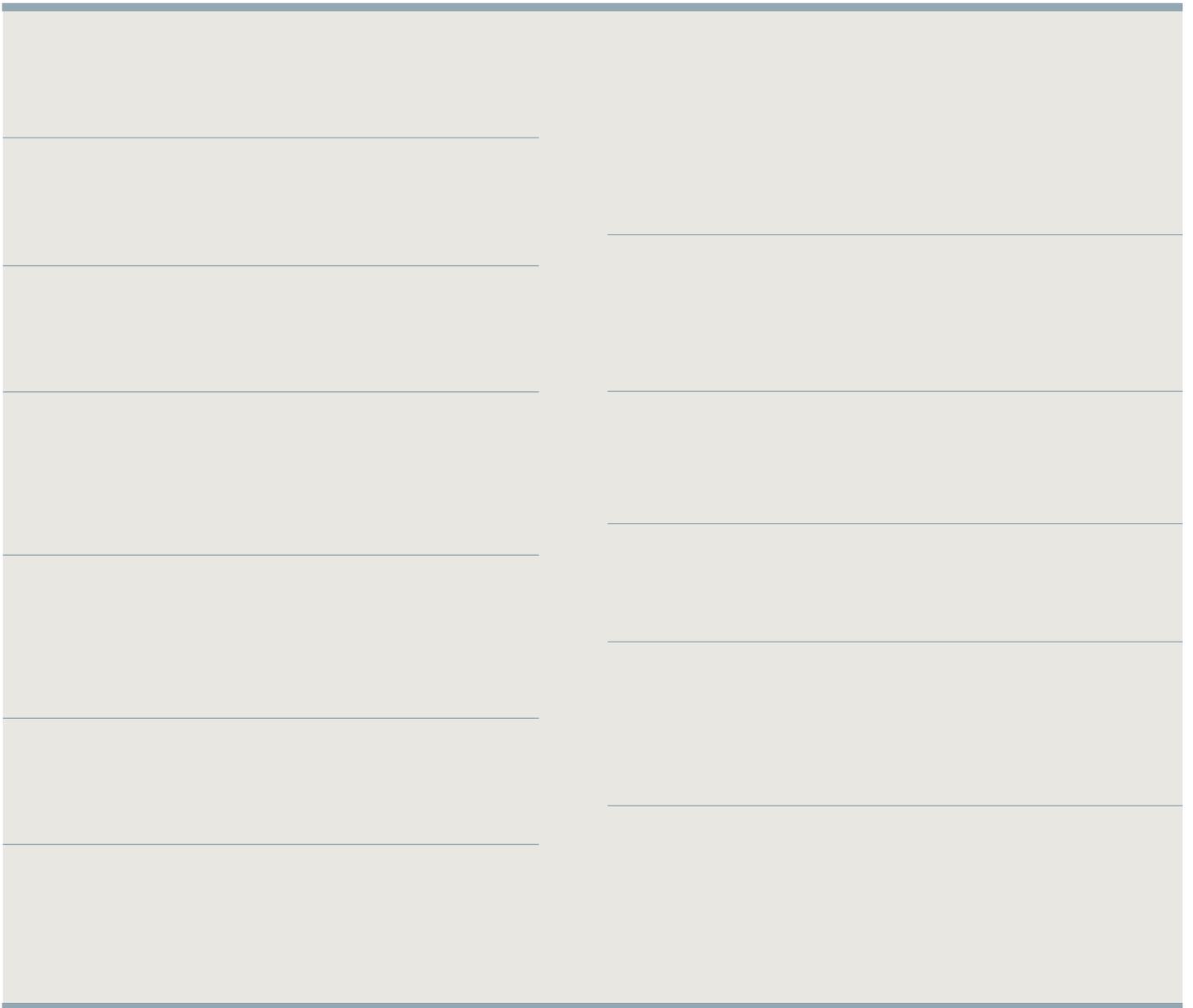




HARVARD
Faculty of Arts and Sciences



THE DEAN'S ANNUAL REPORT 2012



LETTER FROM THE DEAN

MICHAEL D. SMITH

DEAN OF THE FACULTY OF ARTS AND SCIENCES
ACADEMIC YEAR 2011–2012

“This was an exemplary year in which we, as a faculty, carefully shepherded our resources, while making important strategic investments that support both our historic broad excellence and our role as an institution that advances knowledge.”

Dear colleagues and friends,

It is my pleasure to report on the activities and financial results of the Faculty of Arts and Sciences during fiscal year 2012 (July 2011 through June 2012).

This was a year of milestones. As a community, we celebrated Harvard's 375th anniversary with a **uniquely Harvard birthday party** in Tercentenary Theatre in October, followed by a year of **conversations** and **events** exploring the meanings and possibilities of Harvard's past, present and future. It was a year of monumental change for our library system, in which, under the leadership of Provost Garber, a **new integrated Harvard Library organization** took its first steps. We marked the fifth anniversary of our industry-leading undergraduate financial aid program by expanding affordability for those families most in need. Excellence in teaching took center stage with a new series **profiling great teachers**, the launch of a search for the first faculty director of the **Bok Center for Teaching and Learning**, our many collaborations with the **Harvard Initiative for Learning and Teaching**, and the **launch of edX**, an online learning partnership between Harvard and MIT, in which the FAS plays a leading role. Together with the Graduate School of Education, we established a **doctoral degree in education**, further expanding our interfaculty partnerships in ways that will serve our students and the wider world. After five years of planning, and the launch of two test projects, we



announced the start of the **system-wide renewal of our undergraduate Houses**, an institution at the heart of the Harvard College experience. And, we welcomed a **new dean of the Graduate School of Arts and Sciences**, whose extraordinary accomplishments as a scholar and teacher underline Harvard's commitment to nurturing an environment in which teaching and research are intrinsically interconnected.

As Dean Leslie Kirwan reports in the financial letter of this report, this year we were able to achieve our goal of bringing the operating budget into structural balance. This important achievement was made possible by the faculty's ongoing

fiscal discipline over the preceding three years, which required difficult choices by many across all departments and units of the FAS. I continue to be deeply grateful for the partnership of our faculty and administrative leaders, without which this result could not have been delivered. Though we should be proud of having reached this hard-won result, I would caution against the notion that the time for financial discipline is over, especially as other universities report lower than expected endowment returns. Furthermore, sponsored research, which saw gains that were a bright spot during the financial recovery, may decrease as federal funding for research declines, as many anticipate.

This noted, I would say that 2011-2012 was an exemplary year in which we, as a faculty, carefully shepherded our resources, while making important strategic investments that support both our historic broad excellence and our role as an institution that advances knowledge.

While these advancements were made possible through the hard work of many, there are a number of individuals whose service deserves special recognition. I am deeply grateful to William Fitzsimmons, dean of admissions, Marlyn McGrath, director 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, Howard and Ann Georgi, masters of Leverett House, and Roger and Ann Porter, masters of Dunster House, for their continued counsel as we advance our plans for House Renewal. Merle Bicknell, assistant dean for physical resources, and Stephen Needham, senior director of project management for House Renewal, have been tremendous partners in this complex and rewarding project. I am deeply grateful to Anne Margulies, University chief information officer, and

Rob Lue, faculty director of HarvardX, who have provided tireless support and thoughtful guidance as we launched edX and undertook the development of our HarvardX vision. The members of the Dean's Faculty Resources Committee have provided invaluable feedback on our financial strategy that has made us stronger. The FAS Standing Committee and the other members of the FAS faculty who have advised the Library Board on the evolving vision for the Harvard Library system have made important contributions that will shape the future of this resource that is so close to the heart of our teaching and research mission. Finally, 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.

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 Glenn Hutchins and Carl Martignetti, the co-chairs of the FAS Campaign, and the members of the Dean's Campaign Planning Council for their guidance as we think about the future, and the Harvard College Fund Executive Committee for their work in making our fiscal year 2012 fundraising results so strong.

As always, I am amazed by the seemingly limitless energy and ideas of our extraordinary students.

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

edX IN THE FACULTY OF ARTS AND SCIENCES

In May 2012, Harvard and MIT announced the creation of edX, a not-for-profit partnership in online education. EdX's two main goals are to increase access to education to a worldwide community of learners and to catalyze innovation in teaching and learning, both online and on campus. The term "HarvardX" designates both Harvard's content contributions on the edX platform and the evolving organization at Harvard that supports course development and pedagogical research on the edX platform.

The Faculty of Arts and Sciences plays a significant role in the development of this partnership and in its ongoing leadership. FAS Dean Michael D. Smith serves as a member of the edX Board, along with Provost Alan Garber, Dean of the Graduate School of Education Kathleen McCartney, and Executive Vice President Katie Lapp. In June 2012, Robert Lue, director of life sciences education and professor of the practice of molecular and cellular biology, was named the faculty director of HarvardX. In this role, Professor Lue chairs the University-wide HarvardX Faculty Committee and directs the support organization for and approach to HarvardX course development. Over the late spring and summer, he worked with the first wave of faculty developing courses on the edX platform for launch this fall. One of them, David Malan, is a senior lecturer on computer science in the FAS. Both the HarvardX Faculty Committee and the HarvardX Research Committee benefit from the participation of FAS faculty.



On May 2, Harvard and MIT announced the formation of edX, a transformational new partnership in online learning. At a joint press conference, Presidents Drew Faust and Susan Hockfield described their shared goals of expanding access to education to learners around the world and of enhancing campus-based education with new tools, new pedagogical approaches, and new research on learning.

With the guidance of the HarvardX Faculty Committee, a number of principles have emerged. HarvardX should produce courses, content elements, and pedagogical tools that will benefit Harvard students and enhance on-campus teaching in a direct way. HarvardX courses should reflect the diversity of fields represented at Harvard, and they should provide a vehicle for developing innovative approaches to teaching that better utilize both technology and the Internet. These broad principles will guide Harvard's faculty as they help shape our vision for HarvardX and develop new course content. In the FAS, capacity and infrastructure are being developed to support faculty in course development and pedagogical experimentation on the edX platform.

While still at an early stage, HarvardX has made significant gains over four short months. On October 2, Professor Lue attended the FAS Faculty Meeting to describe the emerging HarvardX approach to course development and to welcome the input of the faculty. The HarvardX Faculty Committee will sponsor events for faculty over the fall and spring, and the Conversations@FAS panel series, to be held early in the spring, will feature edX as part of a broader discussion of the digital revolution in teaching. ■

HARVARD COLLEGE

DEAN EVELYNN HAMMONDS
BARBARA GUTMANN ROSENKRANTZ
PROFESSOR OF THE HISTORY OF SCIENCE AND
OF AFRICAN AND AFRICAN AMERICAN STUDIES
ACADEMIC YEAR 2011–2012

The 2011–2012 academic year found the College reinvigorated on many levels. The long-anticipated renewal of Harvard's House system began with a groundbreaking for the Old Quincy section of Quincy House. The old Core Curriculum is gone, replaced by an exciting range of General Education courses that are innovative, often multidisciplinary, and informed by research on best pedagogical practices. Students' curiosity extends past the regular school year, and now summer research programs and Winter Break classes exist to satisfy it year-round.

MAJOR ACHIEVEMENTS

Admissions and Financial Aid

More than 34,300 students applied to Harvard College this year for admission to the Class of 2016. Of these, letters of admission were sent to 2,032, 5.9 percent of the pool, making this the most selective admissions process in Harvard's history.

Nearly 81 percent of students admitted to the Class of 2016 have chosen to matriculate at the College. The last time the yield on admitted students reached 80 percent was in 1971 for the Class of 1975. The yield for the Class of 2015 was 75.9 percent.

Three factors combined to increase the yield so significantly: the return of Early Action, the importance of our significant financial aid program in uncertain financial times, and a series of changes enacted over the past decade that greatly enrich the undergraduate experience.

Harvard reinstated Early Action this year after a four-year interval, admitting in December 774 students from a pool



of 4,231 to the Class of 2016. Students who apply early have a strong interest in Harvard and often do not apply elsewhere. In addition, offering preliminary financial aid awards to students admitted in December gave reassuring news about Harvard's affordability.

Harvard's financial aid program has been significantly enhanced in recent years, providing additional aid to low- and middle-income students. With the unwavering commitment of Michael D. Smith, dean of the Faculty of Arts and Sciences, Evelyn M. Hammonds, dean of Harvard College, and Drew G. Faust, president of Harvard University, Harvard has kept its doors open to talented students from all economic backgrounds. Seventy percent of Harvard students receive some type of financial aid. Sixty percent receive need-based grants, and the average annual cost to their families is \$12,000. Twenty percent of Harvard families have annual incomes under \$65,000 and pay nothing.

Families with incomes from \$65,000 to \$150,000 and with typical assets pay from zero to 10 percent of their annual incomes, and families with higher incomes can still receive need-based aid depending on individual circumstances, including having multiple children in college or unusual medical expenses. Students are not required to take loans, and home equity is not used in determining financial aid. As always, students are asked to contribute toward the cost of their own education by working 10 to 12 hours per week during the school year and obtaining a summer job.

This coming year, Harvard will spend approximately \$172 million on undergraduate financial aid. In addition, students and their families now have access to a Net Price Calculator (NPC), a simple, one-page application available online that provides an estimate of a family's eligibility for financial aid.

Admitted students often noted that their decision to matriculate at Harvard was influenced by the many changes at the University in the past decade: the new program in General Education; a fourfold increase in the number of small freshman seminars; the availability of more than 40 secondary fields of study (minors); the new School of Engineering and Applied Sciences (SEAS); an augmented advising system which doubles the number of freshman advisers to more than 400 (and also includes 200 peer-advising fellows and 60 resident proctors); expanded opportunities for close collaboration with faculty through research and regional centers; an arts initiative and revitalized theater opportunities, including productions and events at Farkas Hall; and many options for study abroad supported by a \$100 million gift from David Rockefeller.

Admitted students were invited to *Visitas*, which took place from April 21 to 23 with more than 1,300 students and their parents in attendance, a record. The program enabled admitted students to experience Harvard firsthand, meet faculty and current students, and explore Cambridge and Boston. A debt of gratitude is owed to all the faculty, students, and staff who made *Visitas* such a great success, as well as to our 15,000 alumni who telephoned, emailed, and hosted gatherings for our admitted students in locations around the nation and the world.

Harvard's yield is particularly notable because the College does not offer athletic or other non-need-based scholarships. In addition, Harvard's Early Action program, unlike binding Early Decision programs, allows admitted students to apply elsewhere and asks only that they reply by May 1 after comparing

offers of admission and financial aid. Such freedom and flexibility allow a student more time to choose the college that provides the best match, a contributing factor to Harvard's nearly 98 percent graduation rate.

By standard measures of academic talent, including test scores and academic performance, this year's applicants presented a remarkable level of excellence. More than 14,000 scored 700 or above on the SAT critical reading section; 17,000 scored 700 or above on the SAT math section; 15,000 scored 700 or above on the SAT writing section; and 3,800 were ranked first in their high school classes.

Minority representation remained strong. The class is 22.6 percent Asian American, 9.4 percent African American, 9.3 percent Latino, and 1.7 percent Native American and Native Hawaiian.

Foreign citizens make up 11.3 percent of the class. In addition, a significant number of other entering students will bring an international perspective, including 95 U.S. dual citizens, 52 U.S. permanent residents, and many Americans who have lived abroad. Together, foreign citizens, U.S. duals, and U.S. permanent residents constitute over 20 percent of the class, representing 86 countries. Staff travel abroad continues to make a significant difference in encouraging outstanding students from around the world to consider Harvard.

Enhanced Winter Programs

The time between the fall and spring terms provides students with an opportunity to step back from the demanding pace of the semester schedule. Wintersession, optional programming

now in its fourth year, has proven an increasingly popular way for students to explore creative passions, gain exposure to new ideas, develop skills, or delve into an extracurricular interest in ways that are not possible during the fall and spring terms.

Overall, around 140 events were offered in the arts, career and leadership development, academic enrichment, health and recreation, and skill development. Programs were sponsored by students (30 percent), faculty (15 percent), and administrative staff (55 percent), and a survey yielded positive feedback from participating students.

Participation in Wintersession was high. Approximately 2,000 students ate lunch and dinner on campus at the beginning of Wintersession and approximately 3,850 at the end of Wintersession.

Launch of House Renewal

The residential House system is a cornerstone of the undergraduate experience at Harvard. Born out of a partnership between Harvard President A. Lawrence Lowell and donor Edward S. Harkness in the late 1920s, the creation of the 12 undergraduate Houses utterly transformed undergraduate life at Harvard, and set the standard for residential liberal arts education in the United States. Almost 100 years later, the Houses remain integral to the Harvard undergraduate experience, providing a unique, multigenerational, faculty-led community of living, learning, and personal development.

In 2008, the College embarked on a review of the House system in preparation for system-wide renewal, which promises to be one of the most ambitious capital

projects the University will undertake over the coming decade. The overarching goal of the review process was to explore the unique role and purpose of House life in the educational experience of Harvard students and to revitalize the House system for the 21st century. The result was a set of principles and recommendations informed by the work of targeted subcommittees of faculty, students, and staff, as well as surveys of undergraduates and the findings of several focus groups. Harvard's reforms of curriculum, classroom pedagogy, and academic advising provided important context for this review, and the report reaffirmed that the House system is essential, not ancillary, to a Harvard education, powerfully engaging students in the intellectual life of the College and the University outside of the classroom.

In July 2012, the launch of that much-anticipated project was announced. System-wide House Renewal will begin in **Dunster House**, which was built in 1930 and is one of the oldest of the seven Houses built under President Lowell. Under the plan, which will be brought to the Harvard Corporation this fall, Dunster will be taken offline for 15 months (one academic year and two summers), beginning in June 2014, and the approximately 315 Dunster students will reside in nearby swing housing during the 2014–2015 academic year.

Though Dunster will be the first full House to be renewed and initiates the system-wide program, it is not the first renewal project. House Renewal is a tremendously complex undertaking, and the College and the Faculty of Arts and Sciences (FAS) have made every effort to create opportunities to learn and to refine planning in preparation for the launch of the full program. Dunster will



OLD QUINCY GROUNDBREAKING CEREMONY

The housing system at Harvard is part of what makes our College unique, and it has been the central facet of student life since its inception in 1929 under the presidency of Abbott Lawrence Lowell.

