments, centers, programs, and units for their continued commitment to strategic prioritization and financial constraint

A number of administrative changes were undertaken over the past year that both optimize the efficacy and efficiency of our operations and improve the support we provide our faculty, students, and staff. A prominent example is the <u>unification</u> of University Information Systems (UIS) and FAS Information Technology into <u>Harvard University Information Technology</u> (HUIT), which now directly serves both FAS and the Central Administration, while continuing to provide IT infrastructure to the entire University. Launched in partnership with Executive Vice

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President Katie Lapp, a nearly two year-long planning process has resulted in a redesigned organizational structure, a superlative leadership team, a new organizational mission, the definition (in consultation with users) of core IT services, the launch of a new web portal, and the co-location of the pre-existing IT help desks. Many have contributed to the development of this new organization, and I am particularly grateful to University Chief Information Officer Anne Margulies for her leadership, vision, and responsiveness throughout this process.

Smaller-scale reviews have also played a role in improving operations. Last fall, an Administrative Process Review Committee was formed by the divisions of Social Science and Arts and Humanities to identify opportunities for increased administrative efficiency across the two divisions. While cost savings was considered within this context, the primary driver of the work was improved operations. Similarly, the launch in October 2010 of the Harvard Crimson Online Marketplace, a new purchasing system rolling out Harvard-wide, has provided cost savings, process efficiency, control, and visibility. The new StarRez Residential Portal has similarly streamlined the management of housing data for our undergraduate Houses. Sustainability efforts, detailed later in this document, have continued to provide significant savings and reduced our emissions of greenhouse gases. Improvements to systems do not grab headlines, but in an organization of our size, these investments of attention pay enormous dividends—in the quality of support the faculty and students receive, in the opportunities for professional development and advancement we can offer our staff, and in the costs associated with supporting our programs.

Beyond a focus on finances and organizational changes, last year we began to push ahead a number of important programmatic priorities that we will continue to advance over the coming year. Our activities in support of teaching and learning build on the important contributions of the Task Force on Teaching and Career Development and its 2007 Compact on Teaching and Learning. In October 2010, I reported to the faculty on the progress made since the Compact, and announced a planned expansion of the Derek Bok Center for Teaching and Learning and the recruitment of a faculty director. Building on a strong and successful organization, the faculty director will assume an important leadership role in the FAS and will be a visible proponent of the centrality of our teaching mission, while expanding and deepening the Bok Center's function as disseminator of relevant and significant research on learning and pedagogy.

In partnership with the Bok Center, I launched a series of faculty panel discussions on teaching and learning in 2011 called Conversations@FAS. This series explored the topics of active learning, teaching with collections, and instilling global perspectives in our students. Coordinated with each session, the Bok Center provided teaching and resource guides for faculty and sponsored ongoing dialogues with graduate students. I am grateful to Dean Evelynn Hammonds and Dean Allan

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Brandt for hosting two of the panel sessions, as well as to the faculty who participated as panelists. These conversations will continue this year and will take as their topic the future of knowledge production and transmission. The new panels will help us to explore the future of knowledge in an increasingly global and digital age. I have charged a planning committee, chaired by Professor Maya Jasanoff, to design the sessions and recruit the participants.

Together with Dean of Continuing Education Michael Shinagel, I have launched a national search for a dean of the Extension School. For the past 37 years, the dean of the Division of Continuing Education at Harvard has also held the position of dean of Harvard's Extension School. Recognizing the importance of the Extension School as a leader in distance education and as one of our incubators for pedagogical innovation, Dean Shinagel and I have decided to separate the two positions again in order to bolster the School's capacity to advance the use of technology in education. The dean of the Extension School will lead an effort to scale our successful distance education program while building opportunities for innovations in online learning across the Faculty of Arts and Sciences.

Coordinated with similar efforts across the University, I have asked Professor Eric Mazur, Balkanski Professor of Physics and Applied Physics, to chair a 21st Century Classroom Committee to engage in a pedagogy-driven discussion of the future of learning spaces. Their deliberations will shape the design of an innovative new facility on the terrace level of the Old Quincy Test Project, a complete renewal of a stand-alone section of Quincy House, which I describe below. Creating a cutting-edge learning space in Old Quincy is a key part of this effort and will be one of the highlights of this flagship project. Lessons learned from this process will shape a larger conversation about the future of classroom spaces across the Faculty of Arts and Sciences.

The last year has been an important one for advancing our plans to renew the undergraduate <u>House system</u>. The residential House system is a cornerstone of the undergraduate experience at Harvard, and renewal offers a unique opportunity to reimagine this revered institution for the 21st century. The architectural firm <u>KieranTimberlake</u> is leading the design of a test project in Old Quincy House to enable us to implement key design concepts for renewal across the Houses. Schematic designs were finalized in the spring of 2011 with input from a feedback group consisting of students, faculty, and House staff drawn from across Harvard's Houses and freshman dorms.

Quincy House consists of two buildings, Old and New Quincy. Old Quincy, about half the size of most of Harvard's neo-Georgian Houses and without its own dining hall or master's residence, provides a valuable opportunity to test design concepts, while limiting disruption of the House community. The plan assumes that Old Quincy House will close for 15 months—or one academic year plus the summers

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before and after—beginning in June 2012. Affected students will reside in nearby "swing" space, made up of properties owned by Harvard University Housing. The approximately 180 students will remain part of the Quincy House community throughout the project, and will continue eating in the dining hall in New Quincy.

Once completed, the Old Quincy Test Project will provide a glimpse of the future of Harvard's House system, offering a locus for the greater Harvard community's conversation about the place of the House system in the 21st century liberal arts education.

Last year we also took additional steps to broaden access to a Harvard education. We reviewed our undergraduate financial aid program and instituted moderate changes to the program's guidelines, rebalancing aspects of it to enhance support for the neediest group of students. We will expand eligibility for the High Financial Aid Initiative inaugurated in 2004, raising the ceiling on family income from \$60,000 to \$65,000. Concurrently we will ask families with incomes between \$150,000 and \$180,000 and typical assets to pay slightly more than the 10 percent of income now charged. Our hope is that with these modest changes we will ensure that Harvard will be able, over time, to best use our resources to address increases in the demand for aid across the income spectrum due to ongoing challenges in the U.S. and global economies. This change continues our industry-leading commitment to financial aid, with spending on the program anticipated to grow from \$154 million in FY2011 to \$166 million in FY2012.

These advancements were made possible through the hard work of many, and there are a number of individuals whose service deserves special recognition. I am deeply grateful to William Fitzsimmons, dean of admissions, and Sally Donahue, director of financial aid, for their commitment to the ideals of our programs as well as for their practical approach to ensuring our programs' long-term sustainability. I would also like to acknowledge Lee and Deborah Gehrke, masters of Quincy House, for their continued counsel as we advance our plans for House Renewal, and to Howard Georgi, master of Leverett House, for his role as chair of the swing space feedback group. Terry Aladjem and his team at the Bok Center have continued to be tremendous partners in supporting the continued dialogue on teaching and learning on campus, and we as a faculty are enormously fortunate to have them as a resource. The members of the Dean's Faculty Resources Committee have provided invaluable feedback on our financial strategy that has made us stronger. The members of the Faculty Council have continued to carry out their governance role with true thoughtfulness and a profound commitment to the well-being of the institution. I am particularly indebted to the Academic Planning Group for their candor and collegiality and for the leadership they have shown in their schools, divisions, and units. Together they have all contributed to our ability to maintain the unequaled excellence of our programs even as we continue to address our financial challenges.

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I would also like to acknowledge the service and leadership of Ingrid Monson, Quincy Jones Professor of African American Music, who generously served as dean of the Division of Arts and Humanities during Dean Diana Sorensen's well-earned year of sabbatical. Ingrid served the division with distinction, and I enjoyed working with her over the past year.

The recipients of the second annual <u>Dean's Distinction</u>, celebrated this past March, provided inspiring examples of the innovative ideas and the collaborative spirit of our dedicated staff, which, while always valuable, were especially important in making the changes this year required.

As always, we are enduringly grateful for the support of our loyal alumni and friends for our research and teaching mission in all its variety. In particular, I would like to thank the Dean's Campaign Planning Committee for their guidance as we think about the future, and the Harvard College Fund Executive Committee for their work in making our FY2011 fundraising results so strong.

And, of course, we are grateful for the seemingly limitless energy and ideas of our extraordinary students.

Through the efforts of many, we have begun to turn the page from a difficult chapter in the history of the Faculty of Arts and Sciences. I am proud of what we have been able to accomplish and look forward to all the advances sure to come in the new academic year.

Sincerely yours, Michael D. Smith Dean of the Faculty of Arts and Sciences

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Harvard College

Dean Evelynn Hammonds

Academic Year 2010–2011

Admissions and Financial Aid

Nearly 35,000 students applied to Harvard College this year for admission to the Class of 2015. Letters of admission were sent to 2,176 students, 6.2 percent of the record pool of 34,950.

More than 60 percent of the admitted students received need-based scholarships averaging more than \$40,000, benefitting from a record \$160 million in financial aid. Families with students receiving a scholarship contribute an average of \$11,500 annually toward the cost of a Harvard education.

Applications to Harvard have doubled since 1994. About half of this increase has occurred over the last six years as the University implemented a series of financial aid initiatives to ensure that a Harvard education remains accessible and affordable to the most talented students regardless of economic background.

Not only did more students apply to Harvard this year, but the academic strength and diversity of the pool increased as well. By standard measures of academic talent, including test scores and academic performance, this year's applicant pool presented an unprecedented level of excellence. More than 14,000 scored 700 or above on the SAT critical reading test; 17,000 scored 700 or above on the SAT math test; 15,000 scored 700 or above on the SAT writing test; and 3,800 were ranked first in their high school classes.

Minority representation remained strong. The class is 19 percent Asian American, 10 percent African American, 10.2 percent Latino, 1.5 percent Native American, and 0.2 percent Native Hawaiian. Although it is difficult to make precise comparisons to previous years because of changes in federal reporting requirements concerning the collection and reporting of race and ethnicity information, it is likely that the percentages of African American and Latino students are records.

Foreign citizens make up 12 percent of the class, and a significant number of other entering students will bring an international perspective, including 109 U.S. dual citizens, 51 U.S. permanent residents, and many Americans who have lived abroad. Together, foreign citizens, U.S. duals, and U.S. permanent residents constitute nearly 22 percent of the class, representing 85 countries.

Recruitment is the foundation on which Harvard's excellence rests. Nearly 70 percent of all admitted students and 87 percent of admitted minority students

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appeared on the original College Board Search List that helped launch Harvard's outreach program for the Class of 2015. Joint outreach events with Princeton University and the University of Virginia (UVA) met with an overwhelming reception in October and November of 2010. Though Harvard will restore early admission starting in academic year 2011–2012 (as will have Princeton and UVA), all three institutions will continue this travel to reach out to students from modest economic backgrounds.

As Harvard becomes increasingly diverse and international each year, it is worth pausing to celebrate the graduation of Tiffany Smalley of the Class of 2011. A member of the Wampanoag Tribe of Gay Head (Aquinnah), Martha's Vineyard, in Massachusetts, Ms. Smalley joins fellow Wampanoag Harvard graduates Caleb Cheeshahteaumuck (1665) and Joel Iacoomes, the latter receiving his degree posthumously this May, nearly three and a half centuries after perishing in a shipwreck just before the 1665 graduation. Harvard's 1650 charter cited its original role in the education of "English and Indian youth." The University's local roots were never more appropriately honored than by welcoming Mr. Iacoomes and Ms. Smalley to the Harvard Alumni Association.

Summer Research Programs

Harvard College continues its commitment to robust summer research programs by expanding upon its offerings. Currently in its sixth year, the Program for Research in Science and Engineering (PRISE) is a 10-week summer residential program for Harvard undergraduates participating in research projects affiliated with Harvard faculty in the life, physical, engineering, and applied sciences.

Following the same programmatic model, the Harvard College Behavioral Laboratory in the Social Sciences (BLISS) has been created at the recommendation of the dean of social science in the Faculty of Arts and Sciences (FAS) and the dean of Harvard College in order to establish a stimulating, collegial, and diverse residential community for Harvard undergraduates engaged in substantive summer research in social science disciplines. BLISS is a 10-week program for students working with Harvard faculty on designated research projects in relevant academic departments and research centers in the FAS, as well as program directors and principal investigators at Harvard Medical School and the Harvard School of Public Health.

Also launched in the summer of 2011, the Program for Research in Markets and Organizations is a new 10-week summer research experience program sponsored by Harvard Business School, in collaboration with Harvard College, for undergraduates interested in business research.

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Return of ROTC

With the <u>announcement</u> in March welcoming back the Naval Reserve Officers Training Corps (ROTC) program to campus following the repeal of "Don't Ask, Don't Tell" by Congress, the College has been preparing during the summer of 2011 for the arrival of Naval ROTC in the fall semester. This change will mark the first time the Navy has been permitted a formal ROTC presence on campus in nearly 40 years. The Naval ROTC offices will be located in the Student Organization Center at Hilles

A director of Naval ROTC at Harvard will be appointed to provide direct financial oversight for the costs of its students' participation in the program. In addition to the offices in Hilles, Naval ROTC will have access to classrooms and athletic fields for participating students. Harvard Navy and Marine Corps-option midshipmen will continue to participate in Naval ROTC through the highly regarded consortium unit hosted nearby at the Massachusetts Institute of Technology (MIT), consistent with the Department of the Navy's determination that maintaining the consortium is best for the efficiency and effectiveness of the Old Ironsides Battalion.

Addressing Dangerous Drinking on Campus

A continued priority for the College was focusing on our students' health and safety. Along with several of our peer institutions, the College has redoubled its efforts in recent years to curb dangerous drinking on campus. The College has built an extensive network of resources—including the Office of Alcohol and Other Drug Services, AlcoholEdu, a Drug and Alcohol Peer Advisers Program, and Alcohol Communication and Education Skills training—to address the problem of binge drinking and to educate students about the risks of drug and alcohol use. The College has also implemented a clear, consistently enforced policy and regularly provides alternatives to alcohol-themed parties and events. The College is proud to report that this combination of education, enforcement, and options has dramatically reduced dangerous drinking at signature events such as the Harvard-Yale game.

A <u>letter</u> from Dean Hammonds was published in the Harvard *Crimson* last year, urging students to utilize the College resources available to them. In addition, Dean Hammonds worked closely with the House masters to ensure that consistent policies and enforcement are in place across the House system for events where alcohol is served.

Winter Break

The College successfully launched the first Optional Winter Activities Week this past January. More than 100 discrete programs, noncredit courses, and seminars were offered during this eight-day period. In addition, the Harvard Alumni Association (HAA) developed more than 150 January Experiences during Winter

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Break to provide students with invaluable internship opportunities hosted by alumni around the country. Regardless of the activities students chose to pursue, survey results indicated that more than 80 percent of students were overwhelmingly satisfied with their 2010 Winter Break plans.

