LETTER FROM THE DEAN

MICHAEL D. SMITH
DEAN OF THE FACULTY OF ARTS AND SCIENCES
ACADEMIC YEAR 2012–2013
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 2013 (July 2012 through June 2013).

This was a year in which we launched extraordinary new partnerships. Faculty came together to create a new model for university museums -- one that unites 6 museum collections under one umbrella as the Harvard Museums of Science and Culture to support collaborative exhibitions, interdisciplinary research, and teaching from Harvard’s extraordinary museum collections. Harvard launched a new partnership with the Instituto Cervantes to chart the future of the Spanish language through the literature, culture, and people of the New World. Harvard took a leading role in the consortium behind the development of the Giant Magellan Telescope, a global resource that will be essential to building upon the rich history of astronomy at Harvard and to ensuring its future, in fields ranging from exoplanets to deep red-shift objects.

We also came together as a community around our fundamental commitments and our aspirations for the future. The Humanities Project engaged faculty across the division of Arts and Humanities, and the University as a whole, in examining the place of the Humanities in liberal arts education, and then entered the national debate on education and economic success. Divisional conversations on curriculum and pedagogy have given rise to noteworthy new courses, and clearer pathways into undergraduate concentrations, from the new “framework courses” in the Arts and Humanities to new introductory courses in the physical sciences. The faculty of the School of Engineering and Applied Sciences launched a planning process to chart the future of the school and inform University plans for expansion on Western Avenue in Allston. Our centers and institutes convened scholars and leaders on an array of topics, from science and advocacy to the “Arab Transformation.”

Students, faculty, and alumni together celebrated the naming of Stone Hall, the first completed test project in our House Renewal effort, which offers us a tangible experience of the future of our House system. A range of new programs supporting undergraduate research opportunities has blossomed, and an interdisciplinary “research village” now offers community and programming to students engaged in activities ranging from lab research to museum curation. The Graduate School of Arts and Sciences, in partnership with the Derek Bok Center for Teaching and Learning, launched Harvard Horizons, a new initiative to foster a greater sense of intellectual community across Harvard's graduate schools and to provide cutting-edge professional development for graduate students.

With the launch of the Harvard Campaign for Arts and Sciences in late October, the FAS has an important opportunity to strengthen the programs, and support the people, that make Harvard great. Our house is in order. The fiscal discipline of the last 5 years, with its consistent emphasis on academic priorities, ensures that we enter the Harvard Campaign with an exciting vision that both affirms our fundamental commitments and makes important investments in our future.

As Dean Leslie Kirwan reports in the financial letter of this report, this year we were able cover our core expenses, but this same budget provided very little in flexible funds with which we could invest in the many priority needs of our faculty and students. Balancing the budget was not an easy task, and this fiscal discipline would not have been possible without the faculty’s leadership. As we have since the financial crisis began in 2008, we continued to invest in the future, supporting faculty hiring and research, innovative teaching efforts, and launching House Renewal, a key priority for maintaining the excellence of our student experience.

The budgetary balance we have achieved together is a huge accomplishment, but our financial situation remains precarious given the nation’s and world’s unstable financial environment. Our achieved balance has required uses of reserves that we know are not sustainable. In response, we have constructed the Harvard Campaign for Arts and Sciences to support directly our academic priorities and to help offset our financial pressures. Even with a successful campaign, we all
know that the need for careful prioritization, tradeoffs and discipline will continue.

While these achievements were made possible through the hard work of many, there are a number of individuals whose service to the faculty deserves special recognition. I am deeply grateful to James McCarthy and the members of the Faculty Executive Board for all their work in developing and launching the Harvard Museums of Science and Culture. Important policy questions were raised over the year, with faculty playing key roles in advancing their consideration. Outstanding among these is James Engell, who, with the help of his small committee, gathered faculty input and its concerns with the draft to update the University’s “Outside Activities” policy. I am also deeply grateful to James McCarthy and the members of the Faculty Executive Board for all their work in developing and launching the Harvard Museums of Science and Culture.

I would also like to acknowledge outstanding service to our undergraduates. Dean of Undergraduate Education Jay Harris and the members of the Committee on Academic Integrity have supported a robust discussion of academic integrity and introduced recommendations that will receive full consideration in the coming year. I owe a debt of gratitude to 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 House Renewal.

Three groups deserve special gratitude for their ongoing advice and counsel. The Faculty Council has been a valuable sounding board for me, providing guidance on a wide variety of issues before they come before the Faculty. The members of the Dean's Faculty Resources Committee have provided meaningful feedback on our financial strategy that has made us stronger. Finally, I am particularly indebted to the Academic Planning Group for their candor and collegiality, as well as 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. In particular, I would like to thank Glenn Hutchins, Carl Martignetti, and Sandy and Paul Edgerley, the co-chairs of the Harvard Campaign for Arts and Sciences. They and the members of the FAS Campaign Steering Committee provided us with invaluable guidance as we thought about the future. Lastly, I must acknowledge again this year the work of the Harvard College Fund Executive Committee, whose tireless work made our fiscal year 2013 fundraising results so strong.

I am proud of what we have been able to accomplish and look forward to all the progress to come in the new academic year.

Sincerely yours,

Michael D. Smith Dean of the Faculty of Arts and Sciences
HARVARD MUSEUMS OF SCIENCE AND CULTURE

HARVARD MUSEUMS OF SCIENCE AND CULTURE
In December of 2012, Dean Michael D. Smith announced the appointment of Jane Pickering as the first executive director of the Harvard Museums of Science and Culture (HMSC), a newly created consortium of six Faculty of Arts and Sciences (FAS) museums. Her appointment is the culmination of a two-year effort—led by Professor James McCarthy, Alexander Agassiz Professor of Biological Oceanography, with able support and guidance from the interim executive director David Ellis, President Emeritus of Boston's Museum of Science, and in consultation with an executive committee including the six faculty directors of the FAS museums—to envision and develop a structure through which FAS museums with similar missions can more effectively collaborate on public exhibits and outreach programs.

Harvard is fortunate to have exceptional museum collections. Drawing on the more than 28 million artifacts and specimens in the FAS museums, HMSC’s goal is to maximize the many benefits its museums and their world-renowned collections can bring to the Harvard campus and to the general public.

While each of the six museums that form the HMSC, the Museum of Comparative Zoology, the Harvard University Herbaria, the Mineralogical and Geological Museum, the Semitic Museum, the Peabody Museum of Archaeology and Ethnology, and the Collection of Historical Scientific Instruments, continues to be led by a faculty director, employees in public museum positions (e.g., exhibits, public programs and education, visitor services) were combined into the new FAS department (HMSC) and charged with the planning, administration, and implementation of museum activities.

Maintaining close ties to the FAS parent museums, HMSC moved in 2012–2013 toward common systems, a single visitor services group, a single program registration system, collaborative exhibits and programs, one PR/marketing team, a combined membership program, a combined volunteer program, and a consolidated administration.

Exhibitions

“Time and Time Again” included material from all the FAS museums, as well as objects from other Harvard collections. In addition to the main exhibit, HMSC developed “Time Trails”, a downloadable app that led visitors on an intriguing path around the museums to see time-related objects.

HMSC museums had outstanding attendance for 2012–2013 including a record-breaking 236,000 visitors (a 6 percent increase over the previous year).
This encompasses about 40,000 school children from school districts across the Northeast (including 115 Cambridge Public School District programs); 4,000 attendees at free public lectures; and visitors from all 50 states and 129 countries.

Programs
HMSC organized 25 lectures during FY13, with an average of over 150 attendees at each. Over half the talks were given by Harvard faculty members, and the rest were speakers invited at the suggestion of faculty. There were an increasing number of co-sponsored events between the museums, culminating in HMSC’s first signature event: *Summer Solstice: Night at the Harvard Museums of Science & Culture* on June 21. The evening included solar-telescope viewing from the roof-deck observatory of the Science Center, live music and dancing on the newly renovated plaza near the Science Center, and free admission and extended hours at all HMSC museums. An astonishing 2,500 people attended the festivities on The Plaza, with 1,300 people taking advantage of free admission to the museums.

In addition to an ambitious calendar of programs for the public, 2013–2014 will see the creation of new programs primarily for the Harvard community, including:

- Four HMSC sponsored Freshman Lunches in collaboration with the Freshmen Dean’s Office
- Fall 2013: Collaboration on exhibits and student visits for Professor Laurel Ulrich’s General Education course, “Tangible Things: Harvard Collections and World History.”
- Winter 2014: Several HMSC-sponsored activities for WinterSession.
- Spring 2014: A new signature museum event, celebrating curatorial innovation, in collaboration with Harvard Art Museums. The brainchild of Peter Galison, this two- to three day campus-wide event will bring a practitioner who is doing groundbreaking work in the organization of new exhibits, to meet with relevant curators, faculty, and students from departments across FAS, as well as to give a large public lecture. The goal is to advance our thinking about the role museums and exhibits play in the contemporary cultural world, and to raise probing questions about the most adventurous and generative work in any type of museum or collection.

LOOKING AHEAD: ON-CAMPUS PROGRAMS

A part of the exhibit Time and Time Again at the Collection of Historical Scientific Instruments.

The Semitic Museum’s portion of the Cesnola collection comprises over 1300 ceramic vessels, lamps, figurines, stone, glass, and metal objects from Cyprus, dating from ca. 2300 BCE to 700 CE.
“I have never seen museums from all these diverse disciplines coming together while retaining the connection to their departments, and research and scholarship. It is a very sensible strategy, and one that I think people are watching... We’re charting new territory” — Jane Pickering HMSC Executive Director

Over 40,000 school children from across the Northeast visited Harvard museums last year.

Summer Solstice at the Harvard Museums of Science and Culture, a celebration of the longest day of the year, on the plaza.
THE HARVARD CAMPAIGN, ARTS AND SCIENCES
In late October 2013, the Faculty of Arts and Sciences launches its portion of The Harvard Campaign, the University’s first capital campaign in more than a decade. The Harvard Campaign will support a unified vision for the University and core aspirations of each of Harvard’s Schools. Essential to a successful campaign is the identification of academic priorities and their associated funding needs. Since assuming leadership of the FAS in 2007, Dean Smith and his Academic Planning Group (APG) have partnered with all academic departments and units within the FAS to implement a process of rigorous annual academic planning. Academic planning identifies curricular and teaching needs within each department, which in turn guide resource deployment and budgeting. Academic planning has also enabled FAS leadership to identify where, through growth and investment, Harvard has the greatest opportunities to have an impact in scholarship, innovation, and discovery. Dean Smith worked collaboratively with the members of APG to define campaign priorities that both reflect the FAS’s academic priorities and that respond to donor interest.

In addition, the following planning efforts carried out since the close of the last University campaign in 1999 have informed the development of the priorities for an FAS campaign:

Curricular Review (2001–2004): For the first time since the 1970s, Harvard College underwent a comprehensive curricular review. This process involved all aspects of undergraduate education, from study across the disciplines to concentrations, as well as extracurricular activities—including study abroad, artistic endeavors, and public service. At the heart of this review of the almost 30-year-old Core Curriculum was the question of what Harvard’s goals are for general undergraduate education in the 21st century. The review led to new changes in a number of areas including advising, enhanced support for international experiences for undergraduates, the timing of concentration choice, and the creation of secondary fields. The review also culminated in the adoption of a new required curriculum for all undergraduates called General Education, which was launched in the fall of 2009.

Compact on Teaching and Learning (2007): Building on the momentum of the Curricular Review, a faculty Task Force on Teaching and Career Development was convened to examine issues related to enhancing teaching in the College. The report generated by this group, the Compact on Teaching and Learning, outlined a plan for renewed attention in the FAS to the importance of good teaching and set out a number of strategies to support and nurture pedagogical excellence. This document has provided valuable insights that have contributed to ongoing teaching innovations in the College and the formation of ambitions for the future.

House Renewal Planning Process (2007–2010): In 2007, the Faculty of Arts and Sciences, with the strong support of President Drew Faust, launched a strategic planning process for Undergraduate House Renewal. It involved three years of investigation and analysis to understand programmatic needs and building conditions, develop options, and recommend a comprehensive plan for renewal. Part of this process included the creation of the House Program Planning Committee (HPPC) in 2008–2009, a committee of faculty, students, and College administrators, whose charge it was to examine all aspects of an “ideal” House and present recommendations for renewing House life so that it continues to meet the needs of future generations of Harvard students.

part of the cognitive life of the University.” The report provides a framework of recommendations designed to bring this vision to life within the cultural, curricular, and physical structures of the University.

Harvard University Task Force on Greenhouse Gas Emissions (2008): On July 8, 2008, President Drew Faust and the Deans of Harvard’s 12 Schools set a University-wide goal to reduce greenhouse gas emissions 30% by 2016 based on a 2006 baseline, inclusive of growth. The GHG Reduction Goal was set based on the recommendations of the Harvard University Task Force on Greenhouse Gas Emissions, a group of faculty, students, and senior administrators convened in the spring of 2008. As part of this goal, Harvard is committed to using its campus as a living laboratory, turning research and teaching into action to develop innovative and cost-effective solutions that reduce energy and curb greenhouse gas emissions.

In addition to these planning efforts, the FAS campaign priorities were informed by a careful analysis of the financial context and our efforts designed to bring expenditures more in line with available revenues.

FAS Campaign Priorities

Financial Aid

Harvard has put a financial aid program in place that makes a world-class education affordable for all families and students regardless of means, and does not burden students with crippling debt in the decades after graduation.

The expansion of Harvard’s industry-leading financial aid program has been a successful experiment supported largely through discretionary funds. The Campaign presents an opportunity to raise funds that will uphold this investment. Not only will this solidify Harvard’s financial aid program for the future, it will also firmly sustain access and excellence as central to Harvard’s core values.