“It is thrilling to be a leader in Quincy House as we embark upon a moment of change. For the students in Quincy, the renovation has provided us with the opportunity to find innovative ways to help Harvard adapt to our changing times, and we find ourselves fortunate enough to contribute something tangible that will have an impact on the lives of students for generations to come. From student involvement in focus groups to presentations at our House Committee meetings, we have been a part of this process at every step of the way. We can truly say that this renovation, the first of many to come, was something we the students helped to bring to fruition.”

“Looking around this courtyard, Old Quincy will look the same on the exterior, but that which is inside will be improved, not only in a physical sense, but also in the way students are brought together as a community. With the relevance of the conversation calling for more common spaces for student interaction, we look forward to the example that Quincy will set for the rest of the College renovations in bringing students together through the basement and terrace-level public spaces, as well as the cluster common rooms. One of the aspects of New Quincy that we

are excited to see implemented in the Old Quincy renovation is the horizontal hallways. In New Quincy, we become so much closer to our neighbors when there are 100 people we can run into on our way to and from our rooms, rather than the handful one might see if one lived on the first or second floor of an entryway.”

“Years from now when we return for our reunions, we will look at Quincy House and remember that we were a part of this moment of transition in the College's history. Despite the temporary challenges the renovation will bring to our community in the next year, we are confident that our House life and spirit will remain as strong as ever.”

“At the end of the day, Quincy is a family: from our weekly community dinners that sometimes feature members of the House belting out Whitney Houston songs, to monthly Masters' Open Houses where we scarf down the House Elves' delicious desserts and Deb's famous penguin punch, to stomping on each others' feet while trying to pop balloons tied to our opponents' ankles in the annual Field Day balloon stomp. We look forward to continuing these cherished House traditions in the newly renovated walls of Quincy, and we could not be more excited for the future of our beloved House.”

Catherine Katz, '13
Scott Yim, '13
May 2, 2012



The renewal of Old Quincy will provide the first look at the future of Harvard's historic House system. Breaking ground for this project were FAS capital campaign co-chair Carl Martignetti '81, M.B.A. '85, and Harvard College Fund Executive Committee co-chair Gwill York '79, M.B.A. '84, FAS Dean Michael D. Smith, Quincy House Master Deborah Gehrke, Harvard College Dean Evelyn Hammonds, Quincy House Master Lee Gehrke, and Catherine Katz '13 and Scott Yim '13, co-chairs of the Quincy House Committee.

follow two smaller test projects, in the Old Quincy building of [Quincy House](#), where construction began in June, and in the McKinlock building of [Leverett House](#), where design is under way. The two projects enable the assessment of design and construction options on portions of two neo-Georgian river Houses and together help to inform plans for renewal of a full House.

The test projects are invaluable opportunities to translate the principles and recommendations of our review into a new vision for House spaces. In Old Quincy, which is composed largely of bedrooms for students and tutors, the program has developed strategies to maintain much of the historic fabric of the building, while reconfiguring the space in important ways that will carry through future projects in Dunster and

beyond. First, it introduces a hybrid circulation that combines the traditional Harvard "vertical" entryways with horizontal hallways to connect students and encourage community on the floor level. The new circulation also allows for well-defined tutor communities. A combination of room clusters and suites introduces more single bedrooms and provides enhanced privacy. The introduction of two elevators makes the building 100 percent "visitable" by wheelchair, and all bathrooms are accessible. The renewed Old Quincy includes a variety of technology-enabled spaces, ranging from quiet individual study spaces to a "smart classroom" to larger House- and student-programmed spaces. Complementing these learning spaces is a large community room and open-air terrace for recreation and social events. Music practice spaces for both

individuals and ensembles are also provided. In addition to being fully accessible, the building will be LEED Gold certified as environmentally friendly.

Although it includes student rooms, the Leverett McKinlock project also affords the opportunity to renovate additional House facilities beyond those that exist in Old Quincy. For example, new social and academic spaces for students will be created on the basement level, which is currently unfinished. McKinlock's enclosed courtyard offers an opportunity to create an attractive, large, open green space and to provide informal seating and gathering spaces that are currently lacking in the Houses. A dining hall, a performance space, the junior and senior common rooms, and the masters' residence will also be renovated as part of the Leverett test project.

Quincy House Masters [Lee and Deb Gehrke](#) and Leverett House Masters [Howard and Ann Georgi](#) have been instrumental in planning and implementing the test projects. Likewise, [Roger and Ann Porter](#), the Dunster House masters, will play a crucial role in planning the renewal of that House.

Following the renewal of Dunster House, FAS and the College will assess the test projects at Old Quincy and Leverett McKinlock, as well as the first full House renovation at Dunster, before proceeding to renewal of the next House in 2016–2017. The pace and sequence of House renewal is subject to periodic review by the Harvard Corporation.

House Renewal is a priority at the heart of Harvard's commitment to providing an unparalleled liberal arts education and student experience in a residential setting. With all of the progress made



through the planning for both Old Quincy and Leverett McKinlock, House Renewal launches equipped to balance the need to preserve the historic character of these buildings and to sustain President Lowell's original vision, while simultaneously transforming these spaces to support a 21st-century intergenerational learning community that addresses the needs of today's students.

375th Anniversary Celebration

On October 14, 2011, in spite of the rain, students sang, danced, ate pieces of the giant H-shaped crimson velvet cake, and participated with alumni, faculty, and University staff in the revelry celebrating Harvard College's 375th year. Special dinners were served in the dining halls before the main event, including dishes drawn from centuries of Harvard meals. Members of the House communities processed to Tercentenary Theatre bearing balloons, beating rhythms on sticks, and, in the case of Leverett House, sporting twinkling bunny ears. Dozens of student groups performed on the four stages set up throughout the Yard. Yo-Yo Ma '76 played and led a Happy Birthday song to Harvard. The event went on until

the early hours as intrepid partygoers continued to dance to music with less historical provenance, undeterred by a sea of mud.

Return of ROTC

With the repeal of the "Don't Ask, Don't Tell" policy by Congress, the University officially welcomed back the Naval Reserve Officers Training Corps in March 2011. In the spring of 2012, the College celebrated the return of the Army Reserve Officers Training Corp. Both branches now have office space at the Student Organization Center at Hilles.

In addition, the University appointed an ROTC implementation committee, chaired by [Kevin Kit Parker](#), Tarr Family Professor of Bioengineering and Applied Physics in the [School of Engineering and Applied Sciences](#), as well as an [Army](#) major who has served three tours in Afghanistan. The committee works to enhance the experience of Harvard ROTC students consistent with the broad framework of Harvard's ROTC agreements.

The return of ROTC to Harvard is a strong affirmation of the tremendous

contributions made by the Army and Navy to leadership development. Harvard College can contribute much in training the next generation of military leaders, grounding them in a rigorous liberal arts education. In turn, the presence of ROTC expands opportunities for students to serve our nation.

New BGLTQ Space

Accompanied by tremendous excitement on campus, the Office of Bisexual, Gay, Lesbian, Transgender, and Queer (BGLTQ) Student Life opened officially in March 2012 in a beautifully renovated space in Boylston Hall. The BGLTQ office sponsors or co-sponsors more than 20 programs, through which it has increased the visibility of BGLTQ issues on campus. There is also a website for BGLTQ Student Life and a Facebook page where community events and announcements are posted.

In July 2012, the College welcomed Vanidy Bailey as the full-time director of this office. As assistant director for education at the University of California, San Diego, since 2010, Bailey has implemented educational outreach programs, advised

several student organizations, served as a liaison on BGLTQ housing, and carried out various other BGLTQ-related activities. Previously, Bailey worked for three years at California State University, Northridge, first as community director and then as senior community director.

Revised Alcohol Policy and Programs for Students

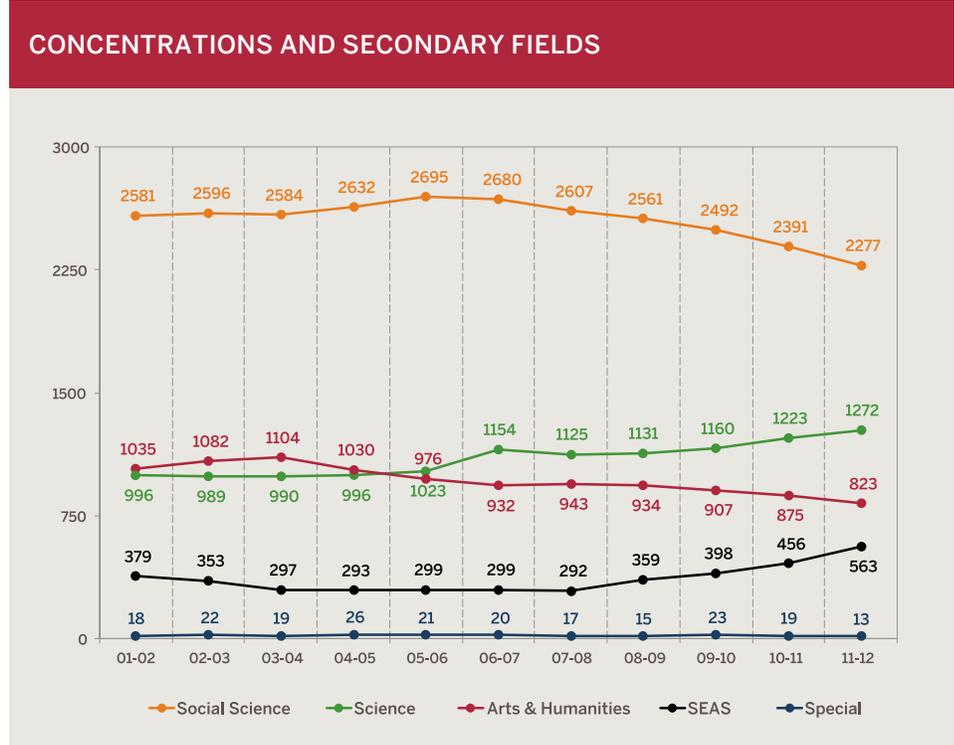
To encourage students to socialize responsibly, the College began to offer alternative late-night programming. The College Events Board supported late-night weekend programs, funding was provided to the Houses to promote innovative activities, and the Office of Student Life encouraged collaboration among student organizations, all of which resulted in an average of nine events each weekend that were alcohol-free and open to all undergraduates.

In the fall of 2011, the College implemented guidelines for tutors and proctors to follow when assessing high-risk drinking in the residences. Cabot House Master Rakesh Khurana led a committee to review the campus alcohol policy. The committee's recommendations will be presented to the faculty in the fall of 2012.

HIGHLIGHTS FROM COLLEGE UNITS

Office of Undergraduate Education

The Office of Undergraduate Education (OUE) oversees and, in specific cases, interprets much of the curricular and academic policy for the College, with input and advice from the Faculty Council, the Educational Policy Committee, the Committee on Undergraduate Education, and the directors of Undergraduate



Studies. Issues before the OUE include a practical and informed approach to curriculum assessment, led by Jenny Bergeron, who has been hired as the director of educational research and assessment; a two-year review of Expository Writing 20, the main introductory-level writing course at the College; and an ongoing study of academic integrity at the College. This last study will set the stage for faculty- and campus-wide conversations on academic integrity and a review of College policies in this area.

The OUE oversees all aspects of advanced standing and related advising, and since this program has not been reviewed in many years, the OUE has launched a study of students with advanced standing. While no changes in policy are anticipated at this point, the review may make policy recommendations for the

faculty to consider. The OUE will also follow up on and present to the faculty recommendations from the provost's review concerning the Bureau of Study Counsel.

Over the past two years, the OUE has led discussions on and a launch of preterm planning, which collects nonbinding information about students' course choices before each academic term. The implementation has proved successful and reasonably accurate at predicting course enrollments. The resulting data has allowed instructors and administrators to plan more effectively for the allocation of sections, the appointment of teaching fellows, and the assignment of classrooms.

Concentrations and Secondary Fields.

The chart above presents the number of undergraduate concentrators by division over the past 10 years. The numbers for



2011–2012 continue the trajectories of the past few years. Social Sciences remains the division with the greatest number of concentrators, but the margin continues to decrease. SEAS, while still the smallest of the four divisional areas, continues to attract concentrators and grow in size. While not displayed in the figure, the number of students graduating in 2012 with a secondary field was consistent with the past two years, with roughly a sixth of the student body completing a secondary field.

At the end of the academic year the FAS approved two new SB concentrations, electrical engineering and mechanical engineering, administered by SEAS. In addition, students interested in the field of architecture will have the opportunity this fall to pursue a new track, Architecture Studies, in the History of Art and Architecture concentration. This track is jointly administered by the History of Art and Architecture department and the Graduate School of Design.

General Education

Launched in September 2009, the Program in General Education (Gen Ed) established a shared undergraduate curriculum that seeks to connect in an explicit way what students learn in Harvard classrooms to the world beyond them. As Gen Ed completes its third year, the program is healthy and vibrant. The curriculum now boasts nearly 450 courses through which students can receive Gen Ed credit. This past year also marked the official end of the Core, as the College ceased to offer courses under this designation and all of the current undergraduates are now part of the Gen Ed program.

Gen Ed courses are often sites of pedagogical innovation, as professors seek to engage students with material that crosses the boundaries usually separating fields of study. For example, Science of Living Systems 19, “Nutrition and Global Health,” is taught by professors from the Medical School and the School of Public Health. The course introduces students to nutrition and global health problems through exploration of demographic,

epidemiological, biological, social, political, and economic determinants of nutritional status.

Beyond courses, Gen Ed offers workshops where faculty discuss the benefits and challenges of “creative and nontraditional assignments,” and along with the Bok Center staff, the Gen Ed staff offered training sessions for head teaching fellows, focusing on areas including course administration, sectioning, academic integrity, grading, midterm evaluations, and final exams.

Student-faculty interaction through Gen Ed doesn’t stop at the classroom door. September saw the very successful second annual Opening Days Lecture for students, where a faculty member who teaches a Gen Ed course gives a talk to freshmen. The 2011 speaker was Nicholas Christakis, professor of medical sociology in the Department of Health Care Policy at Harvard Medical School and master of Pforzheimer House; his course Sociology 190, “Life and Death in the U.S.: Medicine and Disease in Social Context,” fulfills the United States in the World requirement. Professor Christakis spoke about his

research on social networks, what they tell us about various kinds of behaviors, and how they can be analyzed among groups and networks of friends and acquaintances. In the spring, Gen Ed and the Office of Career Services teamed up to offer three “Career Chats with Gen Ed Faculty,” in which professors spoke informally over dinner with groups of students about their career trajectories.

Advising Programs Office

As students progress through Harvard College, advising relationships offer them opportunities to further their understanding of who they are and the pathways they hope to follow.

There are many sources of advice to help students plan their academic experiences in order to take advantage of the opportunities available at Harvard. The Advising Programs Office (APO) coordinates and supports academic advising programs for all undergraduates. Believing that good advising programs provide many opportunities for personal transformation through productive conversation, the APO helps ensure that all students have multiple sources of advice and counsel.

In academic year 2012, the APO launched the Advising Corner, a new pre-concentration advising initiative. Academic departments now have a chance to connect with first-year students during evening “Brain Breaks” in Annenberg as the lead-in to Advising Fortnight.

During Advising Fortnight, the various departments hosted approximately 55 events, attended by 1,300 students. During this event, departments explain their overall reach, discuss possible



At the Advising Fortnight Kickoff Extravaganza at Annenberg Hall, Andrew Berry, left, undergraduate advisor for Organismic and Evolutionary Biology, and David Haig, the George Putnam Professor of Organismic and Evolutionary Biology, speak with Joanna Larson '11, and Kate Leist '11, right.

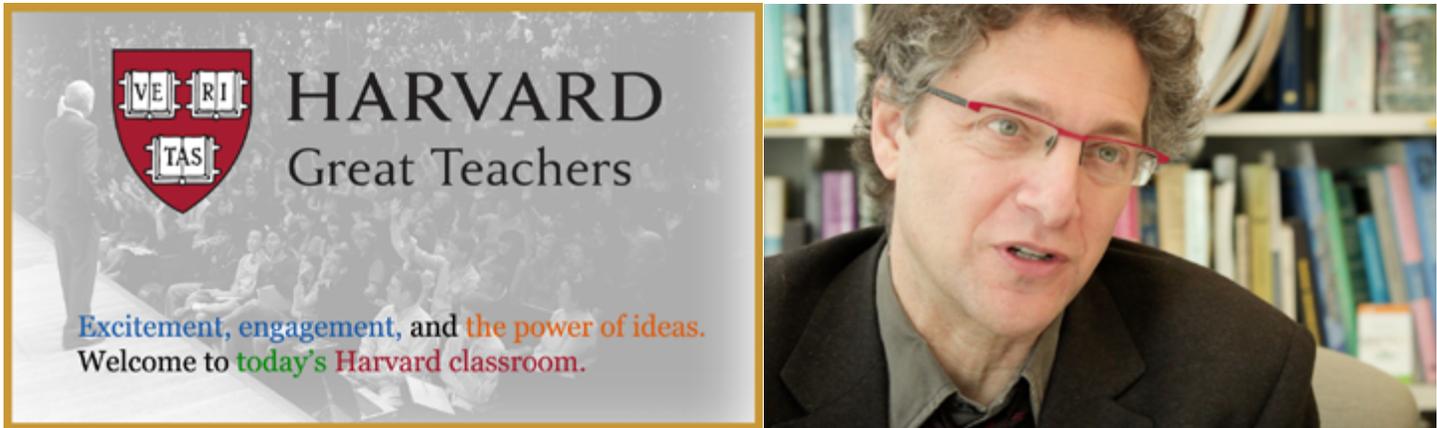
career trajectories, and make personal connections with interested students. Many students also attended the academic panels during the Calendar of Opening Days, and for the first time, through a panel discussion called “A Harvard Education,” undergraduates were introduced to their responsibilities as advisees.