The programming available during Winter Break 2012 will continue to be student-initiated, and the College will once again offer arts initiatives, career-related workshops, noncredit courses, and other seminar-style programming. The College will continue working with the HAA to develop new internships and job-shadowing January Experiences with alumni around the United States and the world and to bring alumni to campus for Optional Winter Activities Week.

Transfer Students

In January 2010, <u>Dean Hammonds announced</u> that Harvard College would begin admitting intercollegiate transfer students for the fall 2010 term. These students entered Harvard after a two and a half year hiatus of the transfer admission program.

In the spring of 2010, the Office of Admissions received over 600 intercollegiate transfer applications for the fall 2010 term. The College extended admission to 13 students, and 12 decided to enroll for the fall 2010 term. The four men and eight women enrolled were selected from research universities, liberal arts colleges, and a two-year single-sex institution. Three students entered as first-semester sophomores, two with second-semester sophomore standing, and the remaining seven with first-semester junior standing. The 2010 fall term transfers had a positive overall experience at Harvard and are eager to support the next class of entering intercollegiate transfers.

Administration and Finance

As a result of careful fiscal management, the College's administration and finance team successfully reached a \$1 million "stretch" goal set for the College by the FAS. This was accomplished by carefully monitoring units on a quarterly basis, advising them on sound fiscal management practices, and ensuring appropriate spending habits.

Advising Programs Office

The Advising Programs Office (APO) continued the professional development of the Board of Freshman Advisers (BFA), providing a series of nine optional lunch workshops on the following topics: advising freshmen with unsatisfactory midterm grades; advising freshmen on study abroad in the liberal arts tradition; practicing "present listening skills" for advisers; advising freshmen interested in the sciences and engineering; advising freshmen interested in the arts and humanities; advising freshmen interested in the social sciences; depression, anxiety, and eating disorders

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in the freshman year; culturally sensitive advising; and advising international students. For proctors, who have additional residential advising responsibilities, the APO collaborated with the Freshman Dean's Office (FDO) to offer additional workshops on supporting lesbian, gay, bisexual, transgender, and questioning students; developmental and transitional issues in the freshman year; and student participation in fraternities and sororities.

In order to provide additional opportunities for freshmen to interact with faculty outside the classroom to receive guidance and form connections, the APO collaborated with the FDO to institute an eight-session discussion series entitled "Professors and Pastries," each of which brought together three faculty members and between 40 and 50 freshmen. At each event, faculty members discussed how they became interested in their field and what currently intrigues them in the work that they do. The audience then had a chance to ask questions before the group dispersed into small, informal conversational groups. Continued demand for these events throughout the year suggests that students found them valuable.

At this year's Advising Fortnight, there were over 55 concentration-sponsored events, along with two APO-sponsored panels and the kickoff event.

The well-organized monthly Sophomore Advising Coordinator meetings allowed for professional development and exchange of best practices between the Houses. The House Life Survey results indicate that the quality of the sophomore advising program in the Houses is strong, with roughly a 90 percent satisfaction rate. Moving forward the APO will continue to work closely with the coordinators to provide them with the necessary tools to support House tutors in advising throughout the sophomore year.

Office for the Arts

This year, the Office for the Arts (OFA) appointed three new leaders with the goal of setting a new standard for artistic excellence and innovation at Harvard. Their appointments, after a combined total of 88 years of leadership by their predecessors, mark an exciting new beginning for music and dance at the University.

Dance

The OFA completed the last of three critical arts appointments in 2011 with the hiring of Jill Johnson as the new director of the OFA Dance Program. Ms. Johnson is a dancer and choreographer with an international reputation. She regularly sets works on major companies around the globe, including Boston Ballet and the Paris Opera during the past year. She is presently setting a piece on Mikhail Baryshnikov. She has taught extensively at Juilliard, Barnard, New York University, and Princeton. Her appointment brings to Harvard a standard of artistry and ambition that will draw national attention to the University's dance program.

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Choral

Andrew Clark, senior lecturer and director of the Holden Choirs, completed his first year as Jim Marvin's successor. While the choruses will continue to perform a mixed repertoire drawn from centuries of choral literature, Mr. Clark has placed an emphasis on contemporary music (e.g., his programming of John Adams' *On the Transmigration of Souls* in collaboration with the Harvard-Radcliffe Orchestra). In all, the choirs performed dozens of concerts at Harvard, as well as at the Kennedy Center, the JFK Library, and on tours to Austria and Germany. In 2010–2011, the Holden Choirs will start up a new recording label.

Orchestral

Federico Cortese, the successor to Jimmy Yannatos, who led the Harvard-Radcliffe Orchestra for 45 years, has the HRO playing at an extraordinarily high level for a liberal arts ensemble. Mr. Cortese has an international reputation, and for many years has led the summer conducting institute at Tanglewood. The orchestra programmed an ambitious season of concerts during the past year, and it is playing with the vitality and precision of a fine conservatory orchestra. Mr. Cortese also led the HRO on a one-week concert tour of Cuba at the end of the academic year.

Office of Career Services

New this year was a robust set of Winter Break programming, including six January programs that attracted 363 students, as well as Career Treks in New York, Washington, D.C., and Boston. More than 150 students participated in a Winter Break Trek. Sites included IDEO, Mintz Levin, Lincoln Center, the Central Intelligence Agency, the World Bank, the Red Cross, and the U.S. Department of Education. The treks to New York and Washington, D.C., were planned to coincide with the Harvard Alumni Affairs Global Networking Night to maximize the opportunity for students to develop important alumni contacts. Also expanded this year was the development of diverse career fairs. Examples include the Humanitarian Activities Fair; the Advertising, Marketing, and Public Relations Expo; the Global Public Health Fair; the Start-Up Fair; the Law Opportunities Fair; and the Environmental and Energy Expo.

The 2010–2011 academic year brought tremendous growth in the resources available to undergraduates to pursue research. A <u>new website</u> devoted to undergraduate research was launched, which includes information on types of research experiences available to undergraduates; research policy information (such as research integrity training); links to research enterprises at Harvard and other academic institutions, federal government programs, and opportunities abroad; and research initiative information for programs administered directly by Harvard College.

The Office of Career Services (OCS) has successfully provided career counseling and programming, job listings and resources, and employer connections to

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undergraduates and graduate students in the School of Engineering and Applied Sciences (SEAS) for many years. With the creation of a new half-time director of career services dedicated to SEAS (one of the six Harvard College advisers), these resources and services were enhanced during the 2010–2011 academic year. The availability of career counseling at SEAS increased (24 on-site drop-in sessions last year), as did an overall focus on SEAS counseling appointments at OCS (61 of the new director's 226 appointments and 164 of his 287 email appointments were with SEAS students; this is in addition to the SEAS students seen by other Harvard College advisers).

Additional highlights include a branded series of 16 career education programs for engineering, science, and research, attracting a total of 403 students; three "treks" in January totaling 69 students; new Senior Check-Out meetings and the SEAS senior survey; a new tagging system within Crimson Careers for engineering and computer science positions, with 356 internships and 1,641 jobs targeted to SEAS students; expanded partnership with MIT to widen SEAS students' access to employer resources; membership/participation in the Engineering Recruiting Consortium Interview Day; participation in the Ivy Plus CS & Engineering Job Fair and the Harvard + MIT Virtual Grad School Fair; stronger ties with diverse employers, including high-profile and in-demand employers; 28 employer/grad school information sessions targeted to SEAS, beyond On-Campus Interview Program (OCI) employer sessions; and benchmarking review to determine internship practices among peers.

In 2010–2011, the OCI scheduled and organized 160 employers interviewing for 238 full-time positions and 80 employers interviewing for 135 summer positions. Combined, 166 unique employers and organizations received 24,306 applications, resulting in 6,167 interviews for 1,181 students. To prepare students for interviews, the OCI Office scheduled 96 employer networking and information sessions, 34 employer education workshops, and 405 mock interviews.

The Freshman Dean's Office

The Freshman Dean's Office (FDO) developed programming this year to attend to the holistic development of first-year students. The FDO invited faculty guests to small luncheons in the dean's residence to discuss an ethical topic (e.g., Professor Howard Gardner asked the students: "Should we study intelligence by group [i.e., gender, race, ethnicity]? And, if so, what should we do with the findings?"). The FDO also established a committee to develop additional programming in support of this initiative, which resulted in a new emphasis on the proctor-led exercises at the start of the year regarding community living scenarios. The FDO supported the Leadership Working Group in offering the first-ever First-Year Leadership Initiative during the inaugural Optional Winter Activities Week in January and again extended invitations to the class to participate in the "Reflecting on Your Life" series.

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A survey of the Class of 2012 suggested that making friends and finding a community cause feelings of both excitement and nervousness as students prepare to come to college. Knowing that this is a critical aspect of the students' College experience, the FDO encouraged the Class of 2014 to relax and have fun at First-Year Social Committee events, through FDO-sponsored special events, and through Student-Initiated Programs.

The Program in General Education

Launched in September 2009, the <u>Program in General Education</u> established a shared undergraduate curriculum that seeks to connect in an explicit way what students learn in Harvard classrooms to the world beyond them. In academic year 2010–2011, Gen Ed established itself as a hotbed of pedagogical innovation, presenting a number of new courses that garnered large student enrollments and, in some cases, significant media attention. Examples include "<u>Science and Cooking: From Haute Cuisine to the Science of Soft Matter</u>" and "<u>Tangible Things: Harvard Collections in World History.</u>"

The Standing Committee on General Education developed possible questions about Gen Ed for inclusion as part of the existing Q course evaluation process. In the fall, Gen Ed piloted several versions of a question on the Q evaluations. After analyzing the results of the different pilot questions, the program identified a single question for all courses that receive Gen Ed credit (whether they are offered through Gen Ed or a department), which was asked on the spring term Q evaluations. The question lays out the broad curricular goals of the program and then asks students to indicate the extent to which the course in question met at least one of these goals. It also asks students to give concrete examples of how they felt the course met the program goals. While this question is an "indirect" measure of what students are getting out of the new curriculum, we hope that it will provide a meaningful starting point for discussion about how courses are meeting their goals and how students are responding to them.

Staff in the Office of Undergraduate Education (OUE) initiated discussions with faculty on curricular planning, in particular reviewing teaching plans in order to find strategies to balance course offerings across terms, categories, and topical areas. Though some faculty members have already made suggested adjustments, the program continues to develop processes that will reduce the duplication of effort in some areas and gaps in others.

The program held one co-curricular faculty panel discussion on baseball that took place in early October. This popular event will be repeated in the fall, and preliminary ideas have been suggested for student events for Optional Winter Activities Week. The program intends to re-establish student planning groups to help identify events and activities that students may want to participate in. Gen Ed also

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plans to host a number of faculty-oriented events, focused on creating and evaluating creative and/or group projects.

The Harvard Foundation

The 2011 spring semester was replete with student-initiated intercultural and intracultural projects supported by the Harvard Foundation. This year's Artist of the Year Award went to the Colombian-born singer, songwriter, and philanthropist Shakira. The Grammy Award—winning musician was awarded the foundation's most prestigious medal, which bears the signature of Harvard President Drew Faust, at the annual Cultural Rhythms award ceremony on February 26, 2011. In addition to being an international superstar, Shakira is widely respected for her humanitarian work through the Barefoot Foundation, which aims to promote a better quality of life for children in impoverished areas by providing them with education and nutrition. Shakira's commitment to education and to the needs of underprivileged children has also been advanced through her humanitarian work as a UNICEF Goodwill Ambassador. The Harvard Foundation, Harvard's center for intercultural arts and sciences initiatives, honors the world's most acclaimed artists, scientists, and leaders each year. Previous Harvard Foundation awards have been presented to distinguished artists including Sharon Stone, Andy Garcia, Will Smith, Matt Damon, Halle Berry, Jackie Chan, Dan Aykroyd, Denzel Washington, Salma Hayek, Wyclef Jean, and Herbie Hancock.

The Harvard Foundation has several flagship annual events, many of which have become an established part of the Harvard multicultural community. Some of its largest and most visible programs, such as Cultural Rhythms, involve thousands of students and dozens of student groups, and have become celebrated traditions on campus; others, including the writer and film series, showcase diverse talent and meaningful discussion in student spaces such as Houses and dorms. In addition to these annual events, the foundation hosts, collaborates with, and supports over 170 student events per year, many through our Student Advisory Committee grants.

The Office of the Registrar

In January 2011, <u>Michael Burke</u> was appointed the new registrar for the FAS. Before joining the FAS, Burke was the director of admissions and registrar at the Harvard Kennedy School.

Over the spring semester, the FAS Registrar's Office (RO) launched a major reorganization of its departments. As part of this effort, the Information Technology group was integrated into Harvard University Information Technology, and the Research & Analysis group became Harvard College Institutional Research. The departure of these groups from the FAS RO required other organizational changes that are still in progress. The reorganized FAS RO will

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focus on its core mission of academic planning (publishing the course catalog, scheduling classrooms, and managing final examinations) and enrollment services (tracking student progress, billing, course enrollment, transcripts, and Commencement) with a renewed focus on providing outstanding service to its constituents.

The Office of Student Life

The Office of Student Life (OSL) integrates the academic, residential, and cocurricular spheres of students' lives, linking the out-of-class experience to the academic mission of the College and incorporating students' intellectual, public service, and leadership interests with their future aspirations.

House life is essential, not ancillary, to a Harvard undergraduate education. The OSL has advanced the programmatic and infrastructural recommendations of the *2009 House Renewal Report* by furthering the educational role of House tutors, exploring late-night eating options in the Houses, implementing a system for managing housing data, and planning for the Old Quincy Test Project.

In strengthening the role of House tutors, the OSL developed policies and tools for addressing high-risk drinking and carried out a review of the pre-law advising process. The OSL has partnered with the Office of Alcohol and Other Drug Services to review the campus alcohol policy (a faculty, student, staff committee led by Cabot House Master Rakesh Khurana), to draft *Guidelines for Tutors for Addressing High-Risk Drinking*, and to improve referrals to counseling intervention for students who have been involved with a critical incident with alcohol. The review of these draft guidelines is under way and will conclude in the fall of 2011. The *Guidelines* have been incorporated into tutor orientation for the fall 2011 semester. Finally, resident deans have made considerable improvements in following up on referring to counseling help those students who have been involved in a critical incident with alcohol. For example, the referral rate for BASICS/counseling intervention has improved considerably from 22 percent three years ago to 70 percent in 2010–2011.