House Renewal and the Student Experience

As Harvard led the way in establishing a House system that set a new standard in liberal arts education 80 years ago, the Campaign will renew Harvard’s approach to residential life and the student experience as part of an unparalleled academic experience for the 21st century. Renewed Houses will provide an array of improved spaces and facilities carefully designed to promote greater student-faculty engagement, foster small-group and peer-to-peer learning, enable students to pursue new intellectual adventures, and enhance the development of community. The renewed Houses will be the strong and nurturing foundations on which students build their Harvard lives,

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Three-Year Budget Reduction Plan in the Wake of the Global Financial Crisis (2009–present): With the dramatic decrease in endowment revenue brought on by the global financial crisis, the FAS embarked on a three-year financial plan to reduce its expenses. Before the interventions that Dean Smith initiated in 2009, the FAS projected a $220 million unrestricted deficit by the end of FY2011 if the FAS remained on its prior course of expense growth. Through a phased approach that included ongoing cost reductions, revenue enhancements, and an administrative redesign, the FAS achieved success in bringing its budget into structural balance at the close of FY2012. While the financial crisis necessitated this process, it also created the opportunity for Dean Smith to lead the FAS in developing a path to sustainable excellence by enforcing and building stronger habits of ongoing innovation and vigilance in business practice. This has positioned the FAS to assure donors that additional resources provided by a campaign will be deployed wisely and managed well.

Dean’s Faculty Resources Committee (2010–present): Initiated by Dean Smith, this committee of selected faculty leaders from across the three academic divisions and the School of Engineering and Applied Sciences provides counsel for Dean Smith on the FAS’s financial strategy.

Participation in University-Wide Multiyear Financial and Capital Planning (2010–present): Led by University Executive Vice President Katie Lapp, these processes aim to ensure more coordinated long-term financial and capital planning across the University. Through these efforts, the FAS has been able to articulate and evaluate the impact of Dean Smith’s academic vision on the FAS’s financial resources, under various planning scenarios, to help inform prioritization and funding decisions. The FAS’s five-year capital plan, which informs a University-wide capital plan, allows the FAS to demonstrate stewardship of its physical resources and prudent funding decisions (including philanthropy targets for upcoming projects).
including participation in extracurricular offerings such as athletics, the arts, health and wellness, and public service.

**Leading in Learning**
At the core of Harvard’s mission is to provide an unparalleled learning experience for our students. Harvard has always been a leader in this “business”; however, we now have the opportunity to claim undisputed leadership in teaching and learning in a changing world that offers students constantly evolving technology, access to unprecedented amounts of information, and the ability to communicate on a global scale in real time. Crucial to Harvard’s strategy for providing an unmatched learning experience is building capacity to truly understand how individuals learn, how instructors teach most effectively, and how to harness technology for pedagogy. Harvard is changing how we teach on campus to build the best learning environment possible and then, through research, is sharing what we learn with the world. Harvard is poised to lead and become the foremost locus of research and assessment in this field. Key elements to achieving this goal will include the enhancement of the Derek Bok Center for Teaching and Learning and cutting-edge initiatives, such as HarvardX and the SEAS Learning Incubator.

**Faculty and the Scholarly Enterprise**
Arguably, Harvard’s biggest strength is its foremost expertise across multiple fields and subject areas. That broad excellence is what attracts leading scholars to serve as Harvard faculty members, and attracts undergraduate and graduate students alike to come study at Harvard. The Campaign will raise chairs and fellowships to sustain excellence among our current faculty and graduate students, and it will also allow us to support new areas of research and discovery. Through the Campaign, we will push the boundaries of knowledge in areas of study such as brain science, energy and the environment, digital humanities, the arts, and the foundations of human behavior. Planning for academic initiatives continues through the academic divisions.

**School of Engineering and Applied Sciences (SEAS)**
Engineering is emerging as an important new element of a liberal arts education. Literacy in science, engineering, and technology has become indispensable for pacesetters in today’s world, and resolving the most pressing global challenges requires engineers who are broadly educated in the liberal arts and able to work across many disciplines. To that end, the Campaign will enable SEAS to become an institution that is a catalytic force for entrepreneurship and discovery in engineering and applied sciences, connecting to and leveraging established centers of excellence across Harvard in medicine, business, law, and public policy, as well as the basic sciences, social sciences, and even humanities. SEAS will serve as a strategically selective institution that focuses on high-value-added projects—including bioengineering, “big data,” design, visualization, data security, and personal privacy, just to name a few.

**Dean’s Leadership Fund**
Some of the greatest discoveries that have changed the world have been achieved because of our community’s willingness and capacity to explore and experiment with new ideas. A renewed focus on giving for immediate-use, enacted through the Harvard College Fund, will provide the flexible funding needed for the FAS dean to invest responsibly and immediately in the most promising new ideas.
HARVARD COLLEGE

DEAN EVELYNN HAMMONDS
ACADEMIC YEAR 2012–2013
A Student-centered Deanship

On June 30, Dean Hammonds completed her five-year term as dean of Harvard College. Dean Hammonds pursued an agenda focused on creating a more student-centered environment for undergraduates, and her efforts helped to reshape important aspects of the Harvard College experience. Through policy, programs, and advocacy, she worked to build an engaged intellectual community that supports undergraduates in a compassionate and inclusive manner.

The University as a Classroom

Though the curricular review was completed prior to her taking office, Dean Hammonds oversaw the implementation of its recommendations, most notably the transition from the Core Curriculum to the Program in General Education (Gen Ed). The Gen Ed curriculum is designed to connect, in an explicit manner, what students learn in the classroom with what occurs in the world. The program also fosters pedagogical experimentation and interdisciplinary collaboration. With the Instructional Support Services team, which brings together resources from the Derek Bok Center for Teaching and Learning, academic technology, the libraries, the Harvard College Writing Program, and the museums, Gen Ed launched a new model for supporting faculty in creating active, innovative learning experiences that make the most of Harvard’s resources. The Gen Ed curriculum now includes some of the most popular undergraduate courses on campus, incorporating active learning approaches and nontraditional assignments, from the development of apps to the production of short films.

Starting with just 51 courses in June of 2008, the College has since approved 482 Gen Ed courses, 232 of which were developed specifically for Gen Ed. The program has maintained a median class size of 60 or less (data from June 2013). Faculty participation in Gen Ed has been strong, with 14 out of 24 University professors teaching courses that receive Gen Ed credit. Many of the faculty have also created short film trailers to introduce students to their courses. As Gen Ed approaches its faculty-legislated five-year review, the College is collecting feedback on the program from faculty, teaching staff, and students.

Dean Hammonds has also been a strong advocate for undergraduate research opportunities. In her role as senior vice provost for Faculty Development and Diversity, Dean Hammonds was a driving force in the creation of the Program for Research in Science and Engineering (PRISE). After becoming dean of Harvard College, Hammonds worked closely with the deans of the three academic divisions of the Faculty of Arts and Sciences to create additional programs in the social sciences and in the arts and humanities. With the conviction that one of the strengths of undergraduate education in a research university is the opportunity to contribute directly to original scholarship, Harvard College’s undergraduate research...
programs require that the student role in the project constitute a substantial individual contribution. As of June 2013, offerings included the Program for Research in Science and Engineering (PRISE), the Behavioral Laboratory in the Social Sciences (BLISS), the Program for Research in Markets and Organizations (PRIMO), and the Summer Humanities and Arts Research Program (SHARP). Under Dean Hammonds’s leadership, a Summer Undergraduate Research Village was created for all student participants, designed to provide interdisciplinary, intellectual, and social offerings in a residential setting on campus. Activities include a distinguished faculty speaker series, pre-professional seminars, and opportunities to explore Harvard and the New England region.

Other efforts in support of extracurricular learning have included the launch of the Rockefeller grants for student international experiences, which provided a substantial increase in funding for College students to study abroad. In addition several new programs were created with funding made available by a generous gift from David Rockefeller SB ’36, LLD ’69, including study abroad with internships in Europe and the first program for study in Southern Africa, Wintersession, created after the change in the academic calendar, has continued to expand in response to student interest. Also, in partnership with President Faust, Dean Hammonds oversaw the logistical work to welcome the Navy and Army ROTC back to Harvard College.

House Renewal
A major focus of Dean Hammonds’s deanship, in partnership with Dean Smith, has been the programmatic and physical renewal of the undergraduate House system. Renewal of the Houses is a cornerstone of the University’s overall effort to examine and reinvest in the Harvard undergraduate experience. In April 2008, the University announced the beginning of the planning stages of House Renewal for the neo-Georgian river Houses, a process that will span more than a decade.

As a part of this planning effort, Dean Smith created the House Program Planning Committee (HPPC), chaired by Dean Hammonds, to examine all aspects of an “ideal” House and to present recommendations for renewing House life so that it continues to meet the needs of generations of Harvard students. HPPC members, including undergraduates, faculty, and administrators, assessed academic, social, and residential needs. As Dean Hammonds notes in her introductory letter to the HPPC report, “Of all of the concepts discussed by the subcommittees, faculty leadership and involvement may be the most fundamental to the mission and purpose of House life.”

The HPPC recommendations focus on supporting Houses as intergenerational learning communities, optimizing the layout of the buildings to better support the tutor system, and creating spaces that enable students, faculty, and House staff to come together. The recommendations guided the design and construction of the first House Renewal test project in the Old Quincy building of Quincy House as well as the design of the second test project in the McKinlock building of Leverett House. They will also guide the first whole House project, in Dunster House, which was announced in July of 2012.
The Alcohol Policy

Following the HPPC process, Dean Hammonds charged a committee of faculty, students, and staff to review the Alcohol Policy with the goal of creating consistent, easy-to-understand guidelines for use across the House system. The overarching purpose of the new College Alcohol Policy, released in March 2012, is to support “a residential and educational community that is culturally, intellectually, and socially enriching for our students” and to support their health and safety.

Inclusiveness and Integrity

Dean Hammonds also launched three major efforts focused on values, culture, and quality of life. In the fall of 2010, she launched the BGLTQ Working Group, composed of FAS faculty, student leaders, and administrators, to examine the BGLTQ experience on campus. The two most important recommendations of the Working Group were the creation of a director of BGLTQ student life position and the establishment of a centrally located, accessible space to house the program. On April 27, 2011, Dean Hammonds announced the appointment of Vanidy Bailey as the first BGLTQ director of student life and identified a space in Boylston Hall for the program.

Social Spaces

In response to student demand, Dean Hammonds led an expansion of student social spaces, most notably, the transformation of the first floor of the Student Organization Center at Hilles (SOCH) into a social space complete with high-definition televisions, couches, pool and shuffleboard tables, and event and meeting space, which opened in the summer of 2012. During the preceding year, the Mather Multimedia Lab, the Eliot Grille activity space, the Cabot Café, and the Quad Grill lounge in Pforzheimer House all saw improvements, including new lighting, flooring, seating, sound systems, and games. In order to provide first-year students with a location in which to gather informally, the College also extended evening hours at Annenberg Hall.

In the fall of 2012, Dean Hammonds appointed a Working Group on Student Stress, co-chaired by Paul Barreira, MD and Judith Palfrey, MD. In response to calls from students to review the support the College offers students to manage stress, Dean Hammonds charged the working group with a number of specific tasks. The first was recommendations to strengthen the culture of academic integrity at Harvard College. The Committee formed two subcommittees: one focused on student-facing issues, and the other focused on faculty-facing issues. The work of the committee became both more prominent and more urgent with the August 2012 announcement that the Administrative Board was investigating a significant number of academic integrity cases from a single course. On March 26, the Committee circulated to the faculty its preliminary report and then, after a period of formal consultation, presented the finalized recommendations at the April 2 Meeting of the Faculty. Among the recommendations is the creation of a modified honor code for the College.
an audit, both of the many causes of stress that students encounter on campus and of the “best practices” at other institutions for reducing stress and increasing wellness and work-life balance among students. Once the particular concerns of the campus environment and “best practices” have been considered, she asked the working group to then recommend programs for stress reduction that can be implemented across the College, including in academic departments, Houses, freshman dormitories, counseling services, and athletics. The working group has also been asked to recommend measures for assessing programs for stress reduction, as well as for health and wellness promotion.

**Recommendations**

Recommendations are anticipated for the fall of 2013.

**Results by the Numbers**

The initiatives pursued during Hammonds’s deanship demonstrate a clear commitment to making Harvard College a supportive educational environment for students and one that welcomes them into the intellectual community of the research university. Senior survey data suggest that her efforts may already have begun to have a positive impact. The 2012 senior survey noted a number of areas of improvement. One of the most significant areas of improvement was in satisfaction with concentration. In 2012, 78 percent of seniors reported being satisfied/very satisfied with their concentration, compared with 67 percent in 2002. This improvement was shown across divisions, with 5- to 10-percent gains in quality of instruction, intellectual excitement, opportunities for class discussion, and helpfulness of faculty outside of class. Satisfaction with social life is also slowly increasing, with 72 percent of seniors reporting being satisfied/very satisfied, compared with 66 percent in 2004. From the expansion of House Renewal to new programs to manage stress, the impact of the efforts undertaken during Dean Hammonds’s tenure to enhance the student experience will continue to be felt for years to come.

**THE DEAN OF HARVARD COLLEGE**

On July 9, Michael D. Smith, dean of the Faculty of Arts and Sciences, announced that Donald Pfister, Asa Gray Professor of Systematic Botany and dean of the Harvard Summer School, had agreed to serve as interim dean of Harvard College. This appointment follows the five-year deanship of Evelynn M. Hammonds, Barbara Gutmann Rosenkrantz Professor of the History of Science and of African American Studies, which concluded on June 30.

Dean Pfister’s career at Harvard spans nearly 40 years. He joined the Department of Biology in 1974, and in 1980 was named the Asa Gray Professor of Systematic Botany in the Department of Organismic and Evolutionary Biology. His research centers on the biology and systematics of fungi. Since his initial appointment at Harvard, he has served as the curator of the Farlow Library and Herbarium. Over the last 20 years, he has served as the director, acting director, and interim director of the Harvard University Herbaria.