The “Professors and Pastries” discussion series, which held six panels, continued to be a great success; the panels were attended by approximately 156 freshmen. At each event, faculty members discuss how they became interested in their field and what questions currently intrigue them most. More than 86 percent of students who attended said that they would be more likely to attend professors’ office hours as a result of these events. The APO piloted a new speaker series for upperclassmen entitled “Ideas and Encounters,” paralleling the Professors and Pastries series for freshmen. These

events are designed to engage students in thinking more deeply about how their undergraduate studies may connect them to life after Harvard.

In 2011–2012, the APO developed an advising syllabus for freshman and sophomore advisers, and provided orientations for them in advising a diverse community at the beginning of the academic year.

For the first time this year, the APO awarded the Star Family Prizes for Excellence in Advising. These prizes were established by James A. Star '83 to recognize and reward those who contribute to the College through their exemplary intellectual and personal guidance of undergraduate students. The 13 individuals who received these awards were described by their advisees as great role models, passionate mentors, and generous boosters of students’ confidence.



The new video series [Harvard's Great Teachers](#) launched in March with profiles of Peter Galison (right), Joseph Pellegrino University Professor and director of the Collection of Historical Scientific Instruments, Thomas Forrest Kelly, Morton B. Knafel Professor of Music, Lisa Randall, Frank B. Baird, Jr. Professor of Science, and Jonathan Zittrain, professor of law, Harvard Law School and Harvard Kennedy School of Government, professor of computer science, Harvard School of Engineering and Applied Sciences, and co-founder and director of the Berkman Center for Internet & Society.

Bok Center for Teaching and Learning

The Bok Center seeks to support the teaching needs of faculty and graduate students offering instruction in the College. In addition to video consultations and work on classroom dynamics, the Bok Center promotes pedagogical innovation informed by research and provides guidance on course design, creative assignments, and the uses of multimedia in the classroom. It has a particularly strong relationship with the Program in General Education, and its services support the development of innovative and compelling Gen Ed courses.

This past year saw the launch of a [new website](#) that highlights Bok Center offerings and seeks to make its services and programs more accessible to faculty and graduate students. Also, in March 2012, the Bok Center celebrated the launch of a video series profiling [Harvard's Great Teachers](#), created under the direction of Marlon Kuzmick, associate director of the Bok Center, and in collaboration with the FAS dean and the dean of Harvard College and with support

from the president of the University. Part of a renewed focus on excellence in teaching, the series showcases faculty and their teaching in a variety of formats, providing a glimpse into today's Harvard classroom. It is anticipated that four to six faculty will be profiled each year over a three-year period.

Given the importance of the Bok Center to our efforts in teaching and learning, 2012 also saw the launch of a national search for the center's first faculty director. Having a faculty director along with the existing executive director will allow us to strengthen ties with the faculty, expand the center's pedagogical research and assessment activities, and think strategically about the center's future direction. All of this opens an important new chapter in the Bok Center's storied history.

Summer Research Programs

The on-campus, summer research programs at Harvard College offer undergraduates 10 weeks of hands-on research experience working

with Harvard faculty from across the University, as well as community-building activities centered on a residential village in one of the Harvard Houses. The multiple programs are designed to give students rich academic and extracurricular experiences and to build deep relationships between the students and the faculty. The residential community is designed to expose the students to a variety of research-related topics beyond their particular project and provide an environment where they can interact with a wide range of peers in low-key social activities.

PRISE, the Program for Research in Science and Engineering, is in its seventh year and going strong, attracting 180 students this year. The program continues to be oversubscribed. The Behavioral Laboratory in the Social Sciences (BLISS) and the Program for Research in Markets and Organizations (PRIMO, co-sponsored by Harvard Business School), are newer programs, both in their second years. Thirty-two Harvard undergraduates—an increase from 24 in the previous year—chose among projects submitted by more

than 50 faculty members conducting research across FAS, the Business School, the Kennedy School, the School of Public Health, and the Graduate School of Education. As BLISS and PRIMO have become more popular with students, they have also become popular among faculty. While each is slightly different, all three of these undergraduate summer research programs share attributes that make them effective models, combining substantive research projects, professional development seminars and workshops, blue-ribbon distinguished speaker series, social activities, and a vibrant, inclusive, interdisciplinary residential community of undergraduate scholars.



Harvard President Drew Faust attends a lunch at the Faculty Club with the students in the Program for Research in Science and Engineering, or PRISE.

Office of Career Services

The Office of Career Services (OCS) provides programs to support student interest in a variety of careers and fields. During academic year 2011–2012, 4,227 undergraduates participated in 176 OCS programs.

To broaden students' knowledge of career opportunities, this year the OCS developed new programs that included the Public Interest Conference and the Food and Wine Internship Fair and Trek. More students than ever attended the PreK–12 Education Fair, the Social Impact Fair, and Kennedy School events on public service careers. This year there were 19 career fairs. Examples include the Humanitarian Activities Fair; the Advertising, Marketing, and Public Relations Expo; the Global Public Health Fair; the Law Opportunities Fair; and the Environmental and Energy Expo. OCS also hosted a Start-Up Fair at the i-Lab, launched a new Arts internship program in January, and inaugurated the Harvard College Europe Program, with 20 student participants.

OCS oversees Harvard's study abroad programs, in which nearly 600 undergraduate students participated this past year. Students from 44 concentrations traveled to more than 40 countries. The top five were Italy, the United Kingdom, France, Spain, and Germany. Additional favored destinations included Asia, Latin America, and the Caribbean, followed by the Middle East and North Africa.

Four Harvard students, all from the Class of 2012, were among the 32 Americans chosen for the Rhodes Scholarships in 2011–2012. Brett Rosenberg of Chappaqua, New York; Spencer Lenfield of Paw Paw, Michigan; Samuel Galler of Boulder, Colorado; and Victor Yang of Lexington, Kentucky will be studying at Oxford University. James K. McAuley, also in the Class of 2012, former chair of the *Crimson's* editorial board, was awarded a Marshall Scholarship this year.

Freshman Dean's Office

The Harvard College Freshman Dean's Office (FDO) expanded its efforts this year to emphasize the moral development of freshmen and to investigate ways to promote social responsibility, civility, and respect. The Freshman Class Council was created by the Undergraduate Council to distribute funds to support the freshman social experience. The creation of After Hours at Annenberg, made possible by Dean Hammonds, helped to build a sense of community. The FDO is in the process of implementing the recommendations issued last spring by the Working Group on Freshman Social Space, and has plans to open up more common spaces and introduce new programming in 2012–2013. The Enrolled Student Survey administered through the Consortium on Financing Higher Education (COFHE) at the end of the 2010–2011 academic year yielded heartening results from the freshmen. Ninety-five percent of freshmen said they

would go to Harvard if they were to start all over again, and 92 percent evaluated their entire educational experience at Harvard as good or excellent. Also, in 2011–2012, an independent assessment of the first four years of the “Reflecting on Your Life” (RoYL) series, sponsored by the FDO, showed that participants in the program “are enthusiastic and very satisfied with their experience.” An excerpt from the report continues:

“Even though most groups meet only three times over the course of as many weeks, many participants (41 percent) attribute at least one specific change or decision they have made to their participation in RoYL. Participants share a variety of actions that stemmed from their experience, including changing their concentration, taking a leave of absence, focusing (typically decreasing) co-curricular involvements, and trying new things. Several students report paying greater attention to how they spend their time, being more likely to use their values as a barometer in their decision making, and becoming more aware of their capacity to make decisions without deferring to others’ examples or expectations.”

Stanford University sought permission to adapt the RoYL program and reported tremendous success with it.

Office of Student Life

In March 2012, Suzy M. Nelson stepped down as dean of student life to accept a position as vice president and dean of the College at Colgate University in Hamilton, New York. Dean Nelson has been at Harvard for six years, and in that time has been a key participant in a number of initiatives of critical importance to

the College, from revising the College’s alcohol policy to imagining the future of the House system as we developed guidelines that would shape our plans for the launch of House Renewal. Her appointment at Colgate reflects the significance of her achievements at Harvard and her outstanding gifts as an educator and administrator. A national search is under way for Dean Nelson’s successor.

The Office of Student Life (OSL) works to integrate the academic, residential, and co-curricular 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. In 2011–2012 the OSL undertook initiatives to begin assessing campus community, forge a closer connection between the administration and student leadership, provide leadership development opportunities for student organization leaders, increase social space on campus, and continue to support the rich and ever-increasing array of student-initiated programming.

Campus community assessment:

To better understand the campus climate and experiences of our students regarding issues of inclusion, the annual House Life Survey asked a number of campus climate–related questions. Student focus groups were utilized to collect information as well. The results will be presented in fall 2012. One specific initiative to support the work of tutors and proctors around creating an inclusive community was a renewed emphasis on mid-year programs for tutors and proctors. To that end, Dean Hammonds held a micro-aggression and micro-affirmation

training session at her residence, which will be repeated in the fall of 2012.

The OSL has continued its commitment to supporting student leadership and strengthening the connection between the administration and student leaders. The planning for increased student engagement is being considered in phases. The first phase was to create a Leadership Retreat for officers and members of the Undergraduate Council. During Wintersession 2012, the Undergraduate Council, in collaboration with the OSL, planned a half-day retreat to learn about Harvard governance, work on setting goals and priorities, and discuss strategies for effective communication with the College administration, the student body, and each other. The second phase involved the creation of the Harvard College Task Force on Student Voice. Dean Hammonds convened this task force made up of students, faculty, and staff, which was charged with exploring the philosophy and values that should guide student involvement in College matters that are important to them. The committee met three times over the spring semester and developed recommendations for Dean Hammonds’ consideration for a fall 2012 implementation. In the same vein, the OSL collaborated with colleagues from across the University to offer 14 workshops designed to train leaders of student organizations. A total of 598 students participated in the workshops.

In the fall of 2011, Dean Hammonds announced several projects to expand social space on campus. These initiatives included a multimedia lab in Mather House, renovations to student-run grilles in Eliot House and Pforzheimer House as well as the new Cabot Café, and a

“This past year the College made significant progress in strengthening coordination across public service organizations at Harvard and increasing student outreach to raise awareness of public services opportunities and careers.”

transformation of the first floor of Hilles to provide lounges, meeting rooms, and function spaces for student organization conferences, dinners, retreats, dances, and social events.

Public Service

Harvard College offers a wide range of strong public service offerings. This past year the College made significant progress in strengthening coordination across public service organizations at Harvard and increasing student outreach to raise awareness of public service opportunities and careers. The assistant dean established several regular meetings (Public Service Directors, Public Interest Career Advisors, and the entire public service staff from the Center for Public Interest Careers, Institute of Politics, Office of Career Services, Phillips Brooks House Association, and Public Service Network) in order to foster communication, common goal setting, and best-practice sharing. In addition, the FAS Standing Committee on Public Service added four new faculty members and the directors of each of the public service organizations/offices listed above. A [new website](#) went online in the fall to better inform students of public service opportunities, and a weekly newsletter, with highlights from all the public service organizations/offices on campus, was distributed. This area also saw much progress in expanding public interest career exploration and opportunities, including a collaborative Wintersession conference entitled *Public Interested?* That

conference brought more than 50 alumni back to campus to advise more than 100 students on public interest careers.

The role of public service in the Houses was also re-imagined. Cabot House modeled an innovative alternative career exploration program. The House masters reviewed a revised job description for public service tutors, and the College made more funding available to support additional House-based public service activities.

Women's Center

The Harvard College Women's Center (HCWC) hosted more than 40 events this year, attracting more than 1,000 total student attendees. In addition to its substantial web and social media presence, the HCWC launched a new blog written by student interns, which recorded over 2,000 views, and the HCWC staff significantly updated the Wikipedia page on notable Harvard alumni to include recent prominent alumnae.

This year the HCWC distributed 27 Ann Radcliffe Trust/Women's Center Community Fund (ART/WCCF) grants, totaling \$14,166, to 22 different student groups. Looking back to its founding in 2006, the HCWC now maintains a database on all current and past ART/WCCF grants, and with this historical data, the center will be able to improve upon its ability to distribute funds where they will have the most impact and with an eye toward greater equity and transparency. Finally, this year the HCWC

matched 126 student participants with alumnae mentors through the Radcliffe Mentor Program.

Registrar's Office

The Registrar's Office (RO) focuses on providing core academic and enrollment services to the Faculty of Arts and Sciences. During the 2011–2012 academic year, the RO designed and implemented a new management and communication tool for out-of-sequence exams and implemented a series of improvements to the online grading portal to improve the experience for faculty. Throughout the year, more than 20,000 transcripts were delivered; more than 4,000 degree verifications were performed; and 1,588 May College diplomas were prepared.

The RO thoughtfully executed technology enhancements to replace paper-driven systems, which have eliminated the time a student would have spent walking to an office to order a transcript. Another example of this paperless system can be seen in the application of faster midterm grade notification, allowing faculty to easily notify resident deans of concerns regarding student grades.

In addition, and working with the Harvard Transgender Task Force, the registrar successfully initiated a series of important and timely changes to improve the student experience. For example, the RO added a preferred-name field to the registration process, which allowed all students to specify the name by which they would like to be known.



Finally, in December 2011, the University launched an initiative to explore the viability of a University-wide student information system. Registrar Mike Burke is co-chairing this effort with Anne Margulies, University CIO.

Harvard Foundation

The Harvard Foundation celebrated the 30th year of its commitment to improving intercultural and race relations on campus. For 27 of these 30 years, the foundation has sponsored Cultural Rhythms, a festival that involves some 30 student groups of different cultural and ethnic backgrounds, showcasing Harvard's cultural diversity through student performances and ethno-cultural cuisine. As in the past, the day-long event in February was attended by more than 2,000 students, faculty, and staff. To host this year's event, the students and faculty of the Harvard Foundation selected nine-time Grammy Award recipient John Legend as the Artist of the Year. Mr. Legend's introduction at the start of this year's event highlighted his many and exemplary humanitarian efforts.

In November, the Harvard Foundation, the Undergraduate Council, and 36 student groups came together to launch an inaugural event known as *Diversitas* in the Science Center Plaza with food, performances, and cultural exchange. The event, which attracted more than 2,000 students, provided an opportunity for student groups of all backgrounds to come together on an equal footing to share their culture with the larger Harvard community.

Office for the Arts

The OFA's professional artists and production team had a spectacular year. They contributed to the success of many University initiatives, including October's epic 375th anniversary celebration in Tercentenary Theatre; the Wynton Marsalis lectures, sponsored by the Office of the President; Elson Fund presentations on arts in the curriculum at Arts @ 29 Garden; and the Poetry Celebration in Agassiz Theatre.

The OFA hosted more than 40 professional artists, 39 fully staged theatrical productions in the Houses and at Agassiz Theater and Farkas Hall, 15 shows at the Loeb Drama Center, and four original dance pieces, created under the guidance of world-class choreographers. The office also initiated trans-disciplinary collaborations for students with experts from music, poetry, astrophysics, humanities, and cognitive neuroscience. For the Harvard College curriculum, the OFA developed two new courses in dance. Finally, the office developed noteworthy programming for the 20th anniversary celebration of ARTS FIRST. Among the highlights was an historic installation, "Slow Dancing," on the Widener Library façade. ■

GRADUATE SCHOOL OF ARTS AND SCIENCES (GSAS)

DEAN ALLAN M. BRANDT
INTERIM DEAN RICHARD J. TARRANT
ACADEMIC YEAR 2011–2012

MAJOR ACHIEVEMENTS

A Change in the Deanship

In August 2012, Faculty of Arts and Sciences (FAS) Dean Michael D. Smith announced the appointment of Xiao-Li Meng, Whipple V. N. Jones Professor of Statistics, as the next dean of the Graduate School of Arts and Sciences, effective August 15. A remarkable scholar, teacher, and citizen of the University,

Xiao-Li Meng has long been a creative advocate for advancing excellence in teaching and forging interdisciplinary collaborations across the University. Dean Meng succeeds Allan Brandt, who in February announced that health considerations required that he step down from the GSAS deanship in order to begin medical treatment. Richard J. Tarrant, Pope Professor of the Latin Language and Literature, served as GSAS dean on an interim basis through the remainder

of the 2011–2012 academic year. Tarrant, who was GSAS acting dean in 1995–1996, provided invaluable leadership as GSAS completed its admissions season, meeting with department leaders to help them select their incoming classes. Tarrant also provided wise stewardship as new secondary fields and PhD programs were proposed, and he presided over ceremonies honoring outstanding faculty mentors and teaching fellows, as well as GSAS Commencement activities.



GSAS DEAN XIAO-LI MENG

“Harvard has been a dream school for generations of students around the world. GSAS made my dream come true by providing me with full financial support when I was literally a village boy on the other side of the globe,” said Meng on his appointment as GSAS dean.

“I am therefore deeply grateful to Dean Smith for providing me with this tremendous opportunity to work directly with him and the many other Harvard leaders, especially President Faust and Provost [Alan] Garber, and with our incomparable faculty, dedicated staff, exceptional students, and accomplished alumni to continue and enhance the Harvard legacy, including making the possibility of the Harvard dream realizable by many diverse students from every corner of the globe.”

Dean Meng joined the FAS faculty in 2001 as professor of statistics, assuming his present title in 2007. As chair of the Department of Statistics (2004–2010 and 2011–present), he revitalized teacher training and professional development for the department’s graduate students and fostered an energizing and welcoming departmental culture for its students.

A warm and inspiring teacher and mentor, Dean Meng has long been a creative advocate for advancing excellence in teaching at Harvard, serving on the FAS Committee on Pedagogical Improvement (2004–2010) and the FAS Task Force on Teaching and Career Development (2006–2007).

Dean Meng’s scholarly work spans a broad spectrum, from theoretical foundations of statistical inferences, to statistical methods and computation, to a wide range of applications in natural, social, and medical sciences and engineering. Examples of the applications of his work include complex statistical modeling in astronomy and astrophysics, quantifying statistical information in genetic studies, detecting and estimating trends in environmental and geophysical measurements, measuring disparities in Latino and Asian mental health services, assessing reporting delay in AIDS surveillance systems, and de-noising and de-mosaicing in digital cameras.