In the spring of 2011, a committee of tutors, staff, and faculty masters, led by Winthrop House Master Ron Sullivan, reviewed the pre-law advising process in the Houses and made a number of concrete recommendations. These included changes to the House pre-law letter, strategies for incentivizing the advising process, ways to advise students in asking faculty for a strong letter of recommendation, and suggested educational programming that could be more widely offered in the Houses.

The OSL and the Houses have partnered with <u>Harvard University Hospitality & Dining Services</u>(HUHDS) to offer grilles in <u>Quincy</u> and Pforzheimer and a café in Cabot to provide eateries that are easily accessible. The HUHDS partnership has

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ensured that these operations are well run, with staff and students partnering in leadership and management roles. Coupled with these new spaces has been a concerted effort to develop safe social events and reduce harm due to unsafe drinking practices. OSL has created Student Event Services teams of graduate students who are trained to serve alcohol safely and monitor events. In the upcoming year, the OSL will examine additional strategies for working with off-campus groups and promote more late-night on-campus programming that is alcohol free.

Housing data will now be managed in the <u>StarRez system</u>, which went live on November 29, 2010, allowing for streamlined billing, easier identification of where students and residential staff live, simplified communication with students, secure data sharing, and improved reporting capabilities. In the future, the freshman housing lottery, the sophomore housing questionnaire, the BFA questionnaire, and housing webforms (including inter-House transfer applications and housing application/cancellation forms) will be completed through the StarRez system.

Planning for the <u>Old Quincy Test Project</u> has been ongoing with Lee Gehrke, master of Quincy House, and Senan Ebrahim, president of the Undergraduate Council, as the co-chairs of the Old Quincy Feedback Group. The group discussed design elements, furniture selection, and swing space programming. In the fall of 2011, the group will reconvene under the leadership of master Howard Georgi and will consider summer storage options in a renewed House system.

Beyond House life, a main focus of the OSL has been to create a more inclusive and welcoming campus environment for all students. A review of campus climate, satisfaction, and engagement related to bisexual, gay, lesbian, transgender, and questioning (BGLTQ) students revealed that resources, while significant, are widely scattered, and that there is a perception among some that finding them and availing oneself of assistance is neither easy nor straightforward. In order to address these issues, OSL is appointing a director for BGLTQ student life, implementing a College-wide BGLTQ advisory committee, reviewing the ways that BGLTQ life is (or is not) integrated into the curriculum in Studies of Women, Gender, and Sexuality and beyond, considering how to coordinate physical and mental health resources for BGLTQ students, and exploring how to create a centralized website to allow all members of the community access to consolidated, comprehensive information.

Another important effort has been initiating a student-led <u>Sustained</u> <u>Dialogue</u> program that aims to address divisions in the campus community related to race, gender, sexual orientation, class, and religion. Since the program was rolled out in August 2010, a total of 60 students have participated in the weekly dialogue sessions facilitated by trained student moderators. These sessions yielded student insights that the OSL plans to integrate into other student programming. The OSL will integrate year-end evaluation into training and programming plans for fall 2011,

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increase participant/moderator retention, increase participant investment/commitment, and work to build a Sustained Dialogue community and presence on campus.

The Office of Undergraduate Education

The central office of the Office of Undergraduate Education (OUE) oversees and, in specific cases, interprets much of the academic policy for the College and the FAS. This work is done in several key areas: the allocation of the instructional support budget; the allocation of funds that support course development or course enhancement (outside of the Program in General Education); the support of the Educational Policy Committee; and various other specific areas. The central OUE also interacts with and, to greater and lesser extents, provides administrative support to the other offices that are covered by the large OUE umbrella.

Academic Integrity

This year, Dean of Undergraduate Education Jay Harris initiated a study of academic integrity in the College. The OUE has been guided in this effort by the Center for Academic Integrity, a national organization that helps institutions of higher learning study their own campus cultures in the area of academic integrity. The goal of this planned two-year study is to encourage conversation about academic integrity in the College, and ultimately look at the policies in this area.

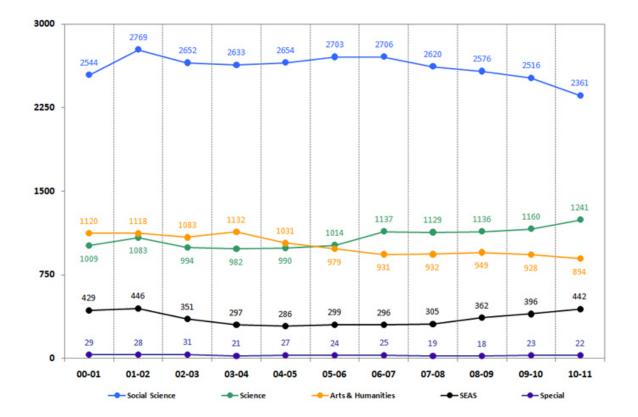
Pre-Term Planning

Pre-Term Planning (PTP) launched in the fall of 2010 for all undergraduates and first- and second-year graduate students. This experiment in course planning provided preliminary, nonbinding information about students' course choices for the spring term. The OUE informed faculty and students that the information would be collected for planning purposes only, that the students' experience of the course selection period in the opening days of the term would not be affected, and that students would be free to designate different courses when submitting a Study Card. The OUE also explained that the utility of the process would be in the aggregate numbers that we hoped the process would generate; we were not interested in what any one student might wish to take, but focused on the trends that might emerge from the numbers. The goal is for PTP to be a better predictor than historical enrollment data alone, so that administrators and instructors can plan more effectively for the allocation of sections, the appointment of teaching fellows, the assignment of classrooms, and the ordering of class materials, all with the hope of minimizing disruptions to classes at the start of term.

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Concentrations and Secondary Fields: Figure 1 tracks the numbers of undergraduate concentrators by division over the past ten years, with numbers captured in February of each year. Numbers for academic year 2010-2011 confirm the trends seen in recent years; while the division with the greatest number of concentrations remains social sciences, the numbers there are decreasing somewhat, while we see an increase in the sciences. Arts and humanities numbers have remained fairly steady for the past five years with a small dip this past year, while the number of students in concentrations in the engineering areas, though still small, is growing. Not shown in Figure 1, but of note nonetheless, is the number of students choosing to pursue secondary fields. Since the introduction of secondary fields five years ago the number of students pursuing this option has risen to just under 43 percent of the graduating class. In 2010, 606 seniors graduated with a secondary field; in 2011, 673 seniors pursued this option.

The Harvard College Women's Center

2010–2011 was an exciting transitional year for the Harvard College Women's Center (HCWC). The office celebrated its five-year anniversary and said goodbye to founding director Susan Marine, who has accepted an assistant professor position at Merrimack College. Gina Helfrich, assistant director, has recently been promoted as the new director. In 2010–2011, the HCWC held over 45 student-driven events,

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allocated nearly \$12,000 in grants to student groups, hosted approximately 400 student group meetings, and supported more than 200 mentoring pairs between its two mentor programs.

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Graduate School of Arts and Sciences (GSAS)

Dean Allan M. Brandt

Academic Year 2010-2011

Major Achievements

Harvard Tops National Research Council Rankings

Harvard University's doctoral programs received exceptionally strong evaluations in the National Research Council's long-awaited <u>assessment of research doctoral programs</u>, released on September 28, 2010.

The <u>National Research Council (NRC) report</u>, containing both a rating and a ranking of 4,838 programs in 62 fields at 212 institutions, shows that in the dominant, core disciplines that are crucial to the overall strength of any institution of higher learning, our PhD programs are remarkably strong, vibrant, and successful.

Especially impressive is the breadth of excellence that the NRC has found at Harvard. Ninety percent of GSAS programs are in the highest tier of the NRC rankings, which are based on quantitative measures and faculty assessment. More than half of GSAS programs are the very highest ranked in the country.

The NRC report is the result of a complex and serious process that engaged faculty in the work of assessing their own strengths and ambitions, as well as evaluating peer programs. But like all rankings of higher education programs, it has limitations in methodology and in the currency of its data. Rather than focusing exclusively on the numbered rankings, GSAS expanded the context in which these results were received, so that the NRC report stood as a reminder of the importance of graduate education in the United States and in the larger global society.

A Record Year for Admissions

The Graduate School's admissions efforts in 2010–2011 were characterized by thoughtful collaboration with departments and strong results. GSAS received nearly 12,000 applications—a record high. Offers of admission were made to roughly 9 percent of that pool, 1,188 applicants, as compared with 1,127 in the previous year. In total, the entering class for 2011–2012 is made up of 637 PhD candidates and 82 AM candidates.

The GSAS is especially pleased to report that the PhD programs in East Asian Languages and Civilizations, Inner Asian and Altaic Studies, Music, South Asian Studies, Anthropology, Architecture, and Organizational Behavior enjoyed yields of 100 percent. Other examples of high-yielding programs: Organismic and Evolutionary Biology (90 percent), Psychology (82 percent), History of American Civilization (80 percent), and Government (79 percent).

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In the social sciences and humanities, overall yields were above 70 percent. In the natural sciences, the GSAS continues to yield above 60 percent.

Beyond the numbers, the accomplishments of GSAS incoming students are remarkable. Many have already logged significant academic achievements, including major publications and real-world experience, making their admissions files look in many cases like the dossiers of newly appointed assistant professors.

Significant Progress Toward Recruiting a Diverse Student Population
Over the last decade, despite ongoing efforts, the number of underrepresented
American minorities seeking the PhD at Harvard has remained at just below 5
percent. This year, GSAS took several steps to begin to more aggressively address
this issue, starting with the appointment of an assistant dean for diversity and
minority affairs, Dr. Sheila Thomas.

With this new appointment, GSAS worked proactively with key departments to raise their awareness of strategies to identify and recruit talented minorities, as well as to help them rethink approaches in which qualified candidates might be overlooked.

During the 2011–2012 admission cycle, Dean Brandt asked committees in the departments to select and discuss the best minority candidates in their applicant pool. This proved to be a useful exercise for identifying critical aspects of the admissions process that bear especially on the applications of candidates from less well-known institutions.

These interventions had a dramatic impact. In the 2011–2012 admissions cycle, GSAS admitted the largest number of minority students in recent memory. Second, and more important, it successfully recruited the largest number of minority students in the history of GSAS: 48 students, nearly 70 percent of those admitted, chose to matriculate (compared with 29 students, or less than 50 percent of those admitted, last year) thanks in great part to diligent work by our faculty to build relationships with admitted students. Nearly 6.5 percent of the incoming 2011–2012 class will be from underrepresented minority groups.

Three New Secondary Fields Enhance Interdisciplinary Opportunities

A central issue for enhancing the experience of students involves developing appropriate interdisciplinary opportunities that expand the curricular boundaries of our departments and programs. One strategy for achieving this has been the development of secondary fields for graduate study. This year the Graduate Policy Committee approved three new secondary fields, all committed to particular interdisciplinary areas of inquiry: Science, Technology, and Society; Critical Media Practice; and Computational Science and Engineering.

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PhD students may now enroll in a secondary field in 14 areas of study at GSAS. These secondary fields—which typically consist of a set of four or five graduate courses in a discipline, interdisciplinary area, or intellectually coherent subfield—are of great interest to the increasing number of students who want to broaden the scholarly or professional reach of their degree work. Each of the newly approved fields also has the potential to expand significantly the kind of analytic skills that will strengthen field-based research.

Seizing the Opportunities Presented by January@GSAS

The adoption of a University calendar is yielding important opportunities for student engagement and professional development at GSAS. Taking advantage of the fact that GSAS students typically stay close to Cambridge and Longwood for most of winter break, the Graduate School continued to define and expand the January experience it has offered to students for two years—a series of intellectual, recreational, and skill-building opportunities known as January@GSAS.

GSAS and affiliated units—ranging broadly across Harvard's resource centers and including the School of Engineering and Applied Sciences, the Graduate Student Council, the Office of Career Services, and the Harvard College Library—presented approximately 75 programs or events. According to a student survey conducted by the Registrar's Office, the most popular offerings were career programs (for instance, a program on creating a professional identity online); a course on science writing; library workshops on critical research tools; and recreational offerings at Dudley House, notably a student-led tour of the Art of the Americas Wing at the Museum of Fine Arts, Boston, and the annual Dudley ski trip.

For the second year, the Graduate Student Council sponsored and, in some cases, funded mini-courses taught by graduate students for a nonexpert audience of their GSAS peers. These courses—on subjects ranging from mathematical games to Russian culture to the psychology of happiness—were more popular among students and better planned and executed than those offered last year. This evolution of programming is welcome, and the GSAS will continue these courses in 2011–2012.

Recognizing the Central Role of Dudley House

The Graduate School celebrates an important milestone in 2011: the 20th anniversary of Dudley House as the graduate student center. GSAS began the celebration by hosting a very successful reunion of former Dudley Fellows, coinciding with our annual Alumni Weekend (April 1–2, 2011). This event drew GSAS alumni from around the country, as well as current GSAS students who served as fellows earlier in their programs.

The commemoration will continue this fall, with targeted events at Dudley House all term and a campus celebration scheduled for October 27. That day will feature an open house and entertainment in the Dudley courtyard, as well as a gala dinner in the

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Dudley dining hall for University officials and GSAS alumni who were key to the establishment of Dudley House as a central point of connection for graduate students at Harvard.

When Dudley was dedicated as the graduate student center in 1991, the idea of building a graduate community was still considered experimental. Harvard recognized in those early days the importance of mitigating the isolating nature of the graduate experience and fostering social and intellectual interaction among students across disciplines. The experiment has been a grand success and a model for Harvard's peers.

Ongoing Initiatives to Enhance Graduate Education

A Commitment to Preparing Our International Teaching Fellows

GSAS helped support the launch of an innovative and well-received training course for international teaching fellows created by the Derek Bok Center for Teaching and Learning. The course, called "Classroom Communication Skills for International TFs," is a student-centered, highly interactive course designed to help international graduate students develop the oral communication skills needed to be successful in their programs, with a particular emphasis on skills necessary for teaching in the Harvard classroom. The course focuses on improving impromptu speaking skills, delivering short talks, answering questions effectively, and engaging in small talk. It also offers the chance to practice general pedagogical strategies for teaching undergraduates.

With continuing support from GSAS, the Bok Center will offer the course again in 2011–2012, among other offerings for international teaching fellows. GSAS has helped to ensure the resources necessary to expand the capacity of the Bok Center to serve and support this critical population, who—as waiting lists for last year's course showed—are interested in and highly receptive to such intervention.

Best Practices in Mentoring and Advising

Directors of Graduate Studies as Faculty Leaders

Since the start of his deanship, Dean Brandt has made a commitment to ensuring that departments and programs meet best practices in the advising and mentoring of GSAS students. As one means of addressing this goal, he has taken steps to strengthen the community of directors of graduate studies. DGSs now participate in a yearly retreat and meet regularly during the academic year. This group has emerged as a community of faculty leaders who now easily share their own successful practices across departments and divisions, and who discuss the issues—time to degree, progress to degree, funding—that are critical to managing a productive graduate program.