His commitment to Harvard’s singular learning environment extends well beyond the classroom. In 1982 Dean Pfister and his wife Cathleen became the masters of Kirkland House, a position they held for nearly 20 years. He has served on numerous committees responsible for the welfare of students.

Dean Pfister’s exemplary teaching is well recognized. Through Harvard College and the Graduate School of Arts and Sciences, he has taught a wide range of courses, from freshman seminars and large introductory courses to small graduate seminars. He has also taught courses in the Summer School and Extension School, and in 2004 was honored for 25 years of teaching at the Extension School. Beginning in 2008 with his appointment as dean of the Summer School, he brought a number of innovative new courses to the program in Cambridge and has supported the creation of several new faculty-led study abroad programs. To help build community in the summer, he initiated both faculty lunch tables in Annenberg Hall and a faculty orientation program. In 2008, he received the William H. Weston Award for Teaching Excellence from the Mycological Society of America.

His deep engagement with both undergraduate education and the learning communities of the Houses, combined with his outstanding leadership of the Summer School, make Pfister uniquely well prepared to guide the College through this period of transition. In the fall, Dean Smith will convene an advisory committee of faculty to search for the new College dean and will be consulting broadly with faculty, students, staff, and alumni.
Eighty-two percent of the students admitted to the Class of 2017 plan to enroll at Harvard this August despite the cancellation of Visitas, the popular and long-standing introduction to Harvard for admitted students. This is the highest yield since the Class of 1973. The yield for the Class of 2016 was 80.2 percent.

Financial aid was a crucial consideration for a large segment of those enrolling in the Class of 2017. Harvard’s financial aid program has been greatly enhanced in recent years, opening the College’s doors as never before to students from low- and middle-income families.

In academic year 2013–2014, Harvard will spend $182 million on undergraduate financial aid. Seventy percent of Harvard students receive some form of financial aid. Almost 60 percent of Harvard College students receive need-based grants, and the average annual cost to their families is $12,000. Twenty percent of Harvard families have annual incomes of $65,000 or less and have no expected parental contribution. 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 out loans, and home equity is not used in determining financial aid. As always, students are asked to contribute toward the cost of their education by working 10 to 12 hours per week during the school year and obtaining a summer job.

**VIRTUAL VISITAS**

Visitas was scheduled to be held April 20–22, but the search for the remaining Boston Marathon bombing suspect forced Harvard officials to cancel the program following a security lockdown of the Greater Boston area. At this difficult time, Harvard undergraduates, faculty, and administrators immediately reached out to prospective members of the Class of 2017 through social media. Their concern for the students who were unable to visit Harvard was evident, and their outreach was especially appreciated, given the extraordinary circumstances of the tragedy that had occurred in Boston. Our undergraduates’ grace under pressure was inspiring to the Harvard community and to the members of the Class of 2017.

Harvard students also made YouTube videos that showcased student groups and dormitories, including Wigglesworth Hall and Dunster House. The Harvard-Radcliffe Veritones and the Institute of Politics participated, and the Office of Admissions created its own welcoming video.

The Admissions Office coordinated this activity via its website, email, and the Class of 2017 Facebook group created earlier in the year. It also offered five Google+ student panels on study abroad, residential life (featuring student bloggers), advice from the Senior Class Committee, multicultural perspectives, and the freshman experience. Harvard students, faculty, and staff used the #virtualvisitas hashtag on Twitter to communicate with admitted students and answer their many questions.

The 15,000 alumni around the world who volunteer to conduct interviews also reached out to admitted students by telephone and email, and hastily arranged local meetings. Admissions staff, other administrators, and even Adams House Co-Master Sean Palfrey met stranded students at the airport during the lockdown to assist them with hotel arrangements and transportation. FAS Dean for Administration and Finance Leslie Kirwan was able to contact Massport officials, who responded by creating an impromptu meeting area that the students quickly named “Terminas.”

The alumni, faculty, and staff who make Visitas possible deserve special acknowledgement this year. In particular, the co-directors of Visitas, Michael Esposito and Amelia Muller, assisted by Jake Foley, Bryce Gilfillian, and Tia Ray, played a critical role in shifting Visitas to a virtual visiting experience. The contributions they made formed the basis for innovations that will be used in recruiting the Class of 2018.
Harvard's yield is particularly notable because the College does not offer athletic or other non-need-based scholarships. In addition, the terms of Harvard's Early Action program, unlike those of binding Early Decision programs, allow admitted students to apply elsewhere and ask only that they reply by May 1 after comparing other offers of admission and financial aid. Such freedom and flexibility give students 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 accomplishment. More than 14,000 scored 700 or above on the SAT critical reading test; 17,000 scored 700 or above on the SAT math test; nearly 15,000 scored 700 or higher on the SAT writing test; and 3,400 were ranked first in their high-school classes.

Men make up 52.4 percent of the Class of 2017. Prospective social science concentrators constitute 28.3 percent, with 24.3 percent interested in the biological sciences, 18 percent in the humanities, 13.3 percent in engineering and computer science, 8.4 percent in the physical sciences, 7 percent in mathematics, and 0.7 percent undecided. African Americans make up 9.4 percent of the class, Asian Americans 20.9 percent, Latinos 10 percent, and Native American and Native Hawaiians 2.3 percent. Foreign nationals make up 11.1 percent of the class. In addition, a significant number of other entering students will bring an international perspective, including 147 U.S. dual citizens, 61 U.S. permanent residents, and many Americans who have lived abroad. The above students together constitute 20 percent of the class, representing 81 countries.

The faculty play a crucial role in the admissions process. Faculty members speak with many prospective students in person or on the phone and answer their letters and email inquiries. Their accessibility is a clear demonstration of Harvard's commitment to undergraduate education. In reading hundreds of applications, evaluating academic research of all kinds, and assessing portfolios across a range of academic and creative disciplines, faculty members identify the next generation of Harvard students.

Members of the faculty who serve on the Admissions Committee are Ann Blair, Peter Burgard, Diana Eck, Edward Glaeser, Benedict Gross, Guido Guidotti, Evelynn Hammonds, Jay Harris, Joseph Harris, Thomas J ohn, Harry Lewis, James McCarthy, Louis Menand, Michael Mitzenmacher, Cherry Murray, Alison Simmons, Frans Spaepen, Christopher Stubbs, Richard Thomas, James Waldo, Robert Woollacott, and Amir Yacoby.

**Academic Integrity**

Over the past three years, the Committee on Academic Integrity has studied closely the academic environment at Harvard while also examining a variety of honor code models at peer institutions. The committee—composed of students, faculty, and College administrators—was
created in response to growing evidence that both broad cultural trends and specific local conditions may be contributing to academically dishonest behaviors among a growing number of students at colleges and universities. These issues took on particular significance at Harvard this academic year when more than half of the students enrolled in a single course, offered the previous spring, were accused of academic dishonesty. Though these cases arose in the context of a single course, they have focused attention on issues that are common to many courses and pressures experienced across the community of faculty and students. Consulting with our peer institutions, and working with the International Center for Academic Integrity, the Committee on Academic Integrity has looked at a broad range of options for promoting academic integrity within our community, which is at the heart of the academic mission.

On April 2, Dean Jay Harris, chair of the Committee on Academic Integrity, presented initial recommendations to the Faculty. The Committee recommended the creation of a modified honor code that would include a number of elements; a statement of values, a declaration of integrity, the creation of a Student/Faculty Judicial Board, revision of the instructions for the administration of exams, and a review of current sanctions. A summary of the committee’s recommendations follows.

Statement of Values
An honor code should reflect the culture of integrity that is essential to any academic environment and state the values that guide it. As President Faust remarked in the FAS Faculty Meeting of February 5, 2013, we need to “work together to affirm the values of diligence, high aspiration, mutual concern, and personal integrity that are the foundation of what we as an academic community exist to do and to be.” The code’s statement of values, which will be drafted by the committee and reviewed by the student-faculty Committee on Undergraduate Education, the Standing Committee on Undergraduate Educational Policy (formerly the EPC), the Faculty Council, and the Education Committee of the Undergraduate Council, before coming to the full faculty for discussion. The statement should address faculty, graduate students, and undergraduates as participants in a shared community of learners. It will emphasize that the most effective learning is predicated on trust between students and teachers and often depends on collaboration among them. The statement should signal to students that Harvard values learning and intellectual inquiry and exploration as vital aspects of the successful Harvard experience.

Declaration of Integrity
An essential component of an honor code, a “declaration of integrity,” provides students with the opportunity to affirm their adherence to the code and their membership in a scholarly community. The declaration should state clearly that the work they are submitting was completed with integrity, respect for the community, and in accordance with Harvard’s stated values. Student members of the Academic Integrity Committee are currently drafting the declaration with input from faculty and administrators.

Student/Faculty Judicial Board
At a number of peer institutions, the honor code is written by students, and the rules and regulations are enforced by a judicial board made up entirely of students, in part as an effort to instill a sense of student ownership. Currently at Harvard, cases of academic dishonesty are adjudicated by the Administrative Board composed of faculty and administrators. A review of the Administrative Board conducted in 2009 recommended student participation in a judicial board. The Academic Integrity Committee strongly supports this idea and recommended the creation of a newly designed Student/Faculty Judicial Board that would be responsible for hearing all academic dishonesty cases. All other disciplinary cases would continue to be reviewed by the existing Administrative Board. There would be overlap of administrators and faculty on both judicial boards to ensure consistency. Additional details about the implementation of the new board and the relationship between the Student/Faculty Judicial Board and the existing Ad Board will be discussed by the committee in the fall of 2013 and by the faculty thereafter.

Exams
The committee recommends that the instructions for administering final exams be rewritten to emphasize that the exam is the intellectual culmination of the course and that the rules and the presence of the teaching staff at the exam itself are intended to ensure a fair environment for all students. The committee also strongly recommends that faculty be present during the administration of their exam and that undergraduate course assistants not be allowed to supervise the administration of final exams by themselves.
Sanctions

The committee believes that it would be beneficial to review the range of sanctions for academic dishonesty, to revisit the educational purposes of the sanctions, and to make the range and purpose of the sanctions more transparent to faculty and students alike. It recommends making the information about the range of sanctions and the aggregate numbers of the sanctions given available to faculty and students through an easily accessible website.

Beyond the components of the honor code, the committee has recommended a number of interventions. Discussions have suggested a range of possibilities, from including materials that emphasize a commitment to academic integrity in admissions packets to organizing new sessions as part of Opening Days and Sophomore Orientation. In the fall of 2013–2014, a number of these interventions will be implemented, in addition to a program consisting of conversations with students and faculty both about academic integrity generally and about an honor code in particular.

The committee has also recommended that the Office of Undergraduate Education create a resource to provide additional materials to assist faculty in addressing academic integrity in their courses. As a result, sample policies on collaboration were provided by the OUE to faculty for use on course websites and a collaboration tool was used on 280 sites in the fall term and 201 sites in the spring. In addition, a subgroup of the committee has been developing an assignment taxonomy that will provide examples of assignments and grading rubrics along with an explanation of the types of assignment that might allow students to deepen their comprehension of course material and develop particular analytical skills. This resource will be provided on a website that may also be used to share important data on courses with and without exams, so that faculty can make decisions with the best information available. The committee is also looking at other interventions that could be suggested to faculty to promote integrity in their courses.

Departments also play an important role in nurturing a culture of integrity among their concentrators. In addition to teaching proper citation methods for the discipline, the instructors in sophomore, junior, and senior tutorials might address common practices regarding collaboration and research. The committee intends to work closely with the Directors of Undergraduate Studies to make recommendations to the concentrations on this topic.

Following the April presentation to the faculty, the committee created discussion boards for faculty, graduate students, and undergraduates to provide feedback on the honor code proposal. Comments from these discussion boards will be presented to the faculty early in the fall.

A University Student Information System

In May, after a two-year planning process that incorporated feedback from nearly 300 parties, Harvard announced the launch of the Harvard Student Information System Program (HSISP), the goal of which is to develop a University-
wide student information system. In the Faculty of Arts and Sciences, the new system will replace HERS1 and HERS2. The planning effort leading up to the launch was co-chaired by FAS Registrar Michael Burke and University CIO Anne Margulies.

The HSISP will help to clear technical impediments to cross-disciplinary teaching, improve services available to faculty and students, simplify a number of registrarial transactions, and streamline operations for administrative staff. The first steps will be to establish the foundational system design and to develop a functional prototype in which to model Harvard's business process. The work sessions for this phase began over the summer of 2013 and involve all of Harvard's faculties.

New Dean of Student Life

In March, Stephen Lassonde began his tenure as dean of student life. Dean Lassonde brings a wealth of experience to the Office of Student Life (OSL). Prior to joining Harvard, he served as deputy dean of the College at Brown University, beginning in 2007. From 1993 until 2007, he served as dean of Yale's Calhoun College and as assistant dean at Yale College.

“Universities have always played an important role in developing solutions to the world's pressing challenges. By shining a spotlight on public service...we hope to reinforce Harvard’s commitment to the common good and to recognize the many contributions made by our students, faculty, and staff every day—through teaching, research, hands-on service, and the development of policy solutions.”
-Drew Gilpin Faust, President of Harvard University

NEW HOUSE MASTERS FOR PFORZHEIMER HOUSE

In May, Dean Hammonds announced the appointment of Anne Harrington, professor of the history of science, and her husband, John Durant, director of the MIT Museum, as the new master and co-master of Pforzheimer House. They take over as House Masters in the fall of 2013, bringing with them their eight-year-old son, Jamie.