For his research contributions, Dean Meng received the 2001 Committee of Presidents of Statistical Societies (COPSS) Award, given by the organization annually to “the outstanding statistician under the age of forty.” He also received the 2003 Distinguished Achievement Award from the International Chinese Statistics Association and was elected fellow by the Institute of Mathematical Statistics (IMS) in 1997 and by the American Statistical Association (ASA) in 2004. Most recently, Dean Meng was the 2010 Medallion Lecturer of IMS, was named the 2011 Mosteller Statistician of the Year by the ASA Boston Chapter, and received a 2011 Distinguished Alumni Award from Fudan University and the inaugural (2012) PL Hsu Award for distinguished achievements in research and education by a statistician under fifty.

After receiving his BS in mathematics from Fudan University in Shanghai in 1982, Dean Meng earned a graduate diploma in 1986 from Fudan’s Research Institute of Mathematics. He then pursued master’s and doctoral work in statistics at Harvard, receiving the AM and PhD degrees in 1987 and 1990. Before joining Harvard as a faculty member, Dean Meng moved through the ranks at the University of Chicago as an assistant professor (1991–1997), associate professor (1997–2000, winning the 1997–1998 Faculty Award for Excellence in Graduate Teaching), and professor (2000–2001).

“Beyond the numbers, the accomplishments of incoming graduate students grow ever more remarkable...making their admissions files look in many cases like the dossiers of postdoctoral fellows and job market candidates.”

GSAS Reaches Another Milestone in Admissions

The Graduate School received a record 12,397 applications for admission during the 2011–2012 cycle, an increase of 3.9 percent over last year’s previous record. The increased number of applications demanded even greater selectivity from the GSAS admissions committees, and departments worked closely with Deans Brandt and Tarrant to review the credentials of their top candidates. Under Dean Brandt, these annual admissions meetings have become an important chance for faculty leaders to assess the strengths and challenges of the graduate programs and to plan for the recruitment of the next entering class.

Offers of admission were made to 1,170 prospective PhD and AM students, compared to 1,180 in the previous cycle, roughly 9.4 percent of the total applicant pool. The entering class for 2012–2013 is expected to consist of 638 PhD candidates and 85 AM candidates. This reflects an overall yield on offers of admission—across all degree programs—of roughly 60 percent, which compares favorably to recent years. Our PhD yield in the social sciences and humanities was 70 percent, and our interfaculty PhD programs continued to show their appeal, yielding 76 percent.

Particularly noteworthy were the number of PhD programs with yields of over 88 percent, including African and African American Studies, Anthropology, Film and Visual Studies, History of Art and Architecture, Music, Psychology, Social

Policy, Health Policy, and History of Science.

Beyond the numbers, the accomplishments of incoming graduate students grow ever more remarkable. Many have already logged significant academic achievements, including major publications and significant research experience, making their admissions files look in many cases like the dossiers of postdoctoral fellows and job market candidates.

Continued Progress in Minority Recruitment

Over the last two years, GSAS has instituted a series of reforms that aim to fundamentally change the way Harvard recruits, admits, and supports students from groups that are historically underrepresented in PhD education. Two years ago, GSAS appointed an assistant dean for diversity and minority affairs and began working proactively with 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 admissions process.

In the 2010–2011 admissions cycle, as a result of those efforts, GSAS admitted the largest number of minority students in recent memory and successfully recruited the largest number of minority students ever: 48 students, nearly 70 percent of those admitted, chose to matriculate (compared with 29 students, or less than

50 percent of those admitted, in the prior year).

The progress was even more notable during the 2011–2012 admissions cycle. Applications from underrepresented minorities hit a new record of 676, a 25 percent increase over 2010–2011. The number of underrepresented minorities offered admission increased by 19 percent. As a result, underrepresented minorities will make up 7 percent of the entering class, the highest percentage in GSAS history. Although there is more work to be done in the coming years to expand the candidate pool and achieve real diversity in research education, this progress demonstrated that focused efforts produce positive results in this area.

The 20th Anniversary of Dudley House

In the fall of 2011, the Graduate School concluded a yearlong celebration of the 20th anniversary of Dudley House as the graduate student center. The centerpiece of this celebration was an evening gala at the House, held on October 27 and featuring appearances by President Faust, Dean Smith, and other University supporters of Dudley, including those GSAS alumni who were key to the establishment of the House as a central point of connection for graduate students at Harvard. The event allowed current Dudley Fellows and other GSAS student leaders to interact with alumni and administrative leaders, and it was a remarkably positive community event for FAS as a whole.

When Dudley was dedicated as the graduate student center in 1991, the idea of building a graduate community was still considered experimental. FAS 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.

New PhD Program, New Master's Program

The Faculty of Arts and Sciences approved two new GSAS degree programs this year. The first, a PhD in education, will be a new interfaculty program with the Graduate School of Education. Building on considerable FAS strengths in sociology, government, economics, and anthropology, among other disciplines, the new PhD program will begin accepting applications in 2013–2014 for admission in fall 2014. The second, a master of science in computational science and engineering, will begin accepting applications in 2012–2013 for admission in fall 2013. It builds on the existing secondary field of the same name, offered by the School of Engineering and Applied Sciences.

Continued Expansion of Secondary Fields Offers Broader Range of Interdisciplinary Opportunities

A central focus for enhancing the experience of GSAS students has been the development of appropriate interdisciplinary opportunities that expand the curricular boundaries of our departments and programs. One strategy for accomplishing this has been the development of secondary



In the fall of 2011, the Graduate School of Arts and Sciences concluded a yearlong celebration of the 20th anniversary of Dudley House as the graduate student center.

fields for graduate study. This year the Graduate Policy Committee approved three new secondary fields, all committed to particular interdisciplinary areas of inquiry: Mind, Brain, and Behavior; German; and History of American Civilization.

PhD students may now enroll in a secondary field in 17 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.

Harvard Moves to Electronic Submission of Dissertations

As of March 2012, all Harvard PhD dissertations are being submitted electronically for degree completion, binding, and archiving. Working with ProQuest/UMI, the national repository for dissertation archiving, Harvard developed an online interface that allows students to easily upload a PDF version of their dissertation. The submission portal incorporates and streamlines various accompanying documents students once had to submit on paper to the Registrar's Office. It also reduces students' expenses, shortens the timeframe between submission and acceptance of the dissertation, and allows students to submit their dissertations from anywhere in the world.



Seizing the Opportunities Presented by January@GSAS

The adoption of a single University-wide 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 offered its third annual January experience—a series of intellectual, recreational, and skill-building opportunities known as January@GSAS.

GSAS and affiliating 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. GSAS organizers reached out to administrative staff in the College and in the President's Office to lay the groundwork for connections among the various Harvard units now offering January programming.

For the third year, the Graduate Student Council sponsored mini-courses taught by graduate students for a non-expert audience of their GSAS peers. These courses—on subjects ranging from mathematical games to Russian culture to the psychology of happiness—again proved to be among the most popular offerings.

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 "Oral 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 academic year 2012–2013, 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.

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. These seminars have quickly become institutionalized as a key mechanism for introducing new and innovative courses.

Eight new Graduate Seminars were offered this year, totaling over 30 seminars 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.

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. Grants of up to \$5,000 per year are awarded for projects in the humanities and social sciences.

Five new workshops were funded in March 2012, in addition to 82 ongoing workshops. The Graduate School has now supported 240 workshops to date.

Alumni Outreach and Engagement

GSAS continued to develop and present a robust set of programs to engage its alumni around the world. A highlight of the year was a September 2011 trip to Hong Kong, where the Graduate School Alumni Association, along with Dean Brandt and Administrative Dean Margot Gill, hosted two gatherings for the GSAS and Harvard communities. The first was a luncheon and panel discussion for GSAS alumni on the topic of “China Competitiveness and the Role of Hong Kong.” The same evening, GSAS partnered with the Harvard Club of Hong Kong to host a dinner at the Hong Kong Club and a talk by former FAS Dean William Kirby, PhD '81, the T. M. Chang Professor of China Studies, director of the Fairbank Center for Chinese Studies, and chairman of the Harvard China Fund. More than 100 people attended, making it the largest event in the history of the Harvard Club of Hong Kong.

In April 2012, GSAS organized a successful alumni reunion for the Department of Chemistry and Chemical Biology, held in conjunction with Alumni Day. Following a festive luncheon at Loeb House, a large crowd of alumni, faculty, students, and postdocs spent the day engaging the latest topics in physical and organic chemistry during a series of faculty-led talks.

Alumni Day took place on the day following, and approximately 300 alumni and guests heard a keynote address by Daniel Schrag, Sturgis Hooper Professor of Geology and the director of the Harvard University Center for the Environment. GSAS also sponsored alumni events in San Francisco and Chicago, and hosted a gathering for recent alumni in Boston.

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. The 2012 Centennial Medals were awarded to Daniel Aaron, PhD '43; Karl Eikenberry, AM '81; Nancy Hopkins, AB '64, PhD '71; and Robert Keohane, PhD '66. ■

DIVISION OF ARTS AND HUMANITIES

DEAN DIANA SORENSEN
ACADEMIC YEAR 2011–2012

“Over the past academic year, the division launched a number of important initiatives designed to open new pathways into the humanities for Harvard undergraduates and to forward new collaborations across the University.”

Dean of Arts and Humanities

Following a year of sabbatical, Diana Sorensen returned to her role as dean of the Division of Arts and Humanities for academic year 2011–2012. The division was fortunate to have had the exceptional service of Ingrid Monson, Quincy Jones Professor of African American Music, as interim dean for the 2010–2011 academic year.

NEW INITIATIVES

Over the past academic year, the division launched a number of important initiatives designed to open new pathways into the humanities for Harvard undergraduates and to forward new collaborations across the University. These efforts built on the important work of the 2008–2009 Working Group, which focused its recommendations on the need to study the division’s curriculum and on the place of the humanities in the ever-changing context of the academy. An important additional concern was how to create enhanced opportunities for collaborations across departments.

Foundational Courses

In collaboration with the Mahindra Humanities Center, Dean Diana Sorensen formed the Foundational Courses Group in the fall of 2011 with the goal of creating a series of new gateway courses that would introduce undergraduates to central themes and approaches in the humanities. Over the academic year,

this group developed proposals for three Graduate Seminars in General Education, to be taught in the spring of 2013. The seminars will develop three interconnected courses to be team-taught in the Program in General Education. The courses are entitled “Ways of Looking” (Robin Kelsey and Jennifer Roberts),

“Ways of Listening” (Alex Rehding and John Hamilton), and “Ways of Reading” (Homi Bhabha and Diana Sorensen). The Harvard Initiative in Learning and Teaching awarded a grant to support



NEW WEBSITE

“Welcome!” begins the letter from Dean of Arts and Humanities Diana Sorensen on the division’s new website. That simple greeting perfectly expresses what she hopes the website and several other new initiatives she has undertaken this year will help to foster: an open, lively, and reinvigorated community of arts and humanities students and faculty members.

“We want to be inviting, appealing, capacious!” she explains. “We want students to realize what a profound effect the study of art and the humanities can have on their lives, even if they pursue careers in law, medicine, or business. We want to demonstrate to our undergraduates that cultivating their artistic and humanistic qualities

can make them better at whatever they eventually do, can make their lives fuller and richer, whether they go on to run a vineyard, launch a technology startup, or practice veterinary medicine.”

Dean Sorensen was spurred to creative action by the increasingly preprofessional focus of many undergraduates. Perhaps daunted by their employment prospects in a still-recovering economy, many students fear that studying English or the classics will not lead to a job. Dean Sorensen believes otherwise: that in today’s world, people who are logical thinkers, skilled writers, trained analysts, and creative connection-makers will have the widest possible range of employment prospects.

On the new website, visitors are invited to explore curated course lists organized by theme. A preliminary proposal for a new concentration in the arts and humanities, developed this year by a committee of department chairs and anchored by the new interdisciplinary Foundational Humanities courses, will be presented to the faculty in early fall. And when this year’s freshmen arrive on campus, they will find in their welcome packets and living spaces evocative postcards inviting them to explore the website’s new offerings. We invite you to do the same.

artsandhumanities.fas.harvard.edu/

this groundbreaking course development effort.

Arts and Humanities Curriculum Committee

Building on the work of the Foundational Courses Group, a new Arts and Humanities Curriculum Committee was launched, which met throughout the spring of 2012. The committee quickly focused its work on the development of a proposal for a new pilot concentration in the arts and humanities. The proposed concentration is built around six thematic “streams” that are larger in scope than an individual department. Each stream is composed of clusters of courses, designed to maintain the real structure of disciplinarity while leveraging opportunities for interdisciplinary partnerships across the curriculum and spurring new flexibility in teaching opportunities. This experimental concentration model assumes a strong advising support structure, with a junior year collaborative project and a two-semester senior project, as well as smaller courses. Overall the concentration aims to build a strong sense of community in the arts and humanities and to provide significant and frequent interactions with faculty. The Curriculum Committee will present this proposal to the faculty in the division early in the fall of 2012 and will engage faculty broadly in the next stage of planning over academic year 2012–2013.

Cultural Entrepreneurship

In partnership with Dean Nitin Nohria of Harvard Business School (HBS) and the Silk Road Project (led by Yo-Yo Ma and Laura Freid), Dean Sorensen launched an initiative called Cultural Entrepreneurship, designed to engage HBS colleagues in the creation of sustainable business models for arts and humanities initiatives. The 2012–2013 academic year will be the pilot



On April 27, Arts @ 29 Garden—a “hothouse” art space designed to support and enable creativity, collaboration, experimentation and art-making amongst faculty, students and visiting artists—hosted **BREAKING BOUNDARIES: Arts, Creativity, and the Harvard Curriculum**, a showcase of Harvard’s latest collaborative art-making projects, presentations, and performances supported through grants from the Elson Family Arts Initiative.

year for the funding of proposals that will be solicited in the fall.

Media-equipment Upgrade

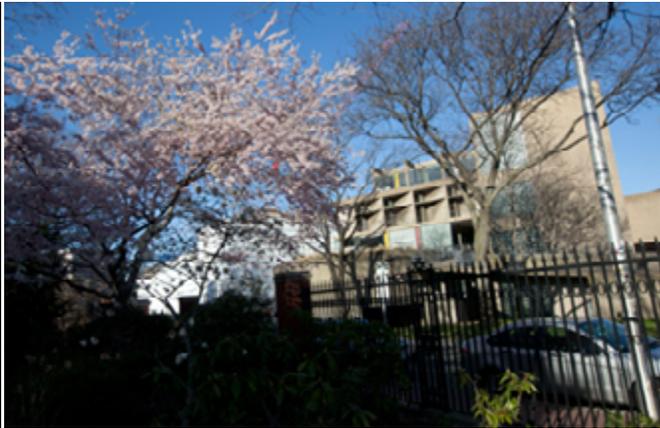
The Department of Visual and Environmental Studies embarked on a large and comprehensive upgrade of its video-editing and media-making equipment. After a careful study of the costs and logistics involved, the VES department moved its equipment from Standard Definition into High Definition by the end of the academic year. This conversion is the largest consolidated upgrade for the VES department since its creation in 1969 and became necessary because the Standard Definition format is rapidly growing extinct. The HD infrastructure will support the next generation of a visual arts curriculum at Harvard University. Simultaneously, the

Arts and Humanities division worked with the Social Science division on a similar upgrade of video-production equipment for the Sensory Ethnography Lab (SEL) in the Anthropology department. The SEL provides equipment and technical support for students in the new GSAS Secondary Field in Critical Media Practice and the PhD program in Media Anthropology.

CURRICULUM

Arts @ 29 Garden

At Harvard, the arts offer an important means for engaging intellectual inquiry across fields, from biology and sociology to political and religious thought and beyond. During Wintersession 2012,



Arts @ 29 Garden offered six Arts Intensives that explored the Digital Age and the Arts. From learning to DJ to creating visual diaries, students explored themselves and the world around them. On April 27, Arts @ 29 Garden hosted *BREAKING BOUNDARIES: Arts, Creativity and the Harvard Curriculum*, a showcase of Harvard's latest collaborative art-making projects, presentations, and performances from students led by faculty who received grants from the Elson Family Arts initiative. The celebration featured films that record the lifecycle of plants, newly transcribed early sacred music, and performances that use cutting-edge technology as stage sets.

Expanded Bridge Courses

Harvard is committed to providing a pluriglossic environment for teaching and learning and offers instruction in over 70 languages—more than any other university. Along with courses dedicated to language instruction, Harvard offers courses with regional content in diverse fields in the humanities, arts, and social sciences. Bridge courses are designed to assist in the transition from the fundamentals of language acquisition to

the more advanced use of language in history, culture, and literature courses. Over the past year, the division continued to expand the number of bridge courses offered, especially in Chinese and Arabic. Merging language and content, these courses help Harvard students to immerse themselves in another culture before graduation and prepare them for leadership in today's global society.

Study Abroad in Human Rights

During 2011–2012, Dean Sorensen led a planning process to create opportunities for study abroad that are more tightly connected to the curriculum in the study of human rights and ethnicity. The planning benefitted from the guidance of Professors Jacqueline Bhabha, Caroline Elkins, Arthur Kleinman, Beth Simmons, and Cemal Kafadar, and resulted in two new study abroad programs in Italy and Turkey.

Undergraduate Track in Architecture

In collaboration with Harvard's Graduate School of Design (GSD), the History of Art and Architecture Department has

developed a new undergraduate track in architecture that will be introduced in the 2012–2013 academic year. Building on longstanding collaborations between the department and the GSD faculty, the track will expose undergraduates to architecture in a global context and will give them access to the studio courses for which the GSD is well known.

Digital Arts and Humanities

In March, Judson Harward joined the division as the new Director of Research Computing for the Arts and Humanities. The position is part of the Harvard University IT (HUIT) organization and works with the Arts and Humanities faculty and other key entities such as the library and research computing groups across the university to launch a new and increased focus on Arts and Humanities Research Computing. To assist the faculty in their research, Mr. Harward and his team of student consultants focus on defining and disseminating a canon of innovative digital technologies and techniques through web tutorials, workshops, and one-on-one consulting. The work is part of the division's priority to address the challenges and

opportunities that the digital revolution brings to the arts and humanities.