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Benchmarking Student Progress

GSAS has refined its student progress database to include key benchmarks of graduate students' progress, making it easy to identify students who require greater attention. An experiment with student self-evaluations is also being explored as a means to provide additional perspectives on a student's progress and status.

Student-Driven Mentoring Guidelines

Working closely with the Graduate Student Council, GSAS has developed a set of guidelines and best practices for new faculty on mentoring and advising.

Enhancing the Undergraduate Curriculum: Graduate Seminars in General Education The Graduate Seminars in General Education, an initiative announced by Dean Brandt in the spring of 2008, give faculty and graduate students the opportunity to jointly undertake the planning and development of courses for the undergraduate General Education curriculum. They have quickly become institutionalized as a key mechanism for introducing new and innovative courses. Eight new seminars were offered this year, totaling over 30 in three years. More than a third have produced formal proposals or new Gen Ed courses.

In these innovative seminars, students think critically about lectures, assignments, exams, and learning goals. Faculty uniformly describe the seminars as among their best teaching experiences with graduate students.

As a result of this program, the Bok Center developed a grant for a seminar on course development for graduate students. This course received funding from the Teagle Foundation this year and was well received.

Innovative Research Workshops

The GSAS Research Workshops Program encourages scholarly discussion of works-in-progress by supporting weekly gatherings in departments or fields. These workshops, proposed by faculty and students and selected for funding by a GSAS committee, are collegial settings for graduate students learning to conceive, write, and present scholarly arguments. They also offer faculty members an opportunity to share drafts of their scholarly work. Grants of up to \$5,000 per year are available for projects in the humanities and social sciences. The GSAS has supported 226 workshops to date.

Achievements in Alumni Affairs and Development

GSAS continued this year to develop and present a robust set of programs to engage its alumni. A successful alumni reunion for the Department of Economics was held in conjunction with the annual Alumni Day, drawing alums from around the world back to campus in April.

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The Graduate School Alumni Council remains active and engaged, meeting on campus in the fall and spring. The connections between the Graduate School Fund and the council were strengthened over the last year. The Centennial Medals, which the council awards to an elite group of high-achieving GSAS alumni, represent an annual highlight.

GSAS alumni played a significant role in an event offered in April by the Office of Career Services, called "Leveraging Your PhD in the Workplace." An overflow crowd attended this event, designed for students considering a nonacademic career track. Alumni who had made the leap to nonprofit, corporate, governmental, and other nonacademic sectors joined a large panel discussion and shared key lessons and advice

A major aspect of Dean Brandt's work with alumni over the past year centered on the Interface Committee, which he co-chaired with Ashley Leeds AB '80. The committee, a group of distinguished University alums, met three times to discuss the "interface" between the GSAS and the College, with a final report to FAS Dean Smith outlining recommendations for ensuring that undergraduate and graduate students develop effective teaching and learning relationships in sections, as advisers, and in the Houses.

GSAS continues to develop strong relationships with foreign nations and national foundations that will support the graduate work of international students. This year, thanks to the leadership of Vice Provost for International Affairs Jorge Dominguez and GSAS Administrative Dean Margot Gill, GSAS signed three major agreements that will help to bring graduate students to Harvard from abroad (Mexico, China, and Taiwan). These students significantly contribute to the diversity of our community, and a great majority return to their home countries as academic and scholarly leaders

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Division of Arts and Humanities

Dean Ingrid Monson

Academic Year 2010-2011

Dean of Arts and Humanities

In April 2010, Dean Smith announced that Diana Sorensen, James F. Rothenberg Professor of Romance Languages and Literatures and professor of comparative literature, would serve as dean of arts and humanities for another two years, following a year of sabbatical. Ingrid Monson, Quincy Jones Professor of African American Music, agreed to serve as interim dean of the Division of Arts and Humanities for the 2010–2011 academic year and oversaw this year's activities.

New Initiatives

Arts @ 29 Garden

In June 2010, President Drew Faust approved the leasing of space at 29 Garden Street to begin efforts to implement the recommendation of the Report of the Task Force on the Arts that the University develop a "hothouse" or physical space where collaborative projects between students, faculty, and artists could blossom beyond divisional and disciplinary divides. The former site of the Harvard Landscape Institute of the Arnold Arboretum, 29 Garden Street provided a compelling space in which to launch a pilot program of project-based collaborations in conjunction with undergraduate courses and visiting artists. A small steering committee of Associate Provost for Arts and Culture Lori Gross, Interim Dean Ingrid Monson, Director of the Office for the Arts Jack Megan, and Administrative Dean of the Arts and Humanities Division Sara Oseasohn oversaw the hiring of Bess Paupeck as program manager and the crafting of the core mission statement for the program. The mission statement reads:

Harvard's Arts @ 29 Garden is a new space intended to support and enable creativity, collaboration, experimentation, and art-making amongst faculty, students, and visiting artists. Arts @ 29 Garden will influence and be influenced by art-making across the campus and beyond; it will encourage, gather, connect, and provide space for projects and courses involving imagining, innovating, and employing new ideas, forms, and technologies in the arts. Envisioned as both a physical space and a process of collaboration, the program aims to serve as a laboratory for bringing creative ideas in the visual, verbal, and performative arts to fruition through a process of interdisciplinary interaction, discussion, performance, and implementation.

Over its first six months, Arts @ 29 Garden hosted a wide range of curriculum-connected offerings. As part of its "Salon @ 29 Garden" series, students talked with musicians-in-residence Duncan Sheik and Suzanne Vega about their current project,

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a <u>musical theater piece based on the writing of Carson McCullers</u>, and with visiting performance artist <u>Aki Sasamoto</u>, sponsored by Jessica Berson's course Dramatic Arts 162: "Where Dance Meets Performance Art." <u>Mungo Thompson</u>, a contemporary visual artist based in Los Angeles, was the fall 2010 artist in residence, as well as a visiting faculty member in visual and environmental studies, and offered open studio hours for faculty and students. Set designer <u>Derek McLane</u> offered two workshops.

Other fall events included the writing and performance of an original play in Italian (Italian 136) and a holiday *festa* (Italian 96r), which included young Italian students from the neighborhood school of Graham and Parks.

During the spring semester, Arts @ 29 Garden hosted "Poetic Urbanisms," its first formal art exhibit. Funded by a grant from the Harvard University Committee on the Arts, the exhibit is in part the culmination of two years of courses taught by Svetlana Boym, the Curt Hugo Reisinger Professor of Slavic and Comparative Literatures. Her courses explored archaeology as a metaphor for modernity, and students in the courses carried out the creative assignments on display. A second exhibit, "Ruins In Reverse," was presented by Boym and her students in early May, employing the same archaeological approach to the 29 Garden building, particularly its disused, hidden passageways and basements. The exhibition showcased a selection of found objects and artifacts that speak to that history.

Other highlights of the spring semester included a sound installation entitled "Veils and Vesper," by John Luther Adams, the Fromm Foundation Visiting Lecturer on Music, and a kickoff site-specific dance piece for the conference "The Body in History / The Body in Space," which included a performance, reception, and question-and-answer period with the performers.

The January Arts Intensives were envisioned as a small-scale version of other undergraduate research programs, such as PRISE or BLISS, which immerse science and social science undergraduates in the hands-on research activities integral to those disciplines. The intensives provide experiential learning through in-depth participation in art making, as well as the opportunity for collaboration and crossfertilization across various arts disciplines. The January 2011 Arts Intensives included four options: a three-week performance intensive (with tracks in dance and theater, a collaboration between choreographer Liz Lerman and the American Repertory Theater), and three one-week intensives in stand-up comedy, creative writing, and design. There were many collaborative opportunities built into the program planning, which enabled these groups to work together and learn and grow as artists. Sixty-two students participated, experiencing a rigorous daily schedule of intense focus on their given art form—whether dancing eight hours a day, intensively exploring creative writing, or experiencing life as a design student for five days (including late nights spent at Harvard's Graduate School of Design). The

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opportunity for students to devote their time and energy to one specific artistic endeavor proved both fruitful and inspiring. Collaborative experiences across the different intensives were carefully planned as well—mixing dancers and poets, actors and dancers, for example, in an effort to create a unique and collaborative interdisciplinary community. This culminated in a joint event held the last day of intensives week, which allowed students in each group to present some of their work to the participants in all of the intensives. The space at Arts @ 29 Garden served as a nexus for creative collaborations, celebrations, and experiments.

Mahindra Humanities Center at Harvard

In October 2010, Harvard announced that <u>Anand Mahindra</u> '77, MBA '81 had given the University \$10 million to support the <u>Humanities Center</u> in honor of his mother, Indira Mahindra. It is the largest gift in support of the study of humanities in Harvard's history, and will advance the interdisciplinary collaborations led by center director <u>Homi Bhabha</u>. In recognition, the center was renamed the Mahindra Humanities Center at Harvard and formally inaugurated at the Barker Center on April 25, 2011. When Mahindra was asked to explain his gift to the *Hindustani Times*, he noted: "What the humanities teach you is not a particular skill or technology, but to think and to question. Conflict resolution and creating a better world do not come from an improved piece of software or a better engine or a technology, but from people who can break free from their rigid points of view."

In this spirit, the Mahindra Humanities Center will advance interdisciplinary exchanges among Harvard faculty, faculty from other area institutions, graduate students, undergraduates, and the public. It will sponsor a wide range of panel discussions, lectures, readings, conferences, performances, workshops, and seminars, as well as graduate and postdoctoral fellowships. The center will foster collaborations among the humanities, social sciences, and sciences in the belief that the humanities make a unique contribution in providing platforms for debate across various fields and forms of knowledge.

Digital Humanities

Under the leadership of Dean Monson, the research and creative computing needs of the Division of Arts and Humanities received focused attention in fiscal year 2011. Dean Monson appointed a Divisional Digital Humanities Committee comprising faculty members, technology administrators, and librarians to develop a vision for the digital humanities at Harvard. Faculty members Jeffrey Schnapp, Peter Bol, and Lucien Castaing-Taylor, librarians Virginia Danielson and Susan Fliss, and administrators Bob Wittstein and Alexander Parker served as the inaugural members of this group. Partnering with University CIO Anne Margulies, the digital humanities will be integrated into the newly emerging University-wide strategy for supporting innovative uses of technology in teaching and research.

Harvard University

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Events

Digital Humanities 2.0

In February 2011, the Mahindra Humanities Center and the dean of arts and humanities co-sponsored Digital Humanities 2.0, a conversation about emerging paradigms in the arts and humanities in the information age. The discussion was introduced by John Palfrey, Henry N. Ess III Professor of Law, co-director of the Berkman Center for Internet and Society, and vice dean for library and information sciences at Harvard Law School. Participants included Anne Burdick, chair of the Media Design Program at the Art Center College of Design in Pasadena, California; Johanna Drucker, the Bernard and Martin Breslauer Professor of Bibliography at UCLA; Peter Lunenfeld, professor of the design and media arts at UCLA; Todd Presner, professor of Germanic languages, comparative literature, and Jewish studies at UCLA; and Jeffrey Schnapp, professor of Romance languages and literatures at Harvard.

Before joining the Harvard faculty in the spring of 2011, Professor Schnapp occupied the Rosina Pierotti Chair of Italian Studies at Stanford, where he founded the Stanford Humanities Lab in 2000. Today, Schnapp directs the metaLAB (at) Harvard, a cross-University center for investigating new forms of digital scholarship. MetaLAB is hosted by the Berkman Center.

40 Years of Jazz at Harvard

Jazz performance and scholarship at Harvard were the focus of "40 Years of Jazz at Harvard: A Celebration," April 7–10, 2011, sponsored by the Office for the Arts at Harvard (OFA) and the Department of Music. Events included an exhibition of Harvard's new jazz archive, a public conversation, clinics with trumpeter Brian Lynch and saxophonist Don Braden '85, radio interviews, a Jazz Band alumni reunion, and a concert featuring the "Harvard All-Stars": drummer Roy Haynes, saxophonist Benny Golson, bassist Cecil McBee, pianist Eddie Palmieri, and Lynch. Braden also appeared.

Wynton Marsalis at Harvard

President Faust has funded a series of six major lectures on the history of jazz by Wynton Marsalis that will take place over a three-year period. The first of these was held on April 28, 2011 at Sanders Theatre. Currently the artistic director of jazz at Lincoln Center, Marsalis is an accomplished musician, composer, bandleader, and educator who has made the promotion of jazz and cultural literacy his hallmark causes. For each lecture Marsalis will be bringing professional performers from New York to Harvard's campus for a full-day schedule of activities, discussions, and interactions with Harvard students.

The lecture/performance on April 28 was titled "Music as Metaphor" and featured Ali Jackson (drums), Dan Nimmer (piano), Walter Blanding Jr. (tenor sax), Carlos

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Henriquez (bass), James Chirillo (guitar and banjo), and Mark O'Connor (violin). The following day, Marsalis taught a master class to high school musicians at Cambridge Rindge and Latin School and members of the Harvard Jazz Bands. The next Wynton Marsalis lecture will take place at Sanders Theatre on September 15, 2011.

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Division of Science

Dean Jeremy Bloxham

Academic Year 2010–2011

Teaching

Concentrations

The recent trend of increasing numbers of undergraduates opting to concentrate in the sciences continued this year, with a 10 percent increase over last year. Particularly notable gains were seen in Statistics, which has grown tenfold in the last five years, and in Human Developmental and Regenerative Biology, which has grown to 95 concentrators in just its first two years.

Curriculum Review and Pedagogy

The Division of Science continued to build upon the curriculum and pedagogy efforts highlighted in our spring 2010 faculty retreat.

The division hosted two dinner discussions on reorganizing freshman science offerings. The planning has begun to coalesce around three new streams for freshmen interested in science but not yet committed to a particular concentration. The three streams connect the life and physical sciences: one stream emphasizes the life sciences, one emphasizes the physical sciences, and the third provides an intensive foundation in both areas.

In May 2010, the division hosted the second annual retreat focused on undergraduate education. Following last year's focus on *what* we teach, this year's retreat explored *how* we teach.

Planning for New Courses

The Division of Science has been working closely with Mathematics and Statistics, and with Applied Mathematics in the School of Engineering and Applied Sciences (SEAS), toward reorganizing lower-level undergraduate mathematics, applied mathematics, and statistics service courses into a new Mathematical Sciences structure.