Harrington received her AB summa cum laude from Harvard and her DPhil in the history of science from the University of Oxford. After completing postdoctoral work at the University of Freiburg in Germany, Harrington returned to teach at Harvard in 1988. The author of three books, Harrington specializes in the history of psychiatry, neuroscience, and the other mind and behavioral sciences. In 2004, she was appointed to a five-year term as a Harvard College Professor, winning the Phi Beta Kappa Alpha Iota Prize for excellence in teaching.

Durant earned his BA in natural sciences and PhD in the history and philosophy of science from Queens' College, Cambridge. In addition to his current position as a museum director, Durant has worked to introduce science to the public through the creation of the Cambridge Science Festival and similar festivals around the world.

Together, Harrington and Durant have taught study abroad programs in England for the past five years. In the summer of 2013 at the University of Cambridge, they taught an eight-week program entitled “Science, Medicine, and Religion in an Age of Skepticism,” which encompassed classroom study, extensive travel, and independent projects.

Durant and Harrington take over from Nicholas and Erika Christakis, who have been House masters at Pforzheimer since 2009.

Durant and Harrington take over from Nicholas and Erika Christakis, who have been House masters at Pforzheimer since 2009.
Dean Lassonde earned his master’s degree in 1989 and his doctorate in American studies in 1994 from Yale University. He received his bachelor’s degree from the University of Minnesota in 1981. This spring, Dean Lassonde will be teaching the “Children and Childhood in America, 1640–present”, in the History Department.

**National Advisory Board for Public Service at Harvard College**

Harvard College is a place of discovery for people who make a positive change in the world. For more than a century, the Phillips Brooks House Association (PBHA) has offered vital experience to generations of leaders in service while strengthening partnerships between students and local communities. Today, 1,400 volunteers participate in more than 85 programs serving 10,000 low-income people throughout Greater Boston. PBHA brings the creativity and enthusiasm of students together with the guidance of professional staff and the knowledge of community members to offer inspired and effective year-round and year-to-year programming.

Under the leadership of Dean Hammonds and Assistant Dean Gene Corbin, Harvard College formed in 2012–2013 a National Advisory Board for Public Service at Harvard College. The board is chaired by Cheryl Dorsey, president, Echoing Green, Harvard/Radcliffe ’85, and Mark Gearan, HC’78, current president of Hobart and William Smith Colleges; other board members include donors/alumni and national leaders in public service.

In their inaugural annual meeting in October, prominent nationwide public service leaders provided advice on the following identified priorities:
- Expanding Public Service Participation
- Increasing Harvard College Affiliated Summer Public Service Opportunities
- Establishing Stronger Pathways to Public Service Interest Careers
- Involving Alumni
- Engaging Faculty and Strengthening the Connection with Teaching, Learning, and Research

Following the inaugural fall meeting, members of the National Advisory Board continued to advise on the development of a strategic plan, the Service to Society Initiative, and efforts to build upon the strong traditions of public service at Harvard College. The National Advisory Board will be provided with regular updates on progress and will continue to meet annually to provide support on this important initiative and to ensure that Harvard College remains a leader in the public service field.

**MEMBERSHIP**

- Cheryl Dorsey (Co-Chair): President, Echoing Green
- Mark Gearan (Co-Chair): President, Hobart & William Smith Colleges
- Charlotte Ackert: Trustee, WNET New York
- David Ackert: Managing Member, Crystal Lake Capital, LLC
- Jonathan Alter: Author and Columnist
- Paul Buttenwieser: Psychiatrist and Writer
- Maureen Curley: President, Campus Compact
- Chris Gabrieli: Chairman, National Center on Time and Learning
- Lisa Hall: President and CEO, Calvert Foundation
- Ira Harkavy: Associate Vice President and Director, Netter Center for Community Partnerships at the University of Pennsylvania
- Vincent Ilustre: Executive Director, Center for Public Service at Tulane University
- Alan Khazei: Co-founder of City Year, Founder of Be the Change
- Tamera Luzzatto: Managing Director of Government Relations, The Pew Charitable Trusts
- Darin McKeever: Deputy Director, Bill and Melinda Gates Foundation
- Andrew Mandel: Vice President, Values-Based Leadership, Teach for America
- Perla Ni: CEO, Great Nonprofits
- Michelle Nunn: CEO, Points of Light Foundation
- Shirley Sagawa: Co-founder of Sagawa/Jospin consulting firm; Fellow at Center for American Progress
- Sonal Shah: Fellow, Harvard Institute of Politics
- Max Stier: President & CEO, Partnership for Public Service
- Dorothy Stoneman: ECO & Founder YouthBuild USA, Inc.
- Tammy Tai: Chief Program Officer, MENTOR: The National Mentoring Partnership
- Trish Tchume: Director, Young Nonprofit Professionals Network
The chart to the right presents the number of undergraduate concentrators by division over the past ten years. The numbers for 2012-2013 continue the trajectories of the past few years. Social Sciences remains the division with the greatest number of concentrators, but that number continued a slight downward trend from the previous year. SEAS saw the most significant increase in concentrators. There was no change from the previous year in the number of students concentrating in the Sciences and a very small decrease in the number concentrating in the Arts and Humanities. While not displayed in the chart, the number of students graduating in 2013 with a secondary field was 757, a slight increase over the previous year.
In August 2012, Xiao-Li Meng, the Whipple V.N. Jones Professor, was appointed dean of the Graduate School. He succeeded Allan Brandt, Amalie Moses Kass Professor of the History of Medicine, and followed Richard J. Tarrant, Pope Professor of the Latin Language and Literature, who served as interim dean of GSAS during the spring of 2012. Tarrant, who also served as acting GSAS dean in 1995–1996, provided invaluable leadership as GSAS completed its admissions cycle and hosted its key end-of-year activities, including the GSAS Centennial Medals celebration and Commencement activities.

Drawing upon innovations in pedagogy and professional development that he implemented as the longtime chair of the statistics department, and recalling also his personal experience as a GSAS PhD student, Dean Meng has set an agenda for the Graduate School that aims to engage and support constituents at every stage of their affiliation. He conceives of this newly articulated mission as broadly organized around four points of connection: Entering (a focus on attracting the very best students from around the country and the world); During (efforts to provide students with the best scholarly and professional training); Departing (programs to prepare graduating students for successful careers that match their passions and training); and Returning (a focus on engaging alumni in the most innovative, effective, and mutually valuable ways).

GSAS Admissions Remain Highly Selective

In 2012, the Graduate School’s application numbers remained strong, at more than 12,000, and the admissions yields were impressive. Under Dean Meng, the annual admissions meetings were an opportunity for faculty to assess the strength of their programs and to share best practices in admissions recruitment at activities.

Offers of admission were made to 1,204 prospective PhD and AM students—roughly 9.9 percent of the total applicant pool—compared to 1,170 in the previous cycle. The entering class for 2013–2014 is expected to consist of 650 PhD candidates and 92 master’s candidates; it is 35 percent international and 45 percent female. These numbers reflect an overall yield on offers of admission across all degree programs of over 61 percent, which compares very favorably to previous years. The yields by area were impressive: 71 percent in the humanities and social sciences; 58 percent in the natural sciences; and 77 percent in the interfaculty programs.

A number of PhD programs had yields of over 80 percent, ranging from African and African American studies, music, and human evolutionary biology to psychology and social policy.

Beyond the numbers, the academic achievements of incoming students grow ever more substantial. The majority of entering students hold at least one master’s degree and have significant publications and research experience.
Progress in Building the Diversity Pipeline

Over the last few years, GSAS has instituted a series of reforms that aim to fundamentally change the way that Harvard recruits, admits, and supports students from groups that are historically underrepresented in PhD education. These measures included the appointment of an assistant dean for diversity and minority affairs, who began to work proactively with departments to assist them in identifying and recruiting talented minorities.

As a result of those efforts, GSAS admitted the largest number of minority students in recent memory during the 2012 admissions cycle. Moreover, we successfully recruited the largest number of minority students ever: 56 students chose to matriculate, compared with 29 in 2010 and 48 in 2011. The number of minority students admitted increased by 10 percent over the previous year, and the number of admitted students who accepted the Harvard offer of admission improved by 15 percent.

This positive change is a direct result of the coordinated efforts of GSAS staff and faculty from across the departments. A successful feeder program, piloted in the summer of 2011 and now in its second year, was the GSAS post-baccalaureate program in the life sciences. Half of the program participants were admitted to Harvard PhD programs. GSAS has also assumed responsibility for the Leadership Alliance Summer Research Opportunities at Harvard (SROHP) Program, which will serve as another important feeder program. These and other summer undergraduate research opportunities coordinated by GSAS give Harvard a truly distinct advantage in the recruitment field, particularly in the sciences.

Although we have more work to do in the coming years to expand the overall candidate pool and achieve real diversity in research education, the year’s progress demonstrated that focused efforts do produce positive results in this area.

Enhancing Professional Development Opportunities

GSAS is encouraging more effective professional development programs for our graduates, both at the school level and through new activities in the departments and among students themselves. One highly successful initiative this year was Harvard Horizons, which celebrated the ideas and innovations of PhD students. It was conceived by Professor Shigehisa Kuriyama and supported by Dean Meng, who assembled a cross-disciplinary faculty committee to review 55 applicants and select 15 semi-finalists. After an intensive round of interviews, the committee chose 8 finalists, who were designated as the inaugural class of Horizon Scholars. The program culminated in a lively campus-wide symposium in Sanders Theatre that provided an opportunity to showcase the important and stimulating work happening across the GSAS community. The Horizon Scholars received superb mentoring and professional coaching, both from faculty and from experts at the Derek Bok Center for Teaching and Learning, helping them turn their research into compelling, five-minute talks that were filmed for presentation on the web and for the students’ own professional portfolios. The feedback from faculty, students, and alumni was overwhelmingly positive, and there is a strong desire to expand the program in the future to benefit many more students.
GSAS also supported a number of innovative, grassroots efforts taking place across the departments, as students led the way in building discipline-based communities, professional networks, and also a public venue for their interests. In one impressive example, GSAS helped to fund Communicating Science 2013, a three-day conference held in July at Microsoft’s New England Research and Development Center and organized by Harvard PhD students in astronomy. This conference, intended for graduate students from all fields of science and engineering who are interested in learning how to effectively communicate their research to both scientific and non-scientific audiences, drew 700 applicants from across the country for only 50 slots. It featured a lineup of accomplished journalists and writers from within and outside of academia. The students who organized the conference also founded Astrobites and Chembites, which are two web-based communities where PhD students publish interesting posts on issues and research from their fields, offer professional development guidance, and mentor undergraduate science students.

Another example of student-generated programming, with a broader community-outreach aim, is Science in the News, an organization of Harvard PhD students that explores the science behind the headlines and the health claims we hear everyday, hoping to separate fact from speculation. The group runs a popular lecture series each term and publishes accessible articles on an impressive array of topics from climate change to performance-enhancing drugs. It also features an extremely popular series of pub nights, giving non-scientists the chance to connect to the research communities in Boston and Cambridge and learn about new discoveries and promising areas of inquiry happening right in their neighborhoods.

Finally, in another successful collaboration between the Graduate School and its students, the mentoring program run by the GSAS-supported group Harvard Graduate Women in Science and Engineering continues to thrive, having grown from 27 mentors and 42 mentees in 2008–2009 to 78 mentors and 113 mentees in 2012–2013. The program is seeking to recruit new mentors from the ranks of Harvard faculty, postdocs, and alumnae, reaching out in particular to Boston-area alumnae working in or outside of academia. The mentoring program capped off a successful year with a dinner on May 8 to honor an HGWISE founder and GSAS alumna—now back as a mentor—as its Mentor of the Year.
Learning Assessment
Another major project for the Graduate School was its participation in the CGS (Council of Graduate Schools) nationwide initiative on “Preparing Future Faculty to Assess Student Learning.” With support from the Sloan Foundation, GSAS organized a retreat for faculty, postdocs, and graduate students “Are My Students Actually Learning?” The event drew over 100 participants from across the University and discussion centered on how to integrate teaching and research in learning assessment and how to venture into new areas such as learning assessment for HarvardX. The project will culminate in a white paper that aims to provide a roadmap for the current status of learning assessment at Harvard and what Harvard should do in the future.

Enhancing the Undergraduate Curriculum
GSAS students played a key role in new initiatives unveiled this year within the FAS to refresh, innovate, and expand the undergraduate curriculum in the arts and humanities. Three new gateway courses in the arts and humanities, which will enter the General Education curriculum this fall, were incubated in the spring in three Graduate Seminars in General Education—a collective venture among faculty and graduate students to make “humanistic knowledge central to the liberal arts of the 21st century,” according to the course descriptions. Those graduate seminars (“The Art of Reading”, “The Art of Listening”, and “The Art of Looking”) represented a “unique opportunity for graduate students to consider critically—and to rethink—the entire curriculum in the humanities.”

Continued Expansion of Graduate Secondary Fields
A central issue for enhancing the experience of our students involves developing appropriate interdisciplinary opportunities that expand the curricular boundaries of our departments and programs. One successful strategy for doing this has been the development of secondary fields for graduate study. This year the Graduate Policy Committee approved new secondary fields in anthropology and archaeology.

PhD students may now enroll in a secondary field in 19 areas of study at GSAS. These secondary fields, which typically consist of a set of four graduate courses in a discipline or interdisciplinary area, are of great interest to an increasing number of students who want to broaden the scholarly or professional reach of their degree work.
Innovative Research Workshops
The GSAS Research Workshops Program encourages scholarly discussion of works-in-progress by supporting weekly gatherings in departments and fields. These workshops, proposed by faculty and students and selected for funding by a GSAS faculty committee, are collegial settings for graduate students learning to conceive, write, and present scholarly arguments.

Three new workshops were funded in the spring of 2013, in addition to 80 ongoing workshops. The Graduate School has now funded 243 workshops to date.