Research Development

In April, the division welcomed Samantha Schwartz, a member of the sponsored research team in the Office for Research Administration who now supports research development for faculty in the arts and humanities. Ms. Schwartz joins a research development team that assists faculty in identifying opportunities for sponsored research from a range of sources, including federal agencies and foundations.

Events

Over the Centuries: Poetry at Harvard (A Love Story)

With a poetic legacy that spans centuries, Harvard has made an unequaled contribution to the world's literary canon. Harvard poets were celebrated in grand style on April 29 in "Over the Centuries: Poetry at Harvard (A Love Story)," a poetic performance that combined live recitation with archival recordings of poets reciting and talking about their works. The event was developed over the spring semester as a way to honor Harvard's 375th anniversary. Under the direction of Boylston Professor of Rhetoric and Oratory Jorie Graham and Matt Aucoin '12, a group of 14 students scoured the works of poets with Harvard connections for phrases that then served as the building blocks of a new poem. At times serious and also playful, "Over the Centuries" was a celebration of poetry and of Harvard as a place where great poetry blossoms.



The Carpenter Center for the Visual Arts, the artistic hub of Harvard College and the only building in North America designed by the Swiss-born architect Le Corbusier, will mark its 50th anniversary in academic year 2012-2013.

Looking Ahead

Academic year 2012–2013 will mark the 50th anniversary of the Carpenter Center for the Visual Arts, with commemorative programming planned throughout the year. Established in 1963 and made possible by a gift from Alfred St. Vrain Carpenter, the center was created to house the artistic entities of Harvard College under one roof. Today it provides working spaces for painting, drawing, and sculpture, and serves as the home for the Sert Gallery and the Harvard Film Archive. The Carpenter Center is the only building on the North American continent designed by the famous Swiss-born architect Le Corbusier. The building represents Le Corbusier's attempt to create a "synthesis of the arts," the union of architecture with painting and

sculpture, through his innovative design.

President Faust has appointed Dean Sorensen and Dean Mohsen Mostafavi as co-chairs of the Harvard University Committee on the Arts (HUCA) for 2012–2013. Formed in 2009, HUCA was created at the suggestion of the Task Force on the Arts, and is charged with making recommendations to the president and provost to enhance the presence of the arts within the University. ■

DIVISION OF SCIENCE

DEAN JEREMY BLOXHAM
ACADEMIC YEAR 2011–2012

FAS Office for Postdoctoral Affairs

In academic year 2011–2012 the Office for Postdoctoral Affairs (OPA) expanded its services and programming for the postdoctoral fellow community. The office launched a new website as a resource for postdoctoral fellows, faculty, and administrators across the FAS. It also created the Postdoctoral Awards for Professional Development Program, providing up to \$1,000 in individual awards to enable postdoctoral fellows to attend conferences, enroll in courses, and take advantage of other professional development resources. Approximately 15 awardees were selected in each of two cycles over the course of the year.

The OPA hosted or co-hosted 48 programs, covering topics from career development to preparing for the academic job search and job fairs. The office also provided orientations for incoming postdoctoral fellows. These programs were attended by over 2,600 postdoctoral fellows and graduate students. The OPA offered individual career counseling services for more than 170 postdoctoral fellows.

Research Development

John Calarco, a Bauer Fellow at the FAS Center for Systems Biology, was among the first 10 researchers nationwide to receive the National Institutes of Health Director's Early Independence Award. The \$2.5 million program will support research and overhead costs through a new effort intended to accelerate the entry of outstanding junior investigators into independent researcher positions.

New faculty were awarded over \$2 million in prestigious early career awards, including the Packard Fellowship, the Smith Family Award for Biomedical



John Calarco, a Bauer Fellow at the FAS Center for Systems Biology, was among the first ten researchers nationwide to receive the National Institutes of Health Director's Early Independence Award.

Research, the Camille Dreyfus Teacher-Scholar Award, the Searle Scholars Award, two Sloan Research Fellowships, the National Science Foundation Faculty Early Career Award, the Rita Allen Scholar Award, and the Rita Allen Foundation's Milton E. Cassel Scholar Award.

Research Computing

In 2011–2012, Research Computing continued to play a lead role in Harvard's participation as a member of the Massachusetts Green High Performance Computing Center (MGHPCC). Due to open in the first half of 2013, this facility will enable consolidation and expansion of the existing 18,000 CPU system currently in six data centers spread around campus.

Research Computing has also taken on a new leadership role at Harvard. In October 2011, Research Computing entered into an agreement to provide

support to the Harvard School of Public Health, the first such arrangement of support between schools.

Services and resources also continue to expand. This year, Research Computing increased storage capacity to over four petabytes of consolidated storage. A new informatics group was formed to support next-generation sequencing, laboratory management systems, and scientific applications.

Programming

The Division of Science launched its new website, featuring resources for undergraduate students, graduate students, postdoctoral fellows (via the FAS Office for Postdoctoral Affairs website), faculty, researchers, and administrators. The division also launched its Science Faculty Lecture Series, a biannual event by science faculty for science faculty that



Professors Hopi Hoekstra and David Charbonneau were featured speakers at the inaugural Science Faculty Lecture Series, which provides a forum for informal interactions across the sciences.

Recently completed renovations have provided a new home for the Department of Stem Cell and Regenerative Biology, now in the LEED Platinum-rated Sherman Fairchild Building.

provides a forum for informal interactions across the sciences and an opportunity to hear about innovations and advancements happening beyond personal collaborations. The inaugural event, held in January 2012, featured Professors Hopi Hoekstra and David Charbonneau as speakers; the spring lecture, in May, featured Professors Zhiming Kuang and Adam Cohen.

This year, the division launched the Faculty Scientific Management Series, a pilot continuing education program aimed at assisting junior faculty in facing the challenges of setting up and running their labs, from managing staff to securing external funding and other issues common to new faculty. This initial six-session series was driven by conversations with faculty and will be offered in a similar format next year. The division hosted the third annual Neekeyfar Lecture in Science and Mathematics for Undergraduates, featuring Maria T. Zuber, E. A. Griswold Professor of Geophysics and chair of MIT's Department of Earth, Atmospheric, and Planetary Sciences.

Science Space and Infrastructure

A number of important infrastructure projects were completed over the past year. The Division of Science successfully brought to a close a \$71 million, multi-year project to provide a new home for the Department of Stem Cell and Regenerative Biology, culminating in the LEED Platinum-rated renovation of the Sherman Fairchild Building. The division also created a beautiful new undergraduate teaching laboratory in the Biological Laboratories building for life sciences education and began construction on Phase 2 of a major new plant growth core facility in the Biological Laboratories building to support the research of our plant biology faculty.

Academic year 2011–2012 also saw the completion of the first phase of the Museum of Comparative Zoology (MCZ) collections storage project in the Northwest Building. This project will enable the commencement of a three-year process of moving MCZ collections out of the Museum Complex and reclaiming valuable dry space in which to strengthen our high-priority computational research

areas such as energy and environment, bio-computation, and statistics.

With the support of a \$1.3 million ARRA grant from the National Science Foundation, the division constructed a helium recovery and liquefaction system to preserve this dwindling natural resource and protect our faculty whose research depends on helium from the effects of global shortages and rising prices. Commissioning of the system began in June 2012.

This was also an important year for renewal. In 2011–2012, the division began the renovation of lab space in preparation for the arrival of world-renowned chemist Daniel Nocera. The division also launched a multi-year capital renewal project to replace the aging electrical and mechanical systems in the Biological Laboratories building, supporting the research of approximately 30 faculty in the Departments of Molecular and Cellular Biology and Organismic and Evolutionary Biology. ■

DIVISION OF SOCIAL SCIENCE

DEAN PETER MARSDEN
ACADEMIC YEAR 2011–2012

DIVISIONAL INITIATIVES

Behavioral Laboratory in the Social Sciences

August 2012 concluded the second pilot year of the Behavioral Laboratory in the Social Sciences (BLISS), a 10-week summer residential program for Harvard undergraduates participating in research projects conducted by Harvard faculty. Modeled on the successful Program for Research in Science and Engineering (PRISE) and supported by the Office for Undergraduate Research Initiatives (OURI), the program was developed by the division and Harvard College to provide an intensive research experience and stimulate community and creativity among a small, diverse cohort of motivated undergraduate fellows.

The program's primary goal is to provide each participant with a formative and substantive research experience working collaboratively 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 with the fellows in PRISE and PRIMO (Program for Research in Markets and Organizations, sponsored by Harvard Business School) for the summer, share meals and organize joint activities, and participate in a full calendar of cultural and recreational summer offerings. They attend a weekly speaker series featuring distinguished social scientists and practitioners from Harvard and other institutions. They also participate in practicums on research ethics, presentation design, and public speaking; they tour research centers around Harvard (including the Center for Geographic Analysis, the Decision

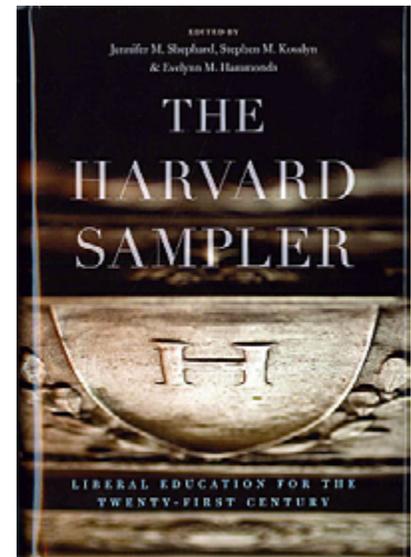
Science Lab at Harvard Kennedy School, and the Innovation Lab at Harvard Business School), and they are invited to attend academic talks sponsored by other summer undergraduate programs. To conclude the summer, each fellow makes a public research presentation.

This second summer saw a modest increase in the number of fellows and an expansion in the range and diversity of projects. Research activities varied from interviews in Mandarin and field observation of Chinese immigrants in the Boston area for a field study on migration, to geographic information system (GIS) mapping of discoveries of ancient coin caches to better understand the disintegration of the Roman Empire, to collection of survey data about attitudes toward genetic testing for a study of genomics policy, to experiments investigating how children develop a sense of equity.

The division supported the pilot BLISS offerings in the summers of 2011 and 2012 and will support a third in summer 2013. Extremely positive feedback from students and faculty alike indicates that funding to sustain BLISS over a longer term should be sought.

Divisional Website Redesign

The Social Science Division office is in the process of implementing a new website using the OpenScholar platform developed by the Institute for Quantitative Social Science, with a "soft" rollout during the summer of 2012 and an official launch anticipated in the 2012–2013 academic year.



THE HARVARD SAMPLER

In October 2011, Harvard University Press published *The Harvard Sampler: Liberal Education for the Twenty-First Century*, co-edited by former Dean of Social Science Stephen Kosslyn, Dean of Harvard College Evelyn Hammonds, and Ms. Jennifer Shephard, Special Initiatives Program Manager in the division. Written by faculty members at the frontiers of their fields, its essays offer a clear and accessible overview of disciplines that are shaping the culture and the world, drawing on a broad range of offerings in Harvard's General Education curriculum. Planning for future volumes is under way.



Administrative Services Group

Over the past several years, the division has sought to provide faculty with improved administrative support while increasing efficiency and providing staff with greater opportunities for professional development. Toward this end, the Administrative Services Group (ASG) provides a new shared-service model serving faculty in several departments, including History, History of Science, and Economics. As part of the division's evaluation of the ASG model, a spring, 2012 survey of ASG clients elicited widespread appreciation for the services offered, together with constructive suggestions for improvements that might be introduced as the continuation and possible extension of ASG are considered.

Curriculum Developments

The *Department of Government* reviewed and amended its undergraduate program. It identified several foci, including concentration advising, faculty-student engagement, research training, political science grounding, and opportunities for students to enroll in public policy courses. Concentration advising will be

enhanced by involving the sophomore tutorial teaching fellows in concentration planning and by encouraging students to discuss their academic plans with faculty members. Research preparation and political science grounding will be strengthened via new research courses and requirements; all concentrators will take a statistical methods course and at least one research seminar. Honors concentrators will enroll in a second research seminar, preferably one of three new "research practice" courses on quantitative methods, qualitative methods/research design, and political theory. A pilot program in which students earn course credit by working in apprenticeships on faculty research projects seeks to heighten faculty-student engagement. Concentrators will have the option of taking up to two Harvard Kennedy School (HKS) public policy courses, from a list approved by the director of undergraduate studies.

The *Department of Anthropology* revised and streamlined requirements for the secondary field in social anthropology. All students take at least one designated entry-level course as part of the

secondary field. They may, but need not, elect to specialize in a particular area such as medical anthropology, human rights, political ecology and development, or media anthropology.

Numerous faculty and staff in the division sought Harvard Initiative for Learning and Teaching (HILT) funding to support instructional and curricular innovations. Nine proposals were awarded funding; three examples are provided here. The Department of History of Science will develop and evaluate a new sophomore tutorial course model in which students learn essential skills of critical reading and analysis by learning cases and subsequently teaching them to their peers in a faculty-guided plenary forum. The Department of African and African American Studies is developing innovative multimedia opportunities for language and culture instruction through student participation in a project that will build an electronic archive of "social portraits"—short video interviews with leaders and residents in local communities in Africa and the African diaspora. The portraits will provide a basis for interactive teaching and learning in language, film,

health, arts, religion, and education courses. An experiential learning course offered by the Department of Sociology that enrolls Harvard undergraduate and graduate students, Boston Theological Institute students, and students from Boston University's Prison Education Program will develop and assess tools for community-based learning.

Space Planning Activities

Planning for the renovation of the Tozzer Library building, outlined in previous divisional reports, was completed this academic year. The project commenced in June 2012 with the interim relocation of the library to William James Hall. It is expected that renovations to the Tozzer building, including the addition of a floor, will begin during academic year 2012–2013 and be completed during academic year 2013–2014. When complete, the renovated building will accommodate the social anthropology faculty now situated within William James, bringing them closer to their archaeology colleagues in the Department of Anthropology, who are located in the Peabody Museum. A vision for a reconfigured Tozzer Library upon its return to the new Tozzer building was developed in collaboration with its users and the new Harvard Library. Vacated space in William James will bring the Social Studies program (now located in Hilles Library) into the social science district of campus and relieve space pressures on the Department of Sociology.

The Fung Library Working Group continued to re-envision the library to better leverage its potential for facilitating research and teaching in international and area studies. The group will refine its plans during academic year 2012–2013.



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Modest cosmetic renovations (lighting, carpeting, conference room updating) were undertaken in Department of Economics space within the Littauer Center during summer 2012.

The W. E. B. Du Bois Institute continued to plan for the construction and opening of the Ethelbert Cooper Gallery of African and African American Art. The gallery will occupy the ground floor of the Du Bois space at 104 Mount Auburn Street. It will increase the Institute's presence as a site for the exhibition of African and African American art and broaden cultural and educational outreach to the Harvard community and beyond.

RESEARCH CENTERS AND PROGRAMS

Institute for Quantitative Social Science (IQSS)

IQSS offers scientists at Harvard a broad array of services and a suite of applications to store, annotate, analyze, and share scientific knowledge about human society, and aspires to facilitate collaborative laboratory-style research by building a social science research community. Among its innovative offerings are Zelig statistical software and the Dataverse Network at the Harvard MIT Data Center. Initiatives under way include new approaches to the analysis of textual data, including Consilience, a text clustering analysis program. The Program on Text Research will hold a conference on New Directions in Analyzing Text as Data in October 2012.



The Institute for Quantitative Social Science, under the leadership of Albert J. Weatherhead III University Professor Gary King, offers scientists at Harvard a broad array of services and a suite of applications to store, annotate, analyze, and share scientific knowledge about human society, and aspires to facilitate collaborative laboratory-style research by building a social science research community.

IQSS also offers administrative and technology support, including sponsored research administration and event planning, advanced computing facilities, and research technology consulting. Two new programs are highlighted below.

Web Publishing Services. IQSS is partnering with Harvard Public Affairs and Communications (HPAC) and Harvard University Information Technology (HUIT) to develop a comprehensive web strategy and coordinate web support and services. IQSS has already developed OpenScholar, a Drupal-based content management system for faculty web pages, and will significantly update and expand this system into a common web publishing platform for departmental and administrative websites; a pilot program has begun to update a number of high-profile websites across the University,

including the Office of the Executive Vice President, the Office of the General Counsel, and the Office of the Marshal.

The *Program on Experience Based Learning in the Social Sciences (PEBLSS)*, launched in 2012, aspires to “provide a modern *data support infrastructure* to Harvard programs and faculty that create experiential (or ‘active’) learning opportunities for Harvard students. PEBLSS will *coordinate common interests in experiential learning and reduce common costs* of effectively using and evaluating this type of teaching tool.” Current projects include ABLConnect, a database for sharing activity-based learning activities, and the Research Reservoir, a curated collection of information and tools that support the research process from data collection through publication and presentation.

Center for Geographic Analysis

Situated within IQSS, the University-wide Center for Geographic Analysis (CGA) provides GIS infrastructure and services. In January 2012, CGA released version 1.0 of *WorldMap*, an open-source common platform for the integration of spatial data from diverse sources. With funding from HILT, the center is developing a new General Education course that will use GIS and *WorldMap* to introduce students to contemporary map design and GIS spatial analysis.

Peabody Museum of Archeology and Ethnography

The Peabody Museum is in the midst of a planning process designed to further its mission of curating collections for research and teaching. Plans to integrate some of its exhibits with the new public-facing Harvard Museum of Science and Culture advanced during academic year 2011–2012.

Center Initiatives

The 23 research centers administratively housed within the division host hundreds of lectures, workshops, conferences, and programs each year, support research from the undergraduate to the senior faculty level, and integrate visiting distinguished scholars from around the world into the Harvard community. Below are highlights of three of the many diverse center-based activities that took place in 2011–2012.