Research and Core Facilities

Collaborative Efforts

The Division of Science had another successful year in attracting support from a wide range of external sponsors. Our newest investigators were awarded over 20 prestigious early career and scholar awards, including five Sloan Research Fellowships. As more scientific questions require interdisciplinary solutions, faculty are pushing the boundaries of science and creating new scientific communities and

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disciplines. Some faculty collaborations have culminated in large-scale National Science Foundation center proposals: a proposed Center for Neurophysics and a Center for the Study of Extrasolar Earths. To support these types of collaborations, the division is investing resources in research development to enhance the efforts of faculty to identify funding opportunities and develop proposals in an increasingly complex and competitive funding climate.

Core shared research instrumentation facilities remain a high priority for the Division of Science. Consistent with prior years, the division engaged in many programs in 2010 to create, strengthen, and expand on our existing offerings for the Harvard science community, with a particular focus this year on imaging, high-performance computing, and nanoscale science.

Harvard Center for Biological Imaging

The Harvard Center for Biological Imaging (HCBI) opened in the Biological Laboratories Building in July 2010. The center, led by molecular and chemical biology professor Jeff Lichtman, was created to foster collaborative research in the most state-of-the-art facility available. To date, the center houses 15 microscopes ranging from a fluorescence stereo microscope to more advanced specialty microscopes including confocal, 2-photon, TIRF, and array tomography technologies. A new addition for the coming year is a super-resolution microscope system, which is supported by a National Institutes of Health NCRR Shared Instrumentation Grant. The center is staffed by an on-site Zeiss engineer and a microscope support specialist who assist with everything from microscope training to experiment design. The HCBI is open to the Harvard community as well as other academic and nonacademic researchers. In its first year, the center supported the research of 130 scientists, including 9 undergraduate students, 38 graduate students, and 95 postdoctoral fellows.

High-Performance Computing in Holyoke

In October 2010, Governor Deval Patrick joined representatives from Harvard and other university and industry partners for a ceremonial groundbreaking at the future site of the Massachusetts Green High Performance Computing Center, to be located in the Innovation District of Holyoke, Massachusetts. The center is the result of a collaboration between five Massachusetts universities (Harvard, Boston University, the University of Massachusetts, Northeastern University, and MIT) and will offer a state-of-the-art computational infrastructure, indispensible in the increasingly datarich research environment of the post-genomic revolution. Holyoke's proximity to the Connecticut River and the river's associated hydroelectric system provide a sustainable and cost-effective source of power for the facility.

The Division of Science has led Harvard's involvement in the project, which, when completed in late 2012, will provide much-needed computational capacity to the University's researchers. It will also liberate approximately 6,500 square feet of

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space on the Cambridge campus, reduce our campus carbon footprint by 3 to 4 percent, and increase Harvard's ability to enable complex computational science.

Center for Nanoscale Systems

The Center for Nanoscale Systems (CNS) continues to provide world-class service and facilities to its users. To better serve the needs of the CNS community, a Faculty User Group was convened to review equipment utilization reports; counsel the CNS Executive Committee about future acquisitions, training, and safety; and make recommendations regarding future scientific collaborations and directions. Roy Gordon, Thomas Dudley Cabot Professor of Chemistry, has provided sterling service as director.

Other Developments and Projects

Museum of Comparative Zoology Collections Move

A shell space of approximately 13,000 square feet on Level B2 of the Northwest Science Building was built out as collections storage and associated specimen processing and curatorial workspaces for the Museum of Comparative Zoology (MCZ). In the first phase of construction, this new space will allow for the relocation of the Mammalogy Collection from the fifth floor of the museum complex. Construction will begin this fall on phase two, which will build out an additional 35,000 square feet on Level B3 of the Northwest Building to accommodate the relocation of the Ornithology, Invertebrate Zoology, Invertebrate Paleontology, Vertebrate Paleontology, and Malacology collections from the fifth and fourth floors of the museum.

This project will not only provide clean, environmentally controlled storage and collections management spaces more appropriate for the long-term stewardship of these world-renowned MCZ collections, but also will make available space in the museum that will be renovated to provide desperately needed office and computational space for Division of Science academic programs.

Office for Postdoctoral Affairs

In February 2011, the Division of Science created the Office for Postdoctoral Affairs (OPA) in the FAS. The office was created to assist postdoctoral scholars with career and professional development needs, to serve as a resource to the larger campus community, and to build a sense of community among Harvard postdoctoral scholars.

In its first year, the office has been a resource for individual career counseling appointments and has sponsored programmatic events aimed at career aspirations. OPA is using programming to build a community of support for the postdocs within the FAS, SEAS, and other Harvard professional schools.

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Director of the Arnold Arboretum

In September 2010, William ("Ned") Friedman was appointed the director of the Arnold Arboretum, the eighth in its 138-year history. Friedman, whose tenure began on January 1, is also the Arnold Professor of Organismic and Evolutionary Biology in the FAS.

Professor Friedman's appointment creates an exciting opportunity to connect the unique resources of the Arnold Arboretum in Boston to the plant science research and education occurring on our Cambridge campus. His teaching and leadership will facilitate closer linkages between the educational and research possibilities the arboretum presents and the innovative scholarship of our faculty and students.

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Division of Social Science

Deans Stephen Kosslyn and Peter Marsden

Academic Year 2010–2011

Transition in Divisional Deanship

Effective December 31, 2010, Stephen Kosslyn, John Lindsley Professor of Psychology in Memory of William James, stepped down as dean of social science, after serving in that capacity since July 2008. Kosslyn, initially appointed to the Harvard faculty in 1977, immediately assumed the directorship of the Center for Advanced Study in the Behavioral Sciences at Stanford University.

On January 1, 2011, <u>Peter Marsden</u>, the Edith and Benjamin Geisinger Professor of Sociology and a Harvard College Professor, became dean of social science. Marsden was appointed at <u>Harvard</u> in 1987. He twice served as chair of the Department of <u>Sociology</u> and of the Policy and Admissions Committee for the <u>PhD in Organizational Behavior</u> program.

Divisional Planning Initiatives

The division commissioned and oversaw an external consultant's review of the administrative structure of the Peabody Museum of Archaeology and Ethnology. At the end of the academic year, Dean Smith announced plans to integrate all six of the FAS museums of science and culture, including the Peabody Museum, into a new FAS museum consortium. Each museum collection will remain a separate organization that supports teaching and research activities, but will work collaboratively within the new organization on public programs.

Throughout the academic year, a working group chaired by Professor Mark Elliot met to discuss approaches to planning the future of the Fung Library, in light of the reorganization of the Harvard College Library and the increasing number of scholarly resources now available in digital form. The group envisions a space that would provide a range of research services as well as access to both print and digital media, to support research and teaching in international and area studies.

Planning for a possible renovation of and addition to the Tozzer Library continued during the academic year. The aspiration is to bring the social anthropology and archaeology components of Department of Anthropology into closer proximity, within close range of the collections housed in the Peabody Museum. This planning process will continue during academic year 2011–2012.

Administrative Dean Beverly Beatty led an Administrative Process Review Committee composed of administrative staff leaders in the divisions of social science and arts and humanities as well as representatives from the FAS Human

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Resources Office. The committee reviewed existing administrative processes, staffing levels, and workloads within the divisions, seeking to generate innovative ideas for heightening their effectiveness and efficiency. The committee reported to Dean Smith in March 2011, with recommendations concerning web support, faculty search/review processes, events management, and grants administration. A companion effort surveyed best practices for administrative functions at peer institutions.

The Harvard Sampler and "Hard Problems"

In October 2011, Harvard University Press will publish *The Harvard Sampler: Liberal Education for the Twenty-First Century*, co-edited by former Dean of Social Science Kosslyn, Harvard College Dean Evelynn Hammonds, and Ms. Jennifer Shephard, special initiatives program manager in the Division of Social Science. Written by faculty members at the cutting edge of their fields, these essays offer a clear and accessible overview of disciplines that are shaping the culture and the world. The authors invite readers to explore subjects as diverse as religious literacy and Islam; liberty and security in cyberspace; medical science and epidemiology; energy resources; evolution; morality; human rights; global history; the American Revolution; American literature and the environment; interracial literature; and the human mind

In academic year 2009–2010, the division, funded by the Indira Foundation, organized a symposium on "Hard Problems in Social Science," followed by an ongoing "web event" that garnered 7,000 visitors per month in April and May 2010, and (as of summer 2011) more than 14,000 Facebook fans. Early visitors to the website were invited to rank the presenters' problems in terms of importance and difficulty, and to add their own problems to the list. Three articles published in 2011 discussed the results of this polling process, which can be found on the "Articles & Blogs" page of the Hard Problems section of the Division of Social Science website: http://socialscience.fas.harvard.edu/hardproblems.

Through these activities, the division seeks to engage the general public in the pressing questions being pursued by social scientists today.

Digital Technology Fair

On November 29, 2010, the <u>Divisions of Arts and Humanities and Social</u>
<u>Science co-hosted the annual Digital Technology Fair</u> to introduce faculty, staff, and graduate students to Harvard groups that offer digital services and support. The fair highlighted a wide variety of digital media and web-based technologies for teaching and research, including—but not limited to—quantitative methods of inquiry. An online resource guide providing detailed information on all Digital Technology Fair exhibitors is available on the divisional website.

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"Making the Ground Fertile for Peace in the Middle East"

On December 3 and 4, 2010, 20 individuals convened at the Radcliffe Institute of Advanced Study to discuss nonpolitical strategies for "making the ground fertile for peace in the Middle East." The meeting was co-hosted by former dean Kosslyn, then-dean Barbara Grosz of the Radcliffe Institute, and Sir Ronald Cohen, chair of the Portland Trust and a member of the Harvard Board of Overseers. The workshop had two goals. The first was to identify major barriers to peace as well as existing common ground (shared cultural values; beliefs and attitudes held by each side that could be usefully conveyed) and to propose possible initiatives in the realms of art, popular culture, and the Internet that could be used to increase contact between the opposing sides and enhance common ground. The second goal was to create a network of "theorists" (psychologists and other experts specializing in conflict resolution, persuasion, and negotiation) and "practitioners" (artists, public relations strategists, and directors of nonprofit agencies working for peace) currently working in the region. By the end of the workshop the participants had outlined 11 proposals for media-based interventions, including advertising campaigns, television shows, online discussion groups, and collaborative music and visual art projects.

Behavioral Laboratory in the Social Sciences

In the summer of 2011, the Division of Social Science and Harvard College launched the Behavioral Laboratory in the Social Sciences (<u>BLISS</u>), a 10-week summer residential program for Harvard undergraduates participating in research projects affiliated with Harvard faculty. Modeled on the successful Program for Research in Science and Engineering (<u>PRISE</u>), and supported by the <u>Office for Undergraduate Research Initiatives</u> (OURI), this research experience program is designed to stimulate community and creativity among a diverse cohort of 12 motivated BLISS Fellows.

The program's primary goal is to provide each fellow with a formative and substantive research experience working on a social science project designed and overseen by a Harvard faculty member. It also aspires to build a lively community of student researchers: BLISS Fellows live together in Quincy House for the summer, share meals and evening activities, and participate in a full calendar of on-campus and Boston-area cultural and recreational summer offerings. They attend a weekly speaker series featuring distinguished social scientists who are prominent researchers at Harvard and other universities. They also participate in OURI-sponsored practicums on research ethics, presentation design, and public speaking, and can attend academic talks sponsored by other summer undergraduate programs, including PRISE. To conclude the summer, each fellow makes a public research presentation.

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Unrestricted funds provided seed money for this and a second pilot year of BLISS. If a review of the pilot years proves favorable, lasting support for the program will be sought.

Visitas Panel

Faculty members in the division presented a panel discussion on the question "How do we prevent another financial crisis from happening?" on Monday, April 18, 2011, as part of the Visitas program organized by the Admissions Office for prospective members of the Class of 2015 and their parents. Panelists included Professors James E. Alt of the government department; Efraim Benmelech and Benjamin M. Friedman of the economics department; and Emma Rothschild of the history department.

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School of Engineering and Applied Sciences (SEAS)

Dean Cherry Murray

Academic Year 2010–2011

Admissions

Academic year 2010–2011 saw a continuation of the trend of growing undergraduate interest in engineering. Of the College Class of 2015, 14.5 percent expressed interest in engineering and/or computer science, up by 60 percent from five years ago. Undergraduate enrollments were at record levels, with 465 total concentrators and 10 percent of the sophomore class having declared a SEAS concentration. Applications to SEAS graduate programs were also at record levels, with 1,993 applications for the 2010–2011 academic year, and an admittance rate of 8.6 percent, the lowest in SEAS history.

Enhanced recruitment activities were organized for both undergraduate and graduate students for the 2010–2011 academic year. A science and engineering tour for accepted undergraduate students during Visitas, the weekend in April when prospective students visit campus to participate in a range of weekend activities, was organized by Assistant Dean Marie Dahleh and physics faculty member Amir Yacoby. Graduate students also enjoyed enhanced open house activities organized around the SEAS key teaching and learning areas established at the end of the previous academic year as a part of Dean Murray's strategic planning process: Applied Mathematics, Computer Science, Applied Physics, Bioengineering, Electrical Engineering, Environmental Sciences and Engineering, and Materials Science and Mechanical Engineering.

Curriculum

Enhancing the Undergraduate Experience

The primary focus of the 2010–2011 academic year was the continuing enhancement of the existing undergraduate curriculum, which resulted in a number of new and noteworthy efforts. Nearly 5,000 students across Harvard, a record high, were enrolled in a SEAS course over the past academic year.

The new biomedical engineering undergraduate concentration debuted in the fall of 2010. Biomedical engineering lies at the intersection of the physical and life sciences, incorporating principles from physics and chemistry to understand the operation of living systems. The objectives of the concentration include providing students a solid foundation in engineering, particularly as applied to the life sciences, within the setting of a liberal arts education. The concentration is flexibly structured for a diversity of educational and professional objectives and enables the acquisition of a broad range of skills and attitudes drawn from the humanities, social sciences,

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and sciences, in addition to engineering, which enhance engineering knowledge and which will contribute to future leadership and technical success. Plans are under way for dedicated concentrations in electrical engineering and materials and mechanical engineering.

Computer Science 50 (CS50) reached an all-time enrollment high (nearly 500), becoming the fifth most popular course in Harvard College; the <u>CS50 Fair</u> attracted over 1,000 members of the Harvard community to view students' innovative projects developed over the semester.

"Science and Cooking," a course in the Program in General Education, was the most popular course in the program this year, enrolling nearly 300 students, winnowed down from an initial waiting list of over 700. It was perhaps the most talked about course of recent years, garnering international media attention and offering a series of popular public lectures.

A combined effort led by Rob Howe, Abbott and James Lawrence Professor of Engineering and associate dean for academic programs; Anas Chalah, director of the teaching labs; and Barry Griffin '71, visiting lecturer, resulted in more design-based experiences in courses such as ES 96 (Problem Solving and Design Project); ES 100 (Design Project); ES 50 (Introduction to Electrical Engineering); ES 165 (Water Engineering); and ES 227 (Medical Device Design).