Alumni Outreach and Engagement
GSAS continued to develop a robust set of programs to engage its alumni around the world, sponsoring a series of special events in New York, Toronto, and Shanghai. In hosting these events and others, the Graduate School Alumni Association (GSAA) had a particularly active and successful year.

In April 2013, the GSAA hosted the annual GSAS Alumni Day, which drew more than 350 alumni from all over the world and featured a keynote address by former FAS Dean William Kirby, PhD ’81, the T.M. Chang Professor of China Studies and chairman of the Harvard China Fund. On the previous day GSAS organized a highly successful alumni reunion for the Department of Astronomy that drew 150 participants, including three Nobel Laureates.

The 2012–2013 fiscal year set a record for the highest rate of alumni annual giving, at $1.59 million. This figure represents a 32% increase over the prior year, thanks to the tremendous effort of the Alumni Council and the alumni-led Committee on the Graduate School Fund (GSF).

The Alumni Council also provided key advice to GSAS in strategic planning efforts, organized a professional and career development workshop during January@GSAS, and designed an alumni survey for assessing employment needs around the globe.
DIVISION OF ARTS AND HUMANITIES

DEAN DIANA SORENSEN
ACADEMIC YEAR 2012–2013
Dean of Arts and Humanities
On February 28, Dean Michael D. Smith announced that Diana Sorensen, James F. Rothenberg Professor of Romance Languages and Literatures and Professor of Comparative Literature, had agreed to extend her tenure as dean of the Division of Arts and Humanities for another three years.

At the request of President Faust, Dean Sorensen also co-chairs the Harvard University Committee on the Arts together with Dean Mohsen Mostafavi. Under their leadership, the committee has begun to develop the structures and programs on campus that are needed to realize a new vision for the arts at Harvard that is informed by the recommendations of the University Task Force on the Arts.

The Humanities Project
For the past 18 months, over 40 faculty members in Harvard’s Division of Arts and Humanities have devoted themselves to studying the history and significance of the humanistic tradition and to exploring the ways in which it informs civic discourse, cultural identities and personal understanding. As part of this work, one subcommittee, headed by Professors James Simpson and Sean Kelly, produced two reports that were released in the spring of 2013: *The Teaching of the Arts and Humanities at Harvard College: Mapping The Future,* and *In Brief: Mapping The Future.*

Another subcommittee, led by Professors Julie Buckler and Hisa Kuriyama, has written a set of curricular recommendations that would guide the creation of new curricular and extracurricular pathways into the arts and humanities, more effectively integrate academic work in the Division, and further a culture of collective engagement and interaction among the faculty. A third report is the work of Professor Homi Bhabha, director of the Mahindra Humanities Center.

The Humanities Project describes the arts and humanities as the realms in and through which we define values, form relationships, express thoughts, feel, imagine, process, and create. Though varied in tack and emphasis, these efforts share a common goal: the collective assertion of the humanities as an essential foundational element in American liberal arts education. The domains they characterize are the domains of freedom and justice, of reason and goodness, of beauty and right and perhaps even of truth. These reports, pinpointing some clear historical trends and definitively separating facts from untested assumptions, aim to provide a sturdy foundation on which to base future efforts within the Division. The reports argue that study within humanistic disciplines hones precisely the skills needed to navigate a world marked by rapid change, increasing interdependence, transformative technologies, and multimedia communications. The Arts and Humanities are one way in which a liberal arts education helps students to develop the skills and wisdom needed to thrive in the digitized, globalized, discovery-driven economy of the 21st century.

These reports were issued at a time of intense national debate about the goals of higher education and the place of the liberal arts. In April of this year, President Obama committed $3.1 billion to improving education in science, technology, engineering, and math—the STEM disciplines. In his State of the Union address, he made it clear that his focus on STEM was part
of a broader effort to put students on a path to employment, looking to the pre-professional education provided in much of Europe as a model. State leaders are following suit, pushing for a shift in emphasis to STEM disciplines in state institutions in Florida and North Carolina. Responding to the issue of employability, the Humanities Project argues that the humanistic disciplines enable us to describe, evaluate and transform the world in ways that are personally and intellectually satisfying and that stimulate creativity and innovation that can be applied across many fields of endeavor — critically important skills in an increasingly knowledge-based economy.

The Curriculum Subcommittee of the Humanities Project spent the year focusing on two challenges: how to reenergize undergraduate interest in humanities concentrations and courses, and how to foster an enhanced sense of community within and across the Division, with greater collaboration between all departments. In the coming year, new interdisciplinary framework courses, developed through the Graduate Seminars in General Education program, will be offered, taking a novel approach to introducing freshmen to the humanistic disciplines. More broadly, preliminary conversations about a possible new concentration in the humanities will continue.

The Humanities Project has served as an intellectual meeting ground for the Division, and its work has benefitted both from the leadership of those who have served as members of the group and from the thoughtful feedback of faculty more broadly. It has also played a part in a broader set of engagements with faculty across the University. For example, “The Humanities and the Future of the University,” a panel discussion convened by the Mahindra Humanities Center in April and funded by the Office of the President, explored ways of reviving interest in the reflexive and analytical disciplines that constitute humanistic study.

In April, the Instituto Cervantes announced the creation of an Observatory of the Spanish Language and Hispanic Cultures in the United States in the Faculty of Arts and Sciences at Harvard University. Established through a memorandum of understanding signed recently by Harvard President Drew Faust, Dean of Arts and Humanities Diana Sorensen, Instituto Cervantes Director Víctor García de la Concha, and Executive Chairman of Grupo Santander Emilio Botin, the observatory is intended as an international hub for the study of how the Spanish language has evolved in the United States.

The creation of the observatory will enable the exploration of the connections between language and culture, as well as the pursuit of important new questions about the Spanish language and culture, and how both are changed and enriched by their expansion and interaction with the growing Hispanic communities in the United States. The observatory will be based at Harvard and headed by Francisco Moreno, professor at the University of Alcalá and former director of Cervantes Institutes in São Paulo, and Chicago. It will be managed through the Division of Arts and Humanities and will work with a number of other Harvard groups, including the Polinsky Language Sciences Lab, the Department of Romance Languages and Literatures, the David Rockefeller Center for Latin American Studies, and the Standing Committee of a broader effort to put students on a path to employment, looking to the pre-professional education provided in much of Europe as a model. State leaders are following suit, pushing for a shift in emphasis to STEM disciplines in state institutions in Florida and North Carolina. Responding to the issue of employability, the Humanities Project argues that the humanistic disciplines enable us to describe, evaluate and transform the world in ways that are personally and intellectually satisfying and that stimulate creativity and innovation that can be applied across many fields of endeavor — critically important skills in an increasingly knowledge-based economy.

The Curriculum Subcommittee of the Humanities Project spent the year focusing on two challenges: how to reenergize undergraduate interest in humanities concentrations and courses, and how to foster an enhanced sense of community within and across the Division, with greater collaboration between all departments. In the coming year, new interdisciplinary framework courses, developed through the Graduate Seminars in General Education program, will be offered, taking a novel approach to introducing freshmen to the humanistic disciplines. More broadly, preliminary conversations about a possible new concentration in the humanities will continue.

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on Ethnicity, Migration, Rights. Among the proposed projects are analyses of the Spanish and Latino populations in the 2010 U.S. Census, a study of Spanish teaching in the United States, and the creation of two visiting professorships.

**UNDERGRADUATE RESEARCH AND INTERNSHIPS**

Over the past academic year, the Division continued its push to open new pathways into the arts and humanities for Harvard undergraduates. An important new initiative launched in 2012–2014 is a summer research internship program for students interested in the arts and humanities. SHARP (Summer Humanities and Arts Research program) is a 10-week summer immersion experience for undergraduates to work on projects designed by Harvard faculty and library staff.

As a first-year pilot, the program offers four different opportunities for undergraduates to engage in formative and substantial humanities and arts-based research projects, which focus on archival exploration, digital mapping, and collections curation. As part of the Harvard Summer Undergraduate Research Village, which includes a number of other undergraduate research programs (PRISE, BLISS, and PRIMO), SHARP fellows participate in the rich interdisciplinary, intellectual, and social offerings of this residential experience. Activities include a distinguished faculty speaker series, pre-professional seminars, and opportunities to explore Harvard and the New England region more broadly.

In addition to this campus-based summer internship, the Division also developed a partnership with the Peabody Essex Museum that resulted in two internship opportunities for undergraduates over the summer of 2013. Interns work for 10 to 12 weeks during the summer, depending on the nature of their projects and other requirements. Participating students receive a stipend and free housing at Salem State University for the duration of the internship. This program will likely expand in future years to include opportunities for four interns every summer.

Additionally, the Division facilitated the creation of a new summer opportunity for an undergraduate to work at the Penland School of Crafts in North Carolina. Through the generosity of one of Harvard’s alumni, one undergraduate will be able to attend a two-week session in one of the hands-on craft courses offered during the summer of 2013. Classes offered at the Penland School range from drawing and painting to letterpress and textiles.

**OUTREACH**

In addition to student summer internship opportunities, the Division’s focus on student outreach included several events specifically intended to draw undergraduates and prospective students to the arts and humanities.

In February, the Division co-hosted an event for undergraduates with the Ackerman Program on Medicine and Culture at HMS entitled “Write, Cure, Play: Bringing Literature and Music to a Medical Career.” The event featured live music, readings and a panel discussion with medical students and faculty about the role of the arts into a career into the medical field.

The Division also collaborated with the Office of Career Services (OCS) to organize “Digital Humanities Across the Spectrum” this past March. The event featured Jeffrey Schnapp, faculty director of metaLab and professor of Romance languages and literatures; and Gregory Nagy, Francis Jones Professor of Classical Greek Literature and Professor of Comparative Literature and director of the Center for Hellenic Studies; Harvard University, and Beth Altringer, director of the Behavior for Better Innovation group and visiting lecturer at SEAS. Panelists discussed ways to explore the emerging field of digital humanities, where the humanities and technology intersect.

In April, the Division collaborated with OCS on another event intended to engage undergraduates in a discussion about a career in the arts and humanities, with a panel of faculty members, administrators, students, and alumni who all concentrated in a related discipline. Guests included David Alworth, faculty member in English and in history and literature; Amelia Muller, Harvard Admissions Office (who studied art history and architecture); Jennifer Altarriba, ESPN (Romance languages and literatures); Kara Culligan, Oliver Wyman (art history and architecture, MBA candidate at Harvard Business School); Ricardo Medina ’13, recipient of the YMA Fashion Scholarship Award in New York City (Romance languages and literatures); and Caitlin Ballotta ’14, who worked at Dumbarton Oaks and is interested in digital media (English).
The Division prepared an informal reception later in April for admitted students coming to campus for Visitas weekend. The reception was entitled: “Meet, Greet, and Listen: the Arts and Humanities at Harvard” and included conversations with faculty and students, as well as musical entertainment by a student jazz trio. The Visitas weekend was ultimately canceled, but this will be an event the Division is likely to organize again in future years.

This year was the first year for the Deans’ Cultural Entrepreneurship Challenge, an initiative launched as a partnership between Harvard Business School, the Silk Road Project, and the Division of Arts and Humanities. The challenge called upon visionary and entrepreneurial students across the university to develop solutions that expand the role of the arts in society and support the arts in a sustainable manner. The inaugural challenge attracted 70 teams across 13 Harvard Schools. Three workshops supported the students in developing their ideas, and several social and networking events during January and February culminated in the choice of ten finalists who were asked to further develop their proposals. A finalist jury made up of faculty and alumni selected one grand prizewinner and three runners-up.

**Highlight: Digitizing “Homeless Paintings”**

The Division continues to further the presence of the digital humanities on campus and was the happy recipient of a generous gift for this purpose. Over the past year, that gift has allowed the Division to join in a commitment with the Provost’s Office to support the metaLab with funding for innovative research in the field.

Additionally, the Mellon Foundation has funded a multiyear project led by metaLab to catalog, digitize, and make available online Villa I Tatti’s Photograph Archive’s images of “homeless” paintings by Italian artists between the 13th and 16th centuries. Amidst the archives that Bernard Berenson bequeathed to Harvard University at his Villa I Tatti in Florence is a collection of 17,000 photographs of Renaissance Italian paintings classified as “homeless,” meaning that the works had been documented by a photograph but the locations of the works were unknown. metaLAB is now designing a web-based platform that transforms the resulting database of images (currently only available in Harvard’s static VIA system visual collections browser) into a state-of-the-art “animated archive,” a prototype and model for future archives of lost or unidentified archives or artworks. The project will culminate in a fall course at Harvard to research, curate, and interpret—and perhaps even locate—lost works of the Italian Renaissance. The project has also received support from the De Bosis Fund and from the Villa I Tatti.

This new web portal will allow students and faculty, as well as off-site visitors, to do things with the Homeless paintings collection: to annotate, curate, and augment works within and beyond the collection; to construct sharable media-rich stories and elaborate arguments about individual items as well as groups of items. The project will support and enliven teaching in art history, museum studies, and a host of other fields. Beyond missing Renaissance art, the platform
prototyped here will be extensible to
teaching, exhibition work, and crowd-
sourced “citizen scholarship” across the
arts and humanities.

**CENTERS AND MUSEUMS**

**Carpenter Center 50th anniversary**

In May 2013, the Carpenter Center for the Visual Arts celebrated its 50th anniversary as an architectural and artistic landmark. Le Corbusier’s only building in North America, it was one of the last to be completed during his lifetime. Programming throughout fall 2012 and spring 2013 showcased the Carpenter Center’s vibrant history in diverse and creative ways, highlighting the uniqueness of the building and the contributions of the Center to the artistic life of the University while celebrating Le Corbusier’s inventive synthesis of art and architecture.