Working Group on Arab Transformative Movements. The Center for Middle Eastern Studies (CMES) launched an interdisciplinary inter-university working group composed of scholars in history, international relations, Islamic studies, and law to study the recent



The Digital Archive of Japan's 2011 Disasters collects, preserves, and makes accessible the digital record of the 2011 disasters in Japan for scholarly research and analysis of the events and their effects. This initiative is a collaboration of the Edwin O. Reischauer Institute of Japanese Studies, the Berkman Center's metaLAB, the Center for Geographic Analysis, and several international partners.

Arab Transformation movements.

Approximately a dozen subgroups meet several times a year to explore different aspects of the history and possible future of the movements. Key to the program is collaboration with universities in the Middle East and participation by international scholars, journalists, and politicians. CMES, FAS, and the division partnered to support this program; support from the division's Regan Fund enables the working group to present a series of public lectures for undergraduates by some of its distinguished visiting scholars and practitioners. The first of these, "The Arab Uprisings: Underlying Factors, Democratic Transitions, and Future Prospects," took place in April 2012, featuring two speakers from the Issam Fares Institute for Public Policy and International Affairs at the American University of Beirut.

The Digital Archive of Japan's 2011 Disasters. An initiative of the Edwin O. Reischauer Institute of Japanese Studies in collaboration with the Berkman Center's metaLAB, CGA, and several international partners, this project collects, preserves, and makes accessible the digital record of the 2011 disasters in Japan for scholarly research and analysis of the events and their effects. The project includes an archive of harvested websites relating to the disaster, a set of map layers, and a testimonial page; visitors to the website are encouraged to contribute to these resources. HILT funds awarded in the spring of 2012 will help to support development of instructional opportunities presented by the archive.

The Korea Institute marked its 30th anniversary during academic year 2011–2012 with an extensive program of special lectures, workshops, conferences, and art exhibits. ■

SCHOOL OF ENGINEERING AND APPLIED SCIENCES (SEAS)

DEAN CHERRY MURRAY
ACADEMIC YEAR 2010–2011

“Putting teaching and learning first at the School of Engineering and Applied Sciences is more than a slogan.”

ADMISSIONS/ENROLLMENT

Interest in SEAS's undergraduate concentrations among Harvard College students has been robust and growing in recent years, likely driven by the pressures of a weak economy, the rise of social networking/web 2.0 technologies, and steps by the federal government to invest in research and development. SEAS has also significantly expanded recruitment efforts, creating a new prospective student tour with the Admissions Office, expanding Visitas activities, highlighting new and innovative courses, and enhancing concentration fair events to attract current students.

Undergraduate enrollments were once again at record levels this year, with 587 total concentrators and 12 percent of the sophomore class declaring a SEAS concentration. Courses at all levels, from CS 50 to ES 53, were bursting at the seams. It is also noteworthy that women make up over 30 percent of the total student body; the Biomedical Engineering and Engineering Sciences AB concentrations are now split evenly between men and women.

Applications to SEAS's 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. As of fall 2011, total graduate engineering enrollment was at 378 (357 PhD/21 AM; 33 percent female/67 percent male).



Undergraduate enrollments were once again at record levels this year, with 587 total concentrators and 12 percent of the sophomore class declaring a SEAS concentration.

TEACHING AND LEARNING

Putting teaching and learning first at SEAS is more than a slogan. The recent self-study created for the Visiting Committee (April 2012) and spring review by ABET, an engineering degree accrediting agency, provided an excellent opportunity to reflect on past accomplishments and identify areas for continued development. Of particular note over the past year was the approval of two new concentrations in Mechanical Engineering and Electrical Engineering, both SB degrees, and the launch of a new master's degree program in Computational Science and Engineering.

In addition, the executive management team at SEAS was realigned to better support the school's expanded efforts in designing and implementing an innovative curriculum. An executive dean for administration was appointed and an executive dean for education and research position was created to manage the growing teaching and design operation.

UNDERGRADUATE EDUCATION

This year, SEAS has focused on active learning, design across the curriculum, broad-based courses open to students from all backgrounds, and advising and community building.

Active learning. Eric Mazur, Balkanski Professor of Physics and Applied Physics, has developed an approach called “peer instruction,” where lectures are provided in advance as videos in order for class time to be focused on active learning. Several SEAS faculty and lecturers began to experiment with this educational approach. Examples included CS 20, a new discrete mathematics course providing computer science concentrators with fundamental concepts in mathematics; CS 179, a course that focuses on understanding and applying the lessons of human interaction to the design of usable systems; and ES 123, a fluid mechanics course structured to emphasize the importance of the design process. To augment this approach, SEAS created a new experimental, flexible classroom on the third floor of Pierce Hall (301).

Design across the curriculum and hands-on learning. SEAS further enhanced engineering design and experiential hands-on learning elements through improvements to the undergraduate teaching labs, integration of state-of-the-art tools, and additional facilities and personnel. As a result of such investments, 17 of the 33 Engineering Sciences courses now have a design component and 20 now have a hands-on component. ES 96, a junior capstone design course, typified the SEAS approach to innovative learning, as three groups of students worked on interdisciplinary, complex problems, including an analysis of community



INTEGRATING INNOVATION AND ENTREPRENEURSHIP

SEAS expanded its efforts to make innovation and entrepreneurship a natural part of the academic experience, from playing a key role in launching a new venture fund for local, student-based start-ups to giving students an opportunity to experience Silicon Valley culture to offering new cross-school courses.

- During winter break, SEAS and Harvard Business School (HBS) collaborated to take 36 undergraduate and graduate students to Silicon Valley for a week of **high-tech company visits, panel discussions, and mentoring.**
- In January, **the Experiment Fund debuted**—a seed-stage investment fund designed to support student start-ups and nurture novel technologies and platforms that got their start in Cambridge. Launched at SEAS to cultivate innovation at Harvard, the fund has expanded and is now investing broadly on the East Coast. Patrick Chung AB '96, MBA '04, JD '04, co-head of NEA's consumer and seed-stage investing practices, was the key player who helped to realize the fund. Chung, who received his AB degree in environmental science from Harvard College and a joint JD-MBA degree from Harvard Law School and Harvard Business School, also serves as an Expert-in-Residence at SEAS.
- In the spring, the fifth annual **Harvard College Innovation (I³) Challenge** celebrated student entrepreneurship, awarding up to \$50,000 in grants to the winners. A record number of students participated (231 students from 34 concentrations).
- The **Harvard Start-Up Fair**, a collaboration of the Office of Career Services and SEAS and hosted at the i-Lab, attracted 93 companies, from Apperian to Zoo-ra.
- HackHarvard, a SEAS-affiliated student club, “brought hack back” every Tuesday night, and 10 teams launched apps with broad commercial potential.
- Courses related to innovation included ES 21: The Innovator's Practice; ES 227: Medical Device Design; CS 301: iLaw; CS 179: Design of UI Systems; and two joint courses with the Business School, HBS 2107: Commercializing Science and HBS 6180: Health Care Innovations.
- Over the past year, SEAS has also developed new externship/internship programs targeting companies in SEAS-related fields and those most attractive to SEAS students.



The annual CS50 fair allows students to display projects ranging from websites to mobile applications that they designed using the computer programming skills learned over the course of the semester.

policing with the Massachusetts State Police, modern archiving methods with Harvard Archives, and greater efficiencies and eco-friendly approaches for Harvard University Dining Services. Two design preceptors (in mechanical and electrical engineering) were hired to work closely with the teaching labs team in order to better incorporate design into courses and to provide dedicated support to students and a preceptor for AP 50, a gateway course slated for fall 2012. Lastly, a new design lab was created on the ground floor of Maxwell Dworkin and a new photonics lab opened on the basement level.

Student activities beyond the classroom.

In addition to learning inside the classroom, investments have been made to expand opportunities for students to engage in real-world problem solving.

Engineering students from Brazil and from SEAS traveled to sites on the Gulf Coast and in Massachusetts to learn about environmental engineering directly from professionals in water treatment, flood prevention, and other fields. Optional Winter Activities Week celebrated SEAS's passion for teaching and learning, with events including a **design workshop led by IDEO** and courses on **sustainable biomedical materials, aerodynamics, microscopy and imaging, and rapid prototyping.**

Engaging non-concentrators. In addition to the highly popular CS 50, now the second largest and one of the most popular courses in the College, and the famed "Science and Cooking" course, students from all areas enrolled in SEAS-developed freshman seminars like FS 21p, "Materials, Energy and Society," and

General Education courses like SPU 24, "Introduction to Technology and Society." The secondary field options in Computer Science and Mathematical Sciences have also continued to be popular.

Advising and building community. SEAS has made a commitment to enhance advising for concentrators, appointing additional directors of undergraduate studies. The structure has been paying dividends, as Sujata Bhatia, the director of undergraduate studies for bioengineering, was awarded the John R. Marquand Award for Exceptional Advising and Counseling of Harvard Students. Moreover, numerous student-centered activities have taken shape in the form of student groups, optional winter term programs, innovation and entrepreneurship, industry interactions, student research, and internships.

ENHANCING AND EXPANDING THE GRADUATE EXPERIENCE

Over the past year, SEAS began to perform a systematic review of the strengths and weakness of graduate-level programs, launching a task force on the graduate student experience at SEAS. Areas of focus include enhancing advising and tracking of graduate student progress, evaluating ways to maintain and enhance diversity, and improving community building.

A new master's degree program in Computational Science and Engineering (CSE) was launched with the aim of training new leaders for a future where large-scale computation and advanced mathematical modeling will propel discovery and innovation in fields from

psychology to photonics. The program parallels the recently created secondary field in CSE, open to all students in GSAS. A future Bioengineering PhD (joint with Harvard Medical School) is also under consideration.

SEAS is committed to enrolling a graduate student body that represents the ethnic and cultural diversity of contemporary society. To improve recruitment, SEAS hired a new assistant director of graduate admissions and engaged with a new diversity initiative, the GSAS Post-Baccalaureate Program, that gives academically strong applicants with minimal research experience an opportunity to enroll as special students.



In November 2011, Facebook founder Mark Zuckerberg returned to campus to recruit computer science, applied mathematics, and engineering students for coveted jobs and internships.

FACULTY RENEWAL AND TEACHING ACCOLADES

SEAS was pleased to announce the appointment of five new faculty members: Ryan Adams, assistant professor of computer science; David Keith, professor of applied physics and energy policy (jointly appointed with the Harvard Kennedy School); Eddie Kohler, associate professor of computer science; Jelani Nelson, assistant professor of computer science, who will join SEAS in September 2013; and Conor Walsh, assistant professor of mechanical and biomedical engineering (affiliated with the Wyss Institute).

In addition, seven talented faculty were appointed or promoted to tenure: Zhiming Kuang was promoted to professor of climate science (joint with earth and planetary sciences); Marko Lončar was promoted to professor of electrical engineering; Radhika Nagpal was promoted to professor of computer

MAJOR EVENTS AND COMMUNITY BUILDING

- With the addition of new resources to manage events, SEAS sought to further strengthen its community and culture. Highlights included:
- SEAS joined the Harvard 375th Anniversary festivities, lighting up the night with its LED tees (October 2011)
 - Facebook founder Mark Zuckerberg returned to campus to recruit computer science, applied mathematics, and engineering students for coveted jobs and internships (November 2011)
 - The Lab at Harvard/ArtScience showcase (November 2011)
 - **CS 50 Fair** (December 2011)
 - “Science and Cooking” Student Fair (December 2011)
 - ComputeFest! and HackHarvard (January 2012)
 - Student Brazil Field Study Trip (January 2012)
 - Start-Up Career Fair (February 2012)
 - Reception for new sophomore concentrations (April 2012)
 - Visitas and Concentration Fair (April 2012)
 - Inaugural SEAS Design Fair (May 2012)
 - Networks SEAS alumni event (May 2012)
 - Year end reception for SEAS graduates (May 2012)
 - New SEAS PhD Hooding Ceremony (May 2012)
 - Cambridge Public Schools Science Fair (May 2012)
 - BioExpo, Applied Physics Fest, and Mech&Mat area events (May 2012)



science; Kit Parker was promoted to Tarr Family Professor of Bioengineering and Applied Physics; Hanspeter Pfister was appointed as professor of computer science; Rob Wood was promoted to professor of electrical engineering; and Todd Zickler was promoted to professor of electrical engineering. In addition, two talented faculty were appointed or promoted to term positions: David Bell was appointed as professor of the practice of applied physics (electron microscopy) and David Malan was promoted to senior lecturer in computer science.

Several SEAS faculty members were acknowledged for their dedication to teaching. David Parkes, Gordon McKay Professor of Computer Science, was named a Harvard College Professor. Marko Lončar and his teaching fellow, Abishai J.

Vase '12, were awarded the 2012 Levenson Prize for Excellence in Undergraduate Teaching by the Education Committee of the Harvard Undergraduate Council. Finally, four SEAS affiliates won awards from the Harvard Initiative in Learning and Teaching: Beth Altringer, instructor, "Expanding existing innovative program for assessing student learning in hands-on innovation courses"; Eric Mazur, Balkanski Professor of Physics and Applied Physics, and Todd Zickler, professor of electrical engineering, "Transforming education through computer vision analysis and automated assessment"; and John Briscoe, Gordon McKay Professor of the Practice of Environmental Engineering (SEAS) and professor of the practice of environmental health (School of Public Health), WSI/ELP water policy learning project. ■

DIVISION OF CONTINUING EDUCATION (DCE)

DEAN MICHAEL SHINAGEL
ACADEMIC YEAR 2011–2012

“Distance education and intensive on-campus sessions continue to be areas of growth. In 2011–2012, distance course enrollments increased 1 percent over the previous year to 11,580, accounting for 44 percent of total enrollment.”

In 2011–2012, Harvard Extension School offered more than 600 courses in the liberal arts and professional fields, with 13,332 students enrolled, accounting for 26,183 course enrollments and representing 121 countries of citizenship. This constitutes a 1 percent decrease in students and a 4.5 percent decrease in course enrollments from the previous year. The decline in enrollments results from a number of factors, including the sluggish economy and heightened admissions standards for two of our largest degree programs. While many institutions now offer online degrees, all Extension School degrees have a residency requirement, and none of them can be completed online. Despite these constraints, this year’s course enrollments are 9 percent higher than five years ago (24,071) and 14 percent higher than 10 years ago (23,031).

Distance education and intensive on-campus sessions continue to be areas of growth. In 2011–2012, distance course enrollments increased 1 percent over the previous year to 11,580, accounting for 44 percent of total course enrollment. The Extension School again offered a record number of online courses (187), including 44 Harvard College and Harvard graduate school courses and 34 web conference courses, which enrolled students living across the United States and in 94 other countries. For the third year, on-campus courses offered in an intensive January session proved popular, enrolling 747 students and accounting for 758 course enrollments.



The division initiated a pilot program in professional development, offering a number of two-day intensive noncredit programs in management topics geared toward professionals. Four sessions were offered in 2011–2012, enrolling more than 400 participants in programs like Fundamentals of Strategy, Data Visualization, and Creativity in Management.

In 2011, Harvard Summer School enrolled 6,415 students, a 7 percent increase from 2010 and an all-time record. These students accounted for 8,661 course enrollments, an 8 percent increase from the previous summer and also an all-time record. Thirty-six percent of students

were international, with citizenship representing 113 nations. The Summer School Secondary School Program for academically motivated high school students enrolled 1,300 students, nearly a 6 percent increase over 2010.

The Summer School offered nearly 300 on-campus courses and 15 distance education courses, covering a broad range of the liberal arts, from anthropology to visual and environmental studies, biotechnology to Sanskrit. Twenty-four study abroad programs were offered in 18 countries, attended by 529 students. Study abroad programs were led by Harvard faculty and provided a rigorous educational experience for the 321



Harvard College undergraduates, 8 Graduate School of Arts and Sciences and professional school students, 9 Extension School undergraduate and graduate degree candidates, and students from 48 other U.S., Canadian, and UK colleges and universities and the international universities at which study abroad programs were located.

The Crimson Summer Academy (CSA) is a challenging residential program to supported by the President's Office for academically motivated, low-income high school students in Cambridge and Boston. Over three consecutive summers, the CSA helps its "Crimson Scholars" prepare to become viable candidates for admission to challenging four-year colleges and universities, and also works with the Scholars during each of the intervening academic years. This May, at Harvard's Commencement, the CSA graduated its sixth class of Crimson Scholars. These 28 graduates will be attending a number of prestigious colleges including Harvard, Smith, Stanford, and Williams.

The Harvard Institute for Learning in Retirement membership of 556 retired and semi-retired academics and professionals participated in 125 peer-led seminars in its 35th anniversary year, marked by lectures, concerts, symposia, theater, and a keepsake publication.

The Division of Continuing Education anticipates steady enrollments in the Extension School, while Summer School enrollments will decline in the coming year due to a reduction in on-campus housing. Distance education, intensive January courses, and the new professional development initiative remain sources of modest growth, while the Summer School study abroad programs and premedical courses stay robust as the division continues to fulfill its mission 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 Faculty of Arts and Sciences and the University as a whole. ■

FACULTY TRENDS

DEAN NINA ZIPSER
OFFICE FOR FACULTY AFFAIRS
ACADEMIC YEAR 2011–2012

The FAS undertakes academic planning each year with the goal of maintaining the strength of the faculty. During the previous four years, the size of the faculty has been stable. Although the size of the faculty declined by 1.4 percent in 2011–2012, we expect it to bounce back in the coming academic year.

The decline in the size of the faculty, as depicted in Figure 1, is due to a slightly higher-than-expected number of faculty departures, and a lower-than-expected yield in Science and SEAS searches.

External Searches

In the 2011–2012 academic year, 62 ladder (tenured and tenure-track) faculty searches were conducted. As a result of these searches, 43 offers were extended,

of which 25 were accepted and 7 are still pending. Of the 25 accepted offers, 14 represent appointments that will begin in fall 2012, while the remaining 11 new faculty have deferred their appointments to a later start date (and do not appear in the faculty totals in Figure 1). Thirteen additional faculty members, mostly acceptances from previous years who had deferred their appointments, will also begin this fall.