Some courses even had a direct impact on campus life. Students in ES 96 made recommendations for expanding the geothermal energy project (efficient heating and cooling system) in Radcliffe Yard.

Building New Academic Support

To enhance advising and student services, two undergraduate studies directors were appointed in 2010–2011. Margo Levine, PhD was appointed assistant director for undergraduate studies in applied mathematics. Levine, previously a postdoctoral research fellow at Harvard Medical School and a postdoctoral research associate at Massachusetts General Hospital, received her BS from Cornell University and MS and PhD from Northwestern University. Sujata Bhatia, MD, PhD was appointed assistant director for undergraduate studies in biomedical engineering. Bhatia joined Harvard from the DuPont Company in Wilmington, Delaware, where she was a research associate in the Biochemical Sciences and Engineering Division. She earned three bachelor's degrees and a master of chemical engineering from the University of Delaware, as well as an MD and a PhD in bioengineering from the University of Pennsylvania.

Enhancing the Graduate Experience

Developed and situated at SEAS, a graduate-level secondary concentration in Computational Science and Engineering (CSE) for graduate students in the

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Graduate School of Arts and Sciences (GSAS) was approved and will be offered in the fall of 2011. An exciting and rapidly evolving field, CSE exploits the power of computation as an approach to major challenges on the frontiers of natural and social science and engineering. The secondary field in CSE will be available to any student enrolled in a PhD program in GSAS upon approval of a plan of study by the CSE Program Committee and the director of graduate studies in the student's home department. The requirements include newly developed core courses in applied mathematics and computer science.

The area structure at SEAS supported community-building activities such as the BioExpo, Applied Physics Fest, and the Materials Science and Mechanical Engineering open house. Through community-building funds, an increasing number of graduate community-building activities took place during 2010–2011, such as the successful series of faculty talks to introduce G1s and G2s to various areas of research at SEAS, and a student-led "Science Soiree."

New and Enhanced Programs for Students

Academic year 2010–2011 was the second year of Winter Break, a month-long break between the fall and spring semesters created by the adoption of a common University calendar. SEAS sponsored a<u>wide range of activities</u> for undergraduate and graduate students, including:

- Brazil Field Study: Harvard students and Brazilian students participated in field studies in Brazil from January 6–21. The short course, organized in collaboration with Universidade de São Paulo (and other local Brazilian institutions), focused on energy, water, and the environment and was supported by the Harvard University David Rockefeller Center for Latin American Studies.
- ComputeFest: Matlab and Mathematica workshops (four presentations and four hands-on events over four days)
- Machine shop class taught by Stan Cotreau, machine shop manager and instructor, for graduate students
- 3-D printing and rapid prototyping workshop taught by Anas Chalah
- Teaching fellow training for the spring offered by the Bok Center for Teaching and Learning
- "Writing Science," a three-week January short course for graduate students taught by *New York Times* reporter Cornelia Dean (co-sponsored by the Harvard University Center for the Environment)
- Electron microscopy workshop organized by the Center for Nanoscale Systems' David Bell and offered to both the Harvard and broader research community

In January, SEAS presented an <u>alumni panel</u> to connect current students with recent alumni, including Alissa Cooperman '10, Anjuli Kannan '09, John Thorlin '09, Brad Diephuis '08, and Jeffrey Adam Traina '08. A Green Activity Fair, which highlighted opportunities in "green tech," was held in April.

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SEAS will host nearly 70 National Science Foundation–sponsored Research Experiences for Undergraduates in the summer of 2011, a record number up from 50 in past years. New laboratories and institutions participating include RoboBees, the Wyss Institute, and the Rowland Institute.

Major Events

- Twelve "Science and Cooking" public talks (August–December 2010)
- Two "All Hands" meetings led by Dean Murray (September 2010 and April 2011)
- Dean's Advisory Group in Palo Alto, California, and Cambridge, Massachusetts (October 2010 and April 2011)
- "Science and Cooking" Student Fair (December 2010)
- CS50 Fair (December 2010)
- ComputeFest! and HackHarvard (January 2011)
- Student Brazil Field Study Trip (January 2011)
- SEAS Alumni Panel (January 2011)
- Harvard College Innovation Challenge Awards (March 2011)
- "In Deep Water" with Dean Murray and Rich Sears (April 2011)
- Triple Academies Symposium on Privacy, Autonomy, and Personal Genetic Information in the Digital Age (April 2011)
- Cambridge Public Schools Science Fair (May 2011)
- BioExpo, Applied Physics Fest, and Mech&Mat area events (May 2011)
- Kavli Foundation visit (May 2011)
- Kickoff Kavli Lecture Series (May 2011)
- Networks SEAS alumni event (May 2011)

Student Activities/Innovation

Newsle is a web application that aggregates news and status updates from friends or public figures on Facebook, LinkedIn, and other sites. Developed by Axel Hansen '13 and Jonah Varon '13, both concentrating in computer science at SEAS, the app uses an algorithm that can distinguish between people with the same name and prioritize the most important news.

Hollre is an application that helps people connect online to manage their activities in the real world. Focused on action rather than just location, the app is designed to help users find new things to do, whether they're interested in parties, knitting, protests, or study groups. The duo behind the social networking site is Ryan Neff '13 and Yasha Iravantchi '13.

<u>Aid Aide</u> is a website that guides prospective college students through the process of applying for federal financial aid. The site, created by first-year Zachary Hamed '14, is designed to work like tax software, simplifying the questions on the FAFSA and

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PROFILE application forms. It can also translate the content for students or parents who don't read English, and it can support live chats with financial advisers.

In-mouth water filter. Freshman Celestine Warren, senior Aisha Townes, and sophomore Ryan Neff worked on the project <u>I Am My Filter</u>. This and other projects were developed through Engineering Sciences 20: "How to Create Things & Have Them Matter," a course co-taught by Professors David Edwards and Rob Howe.

Raising the bar on disaster relief. The powerful earthquake that hit Haiti on January 12, 2010, devastated a country that was already among the poorest in the world. The catastrophe took more than 200,000 lives and left more than a million people homeless. In 2010–2011, Harvard undergraduates and faculty from SEAS looked to an old technology for new ways of providing shelter to disaster victims, exploring the feasibility of using large balloons to support lightweight tents and to lift and move objects. Barry Griffin, a visiting lecturer at SEAS, was co-leader of this effort to develop a rapid deployment disaster relief shelter.

SEAS graduate students and recent alumni won first, second, and third prizes at the <u>2010 Collegiate Inventors</u> awards for their innovations in tissue engineering, genomics, and intracellular probing.

Three SEAS graduate students were selected to present new technology at the University Research and Entrepreneurship Symposium. Among the <u>advances</u> were the "Cathbot," a multi-core voltage regulator, and a new biosensor.

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Division of Continuing Education

Dean Michael Shinagel

Academic Year 2010–2011

In 2010–2011, the Extension School's 101st year, 13,486 students enrolled, accounting for 27,420 course enrollments and representing 121 countries. This constitutes a 2.6 percent decrease in students and a 4 percent decrease in enrollments from the previous year. Some of this slight decline can be attributed to purposeful efforts to reduce enrollments in areas of fiscal concern. Enrollments remain much higher than just five years ago (21,476), and the number of degree candidates topped 3,000 for the first time.

The Extension School offered more than 620 courses in the liberal arts and professional fields. While demand for management courses was lower than in previous years, enrollments in the natural and social sciences continued to be very strong. For the second year, courses offered in an intensive January session proved popular, accounting for 602 total enrollments, a 29 percent increase from the previous January.

In 2010–2011, distance course enrollments increased 8 percent over the previous year to 11,497, accounting for 42 percent of total course enrollment. The Extension School again offered a record number of online courses (171), including 41 Harvard College and Graduate School of Education courses and 21 web conference courses that enrolled students from around the world. The Extension School also hired a consulting firm to plan strategically for future growth in distance education.

One hundred forty years ago, Asa Gray first held his Summer School of Botany at Harvard. In 2010, Harvard Summer School enrolled 5,961 students, a 4 percent decrease from 2009. These students accounted for 7,960 course enrollments, a 4 percent decrease from the previous summer. Thirty-two percent of students were international, representing 101 nations. The Summer School Secondary School Program for academically motivated high school students remained strong, enrolling 1,227 students.

The Summer School offered nearly 300 on-campus courses and a small selection of distance education courses (14), providing students an opportunity to complete prerequisites and degree requirements and study unique subjects like Beginning Sanskrit. Twenty-five study abroad programs were offered in 18 countries, attended by 517 students. Study abroad programs were led by Harvard faculty and provided a rigorous educational experience for the 273 Harvard undergraduates and 9 graduate students who enrolled.

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In its 34th year, the Harvard Institute for Learning in Retirement membership of 553 retired and semi-retired academics and professionals participated in 133 peer-led seminars.

The Division of Continuing Education (DCE) anticipates steady enrollments in the Extension School and the Summer School. Distance education and intensive January courses remain a source of growth, while the Summer School study abroad programs and premedical courses stay robust. The DCE continues to serve the educational needs of a diverse local, national, and international population while making an important contribution to the academic and financial well-being of the University.

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Faculty Trends

Dean Nina Zipser

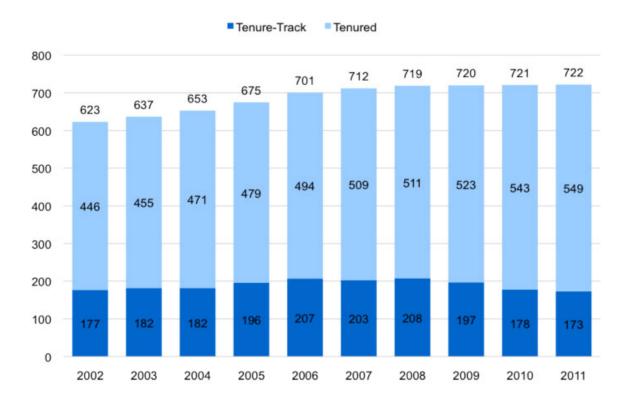
Office for Faculty Affairs Academic Year 2010–2011

Faculty Demographic Trends. The size of the ladder faculty has been steady over the last four years, growing by less than 1 percent since 2008. While this fact is reflected in many of the demographic measures reported in this section, there has been one noticeable change. Since 2008, the size of the tenure-track faculty has decreased by 17 percent.

The decrease in the tenure-track faculty is due to two mechanisms that acted in concert. First, promotions into the tenured ranks outpaced retirements from the tenured ranks. Second, the total size of the ladder faculty remained flat.

In 2009, the FAS implemented a faculty retirement program. Since that time, 48 tenured faculty members have entered into retirement agreements that specify a phased retirement of up to four years. Over the next four years, there will be a 56 percent increase in the number of retirements as compared with the last four years.

Figure 1: Ladder faculty in the FAS from fall 2002 through fall 2011, by rank



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Note: The fall 2008 through fall 2011 faculty counts represent a September 1 snapshot, whereas the fall 2002 through fall 2007 counts represent a July 1 snapshot as in previous annual reports. This new counting methodology was implemented in order to capture appointments starting on September 1.

As the size of the ladder faculty has remained relatively constant, so too has the number of women on the faculty. Over the last four years women have made up between 25 and 26 percent of the ladder faculty. With respect to rank, women currently represent 22 percent of tenured faculty and 36 percent of tenure-track faculty.

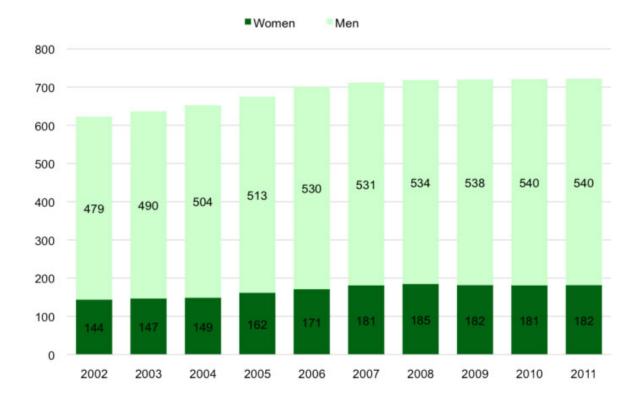
Figure 2: Ladder faculty in the FAS from fall 2002 through fall 2011, by gender

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Note: The fall 2008 through fall 2011 faculty counts represent a September 1 snapshot, whereas the fall 2002 through fall 2007 counts represent a July 1 snapshot as in previous annual reports. This new counting methodology was implemented in order to capture appointments starting on September 1.

The ethnic composition of the ladder faculty has also remained relatively constant over the last few years. Currently, 16 percent of the ladder faculty members are minorities. With respect to rank, minorities make up 14 percent of tenured faculty and 24 percent of tenure-track faculty.

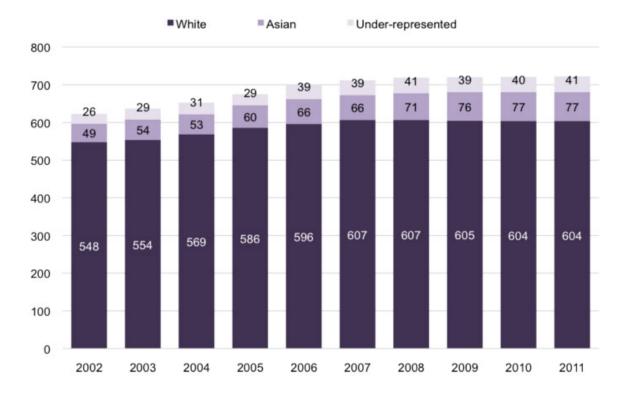
Figure 3: Ladder faculty in the FAS from fall 2002 through fall 2011, by ethnicity

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In the last academic year, 39 external offers were extended for ladder faculty positions. To date, 22 offers have been accepted. Women represent seven (or 32 percent) of these acceptances and minorities represent three (or 14 percent) of these acceptances.

In 2010–2011, tenure promotion rates remained strong. Of the 17 tenure promotion cases that culminated in a decision, 12 (or 71 percent) were successful. Three (or 25 percent) of the successfully promoted faculty are women and two (or 17 percent) are minorities.

Faculty diversity of all forms remains a challenge for the FAS, and we are committed to addressing this issue. As mentioned in the annual report last year, Mahzarin Banaji has been appointed the senior adviser for faculty development, to work with the departments on identifying all of the ways in which we should be safeguarding and improving the quality of the faculty. In 2010–2011, Professor Banaji met with several department chairs and other FAS faculty to learn how new areas of research are tracked, what the existing hiring practices are, and whether departments are being held back by implicit biases. She shared with chairs the results of research on the cognitive and affective bases of decision making. This spring, Professor Banaji conducted a SEAS-wide seminar on how human minds perceive and believe and how ordinary aspects of cognition are responsible for actions that

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are not in our own self-interest. Additionally, she has met with representatives of College-, FAS-, and University-wide diversity initiatives.