The anniversary year opened with *circa 1963*, an exhibition of iconic works from the early to mid-1960s. It explained how Le Corbusier designed the Carpenter Center to be a laboratory for creative and critical thinking. Its open and interconnecting spaces are meant not only to encourage experimentation, but also to create opportunities for interdisciplinary conversations and collaborations. The exhibition framed the history of the building critically and historically, and set the cultural and artistic context for the 50th anniversary exhibitions and programming that followed.

Curated by David Rodowick, former director of the Carpenter Center, the exhibition presented selections from the collection of the Harvard Art Museums/ Fogg Museum, the Addison Gallery of American Art, and the Estate of Peter Moore, including works by Josef Albers, Albert Alcalay, Eduardo Chillida, Dimitri Hadzi, György Kepes, Sol LeWitt, Roy Lichtenstein, Morris Louis, George Maciunas, Peter Moore, Yoko Ono, Bridget Riley, Ben Shahn, Aaron Siskind and George Sugarman.

**Dumbarton Oaks**

In 2012–2013, Dumbarton Oaks Research Library and Collection was a hive of activity. An institute of Harvard University dedicated to supporting international scholarship in Byzantine, garden and landscape, and pre-Columbian studies, Dumbarton Oaks offers fellowships, meetings, exhibitions, and a number of publications. As a research institute affiliated with the Faculty of Arts and Sciences, Dumbarton Oaks cultivates strong ties through support of class visits and scholarly exchanges, faculty sabbaticals and a variety of academic programs.

Three recent initiatives, in particular, have greatly expanded and enhanced opportunities for Harvard students at Dumbarton Oaks. The *Tyler Fellowship program*, inaugurated in 2010, provides support over two years to advanced GSAS students in fields relevant to the mission and resources of Dumbarton Oaks, with the aim of contributing to the students’ professional development while assisting with dissertation completion. Paid *summer internships*, expanded over the past few years and available across many different departments
within Dumbarton Oaks (from the library, archives, and museum to publications and the gardens) enable Harvard graduate and undergraduate students to contribute to institutional projects and gain valuable work experience and skills, while enjoying the Dumbarton Oaks campus and the resources of the nation's capital. Bliss awards, unveiled in 2012, provide support for Harvard students to attend the annual symposia, which are major annual conferences in the three programs of study at Dumbarton Oaks, as well as occasionally in other areas of scholarship. Through these initiatives and other activities, Dumbarton Oaks contributes to the teaching, research, and professional development of Harvard students and faculty alike.

A groundbreaking ceremony was held on May 21 to mark the beginning of renovations to the new Fellowship Building. Work will be completed by September 2014, in time for the arrival of the 2014–2015 fellows. Located on 1700 Wisconsin Avenue, much closer than the current fellows’ accommodations, the Fellowship Building will provide state-of-the-art living facilities and is projected to satisfy a LEED gold standard. Its proximity to the library, gardens, and museum will round off the Dumbarton Oaks campus and maximize opportunities for fellows, visiting scholars, and accompanying families to meet and make the most of campus and local amenities. The building will also afford opportunities to accommodate short-term stays by resident musicians and practicing landscape architects, as well as longer residencies for scholars involved in Dumbarton Oaks Medieval Library projects.

DEAN’S CULTURAL ENTREPRENEURSHIP CHALLENGE

Team MUSEY took home the $30,000 grand prize in the Deans’ Cultural Entrepreneurship Challenge. MUSEY is an online platform to support art outside museum walls. It is a mobile app solution that uses geo-technology to enable users to find art in one’s immediate vicinity, learn more about it, and support it financially.

MUSEY is led by Judy Fulton, Hokan Wong, and Wes Thomas of the Graduate School of Design, and Lucy Cheng ’17, as well as Loeb Fellow Helen Marriage.

The three runners-up, who each took home $15,000 awards, were:

- Midas Touch, which uses 3D printing technology to render paintings an accessible art form to the visually impaired;
- Culturally, an online social discovery and engagement ecosystem for the arts; and
- Music+1, a mobile app that provides adaptive orchestral accompaniment in real time to musicians.

Image with quote (Dean Nohria with Dean Sorensen): HBS Dean Nitin Nohria, who presented the awards along with his co-chair, Dean Diana Sorensen, commented on how the challenge broke down boundaries. “Who would have thought, for example, that the two of us would be working together on an endeavor of this kind?” he said to Sorenson. “To my mind, that’s what this venture is about: making unexpected connections and enabling remarkable things. In many ways, that’s the spirit of the i-lab.”
Dumbarton Oaks has expanded its outreach efforts in a number of ways. Through its newly created faculty executive committee, Dumbarton Oaks maintains lively connections with faculty on the Cambridge campus and supports a number of campus-based courses. Additionally, through an expansion of its digital collections, the unparalleled resources of Dumbarton Oaks are now more broadly available to the Harvard community and beyond.

**Center for Hellenic Studies**

Harvard University's Center for Hellenic Studies, located in Washington D.C., brings together a variety of research and teaching interests centering on Hellenic civilization in the widest sense of the term “Hellenic.” This concept encompasses the evolution of the Greek language and its culture as a central point of contact for all the different civilizations of the ancient Mediterranean world. Interaction with foreign cultures, including the diffusion of Roman influence, is an integral part of this concept.

This spring, Professor Nagy’s course “The Ancient Greek Hero”, one of the longest-running courses at Harvard College, was launched as a MOOC (massively open online course) through edX. The course has been praised for its pedagogical innovation and more than 35,000 students have enrolled. The edX offering of “The Ancient Greek Hero” builds on more than a decade of online teaching of the course through the Center for Hellenic Studies. To help guide the discussions with the thousands of enrolled students, Nagy contacted alumni who had taken the campus-based version of the course to serve as informal teaching fellows.

**The Semitic Museum**

This year, Dean Diana Sorensen assumed the role of interim director of the Semitic Museum after the retirement of the museum’s longtime director and Dorot Professor of the Archaeology of Israel, Lawrence Stager. While the search for a new director continued, the Division, with the help of the Semitic Museum’s Executive Committee, focused its efforts on reviewing the use of museum space, the logic of its collections, and the interaction between the museum and the Department of Near Eastern Languages and Civilizations. Peter Der Manuelian, Philip J. King Professor of Egyptology, began his appointment as director of the Semitic Museum on July 1, 2013. □
DIVISION OF SCIENCE

DEAN JEREMY BLOXHAM
ACADEMIC YEAR 2012–2013
This past year saw the implementation of curricular changes across the science departments spurred by the 2010 faculty retreat on Undergraduate Science and Engineering Education, which focused on the substance of the material taught in our courses. Departments introduced new courses and resources that provide clearer pathways into physical sciences concentrations, engage students in more hands-on and interactive learning opportunities, and reflect the growing trend of using statistical tools across diverse fields.

**Pathways into Concentrations:**

**Physical Sciences 12a/b and the Environmental Sciences Umbrella**

Since the creation of the Life Science cluster, and the Life Sciences 1a/b course sequence, students interested in pursuing a concentration in one of the life sciences disciplines have had a clear and delineated pathway into those programs. Students interested in the physical sciences disciplines, however, have had a less well-defined entryway. Physical Sciences 12 is a new introductory yearlong course that aims to provide this clearer pathway by targeting students who intend to pursue a concentration in either the sciences or engineering. The designation as a Physical Sciences course, rather than as a departmental class, is meant to communicate the breadth of preparation the course offers. This course uses introductory physics topics as a means to address a broad set of learning objectives and fully incorporates scientific computational tools into the course structure. Students learn to program in MATLAB, one of the standard computing languages for science and engineering applications, and they use this knowledge in class, on homework, and in the instructional laboratory. By providing students with these computational skills early in their time at Harvard, the class lays a foundation upon which they can build over the course of their undergraduate studies. This model also helps bridge the skill-set gap between the classroom and the research laboratory, preparing the students for entry into a faculty member’s research group. Another feature of Physical Sciences 12 is its complete integration of the lecture and instructional laboratory components of the course. Physical Sciences 12a meets in the spring term to allow most students to take a Harvard mathematics course before embarking on the course sequence.

To help guide students wanting to pursue their interest in the environment through academic study, many of whom were either unaware of such study as a concentration option or unable to pursue it because their Life Sciences foundational courses often did not fulfill the requirements, the departments offering instruction in environmentally oriented courses banded together to create the Environmental Sciences umbrella (Earth and Planetary Sciences, Environmental Science and Engineering, Environmental Science and Public Policy, and Organismic and Evolutionary Biology). Together this group created a booklet that identified the umbrella, highlighted each concentration’s unique focus, and set forth the course recommendations for students’ first three terms of study. In 2010, when this handbook was first produced, it was a six-page, photocopied document; it is now a professionally designed and printed 42-page resource for students interested in pursuing their interest in environmental issues. The growth of this booklet is a reflection of the growth and strengthening of the Environmental Sciences cluster since its
inception, and the success it has found in helping students to find entryway into environmental sciences concentrations.

**Hands-on Learning: Chemistry 145 and Physics 15c and OEB 56**

Two new lab courses were offered last year to provide students with hands-on experiences in chemistry and physics. Chemistry 145, an advanced laboratory course, aims to teach students experimental proficiency and presentation skills. In its pilot year, students tackled experimental problems in the synthesis, isolation, and characterization of inorganic compounds. Beyond gaining experience with the handling of delicate (e.g. pyrophoric, air-sensitive) complexes, the students received both a theoretical introduction to and hands-on experience with a broad spectrum of spectroscopic and analytical techniques. Each week the students presented progress reports and critical analyses to the group, very much akin to the weekly lab group meetings many faculty hold. The students were required to immerse themselves in the current literature for experimental procedures and critical interpretation of published works. At the culmination of the course the students gave two final presentations, one covering their experimental findings for the term and a literature review that focused on one of the analytical techniques discussed in the course. In its next offering, the course will be open to more students, and will add as a prerequisite Chemistry 40.

The introductory Physics course on oscillations and waves, 15c, was accompanied this year by a new laboratory course, “Principles of Scientific Inquiry” (PSI). Focused on fostering intuition and creativity and exposing students to the exciting field of modern experimental physics, the course introduces students to the often-counterintuitive effects of wave optics and allows students to engage in hands-on exploration of wave interference, lasers, optics, and holography. Students build on these experiences to craft independent research projects, which they undertake in small groups during the second part of the semester. This work culminates in a poster presentation at the end of the course during which students share their research with the Harvard physics community. This year’s cohort undertook projects including the investigation of the complex motion of a violin string, building a quantum eraser, and construction of a large wave tank to visualize interference effects. The students reacted with great excitement when they were able to, in some instances, teach their instructors something new!

OEB also made strides to reach students interested in connections among traditionally disparate fields by introducing OEB 56, “Geobiology and the History of Life,” a joint effort with EPS. This course explores the evolutionary past as both a biological and geological enterprise.

**Statistics Grows and Adapts**

As in many other American universities, Harvard has experienced increasing student interest in statistics, reflected in the 20-fold increase in statistics concentrators over the last ten years (from 5 to approximately 100). This rising interest is also evidenced by the dramatic increase to the number of students...
enrolled in our statistics courses, which just in the last year has jumped 20%. Over the last ten years, enrollment in introductory core courses in statistics has increased from 632 to more than 1800. This rising interest can be attributed to several factors, including the growing prevalence of large, complex data sets across diverse disciplines, such as biology, astronomy, finance, social sciences, medicine, and public health. Though this shift is not unique to Harvard, the growth in student interest in statistics is perhaps more dramatic here due to the relatively small size of Harvard College in comparison to other universities. In addition to national trends, growth at Harvard reflects the careful attention our faculty has given to the undergraduate program in statistics. Our courses challenge students to grapple with the difficult problems of inference in both small and large data sets and de-emphasize mechanical computation for its own sake. Students with diverse career goals are encouraged to concentrate in statistics; while some of our concentrators plan to do graduate work in statistics, many others will attend medical, law, or business school, or work in the private or public sector. Additionally, the department has a history of excellence in undergraduate teaching and advising, with three of its faculty earning teaching and advising awards in just this past year. Contributing to the department’s success is its ability and willingness to adapt its curriculum in response to important shifts in the discipline. The department will offer Statistics 121, “Data Science,” to introduce students to problems in predictions, business analytics, and social network analysis; Statistics 183, “Learning from Big Data,” which will examine modeling and inference methods in very large, complex data sets; and a revised version of Statistics 102, “Statistics in Medicine and Modern Biology,” that will integrate the analysis of genomic data with material from classical biostatistics.

Innovative Teaching Focus: “Getting to Know Darwin”

In 1859, the English naturalist Charles Darwin published On the Origin of Species, which garnered much international interest, including lively response and debate within the scientific community. Through the 1890s, Darwin corresponded on his theories with colleagues worldwide. This correspondence, which is now online as part of the Darwin Correspondence Project, has been the subject of a Freshman Seminar, “Getting to Know Darwin,” conceived and taught by William (Ned) Friedman, Director of the Arnold Arboretum at Harvard University and Arnold Professor of Organismic and Evolutionary Biology.

The core goal of the course was to introduce students both to Darwin’s core ideas and to experimentalism. The course drew upon Darwin’s letters, archival materials, and excerpts from Darwin’s published work and from some of his contemporaries. Through
Darwin’s correspondence, students are able to gain insight into the scientific processes behind his publications, and also learn about Darwin’s family, circle of friends, and community. The students analyzed topics in the context of Darwin’s correspondence, and then recreated the same experiments and observations that Darwin had himself carried out.

Topics covered in the course range from Darwin’s early life and education, to the evolution of instinct and the mind, to the power of movements in plants, to his home and family life. Students dissect barnacles, test the effects of salt water on seeds, observe the habits of insectivorous plants, and investigate whether earthworms can hear. Most of the laboratory experiments are low-tech, often requiring little more than a magnifying lens and a notebook for recording observations.