Departures

The effect of the FAS retirement program became apparent during the 2011–2012 academic year, with 15 tenured faculty members retiring. In comparison, over the last five years there were, on average, 6 tenured faculty retirements per year. The total number of faculty departures in the

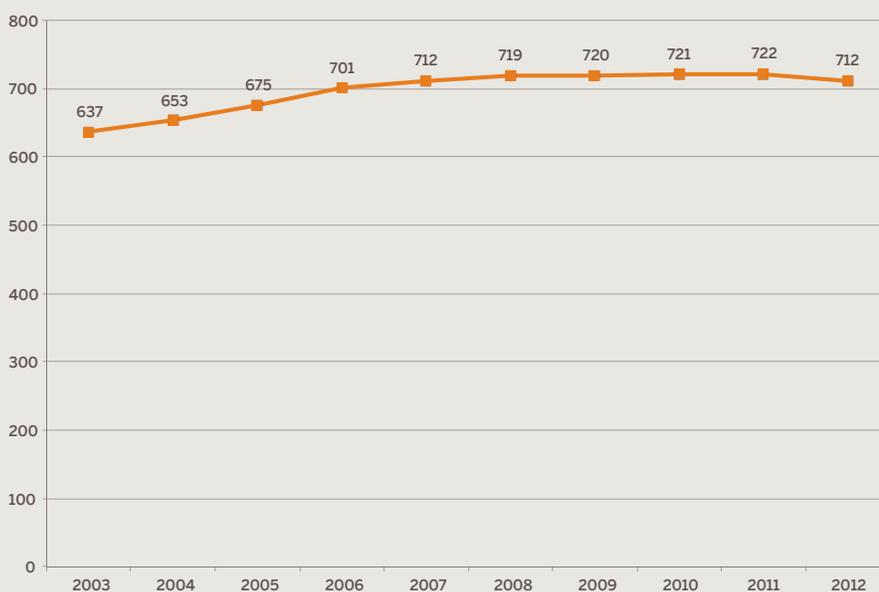
2011–2012 academic year was 37, including departures of tenured faculty for reasons other than retirement and tenure-track departures.

Promotions

In addition to the external search activity during the last academic year, the FAS concluded 23 associate promotion reviews and 28 tenure promotion reviews. All 23 of the associate professor reviews and 19 of the tenure reviews were successful.

Promotion rates have remained strong over the last four years. The tables below summarize the rate of promotion to associate professor and to tenured professor for those faculty members who chose to stand for review and whose review was completed during

FIGURE 1: LADDER FACULTY IN THE FAS FROM FALL 2003 THROUGH FALL 2012



Note: The fall 2008 through fall 2012 faculty counts represent a September 1 snapshot, whereas the fall 2003 through fall 2007 counts represent a July 1 snapshot as in previous annual reports. The new counting methodology was implemented in order to capture appointments starting on September 1.

FIGURE 2A: PROMOTION TO ASSOCIATE PROFESSOR AMONG THOSE STANDING FOR REVIEW

	Promoted
Women	95%
Men	97%
Total	96%

(2008–2009 through 2011–2012)

FIGURE 2B: PROMOTION TO TENURED PROFESSOR AMONG THOSE STANDING FOR REVIEW

	Promoted
Women	73%
Men	74%
Total	74%

(2008–2009 through 2011–2012)

the 2008–2009 through 2011–2012 academic years (on average, 87 percent of assistant professors and 70 percent of associate professors choose to stand for a promotion review).

Demographic Trends

Including new appointments and tenure promotions, the FAS has a record number of tenured faculty.

While the FAS has more tenured women than ever before, the total number and percentage of women on the ladder faculty have remained approximately constant over the last five years.

Currently, there are 181 women on the ladder faculty, representing 25 percent of the faculty. With respect to rank, women represent 23 percent of tenured faculty and 35 percent of tenure-track faculty. In the 2011–2012 academic year, 44 percent of all accepted offers went to women, and women represented 32 percent of all successful tenure promotions.

The ethnic composition of the ladder faculty has also remained relatively constant over the last several years. Currently, 17 percent of the ladder faculty members are minorities. With respect to rank, minorities make up 15 percent of tenured faculty and 25 percent of tenure-track faculty. Of the 25 offers that have been accepted to date, minorities represent 2 (or 8 percent) of these acceptances. Of the 19 successful promotion cases, 2 (or 11 percent) are minorities.

The average age of the tenured faculty has continued to increase, even with a record number of promotions to tenure

FIGURE 3: TENURED FACULTY IN THE FAS FROM FALL 2003 THROUGH FALL 2012, BY GENDER

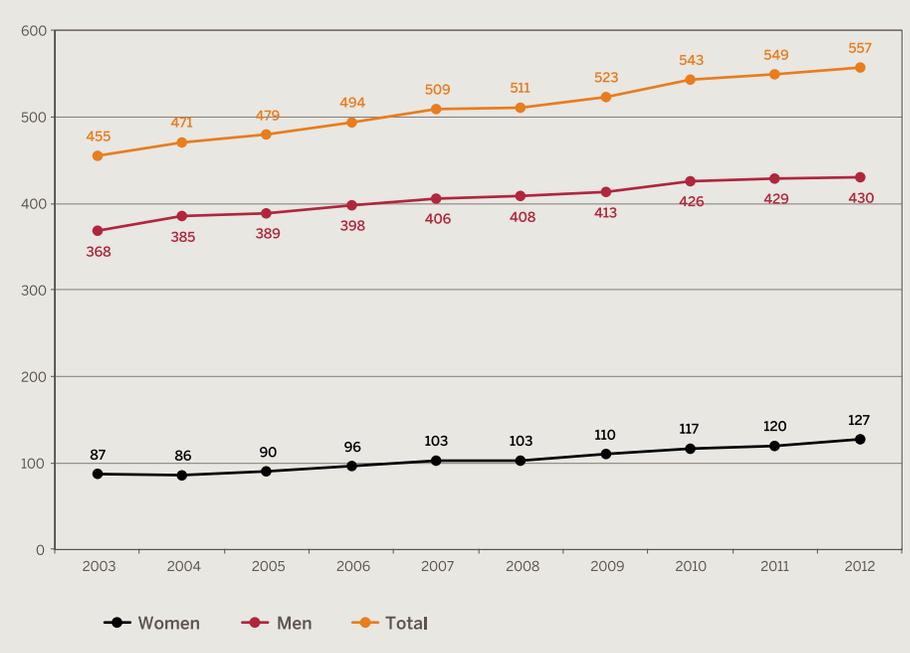


FIGURE 4: LADDER FACULTY IN THE FAS FROM FALL 2003 THROUGH FALL 2012, BY ETHNICITY

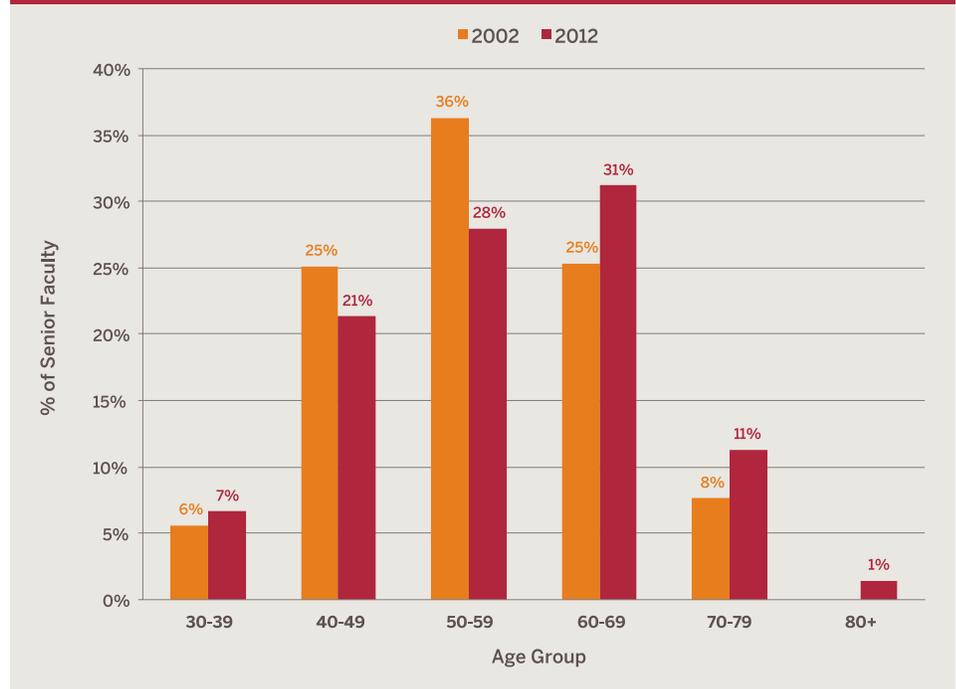


(19) and retirements (15) in the last academic year. Over the last 10 years, the average age of the tenured faculty has risen from 55 to 57. The chart at the right shows a robust upward shift in the age distribution of the tenured faculty.

The FAS continues to work on increasing all forms of diversity among the faculty. Since only 5 percent or less of the faculty is renewed each year, it is vital that decisions regarding searches and promotions are undertaken with enormous thought and care. The divisional deans are an important part of this process and work closely with departments on searches and promotions.

To help departments with these efforts, the dean has asked Mahzarin Banaji, Richard Clarke Cabot Professor of Social Ethics, to continue in her role as the senior adviser for faculty development. Professor Banaji has been meeting with department chairs to share research on the cognitive and affective bases of decision making as they concern the detection of talent, selection, hiring, and promotion of the strongest faculty at Harvard. To further enhance the support for departments and search committees, Professor Banaji is working with Judy Singer, senior vice provost for faculty development and diversity, to create a website for search committees that summarizes the research in the article bank they have developed over the last two years. The article bank includes studies on the impact of diversity in professional and academic settings, trends in the academic and career trajectories of women and minorities, decision making and judgment formation, recommendations for promoting equity, and current diversity policies and practices at Harvard, peer institutions, and selected professional and government

FIGURE 5: TENURED FACULTY AGE DISTRIBUTION, FALL 2002 VERSUS FALL 2012



organizations. Faculty members on search committees will be encouraged to visit this website before they begin the search process. In addition, Professor Banaji, together with Elena Kramer, Bussey Professor of Organismic and Evolutionary Biology and chair of the Standing Committee on Women, is preparing reports for the department chairs, which analyze hiring and promotion trends. Professors Banaji and Kramer are also working closely to create forums in which tenure-track faculty have the opportunity to present their work to faculty and deans. ■

FAS LIBRARIES

SUSAN FLISS, ASSOCIATE LIBRARIAN OF HARVARD
COLLEGE FOR RESEARCH, TEACHING AND LEARNING AND
INTERIM LIBRARIAN OF HARVARD COLLEGE
ACADEMIC YEAR 2011–2012

“While collaborating on the Harvard Library transition, library staff were productive and creative during a period of significant change.”

In academic year 2011–2012, the focus of library efforts within the FAS was on the development and eventual launch of the shared service model, and the creation of the affinity groups composed of individual libraries intended to align like areas of intellectual content. The integration of services is a key component of the new vision for the integrated Harvard Library system as articulated by Provost Alan Garber and pursued by the Harvard Library Board.

Appointment of Susan Fliss

Following the retirement of Larsen Librarian Nancy Cline in 2011, Susan Fliss was appointed as associate librarian of Harvard College for research, teaching and learning and as interim librarian of Harvard College. In this role, Dr. Fliss oversaw the day-to-day management of the Harvard College Library (HCL) while engaging in the important work of translating the broader Harvard Library vision into implementations appropriate to the needs and culture of the FAS. The heads of FAS libraries and HCL senior managers worked with their staff to continue to build collections and provide good service to the library community while leading their staff through a year of change. In the late spring of 2012, Professor Joyce Chaplin was appointed chair of the FAS Standing Committee on the Library. The composition of this committee has been changed from years past and is now a smaller group of faculty who serve as a component of the University Library Council chaired by University Librarian Robert Darnton.



Shared Services

The Harvard Library shared services organization, which formally launched August 1, 2012, centralized most personnel in access services, information and technical services and preservation, conservation and digital imaging services, and support services (human resources, information technology, finance, project management, and communications) to manage the administrative needs of the staff who became part of the shared services organization from across the University’s libraries. Recognizing the important gains possible from this more scalable model, the FAS had already undertaken a similar centralization of its services units. Therefore, the transition effort in the FAS to the University-wide shared services organization focused

on the designations of individual personnel into particular roles in the new organization, and on participation in the process of identifying leaders for the four subsidiary units of the new shared services organization.

In the coming year, attention will turn to the topics of collections development and research, teaching, and learning efforts. The Library Board will drive a conversation around the principles and organizational design to respond to and anticipate faculty and student needs. The FAS Standing Committee on the Library and the Faculty Advisory Committee will be critically important to shaping those for implementation in the FAS.

FAS Library Highlights

While collaborating on the Harvard Library transition, library staff were productive and creative during a period of significant change. A few highlights of work by FAS libraries include:

Research, teaching and learning librarians developed new knowledge and skills in the area of needs and impact assessment. They are employing quantitative and qualitative data and ethnographic and behavioral approaches in a coordinated effort to evaluate and meet the teaching and learning needs of the College and FAS, and to articulate the impact of changes and improvements to library services.

Library staff were involved in planning renovations to Tozzer Library that will include new teaching space, renovated user space, and facilities for using special collections and digital materials. Tozzer Library has been relocated temporarily to William James Hall for the duration of the construction project.

In February, the opening of the redesigned library instruction space for the Lamont Library Larsen Room gave librarians a new mode of collaborative teaching—and students a new space for their collaborative work—via four Mediascape collaborative stations with dual monitors for sharing work and ideas via laptops and iPads.

New faculty continue to be added to the growing community of users of the Multimedia Lab in Lamont Library, supported by the Harvard College Library–Academic Technology Group (ATG). Faculty work directly with our multimedia librarian and ATG technologist in the lab to gear instruction programs, student assistance, and training

precisely to their curricular goals and expectations. The lab is also engaging in projects with the Bok Center, providing support for the Harvard Shorts Film Festival, and supporting students from across the College and the Graduate School of Arts and Sciences.

Collections and Exhibits

The Harvard Map Collection is in growing demand from courses, with more than 20 classes hosted from across the curriculum for orientation and training. The Map Collection researched and mounted two exceptional exhibits highlighting the University's collections: *Visions and Revisions: The Cartographic Construction of Canals* and *A Border Line Case: Harvard's Maps and the Northeast Boundary Dispute*.

The Julio Mario Santo Domingo Collection, the world's largest private collection of material documenting altered states of mind, has been placed on long-term deposit with Harvard University. Including rare books, manuscripts, posters, photographs, audio material, and popular and underground cultural ephemera of all kinds, the collection of more than 25,000 items will support teaching and research in many fields across the University.

Negotiations are complete and shipment is imminent for the "Printernet Collection" of some 20,000 'zines—limited output, semi-underground artisanal publications that flourished particularly in the 1980s and 1990s.

In October 2011, the Music Library hosted a reception celebrating the Sir Georg Solti Archive at Harvard and honoring special guest Lady Solti. The musical

scores in the archive, heavily annotated by Sir Solti—one of the 20th century's renowned conductors of opera and symphony—are being digitized and will be made available online. An exhibition featuring the scores was mounted in conjunction with the event.

Faculty member Alex Rehding's fall 2011 graduate seminar, Music 220: Chinese Music in Enlightenment Europe, explored the cultural transfer of musical knowledge by focusing on 18th-century Europe's fascination with Chinese music. The outcome of the seminar was a student-curated physical and virtual exhibition using library materials and created in collaboration with library staff. This exhibition was the University's first to include audio excerpts, using clips loaded onto the library's new iPads and QR codes linked to streaming audio databases.

Arthur H. Freedman donated his collection of 484 audio cassette tapes of performances he recorded in the 1970s to mid-1980s of Metro-Boston area rock musicians performing in rock clubs and other venues. The Arthur H. Freedman Collection complements Mr. Freedman's donation to the Harvard University Film Archive of performances from the Boston rock scene captured on videotape during the same period. Additional CD recordings and print ephemera from Mr. Freedman's collections are forthcoming.

Arvind Venkat '96 donated his family's collection of South Indian Carnatic music to the Archive of World Music. The 300 cassettes in the Venkat Family Collection were made at live concerts of South Indian Carnatic music artists who toured the United States during the 1970s to 1990s, including such artists as Maharajapuram Santhanam, T. N.

Seshigopalan, and M. L. Vasanthakumari. These concerts were recorded with the artists' permission and the recordings were sold to concertgoers, but were never marketed to the general public.

Andras Riedlmayer from the Fine Arts Library worked with two specialized Turkish vendors to acquire close to 1,000 new and out-of-print titles, covering not only historic Islamic art and architecture, but also gallery publications, monographs on artists, and rare exhibition catalogs that document the development of modern art in Turkey in the course of the 20th century, as well as the booming contemporary art scene of the past two decades. Thanks to these new additions, the Fine Arts Library now has the collection of record in North America in these subject areas. In collaboration with colleagues at Widener's Middle East Division and HCL technical services at 625, we have worked out an efficient workflow for processing and cataloging new acquisitions in the languages of the Middle East.

Librarians from the Fine Arts and Harvard Yenching libraries collaborated to acquire the Stanley Charles Nott collection of over 1,000 lantern slides and 50 short films representing China in the early 20th century.

Social Research Management

Wolbach Library was one of the first libraries in the world to subscribe to and implement the social research management tool Mendeley Institutional Edition, which enables faculty, researchers, and students to share their research with others and collaborate more effectively. The Institutional Edition offers more storage space and the ability to add more collaborators. Meanwhile, the library is able to monitor alternative social metrics gathered in Mendeley in a librarian-specific dashboard. As an early adopter, FAS libraries are essentially the primary libraries providing input to influence current and future developments of the tool.

Wolbach Library has developed a gesture-based software program called Library Explorer, in collaboration with Brown University, which allows researchers to interact with the Harvard Library's collections in new ways. Development was initially undertaken for the Microsoft Surface Table, the SUR40, but will likely be extended to other devices through a partnership with Intuilab, a company that creates presentation software for gesture-based systems. Part of the project has included usability tests with undergraduate students at Cabot Library; in the process of conducting the tests, students have provided positive feedback. Planning and usability testing are now under way to extend this template to other libraries. ■

FAS SUSTAINABILITY PROGRAM

ACADEMIC YEAR 2011–2012

“When accounting for all square feet, including expansions after FY2006, GHG emissions have decreased by 10 percent from FY2006.”