In conjunction with the senior vice provost for faculty development and diversity, Professor Banaji has been involved in creating a database of leading research from the behavioral sciences to provide a resource for educating the faculty on what is currently known about how we evaluate talent and select it. The database is intended to expand understanding of faculty trends and decision making that can inform the work of planning, search, and promotion committees. In 2011–2012, Professor Banaji will further her collaboration with FAS department chairs, the Dean's Office, and interested faculty.

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Harvard College Library

Nancy Cline, Roy E. Larsen Librarian *Academic Year 2010–2011*

Nancy Cline's Retirement

After nearly 15 years of exceptional service to Harvard, Nancy M. Cline, the Roy E. Larsen Librarian of Harvard College, <u>retired</u> at the end of the academic year. Cline's long career at Harvard is distinguished by many notable accomplishments. In 1996, she began her appointment overseeing the operations of the major libraries and units within the Harvard College Library (HCL). During her tenure at Harvard, the Harry Elkins Widener Memorial Library was completely renovated; support for collections preservation increased; and Harvard's Library Digital Initiative was launched. As Harvard <u>looks to the future</u> of its library system, Cline's legacy of innovation, collaboration, and pragmatism will serve as an excellent foundation.

Collections

The archive of Sir Georg Solti, a body of work of significance to musical scholars and musicians worldwide, has come to Harvard's Loeb Music Library. The collection includes hundreds of scores heavily marked for performance and annotated by Solti, one of the 20th century's most renowned conductors of opera and symphony and winner of more Grammy Awards than any other recording artist in any category. The Solti gift will enable the collection to be digitized and made available online for scholars and music enthusiasts around the world via Loeb Music's Digital Scores and Libretti Collection site and the Music Treasures Consortium portal hosted by the Library of Congress. Loeb Music staff played a leading role in launching the consortium, a joint venture that also includes Juilliard, the British Library, the Morgan Library, and the New York Public Library.

Widener Library acquired the ACT UP Oral History Project Archive, a unique collection of video interviews and written transcripts documenting the on-the-ground, in-the-trenches work of the individuals in the AIDS Coalition to Unleash Power (ACT UP), who were instrumental in raising national awareness of the disease in the late 1980s through social activism.

Special Collections Request System

This year HCL implemented a Special Collections Request system that allows patrons to register and place requests for materials online directly from the HOLLIS record or from a personal account page. This system replaces paper registration and request forms and eliminates the need for patrons to register separately for use of each special collection. While the "front end" of the system provides users with more convenience and a consistent experience across libraries, the "back end"

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provides the libraries not only with the convenience of web-based registration, but also with usage data and control of collections activity that informs collection development and enhances security of the collections. The system was implemented in Houghton, Fine Arts, Loeb Music, Harvard-Yenching, Tozzer, and Cabot libraries and the Harvard Map Collection, all of which hold collections that are rare or valuable, are kept in closed stacks, and receive special curatorial treatment.

JSTOR Single Copy Project

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content on a trusted digital archive of more than 1,000 academic journals and 1 million primary sources. This year the library launched the JSTOR Single Copy Project, whereby a single copy of each JSTOR title will be maintained at the Harvard Depository, thus freeing up shelf space on campus—which can be utilized for current titles—and enhancing records in HOLLIS. The year-long library project deals with volumes held in many campus libraries and will focus on backruns only—volumes more recent than 1999 will not be affected. The library's current subscriptions to titles in JSTOR are not affected as part of this project, although many subscriptions to paper have been waning. JSTOR titles are the focus, as JSTOR provides a trusted digital and physical archive and is a highly used e-resource. The JSTOR project will serve as a model for future projects.

Enhancing the Undergraduate Experience

The library continues to work to bring undergraduate students into contact with the services and collections available to them. Staff from HCL's Services for Academic Programs unit created "Tools of the Trade: A Library Starter Kit for Freshmen," which has received accolades from both students and faculty this year. The online "starter kit" is stocked with essentials—in the form of advice, explanations, and suggested search strategies—to help students meet the new and different expectations for college-level research.

Working with the head teaching fellow for the General Education course "Art and Thought in the Cold War," taught by Professor Louis Menand, research librarians assisted in the redesign of a course assignment to engage students more fully in the work. To enhance the experience for students and also acquaint them with the abundant materials available to them at Harvard, they created "Destinations," a booklet in both electronic and print form that highlighted the collections of several Harvard libraries with significant holdings related to the assignment. Part of the assignment required students to search for an item in one of the libraries, giving them hands-on experience finding and working with primary materials. Among the libraries that participated were the Botany Libraries, Countway, Gutman, Houghton, Lamont, the Harvard Map Collection, and the University Archives in Pusey, Schlesinger, Widener, and the Wolbach Library of the Harvard-Smithsonian Center

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for Astrophysics. Following the course, librarians reviewed the assignment with students and the teaching fellow, receiving very positive feedback. "Destinations" is being used as a model for other General Education courses in the 2011–2012 academic year.

Your Student@Lamont, an interactive event that was part of the annual Freshman Parents Weekend, offered parents a hands-on introduction to Lamont and other libraries—Cabot, Houghton, Harvard-Yenching, Loeb Music, Fine Arts, and Tozzer—and highlighted the array of collections and experiences the libraries offer to first-year students. Since expository writing classes are the one place students are guaranteed to encounter "research" in their first year, it was particularly enlightening for parents to talk with Tom Jehn, Sosland Professor of the Harvard College Writing Program, about the resources students are able to call on in the libraries. Librarians from HCL and Writing Program staff have collaborated to develop a curriculum designed to help freshmen navigate the physical and online resources of Harvard's libraries.

Digitization Efforts in Support of Teaching and Learning

The library's Collections Digitization Program continued to focus on the building of digital collections of enduring value. In fiscal year 2011 there was an increased emphasis on providing digitization in support of teaching and learning. Various endowment funds were used to support these efforts. Materials digitized in the past year for classroom use include:

- Two 18th century Russian atlases from the Map Collection and an early 19th century atlas from Houghton Printing and Graphic Arts. The atlases will be used by Professor Kelly O'Neill in the Department of History for her General Education course in fall 2012 on mapping empires.
- Recordings of Modern Greek poetry, read by the poets themselves, from the Woodberry Poetry Room. The collection includes recordings by 1963 Nobel Laureate George Seferis, 1979 Nobel Laureate Odysseus Elytis, and many other Modern Greek poets. These recordings are extremely rare and provide the opportunity for original research to support student theses and dissertations. Professor Panagiotis Roilos, director of the Modern Greek Studies Program in the Department of the Classics, intends to use these recordings to support his graduate student teaching and learning.
- Three 16th century atlases, by Ptolemy, Apianus, and Porcacchi, from the Map Collection. Images will be used by Professor Tom Conley, Abbott Lawrence Lowell Professor of Visual and Environmental Studies and of Romance Languages and Literatures, in courses exploring the relations of space and writing in literature and cartography.
- Rubbings from the Harvard-Yenching Library. Images of the rubbings are being used in the classroom by faculty members from the Department of East

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Asian Languages and Civilizations. There is great value in having these materials conserved and digitized, as due to the large size and fragility of many of the rubbings, they are very difficult to serve to patrons.

- Early books and manuscripts from Houghton Library. Digitized early book and manuscript titles are regularly used in classes taught by Professor Tom Conley and Ann Blair, Henry Charles Lea Professor of History. Jeffrey Hamburger, Kuno Francke Professor of German Art and Culture, has been incorporating the use of medieval manuscript images in his courses.
- Minstrel cabinet cards and cartes de visite from the Harvard Theatre Collection. These photographs were digitized for use in teaching, in classes such as the upcoming graduate seminar on Early African American Musical Theater taught by Carol Oja, William Powell Mason Professor of Music.

A number of photograph projects are under way, integrating conservation by the Photograph Preservation Program of the Weissman Preservation Center, cataloging, and digital imaging:

- The Hedda Morrison negatives project is preserving and digitizing fragile negatives taken by famed photographer Hedda Hammer Morrison in China during her residence there from 1933–1946 and held in the collection of the Harvard-Yenching Library.
- Historical and rare ethnographic portraits of peoples from throughout the world are being made available online in the Ethnographic Portraits: Photographs from Tozzer Library project.
- Work continued on the Early Photography of Japan project, started in FY2010, which is creating a virtual collection of 35 albums containing nearly 2,000 photographs from Widener Library, the Fine Arts Library, and the Harvard-Yenching Library.
- The Angus McBean photographs project is making accessible images from the Harvard Theatre Collection. McBean photographed most of the important stage productions in London, Stratford-on-Avon, Glyndebourne, and Aldeburgh, from the 1930s through the early 1970s. In FY11, 5,224 contact prints were digitized.
- The six Virginia Woolf Monks House photograph albums, held by the Harvard Theatre Collection, were conserved and digitized.
- Over 750 photographs from the Milman Parry Collection of Oral Literature, documenting the fieldwork of Milman Parry and Albert Lord in the 1930s and 1950s, were digitized.
- Work was completed on the Gardner Collection of Photographs of the New England Landscape, held by Cabot Library.

Additional digitization projects started in FY2011 include the Edward Lear Landscape Drawings held by Houghton Library Printing and Graphic Arts and the Petzold Buddhist Scrolls from the Harvard-Yenching Library. Over 4,300 posters

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from the Thomas Hill Collection and the James Howard Fraser Collection of Widener Library were digitized as part of an ongoing effort to provide access to these large and difficult-to-serve materials. The Collections Digitization Program also continued to support the ongoing digitization of medieval manuscripts, music scores, and pamphlets. Over 1,500 pamphlets in the subject areas of Latin America, World War I, Sociology, and Witchcraft were digitized in FY2011.

Houghton Conferences

Houghton Library hosted two scholarly conferences this past year in conjunction with exhibitions showcasing its collections. Over 70 Byron scholars and enthusiasts attended "Byron and the Book," a conference co-hosted by Northeastern University, the Boston Public Library, the Boston Athenaeum, and the Longfellow National Historic Site. Forty papers on the Romantic poet Lord Byron (1788–1824) were presented by scholars from 10 countries. The conference was accompanied by the exhibition "Let Satire Be My Song': Byron's *English Bards and Scotch Reviewers*."

Nearly 100 scholars from across the world gathered at Houghton Library for the final day of a four-day conference marking the centenary of the death of William James—the beginning of the conference, "In the Footsteps of William James," was held in Chocorua, New Hampshire, site of James' summer home. Scholars presented papers on psychology, philosophy, psychic phenomena, and other fields of inquiry in which James played a formative role; several Harvard faculty participated as session leaders or presented papers. The Houghton session also included a preview of "Life is in the transitions': William James 1842–1910," an online exhibition that looks back at the transitional moments of James' life. Drawn from the vast James family papers at Houghton Library, with loans from Countway Library at Harvard Medical School, Harvard University Archives, and the Ernst Mayr Library of the Museum of Comparative Zoology, the exhibition included more than 90 manuscripts, letters, photographs, and drawings, arranged according to themes that highlight various aspects of James' life and work. The online exhibition includes links to the catalog record for every item, as well as links to a finding aid for the James family papers. A physical exhibition of the same name was also on display in Houghton's Edison and Newman Room throughout the fall semester.

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Sustainability Report Card

Academic Year 2010-2011

Sustainability Results for Fiscal Year 2011

Harvard is working to reduce greenhouse gas (GHG) emissions to a level 30 percent below a FY2006 baseline by FY2016. This reduction goal was set based on the recommendations of the Harvard University Task Force on Greenhouse Gas Emissions, a group of faculty, students, and senior administrators convened by President Faust in the spring of 2008.

Considering only the FAS buildings that existed in FY06 (the *base buildings*), conservation efforts have resulted in a 15.1 percent reduction in energy usage, a 31.4 percent reduction in water usage, and an estimated annual avoided utility cost of \$6,555,763 (at current FY2011 projected utility rates).

Base building GHG emissions are estimated to have decreased by 22.4 percent. Including the extensive growth of the FAS lab and research space, GHG emissions across FAS are estimated to have decreased by 4.1 percent in comparison with the FY2006 baseline year. These initial projections are based on FY2010 GHG conversion factors and will be further revised in spring 2012 when new factors become available.

FAS's active participation in Harvard's Demand Response Program, which is focused on reducing electricity loads on peak summer heat days, contributed to a decrease of Harvard's peak power load by 1.2 MW in July 2010 and saved the University over \$180,000 in annual utility rates.

2011 Green Carpet Awards

At the annual Green Carpet Awards presented by the Harvard Office for Sustainability on April 12, 2011, the University honored Harvard faculty, students, and staff who made significant contributions to campus greenhouse gas reduction and sustainability efforts. Eleven members of the FAS community received individual achievement awards, and team projects were recognized, including the Canaday Solar and Heat Recovery System, student weatherization events, Laboratory for Integrated Science and Engineering (LISE) retro-commissioning, and zero-waste faculty meetings. Jay Phillips, FAS senior director of operations, was honored with the Spengler-Vautin Special Achievement Award for his leadership and pivotal role in Harvard's efforts. The award was presented by Dean Smith and Executive Vice President Katherine N. Lapp.

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Other Accomplishments

LEED Green Building Projects

Certified: 17 (16 LEED CI, 1 LEED EB: O&M)

Gold: 10Silver: 6Certified: 1

Registered: 16 (15 LEED CI, 1 LEED NC)

Renewable Energy

Canaday Solar and Heat Recovery System

- 166 metric tons of carbon dioxide equivalent (MTCDE) reduction per year
- Meets 60 percent of hot water needs in the Yard
- Initial payback projections: under 10 years

Building a Culture of Sustainability

Greener Laboratories

- "Shut the Sash" campaign launched in 2005, with \$400,000 in annual savings and 20 participating labs
- 250 researchers on the *Greenerbenches* listsery, sharing best practices in lab and research operations
- Green Lab certification program since 2009, with five certified labs and more than 20 green lab assessments
- Freezer Management Program launched in spring 2011, promoting freezer cleanouts, regular coils cleaning, and purchasing of energy efficient models

Office Space

- 40 Green Offices, including the offices of Deans Smith (FAS), Hammonds (College), and Lichten (Physical Resources and Planning)
- Green teams and monthly Eco-Citizens meetings
- Biannual Freecycle events: 500 participants
- Junk mail reduction effort: 1,950 individual unsubscriptions

Student Engagement and Leadership

- Student-run weatherization events in conjunction with the Office for Sustainability and Green Building Services
- Green'15 program: outreach to freshmen and annual Green Fair in Annenberg Hall

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- Annual Sustainability Pledge campaign in FY2011: 3,400 student participants
- Annual Green Cup competition for the Houses
- Annual environmental art contest since 2002: 40–60 cartoon entries each year; 10–15 displays each year
- Student eco-projects: 60–70 per year
- Increase in recycling rates at football games: 30 percent in 2010 compared with 0 percent in 2008

Environmental Initiatives in the Yard

- LEED: O&M SILVER certification for Thayer Hall
- Green cleaning program in 100 percent of dorms
- All new furniture is local and Forest Stewardship Certified (FSC).
- All water fixtures have been upgraded with low flow aerators and dual flush systems.
- All paints are low or no volatile organic compound (VOC).
- Organic compost program run by Harvard's Facilities Maintenance Operations has replaced chemical fertilizers with compost tea, reduced irrigation needs by 2 million gallons per year, and increased roots from 3 to 5 inches.
- Rainwater sensors save 4 million gallons of water per year.