The course is part of a broader emphasis in the Faculty of Arts and Sciences on hands-on learning techniques, undergraduate research opportunities, and learning from primary sources, drawn from Harvard’s museum and library collections and from elsewhere.

**Giant Magellan Telescope**

In April of 2013, the Faculty of Arts and Sciences made a leading commitment on behalf of Harvard University to the Giant Magellan Telescope (GMT), one of the next class of super-giant earth-based telescopes. The GMT is supported by an international consortium of governments, leading universities, and scientific institutions. A resource for astronomers worldwide, the GMT is seen as essential to building upon the rich history of astronomy at Harvard and to ensuring its future, in fields ranging from exoplanets to deep red-shift objects. The Harvard College Observatory has committed $20 million towards the GMT project; in addition, the FAS has set a target of raising an additional $20 million through philanthropy.

The GMT features an innovative design employing the largest possible mirror segments, which will enable researchers to address fundamental questions in cosmology, astrophysics, and the study of planets around other stars.

The first of seven mirrors was completed in 2012 and meets its required optical surface with a precision of better than 1 millionth of an inch. The second mirror was formed in early 2012 and is currently being polished at the University of Arizona’s Steward Observatory Mirror Laboratory.

The telescope will be located on a remote mountaintop high in the Chilean Andes, where the skies are clear and dark, far from any sources of man-made light pollution. At the Carnegie Institution for Science’s Las Campanas Observatory in northern Chile, earthmovers have cleared an area equal to four football fields to support the telescope and its support facilities. Drill rigs have bored test holes more than 150 feet deep in the rock. Just as the telescope requires clear skies, it also needs a firm foundation from which to look up at the heavens. The GMT site is now ready for the start of construction in 2014.
The 2013 conference, entitled “Cosmology in the Era of Extremely Large Telescopes,” brings together leading cosmologists from around the world—including non-GMT partners—to discuss challenges in understanding dark matter, dark energy, and the formation of galaxies in the early universe.

**Harvard University Center for the Environment “Science and Advocacy” series**

A distinctive strength of the Harvard research environment is its ability to convene leading multi-disciplinary expertise around topics of common interest, often facilitated by research centers and institutes. An example is the series of special symposia organized by the Harvard University Center for the Environment (HUCE) in 2012–2013. The series kicked off in September with “Science and Advocacy: The Legacy of Silent Spring.” Fifty years ago, the publication of Rachel Carson’s *Silent Spring* brought concerns about the environmental impact of pesticides to a broad public audience. This spurred the development of a grassroots environmental movement that continues to this day. Although Carson was a marine biologist, *Silent Spring* is not a book of science, but environmental advocacy in the form of fable and narrative. The panel brought together environmental leaders from advocacy, journalism, and academia to explore the legacy of *Silent Spring*, and to discuss how science and advocacy interact in the face of our modern environmental challenges. Panelists included Frances Beinecke, president, Natural Resources Defense Council; Bill McKibben, writer, activist, and community organizer; Andrew Revkin, the *New York Times* and Pace University; William Clark, Harvey Brooks Professor of International Science, Public Policy, and Human Development at Harvard Kennedy School; Rebecca Henderson, John and Natty McArthur University Professor, Harvard Business School; Sheila Jasanoff, Pforzheimer Professor of Science and Technology Studies, Harvard Kennedy School; James McCarthy, Alexander Agassiz Professor of Biological Oceanography, FAS; and John Spengler, Akira Yamaguchi Professor of Environmental Health and Human Habitation, Harvard School of Public Health. The event was moderated by Daniel Schrag, director of HUCE and Sturgis Hooper Professor of Geology, FAS and SEAS.

A photograph of Rachel Carson and her book *Silent Spring*, at “Climate Change and Social Action”, a symposium at Sanders Theater.

**SCHOLARLY EXCELLENCE OF GRADUATE STUDENTS: TOM KEMPA**

Academic year 2013–2014 was noteworthy for the number of significant fellowships earned by graduate students and postgraduate fellows, and the scholarly excellence these fellowships demonstrate. An example is former chemistry and chemical biology graduate student (in the Lieber Group) and current postdoc (in the Nocera Group) Tom Kempa, who was the only American to win one of this year’s IUPAC Prizes for Young Chemists. The IUPAC Prizes are awarded for the world’s best PhD theses in the chemical sciences, as described in 1,000-word essays submitted by the authors. Dr. Kempa’s thesis, entitled “Nanowire Architectures for Next-Generation Solar Cells and Photonic Devices,” explores new nanoscale materials with tunable electronic and optical properties and how these materials might serve as platforms for next-generation devices.
The second symposium, “Climate Change and Social Action,” was held in February in Sanders Theatre, and engaged faculty in a discussion that compared environmental activism with other social movements of the past, such as those that ended slavery, fostered civil rights, fought tobacco use, and abolished apartheid. Panelists included Marshall Ganz, an HKS senior lecturer in public policy; Theda Skocpol, Victor S. Thomas Professor of Government and Sociology; Government Professor Stephen Ansolabehere; McArthur University Professor Rebecca Henderson; and Andrew Hoffman of the University of Michigan. Daniel Schrag once again served as moderator. Harvard President Drew Faust offered comments at the program’s end.

**Coming Soon: Fundamentals of Neuroscience**

Over much of academic year 2012–2013, the HarvardX production team has been building the first course from the Division of Science, “MCB80x: Fundamentals of Neuroscience,” which debuts on the edX platform in October 2013. Taught by David Cox, assistant professor of molecular and cellular biology and of computer science, and member of the Center for Brain Science, the course is the first of a three-part exploration of the structure and function of the nervous system. In this first module (MCB80.1x), Professor Cox will present how individual neurons use electricity to transmit information. Using stunning interactive simulations, the module invites learners to build a neuron, piece by piece, welcomes online students on field trips in and around Harvard and Boston, opens up the Cox laboratory, and walks learners through how to conduct DIY neuroscience experiments. The simulations developed for this cutting-edge online learning module will be used by students in Professor Cox’s on-campus courses.
DIVISION OF SOCIAL SCIENCES

DEAN PETER MARSDEN
ACADEMIC YEAR 2012–2013
Research Experience – BLISS, the Behavioral Laboratory in the Social Sciences

Summer 2013 marks the third 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. Inspired by the Program for Research in Science and Engineering (PRISE) and supported by the Office of Undergraduate Research and Fellowships (URAF), the program was developed by the Division and Harvard College to provide each student Fellow 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, PRIMO (Program for Research in Markets and Organizations, sponsored by Harvard Business School), and SHARP (Summer Humanities and Arts Research Program) for the summer, sharing meals and organizing a full calendar of cultural and recreational activities.

On the academic front, in addition to working on their projects BLISS Fellows attend a weekly speaker series featuring distinguished social scientists and practitioners, and they tour research and innovation centers around Harvard. They join the other summer research students to participate in practicums on research ethics and public speaking and presentation design. At the conclusion of the program each Fellow makes a public research presentation.

Each summer has brought a modest increase in the number of Fellows and an expansion in the range and diversity of projects. In the first year we enrolled twelve students (out of twenty-six applicants) working on eight faculty projects. In the second year, we enrolled fourteen students (out of thirty-four applicants) working on thirteen faculty projects (out of nineteen offerings). This third year we stretched our resources to enroll eighteen students (out of forty-seven applicants) working on fifteen faculty projects (out of sixteen offerings). Mentors have enthusiastically returned to the program for multiple summers, and so far four of the Fellows have returned in later years as program assistants.

Research activities this summer have included creating a geocoded archive of anti-slavery petitions to examine the role played by social networks and civic space in petition canvassing; using behavioral, physiological, and brain

FEEDBACK FROM FACULTY AND STUDENT PARTICIPANTS IN 2012 BLISS PROGRAM

My experience was outstanding. In part that was due to the unique qualities of my Fellow, ...[who has] has spoken glowingly of his experience. —Michael McCormick, History (BLISS Mentor)

I have really enjoyed (and benefitted!) from participating in BLISS the past two years. —Nicole Newendorp, Social Studies (BLISS Mentor)

I was able to get involved in every aspect of the research process, from study design to analysis of the data. This allowed me to learn so much more than I expected to during the summer, which was extremely rewarding. —BLISS Fellow*

It was the most delightful summer I’ve had and if I could, I would do it all over again. —BLISS Fellow*

*Survey data collected anonymously.
imaging measures to understand how emotional brain circuitry develops in adolescence; conducting randomized field experiments with area summer schools to test educational interventions designed to “nudge” students toward better educational outcomes; interviewing immigrants to understand factors affecting how they choose schools for their children. Distinguished speakers this year have covered topics as diverse as data privacy, science journalism, and the American penal system.

The Division, in conjunction with Harvard College, provided the financial support needed to launch these pilot BLISS offerings. Encouraged by ongoing positive feedback from participating students and faculty, efforts are now underway to establish funding to sustain BLISS over a longer term.

Teaching Innovations - Hauser Grant projects
A number of faculty and staff within the Division were awarded Hauser grants from the Harvard Initiative for Learning and Teaching (HILT) in 2012–2013, and three of the funded projects utilized resources from the Center for Geographic Analysis (CGA). Faculty from across Harvard worked together with the CGA staff to enhance the WorldMap, a multifeatured GIS web platform that enables students and researchers from multiple disciplines, at Harvard and around the world, to explore, visualize, and collaborate on massive integrated datasets of geospatially coded information. Peter Bol, director of the CGA and the Charles H. Carswell Professor East Asian Languages and Civilizations, worked with Kirk Goldsberry (CGA and University of Michigan) to develop a new general education course in the fall of 2012, EMR 21: Mapping our World. Also in the fall, Professor Christopher Winship (Sociology) and Dan O’Brien (RIAS) debuted a new course, Sociology 157: Mapping and Analyzing Social Patterns in Greater Boston.

In January 2013 the Division officially launched its new website, designed and implemented in OpenScholar, an open-source web publishing and content management system developed by the Institute for Quantitative Social Science, and now incorporated into the Harvard Web Publishing initiative. The site features divisional research centers and programs, and is updated regularly with news and upcoming event announcements. A menu links to information about the Division, the Dean’s Office staff, and divisional initiatives as well as to other relevant offices around the FAS and university. The site provides specific resource pages for undergraduates, graduate students, faculty, staff, and postdocs and visiting scholars.

http://socialscience.fas.harvard.edu/
The renovation of the Tozzer Library building on Divinity Avenue is on schedule for completion in the spring of 2014. It will house both the Library and the Social Anthropology program of the Department of Anthropology, near to the Department’s Archaeology program in the Peabody Museum. Planning for renovations in parts of William James Hall (WJH) is underway, to accommodate the Committee on Degrees in Social Studies (now situated in Hilles Library) and improve some classroom spaces. Together, these facilities renewal projects will bring the social science departments and programs in the FAS into closer proximity with one another.

As these larger multiyear projects progress, the Division has initiated an evaluation of existing teaching spaces. With moderate investments in presentation and telecommunication technology, this effort is expanding the number of classrooms that are equipped to facilitate online and multi-institution collaborative classes.

Cross-divisional Activities

At the request of Dean of Social Science Peter Marsden and Dean of Arts and Humanities Diana Sorensen, the FAS Academic Planning Group undertook a series of discussions to determine how to address the research funding needs of the faculty, particularly those whose long service and productivity have resulted in the depletion of their fund balances. As a result of these discussions, FAS Dean Michael D. Smith identified a modest amount of funding in the 2012–2013 budget to begin to replenish faculty research funds. This was an important first step toward the ultimate goal of achieving a more sustainable approach to faculty research funding. To that end, Dean Smith announced to the Faculty Council in the spring of 2013 his intention to appoint a faculty committee to explore options for approaching this problem on a longer-term basis.
Over the 2012–2013 academic year, the 23 research centers, institutes, and museums administered within the Division of Social Science hosted hundreds of scholarly events, made numerous grants to students and faculty, and welcomed visiting scholars from around the world.

The David Rockefeller Center for Latin American Studies (DRCLAS) officially opened its new office in Mexico City in May 2013, strengthening connections between Harvard and institutions throughout Central America. This regional office organizes scholarly conferences and provides grants for faculty research, as well as administers a number of study and internship programs in Central America for Harvard students at the undergraduate and graduate level.

The Center for Middle Eastern Studies continues to support a Working Group that meets several times a year to study and discuss the Arab Transformation, and hosts an active seminar series, open to the public, inviting distinguished scholars from the Middle East and around to the world to comment on the ongoing political unrest.

The Asia Center, founded to support Asia scholars across disciplines and schools via diverse research initiatives, publication series, and faculty and student grants, celebrated its 15th anniversary in 2012.

The Korea Institute, following a successful 30th anniversary year in 2011–2012, continued to break new ground in 2013 by hosting a conversation with internationally famous Korean pop star Psy at Memorial Church in May 2013, with support from the Office for the Arts and the Reischauer Institute (video available on the Korea Insitute's Vimeo channel).

Newly designated as an “Institute” by the President and Provost in recognition of its leadership in advancing South Asian studies and programs, the South Asia Institute, formerly the South Asia Initiative, served as the “organizational hub” coordinating a team of more than fifty scholars from multiple disciplines and schools across Harvard that traveled to Allahabad, India, in early 2013 to study the Maha Kumbh Mela. This Hindu religious festival took place at the confluence of the Ganges and Yamuna rivers over 55 days and was attended by many tens of millions of pilgrims. The scholars returned
Established in 1973 as the Japan Institute, and now bearing the name of its founding director and benefactor, the Edwin O. Reischauer Institute of Japanese Studies celebrates its 40th year of supporting Japan scholars across the university and providing a forum for academic and public engagement with Japan through scholarly events, cultural exhibitions, and service programs, including Harvard for Japan. Harvard for Japan is a coalition of faculty, staff, and students from across the university, supported by the Reischauer Institute, the Program on US – Japan Relations, and the Harvard Foundation, that aims both to raise awareness about the crisis resulting from the Great Tohoku Earthquake and to provide aid to people living in the devastated regions. During the summer of 2012 a team was deployed to Minami-sanrikuchō to offer support and assistance in the rebuilding of this coastal community.
The Division of Continuing Education comprises several entities including the Harvard Extension School, the Harvard Summer School, the Harvard Professional Development Programs, and the Harvard Institute for Learning in Retirement.