The FAS Sustainability and Energy Program is working in partnership with the Office for Sustainability to meet the University’s goal to reduce greenhouse gas (GHG) emissions 30 percent below a FY2006 baseline by FY2016, including growth through a mix of:

- Infrastructure upgrades and operational changes that increase efficiency and reduce energy;
- Renewable energy projects;
- Integration of Green Building Standards into capital/renovation projects and new spaces; and
- Partnering with students and staff to change behavior.

To date, in the buildings that existed in FY2006, FAS has seen a 27.6 percent reduction in greenhouse gas emissions, 21 percent reduction in energy use, 31.3 reduction in water use, and an estimated annual avoided utility cost of \$6,555,763 (at current FY2012 projected utility rates).

When accounting for all square feet, including expansions after FY2006, GHG emissions have decreased by 10 percent from FY2006. These initial projections are based on 2011 GHG conversion factors and will be revised in spring 2013 when new factors become available.

Increasing Building Efficiency

The FAS Office of Physical Resources and Planning (OPRP) has developed a comprehensive and financially viable strategy to operate FAS buildings as efficiently as possible. Comprehensive



The new solar project on the Gordon Track building, Harvard’s largest solar array, is one of several pilot projects undertaken by the FAS in 2011-2012 to explore renewable energy opportunities.

assessments of FAS buildings based on their energy/GHG intensity and overall GHG emissions are the cornerstone of FAS OPRP’s energy management approach. The FAS Energy and Sustainability team conducts ongoing evaluation of opportunities in regard to infrastructural and operational changes as well as commissioning/retro-commissioning potential.

The FAS also puts strong emphasis on engaging building managers in the FAS GHG reduction efforts by providing them with resources, training, information, and more direct control over their building energy use through real-time monitoring systems.

The following new initiatives have recently been launched by the FAS to promote integration of Operations and Maintenance Priorities into capital projects and to enhance operations staff capacity to share best practices and manage energy use in their buildings:

- Operations and Maintenance best practices checklist was piloted in the academic/administrative sector to standardize practices across all FAS buildings and enable FAS-wide reporting.
- Post-renovation survey pilot was developed in collaboration with Harvard Green Building Services to capture lessons learned from past renovations and apply them to future projects.



- More than 200 (and counting) Energy Witness subscriptions were set up for FAS building managers to enhance their capacity to review and manage energy consumption in their buildings.
- Best Operations and Maintenance Practices Forum was launched in January 2012 to facilitate in-depth discussions around energy-efficient technologies, products, and practices.

Energy conservation measures highlights include:

- Laboratory for Integrated Science and Engineering (LISE) ongoing commissioning: \$1.1 million in savings and reduction of 1,900 metric tons of carbon dioxide equivalent (MTCDE) since the program was launched in 2009; and
- LEDs in Carpenter Center: \$22,000 in annual savings, 8 months payback, reduction of 62 MTCDE per year.

Renewable Energy

Over the past few years, FAS has pursued several pilot projects to explore renewable energy opportunities, including roof-integrated solar panels on Cabot Library

at the Science Center and a hybrid solar and heat recovery project at Canaday Hall, a freshman residence. That project alone reduces 110 MTCDE per year and helps meet 60 percent of domestic hot water needs in the Yard.

In FY2012, **Harvard's largest solar project** was installed at Athletics, on the roof of the Gordon Track building. With its 2,275 solar photovoltaic panels on 1.5 acres of roof space, this project results in:

- 480 metric tons of MTCDE reduction per year
- 591.5 kilowatts of electricity generated per year

Integration of efficiency measures into capital/renovation projects and new space commissioning.

The FAS was the first Harvard School to adopt the University Green Building Standards. Since 2008, all major renovation and construction projects have followed Harvard's requirements for energy efficiency, indoor air quality, and other environmental criteria. FAS is a green building leader on campus with 30 Leadership in Energy and

Environmental Design (LEED) Certified projects (Platinum: 1, Gold: 16, Silver: 11, Certified: 2) and 6 Registered projects, the largest number among all Harvard Schools and units. In April 2012, the FAS celebrated its first Platinum building and the University's greenest and most efficient lab building, the Stem Cell and Regenerative Biology Department (SCRB).

Sustainability is also a core value of the plans to renew the undergraduate Houses, which aim for LEED Gold certification from the **U.S. Green Building Council**. Old Quincy, **whose renovation started in the summer of 2012**, will be insulated, and the windows replaced to increase conservation and comfort. Its renovation will also emphasize recycling and reuse. Wood floors will be re-sanded and refinished, rather than replaced. Doors will be resized to fit new entrances. Even the rain that falls on Old Quincy will be captured and used to supply wastewater.

Behavioral Changes

The FAS strives to build a culture of sustainability by engaging students, researchers, and staff. Launched in

2002, FAS's community engagement programs now have a strong presence in student residences, offices, and laboratories. College students have always been a powerful force in Harvard's sustainability efforts and drove many flagship initiatives, including Harvard's Sustainability Principles (adopted in 2004) and Harvard's GHG Reduction Program (launched in 2008, following undergraduates' referendum in 2006).

Student Engagement and Leadership

- Student-run weatherization events in partnership with the Office for Sustainability and Green Building Services
- Green'15 program: outreach to freshmen and annual Green Fair in Annenberg Hall (1,400 attendees)
- Annual Green Cup competition for the Houses: awards in three categories reinforcing sustainability culture in Houses, plus an overall winner
- 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
- 238.5 pounds of electronics waste collected in new E-Cycle Mania campaign

Greener Laboratories

- Green Lab certification program since 2009, with 11 certified labs and more than 40 green lab assessments
- “Shut the Sash” campaign launched in 2005, with \$240,000 in annual savings
- 310 Greenerbenches listserv members sharing best practices in lab and research operations
- First lab-oriented freecycle in April 2012, with a follow-up event planned for September
- Freezer Management Program launched in winter 2012, promoting freezer cleanouts, regular coils cleaning, and purchasing of energy-efficient models

Office Space

- 46 Green Certified offices and 742 participants, 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

FAS's environmental leaders are recognized at Harvard-wide events, including the annual Green Carpet Awards presented by the Office for Sustainability. On April 12, 2012, the University honored 15 members of the FAS community who have made significant contributions to campus greenhouse gas reduction and sustainability efforts. Team projects were also recognized, including the SCRB LEED Platinum renovation and the Organismic and Evolutionary Biology Green Team. ■

RESOURCES



Sustainability Videos:

- [Green is the New Crimson](#)
- [Sustainability at Harvard](#)
- [Sustainability at FAS](#)
- [Canaday Solar Thermal and Steam Tunnel Heat Recovery System](#)
- [Athletics Solar](#)

FINANCIAL REPORT

LESLIE KIRWAN
DEAN FOR ADMINISTRATION AND FINANCE
FISCAL YEAR 2011-2012

We are pleased to present here the FAS's financial results for Fiscal Year 2012, the fiscal year ending June 30, 2012. For purposes of comparison, the results for Fiscal Year 2011 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 made a commitment 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 neither prepared nor 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 2012.

Overview

As we planned for and developed the FAS budget for FY2012, the year presented a welcome respite following three years of significant fiscal difficulty stemming from the global economic downturn. In planning for the prior year's budget, Dean Smith stated his hope that the FAS unrestricted operating budget would be brought into balance by the end of the year. That was not an easy goal to achieve, since the immediate prior year, FY2011, had presented the biggest challenge for the FAS: from a vantage point early in the global downturn, an operating deficit

as large as \$220 million was projected for FY2011. Dean Smith quickly crafted a three-year plan to avert this potentially crushing deficit.

The faculty's success in rapidly implementing that blueprint and continuing on a path of fiscal discipline through FY2011 has been detailed in prior reports, and is reflected in the results presented here. Specifically, the final result of FY2012 operations was a surplus of approximately \$73,000 in the FAS Core, with modest deficits when all fund types and affiliates are included. Thus, the FAS has accomplished the goal Dean Smith set at the outset of FY2011—that is, to close or substantially close the remainder of the unrestricted deficit and achieve balance by the end of FY2012.

More important, despite the array of difficult budgetary decisions needed to achieve this financial result, the faculty has accomplished an impressive amount of mission critical work during the last four years. FAS has been able to make targeted investments in several critical priority areas, including undergraduate financial aid, graduate fellowships, faculty recruitment and retention, research administration, and core facilities, with an ongoing emphasis on environmental conservation measures and greenhouse gas reduction. Notably, in FY2012 the FAS took the first significant step toward funding the renewal of the residential House system by funding design and some construction costs of the Old Quincy test project and design of the Leverett McKinlock test project. The FY2012 financial reports are the first of many that will reflect significant financial transactions related to House Renewal, as described further below. Additionally, the FAS began investing in edX, the online partnership Harvard announced with MIT

in the spring. These investments were possible in FY2012 because of resources carefully stewarded during the dean's fiscal recovery plan. 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 anticipated financial challenges still ahead.

Guide to the Accompanying Financial Statements

The FAS budget is both large (approximately \$1.2 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 FY2012 consolidated revenues and nearly 73 percent of FY2012 consolidated expenses, we also present an FY2012 Statement of Activity for just the Core.

Finally, we include a Balance Sheet for the consolidated FAS that presents our major assets and liabilities at the end of FY2011 and FY2012. As noted above, this presentation of the Balance Sheet has been neither prepared nor audited in accordance with generally accepted accounting principles (GAAP).

Background: The Three-Year Plan (FY2009–2011)

When the impending impacts of the global financial crisis on 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 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 operations and maintenance. Continuing to support these recent 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 Core budget fully into balance through continued hard work by closing the remaining gap over two fiscal years—that is, by the end of FY2012.

FY2012 Results

By following the three-year fiscal recovery plan and maintaining discipline in FY2012, the FAS has completed FY2012 with a balanced budget in its unrestricted Core operations. The result of operations was a very modest surplus of \$73,000. After investments in edX, which were not anticipated when the budget was submitted, as well as planned investments in House Renewal, the unrestricted Core deficit was \$9.7 million. 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 \$34.9 million, and on an all-funds basis the consolidated bottom line of the FAS was a manageable deficit of \$20.5 million. These deficits are largely the result of the planned use of reserves to fund capital projects, offset by

decapitalizations of endowed funds for specific purposes.

Many elements contributed to this positive outcome in FY2012. First, total revenue grew by 6.7 percent. Following two years of steep declines, an increase of 4 percent in the endowment distribution fueled modest growth in some areas of the Core and other FAS budgets. Offsetting areas of relative growth, the FAS maintained and reduced spending in other areas. Some of these activities include the following:

- We continued to emphasize careful management of the FAS facilities, ensuring proper attention to renewal and maintenance as well as reduction of greenhouse gas emissions. The FAS invested \$28 million from the operating budget in facilities renewal during the year. The most recent estimates indicate that since the inception of the University's emissions reduction program, the FAS has reduced greenhouse gas emissions by 27.6 percent, and by 10 percent when growth since 2006 is included. Careful building management, coupled with favorable energy costs, sustained savings in facilities operations and maintenance.
- Following a decline of 160 full-time equivalent positions (FTE) early in the fiscal recovery, FAS staffing levels have continued to decline slowly, reflecting organizational redesign and careful position control. After a net decrease of an additional 31 FTE between FY2010 and FY2011, there was a slight uptick in FAS staffing during FY2012, as staff FTE grew by a net of nine FTE, from 2,833 in June 2011 to 2,842 in June 2012. That growth was localized in academic divisions, in particular the Sciences (with a 20 FTE increase in staff in Stem Cell and Regenerative Biology and an

additional five FTE increase in Chemistry and Chemical Biology) and in SEAS (a 12 FTE increase). Administrative units, in particular Administration and Finance and the Library, have experienced declines (-24 FTE and -22 FTE, respectively) as employees have been transferred to Harvard central administrative units through planned reorganizations.

- To contain the rise in costs of staff employment, a 2.5 percent merit increase pool was provided to FAS non-union employees in FY2012, slightly higher than the FY2011 pool (2.0 percent).
- Savings through reductions in controllable non-compensation expenses, such as travel, meals, purchases of goods and services, and other discretionary spending, have been an important contributor to the deficit reduction. Notably in FY2012, the new Harvard Crimson Online Marketplace (HCOM) helped generate and identify approximately \$4.1 million in savings in its first full year of operation, up from \$1 million in FY2011. The savings are a result of improved pricing, early payment discounts, and free shipping.
- 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.

Targeted Investments Continue

Though fiscal discipline remained an important principle in FY2012 as we worked to meet the dean's goal of a balanced budget, the work of the faculty did not stop and several targeted investments were prioritized during the year.

Financial aid continues to be one of the FAS's most important investments. During FY2012, 4,143 undergraduate students,

or more than 62 percent, received some level of scholarship grant aid to attend Harvard. Undergraduate financial aid expenditures rose in FY2012 to \$163 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 FY2005. The strength of our financial aid program, and Harvard College's attractiveness to a diverse and outstanding student body, is reflected in the remarkable number of applications for admission, which totaled over 34,300. Additionally, stipend levels for graduate students were increased modestly. Since FY2008, the FAS's total financial aid grew by \$68 million, or 43 percent, remarkable growth in the context of the financial pressures during this period.

As always, we aspire to have the finest physical space for teaching and learning. In FY2012, consistent with University priorities, the FAS capital program emphasized investment in renewal of our facilities. The fire detection and fire sprinkler life safety systems were expanded and modernized in eight of our buildings. Elsewhere, major investments were made in renewing building envelopes with new roofs, new thermal windows, and exterior repairs. Elevators were rebuilt and modernized in four locations. A major \$10 million, multi-year program to replace the electric infrastructure of the Biology Labs was started this year.

The FAS also completed a number of projects supporting our teaching, research, and student life programs. Among them were the first phase of a state-of-the-art facility in the Northwest Building to house Museum of Comparative Zoology specimen collections; a biological

growth chamber facility; and the planning and programming phase for the renovation of Tozzer Library in support of the consolidation of the Anthropology Department. The annual investment in maintenance of the freshman dorms continued, and we also created a new undergraduate social activity space on the first floor of Hilles Library to support student clubs and extracurricular activities.

House Renewal

Most significantly, this spring the FAS launched the first project associated with the House Renewal program as construction began in Old Quincy House immediately following Commencement. It is anticipated that the newly renovated facility will be ready for the return of students in the fall of 2013. The renovation of Old Quincy will be followed with the start of the next renewal project in Leverett McKinlock, the planning for which is well under way. The FAS and the University have together devised a multi-year funding plan for House Renewal. This plan includes the use of endowment funds, philanthropy, reserves, a modest amount of incremental internal debt, and cash from operations.

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 internal 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 and principal payments on our long-term debt.

Also consistent with the funding plan, in FY2012 the FAS was authorized to decapitalize \$144 million from the endowment, of which \$101 million was utilized during the year to support a number of capital projects. In this way, we were able to avoid additional debt as well as pay down existing debt to create non-incremental debt capacity for future needs of the House Renewal program. The FAS was also able to fund current year unrestricted costs in the Core operating budget to free up current year unrestricted resources to fund House Renewal. All restricted funds were applied in accordance with fund terms. FAS also received gifts and used a modest amount of reserve funding to launch the renovation of the first house, Old Quincy. Unused portions of decapitalized funds will carry into FY2013 for further application of unrestricted costs and capital projects, allowing the FAS to free up additional resources for House Renewal.

Balance Sheet View

As set forth in the Consolidated Balance Sheet, total net assets for the FAS declined by \$507.7 million or 3.2 percent during FY2012, from \$15.8 billion in FY2011 to \$15.3 billion in FY2012. This change is primarily driven by the combination of essentially flat year-over-year market returns, the funding of the annual endowment distribution for operations, and the decapitalization of funds for the House Renewal program, offset by new gifts and other changes. At June 30, the FAS's long-term investments (primarily endowment) stood at \$13.5 billion, down from \$14.1 billion a year ago. In contrast, this figure was \$16.6 billion at the close of FY2008, before dipping to a low of \$11.6 billion at the end of FY2009.

As described above, in FY2012 the FAS experienced the first year of significant financial activity related to the House Renewal project, which included making planned strategic decapitalizations from endowment of \$144 million, partially offset by \$41 million of recapitalizations.

The Outlook: FY2013 and Beyond

FAS's Fiscal Year 2013 budget included the Corporation-approved 5 percent endowment distribution increase and was submitted with a modest deficit of \$5 million expected to be erased during the year. This is positive 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 House Renewal funding challenge underscores the degree to which space maintenance and renewal is a critical area of ongoing investment for the FAS. Given how important it is to have well-maintained space for teaching, learning, and living, we must devote substantial funds each year to the stewardship of our physical assets.

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 48 percent of our operating budget, down from 54 percent in FY2009. Volatility in the financial markets and negative results in many sectors of the economy over the past year will likely dampen investment returns and corresponding growth in endowment distributions over the medium term. In contrast, 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 18 percent of our budget and has been a bright spot during the recovery. Our faculty will always be among the most productive, innovative, and successful in the competition for research funding, and the FAS has made strategic investments in staff and programs to support our faculty in this shifting environment. However, the likelihood of meaningful declines in federal funding of science is high.

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, their efforts have positioned the FAS to withstand continuing fiscal challenges and enable key investments in our academic mission.

As we begin a new fiscal year, I am pleased to announce the appointment of Jay Herlihy as incoming associate dean of finance for the FAS. Jay has ably discharged the equivalent responsibilities at the Harvard Graduate School of Education for the past four

years, following other finance roles at the GSE and Tufts University. He is a graduate of Tufts, where he received a degree in economics; holds a master's degree in accounting and an MBA, both from Northeastern University; and has been a CPA since 1995. Jay succeeds Eric Kopstain, who, prior to becoming associate vice chancellor of finance at Vanderbilt University, was instrumental in helping the FAS to achieve the financial progress described here.

Respectfully submitted,

Leslie A. Kirwan
Dean for Administration and Finance