Sustainability Videos

- Sustainability at Harvard
- Sustainability at FAS
- Student Engagement
- Canaday Solar Thermal and Steam Tunnel Heat Recovery System
- Freecycle Event
- Turn off the lights

Contact: energy@fas.harvard.edu

Website: green.harvard.edu/fas

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Financial Report

Leslie Kirwan

Dean for Administration and Finance *Fiscal Year 2010–2011*

We are pleased to present here the FAS's financial results for Fiscal Year 2011, the fiscal year ending June 30, 2011. For purposes of comparison, the results for Fiscal Year 2010 are also displayed. This report follows a standard set in October 2009, when FAS Dean Michael D. Smith presented a financial report to the faculty to help them and other key audiences gain a deeper understanding of the FAS's financial condition in light of the impacts of the global recession. At that time, the dean committed that future annual reports would be published each October following this new, more timely, and more comprehensive standard.

This report is intended solely to present a managerial view of the FAS's finances and operations, and to explain how our financial resources changed and how they were used during the year in support of our academic mission. It is important to note that these results are not audited in accordance with generally accepted accounting principles (GAAP), nor should they be confused with the audited financial statements of Harvard University as a whole, which will be published in October 2011.

Overview

From a vantage point early in the fiscal crisis, FY2011 presented the biggest challenge for the FAS. The prospect was that—absent a prompt and effective management response—successive reductions in the endowment distribution in FY2010 and FY2011 could result in a crushing deficit in relation to the FAS budget. Dean Smith quickly crafted a three-year plan of structural, or ongoing, budget solutions beginning immediately in FY2009. The faculty's success in rapidly implementing that blueprint and continuing on a path of fiscal discipline through FY2011 is reflected in the results reported here. Specifically, the final result of FY2011 operations was a deficit of \$16.2 million in the FAS Core, with modestly larger deficits when all fund types and affiliates are included. Based on the results of FY2011, absent unforeseen circumstances, the FAS is on track to close or substantially close the remainder of the deficit by year end of FY2012 as planned.

More important, despite the budgetary reductions needed to achieve this financial result, the faculty has accomplished an impressive amount of mission critical work throughout the three- year recovery period. FAS has been able to make targeted investments in several critical priority areas, including faculty searches, undergraduate and graduate financial aid, research administration, and core facilities, with an ongoing emphasis on environmental conservation measures and greenhouse

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gas reduction. As envisioned by Dean Smith at the onset of the fiscal crisis, in many ways the FAS has become a stronger, more resilient faculty as a result of the financial recovery plan, positioning us well for possible financial challenges yet to come

Guide to the Accompanying Financial Statements

The FAS budget is both large (approximately \$1.1 billion) and highly decentralized, with significant spending under the direct control of over 150 separate departments, centers, libraries, and museums. The consolidated Statement of Activity presents important categories of revenues and expenses of the FAS as a whole. This view combines what is typically called the "Core" of the FAS, which comprises the faculty, the College, and the Graduate School of Arts and Sciences, together with the other major affiliates of the FAS (i.e., Athletics, the Division of Continuing Education, Dumbarton Oaks, the Harvard College Library, the Museums, and the School of Engineering and Applied Sciences). Given that the Core constitutes about 74 percent of the FAS FY2011 consolidated revenues and nearly 73 percent of FY2011 consolidated expenses, we also present an FY2011 Statement of Activity for just the Core. We include this particular view because it highlights an area of FAS finances (the unrestricted budget of the FAS Core) that has been under particular stress for some time, exacerbated by the significant impacts of the global recession.

Finally, we include a Balance Sheet for the consolidated FAS that presents our major assets and liabilities at the end of FY2010 and FY2011. As noted above, this presentation of the Balance Sheet has not been audited in accordance with generally accepted accounting principles (GAAP), nor should it be compared with the University's audited financial statements.

FY2011: The Most Challenging Year

When the impending impacts of the global financial crisis on the endowment of Harvard University and the FAS became apparent during FY2009, Dean Smith announced a comprehensive plan of action that spanned three years, FY2009–2011. This phased approach was designed to provide time for the needed adjustments to be made, and was facilitated by reserve balances within the FAS that are available for restrained and strategic use as a funding bridge while other solutions are developed.

Dean Smith reported in FY2009 that the FAS faced an unrestricted deficit of \$130 million in FY2010 that was projected to grow to \$220 million in FY2011. These projected deficits were driven primarily by endowment distribution declines of 8 percent in FY2010 and an additional 12 percent in FY2011. With FAS's heavy reliance on endowment income—54 percent of revenues came from the endowment in FY2009—the decline in distributions was far and away the biggest budget challenge, but it was not the only one. The economy's impact on family incomes

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increased the demand by our students for assistance from Harvard's generous financial aid program, resulting in increased costs. The ladder faculty had grown, intentionally, by 134 members or 23 percent over the prior decade. Additionally, the FAS had recently constructed over 1 million square feet of new facilities, substantially increasing expenses for debt service as well as operation and maintenance. Continuing to support these recent new investments made the drop in endowment revenues an even greater challenge.

Through tremendous citizenship, innovation, and hard work during the FY2010 budgeting cycle, the \$130 million FY2010 projected deficit was reduced by \$110 million; additional efforts over the course of FY2010 closed the remainder of that year's gap. Many of the solutions which closed the FY2010 budgetary gap were structural in nature, thus contributing to closing the FY2011 gap as well. In developing the FY2011 budget, we were able to close all but \$35 million of the previously forecasted unrestricted budget gap of \$220 million for the FAS Core. At the outset of FY2011, Dean Smith stated his intention to bring the FAS budget fully into balance through continued hard work by closing the remaining gap over two fiscal years—that is, by the end of FY2012.

FY2011 Results

By following the three-year fiscal recovery plan, the FAS has completed FY2011 with a modest deficit of \$16.2 million in the Core unrestricted actual results. On a consolidated basis (that is, including the results in Athletics, the Division of Continuing Education, Dumbarton Oaks, the Harvard College Library, the Museums, and the School of Engineering and Applied Sciences), the unrestricted FAS deficit was \$31.4 million, and on an all-funds basis the consolidated bottom line of the FAS was a manageable deficit of \$23.2 million. In short, the FAS finished FY2011 on track with the dean's plan to close approximately half of the remaining structural deficit identified at the beginning of the year. The availability of reserves to bridge this remaining gap over the current fiscal year (FY2012) remains an important part of the approach.

Many elements contributed to this positive outcome in FY2011. They fall into several categories of savings that have been important throughout the three-year recovery plan.

- FAS energy conservation and greenhouse gas emissions reduction efforts, combined with smart and careful building management practices, contributed \$7.2 million of savings in FY2011 and \$36 million during the three-year period. These achievements are even more significant when one considers the increased square footage of our facilities in recent years.
- Careful control over staffing levels and new position requests has maintained the FAS staff count at approximately 2900 positions, a figure that has been flat since

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early FY2010. The FAS is down approximately 200 positions since prior to the fiscal crisis. New positions have been approved sparingly and in areas of most strategic need, such as support for sponsored research. Annual compensation increases have been restored following a year without increases in FY2010, but at an average of 2 percent for strong and sustained performance for most faculty and staff, they are still below the levels seen before the fiscal crisis.

- Significant savings across the Core through reductions to controllable non-compensation expenses, such as travel, meals, purchases of goods and services, and other discretionary spending, have contributed to the deficit reduction in every year. Core spending in these areas is down by 13 percent or \$6 million compared to FY2008. The implementation of the Harvard Crimson Online Marketplace (HCOM) generated approximately \$1 million in savings in FY2011, a partial year. We expect that figure to grow as the implementation is completed in FY2012.
- The use of restricted income, consistent with fund terms, to pay for essential current costs has been a key way in which many departments, centers, and other affiliates have assisted in the recovery.
- In spite of the economic downturn, the generosity and support of Harvard alumni and donors continued, and the FAS was able not only to achieve, but slightly exceed its annual fundraising target. Equally important, our donors responded to the dean's request to shift donations into unrestricted, general-use giving, providing much-appreciated flexibility in challenging times.

Targeted Investments Continue

The work of the faculty did not stop while these budgetary actions were under way. Some investments in the academic mission of the FAS were too important to wait for a more favorable economic climate, and Dean Smith's recovery plan made room for a number of targeted investments. For instance, during FY2011, active faculty searches resulted in 39 external offers and 22 successful new hires to date. This robust level of faculty search and hiring demonstrates our ongoing commitment to excellence and the attractiveness of the FAS to the world's finest faculty. Also during FY2011, 4,134 undergraduate students, or nearly 62 percent, received some level of scholarship grant aid to attend Harvard. Financial aid expenditures rose in FY2011 to \$154.5 million, at a time when resources available from the endowment that support the cost of financial aid were substantially diminished. In comparison, financial aid expenses were less than half this total as recently as FY2003. The strength of our financial aid program, and Harvard College's attractiveness to a diverse and outstanding student body, is reflected in the record year experienced by the FAS for new applicants, which approached 35,000. Additionally, stipend levels for graduate students were increased modestly. During the three-year recovery period (that is, between FY2008 and FY2011), FAS total financial aid grew by \$48 million, or 45 percent, remarkable growth in the context of a significant revenue drop during this period.

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As always, we aspire to have the finest physical space for teaching and learning, and while major physical expansion efforts have diminished during the fiscal recovery, the FAS was able to direct resources toward a variety of important projects in FY2011. As always, these included various renovation projects to accommodate new and newly promoted faculty and the program of summer maintenance projects that ensure our facilities are properly stewarded. FY2011 saw the completion of a major renovation of the Sherman Fairchild building to accommodate the cross-school Department of Stem Cell and Regenerative Biology, and the commencement of a substantial renovation of Paine Hall that enhances teaching, performance, and practice spaces for Music students and faculty. The FAS also contributed \$5 million with the University contributing an additional \$5 million to fund Harvard's \$10 million investment in the Massachusetts Green High Performance Computing Center (MGHPCC), a research computing facility being constructed in Holyoke. Massachusetts, by a consortium of five universities (Harvard, MIT, BU, Northeastern, and UMass), the Commonwealth, and private industry. This investment will provide affordable and reliable research computing capacity for the FAS in the future.

FY2011 was a year of progress on Dean Smith's plans to renew the undergraduate residential House system. Funds were spent on planning, design, and exploratory work on the test project in Old Quincy House, an important step in learning and testing concepts for renewal across the Houses. To get ready for this project and other capital needs, as well as to manage the FAS's high debt load, we have looked for opportunities to pay for projects with equity and to pay down existing debt where possible. During FY2011, \$16 million of capital projects planned in the upcoming fiscal year were funded directly from FY2011 operating funds, and \$13 million was used to pay down internal debt, resulting in a reduction in the amount of FY2012 income required for interest payments on our long-term debt.

Balance Sheet View: Continued Rebuilding of FAS Assets

As set forth in the Consolidated Balance Sheet, total net assets for the FAS grew by just under \$2 billion during FY2011, from \$13.8 billion in FY2010 to \$15.8 billion in FY2011. The increase principally reflects growth in long-term investments (primarily endowment), from \$12.2 billion at the close of FY2010 to \$14.1 billion at the close of FY2011.

In comparison, FAS's net assets stood at \$18.0 billion at the close of FY2008, of which long-term investments represented \$16.6 billion. Further, it is recognized that the relatively strong capital market performance in FY2011 that helped drive strong investment returns has been followed by significant market volatility and continued negative economic news nationally and globally, indicating that volatility in the capital markets may exist for the foreseeable future.

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The Outlook: FY2012 and Beyond

Following two difficult years of declining revenues, FY2012 provides welcome breathing room for the FAS. An increase of 4 percent in the endowment distribution, coupled with the fiscal discipline achieved in the last three years, will fuel modest growth in the Core and other FAS budgets, and is expected to help achieve the dean's goal of a structurally balanced budget by year end.

This is great news, but internal and external factors will require effort to ensure balanced budgets in the near future. Ongoing upward pressure on some of our expense categories, coupled with, at best, modest increases to our key revenue sources for the foreseeable future, suggest that sustained fiscal balance will require our continued focus and innovation.

Foremost among the challenges faced by the FAS is ensuring adequate resources to attract and retain outstanding faculty and graduate students. Operating successfully in the market for the finest scholars requires competitive search budgets and authorizations as well as competitive scholarship and aid programs for graduate students. Faculty and graduate students are the intellectual capital underlying our educational and research mission; thus, maintaining and enhancing our world class academic reputation require sufficient funds in these critical areas.

Our generous undergraduate financial aid program enables us to attract the finest and most diverse undergraduate student body in the world. Our dedication to sustaining Harvard's "best in class" financial aid program remains steadfast, but doing so will exert pressure on the finances of the faculty for years to come, particularly on the unrestricted budget.

The revenue outlook remains constrained. Distributions from our largest source of operating revenue, the endowment, will very likely be modest at best. As a result of the fiscal crisis, the FAS now relies on the endowment to fund 49 percent of our operating budget, down from 54 percent in FY09. Further, the University has adopted a smoothing formula to reduce the volatility of endowment changes. Despite this progress, it is still by far the FAS's largest revenue source. FAS's cost structure is relatively fixed, and is expected, in many cases, to inflate at a pace that exceeds anticipated growth in endowment distributions.

A new concern is our sponsored revenue, which currently represents approximately 15 percent of our budget and has been a bright spot during the recovery. While our faculty will always be among the most productive, innovative, and successful in the competition for research funding, we anticipate that the current pressure to reduce the federal deficit may reduce the funding available through the traditional sponsoring agencies. We need to make strategic investments in ways to support our faculty in this shifting environment.

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The progress identified in this report would not have been possible without the leadership, creativity, hard work and sacrifice of colleagues throughout the FAS and business partners elsewhere at Harvard. Though continued discipline will be required to maintain these gains, your efforts have positioned the FAS to withstand continuing fiscal challenges and enable key investments in our academic mission.

Respectfully submitted,

Leslie A. Kirwan

Dean for Administration and Finance