2012–2013 marked an important transition in the Division of Continuing Education's history. Dean Michael Shinagel announced he would step down as Dean of Continuing Education and University Extension after serving nearly 40 years. A national search was conducted, and in January, Huntington Lambert was announced as the new dean. Lambert officially started his tenure as dean in July 2013, but arrived in April to begin the transition.

Though not a record year, enrollments continued to be strong in the Division, following a number of years of rapid growth.

Harvard Extension School

The postsecondary educational landscape has changed dramatically in recent years, as nationally the number of nontraditional students who work part-time and live off campus far outweighs the number of traditional-aged students attending school full-time on campus. As concerns over the cost of education and degree of student debt dominate the postsecondary education conversation, Harvard Extension School serves as a model for providing high-quality online and on-campus instruction at an affordable price. Students from around the world attend courses, earning certificates and degrees, while working full-time.

In 2012–2013, Harvard Extension School offered more than 600 courses in the liberal arts and professional fields.

13,568 students enrolled in Extension School courses, accounting for 26,534 course enrollments and representing 122 countries of citizenship. This constitutes a two-percent decrease in students and a one-percent increase in course enrollments from the previous year, indicating a leveling off from the approximately 30% growth in enrollments experienced from 2005–2006 through 2009–2010.

The Extension School continues to provide teaching opportunities for University faculty and staff. In 2012–2013, 57 percent of the 477 instructors were Harvard affiliates. 22 percent were ladder Harvard faculty, including emeriti, and an additional 16 percent were Harvard lecturers and preceptors, people with term-limited appointments.

Distance education and short, intensive on-campus sessions continue to be areas of growth. In 2012–2013, enrollment in courses offered entirely online or with an online option increased 8 percent over the previous year to 12,533, accounting for 47 percent of total course enrollment. The Extension School again offered a record number of online courses (222), including 45 Harvard College and Harvard graduate school courses and 53 web conference courses, as well as 2 courses offering a blend of online and on-campus instruction. These courses enrolled students living across the United States and in 88 foreign countries.

Interest in certificate and degree programs remained strong and on-campus courses offered during an intensive January session continued to draw students, enrolling 728, many of whom attended in part to fulfill residency requirements for Extension School degrees.
Professional Development Programs

The Division's professional development programs moved out of the pilot phase and entered a period of brisk growth. Programs were offered in management topics geared toward professionals. Twenty-seven two-day intensive noncredit programs were held during four weeklong periods throughout the year, enrolling nearly 700 participants from around the world. Programs included Data Visualization, Leadership Communications, Digital Marketing, and Managing Yourself and Leading Others. June programs were held in Harvard Law School's newly completed Wasserstein building, leveraging classroom facilities unused during the summer months.

Harvard Summer School

Begun in 1871, Harvard Summer School is the oldest academic summer program in the United States and continues to serve a diverse population of traditional and nontraditional college students and adults. In 2012, the Summer School offered more than 300 on-campus courses and a small selection of distance education courses (21, including 5 web conference courses), covering a broad range of the liberal arts from anthropology to visual and environmental studies, biotechnology to Sanskrit. In 2012, Harvard Summer School enrolled 6,321 students, a one-percent decrease from 2011 which set an all-time record. These students accounted for 8,478 course enrollments, a two-percent decrease from the previous summer. Thirty-seven percent of students were international, with citizenship representing 111 nations.

The Summer School also includes the Secondary School Program for academically motivated high school students, which enrolled 1,162 students, and the Crimson Summer Academy (CSA). The CSA is a challenging residential program created 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 seventh class of Crimson Scholars. These graduates will be attending a number of prestigious colleges including Harvard, Denison, Hamilton, Lafayette, Skidmore and Williams.
Harvard Institute for Learning in Retirement

The Harvard Institute for Learning in Retirement, founded in 1977, this year admitted 47 retired academics, professionals, businesspersons, artists, and writers this year, bringing its active membership to 540. The members participated in 125 peer-led study groups and in a variety of extracurricular activities that included lectures, symposia, concerts, theater, poetry, and writing groups. In addition, the Institute formalized a global outreach initiative with Turkey’s leading public university, Boğaziçi University (the University of the Bosphorus), involving study and travel exchanges between members, faculty, and staff.

The Division’s Contribution to the University

The Division plays an important role in the University, providing teaching opportunities for University employees, opportunities for Harvard faculty to experiment with new pedagogies and teaching online, and leveraging classroom space unused during evening and summer hours. In addition, nearly 1,900 Harvard staff members took advantage of Harvard’s Tuition Assistance Plan (TAP) to enroll in Extension School courses in 2012–2013, and more than 400 staff members enrolled in a Summer School course. To date, more than 1,000 staff have earned a degree or graduate certificate through Harvard Extension School.

Financially self-supporting, the Division also makes an important yearly financial contribution back to the University in the form of supplemental instructional salaries to faculty and staff who teach courses, funds for programs within the Faculty of Arts and Sciences, payments to the University for facilities and other resources, and tuition waivers for Harvard employees.

Under the new direction of Dean Lambert, the Division will continue 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.
SCHOOL OF ENGINEERING AND APPLIED SCIENCES (SEAS)

DEAN CHERRY MURRAY
ACADEMIC YEAR 2012–2013
Harvard College students have demonstrated increasing interest in SEAS in each of the six years since it was established as a School, a trend that continued during the past academic year. Once again, there was year-over-year growth in the number of students who selected one of the six SEAS concentrations — applied mathematics, biomedical engineering, computer science, electrical engineering, engineering sciences, and mechanical engineering. The 704 concentrators in these fields (compared to 587 the previous year) represented 14 percent of all Harvard College concentrators.

The rapid growth over the past few years corresponds with a steady increase in the number of admitted College students who indicate interest in engineering and computer science, rising from 9.3 percent in 2007 to 16 percent in 2012.

Increased interest in SEAS has not been limited to concentrators. Engineering for All is a central goal of the School: to provide literacy in engineering and applied sciences to the broadest possible cross-section of Harvard College students, regardless of their concentration. The number of undergraduates who enrolled in SEAS courses has grown dramatically to 4,198 during the past year, more than double the total in the 2008–2009 academic year. Popular gateway classes such as Senior Lecturer David Malan's CS50, introduction to computer science, helped to fuel this growth. During the past year, 715 students took CS50, making it the highest-enrolled course at Harvard College. (CS50 was also the first FAS course to be offered on the HarvardX platform, with more than 130,000 online students enrolled.)

Interest in SEAS graduate programs also continued to grow. However, with the uncertain prospects for federal government support for research funding, the School made a strategic decision to limit the number of new graduate students in the 2013 admissions cycle. SEAS received 1,946 applications (for both PhD and master's programs) and admitted 199, with 96 entering in fall 2013. This was slightly fewer than the 110 new graduate students who entered the previous year. SEAS continues to be one of the nation's most highly selective programs for graduate studies in engineering and applied sciences. As of fall 2012, total graduate enrollment was just over 400 students (379 PhD and 34 SM, ME, or AB/SM).

During the past year, SEAS recruited the first cohort of students for a new master’s program in computational science and engineering (CSE). Housed within the Institute for Applied Computational Science (IACS), the one- or two-year program is designed to train leaders for a future in which large-scale computation and advanced mathematical modeling will propel discovery and innovation in fields from psychology to photonics. It will provide rigorous training in the mathematical and computing foundations of CSE, which students will apply to their chosen domains in independent research projects and elective courses. More than 150 applications were received and 26 students will enter in the fall. IACS, led by Tim Kaxiras, John Hasbrouck Van Vleck Professor of Pure and Applied Physics, also offers a secondary field for Harvard PhD students interested in applying computational methods to complex

A total of 306 SEAS students from 36 countries received degrees last year, including 185 undergraduate concentrators, 69 master’s degree recipients, and 52 new PhDs. Thirty-five percent of SEAS undergraduate students were women—double the national average for engineering programs.

**PLANNING FOR THE FUTURE**

As SEAS has welcomed the influx of new students, it has also wrestled with a significant and growing challenge: a lack of space. Today, SEAS classrooms, instructional labs, faculty and administrative offices, and research spaces are spread across 17 separate buildings. This year, several administrative functions moved to leased space in Harvard Square to relieve some of the pressure, but the available space in Cambridge remains insufficient to support the current and future needs of the School.

In February, the University announced that it was restarting the planning stages of a new complex on Western Avenue in Allston, with SEAS—at least a significant portion of the School—as an anchor tenant. While reaction to this prospect was initially mixed, the SEAS faculty members have actively engaged in an extensive process to understand the implications and imagine the possibilities. Two fundamental issues have animated the ongoing deliberations about a possible expansion of the SEAS campus in Allston: the inescapable conclusion that adequate space in Cambridge is unavailable; and the opportunity to design for the future the kind of flexible, 21st-century facilities that will offer the optimal setting for teaching, learning, and interdisciplinary research.

One of the tenets of effective engineering practice is continuous improvement, a concept that SEAS applies on a daily basis to teaching and learning (and all of its operations). This means ongoing improvements to the curriculum, teaching classrooms and instructional labs, and resources to help faculty become even more effective teachers and advisors.

To advance all of these goals, a more robust committee structure for setting and implementing education policy was created, with clear roles and responsibilities for area deans, directors of undergraduate studies, and directors of graduate studies. In addition to a Steering Committee comprised of the School’s academic and administrative leadership, a SEAS Education Policy Committee now oversees curricula and educational policy for the school, including School-wide integration of education programs and cross-Harvard programs.
“That’s what we really should be focusing on. “Throw information transfer out of the classroom. Have the students do the homework before class—read a book, watch a video lecture, or go out and collect data—and then in class we’ll work on really understanding the information, questioning it, and using it.” –Eric Mazur, Balkanski Professor of Physics and Applied Physics

At SEAS, there is a dual focus on the teaching of science and the science of teaching, with an emphasis on developing concentrators into “T-shaped” engineers and applied scientists who possess deep technical knowledge and broad understanding of the societal context of their work. An example of a faculty champion of innovative pedagogy is Eric Mazur, Balkanski Professor of Physics and Applied Physics, and Area Dean for Applied Physics at SEAS.

Famous worldwide for developing Peer Instruction, a question-based active learning method, Mazur began in the early 1990s espousing the “flipped classroom”—the idea that the teacher’s role is not to lecture from a book, but to challenge students with conceptual problems. His 1997 book Peer Instruction: A User’s Manual, developed with the support of the National Science Foundation and the Pew Charitable Trust, has been translated into four languages, with over 26,000 copies distributed.

Mazur advocates rethinking our approach to education to focus more on authentic problem solving and on stimulating creativity and innovation. AP 50, the project-based applied physics course he designed and began to co-teach in academic year 2013–2014, is equivalent in content and rigor to a standard introductory physics course for scientists and engineers, but focuses on the application of physics to real-world problems. Project teams apply scientific inquiry and modeling to construct, perform, analyze, and report on month-long projects inspired by problems from mechanical engineering, electrical engineering, biomechanical engineering, environmental engineering, and energy.

The recipient of the 2013 Lifetime Achievement Award from the International Higher Education Teaching and Learning Association, Mazur has in recent years turned his attention to assessment. He believes that the traditional education system, which evaluates students’ work by marking their responses as correct or incorrect, is poorly suited for a course where the intended outcomes include skills like design, innovation, the ability to transfer concepts from one context to another, and critical thinking.

In a classroom based on Peer Instruction, a strict grading rubric is replaced most days by small groups of classmates actively discussing a problem and reacting to one another.

With Brian Lukoff (a postdoctoral fellow in teaching and education at SEAS) and Gary King (Albert J. Weatherhead III University Professor in the Department of Government), Mazur developed a web-based system called Learning Catalytics that improves the quality of
communication in the classroom and computationally analyzes interactions on the spot. The system poses a challenging question, collects students’ responses in class, and provides instant feedback to both the students and the instructor about what is or isn’t working. Suppose 60 percent of the class has memorized the definitions of force and momentum, but can’t quite see why colliding objects would keep moving. The system quickly identifies the 40 percent who do understand, and reassigns the students to mixed groups to encourage fruitful conversations. Meanwhile, the instructor can more effectively spend his or her time identifying and addressing students’ misconceptions.

Following several years’ work on the system and classroom testing, Mazur, Lukoff, and King recently sold Learning Catalytics to the international education company Pearson.

“Many people pass standardized tests and still fail in the real world—and vice versa,” says Mazur. “If we don’t change assessment, education will never change.”

INTEGRATING DESIGN INTO THE CURRICULUM

The energy and creativity of SEAS faculty, students, and staff were on full display in May at the Design and Project Fair, held for the first time under the Science Plaza tent and attracting a broad spectrum of the University community. Hundreds of students showcased the diversity of creative projects developed in SEAS courses— including, for example, a mathematical system for crowdsourcing stock picks; an automatic fish feeder; a one-wheeled, self-balancing electric vehicle; a secret-knock-detecting door; and a mind-controlled car.

The annual event has grown in attendance each year. It is part of an effort to systematically integrate design across the curriculum. All undergraduates pursuing the Bachelor of Science degree through SEAS are required to complete a senior design project, known as ES 100, with the guidance of an experienced adviser. In fact, in a growing number of courses across SEAS, students are learning fundamental design concepts and then getting hands-on experience in the instructional labs.

In one such course, ES 227, Medical Device Design, teams of SEAS undergraduate and graduate students collaborate with doctors and clinicians at Harvard-affiliated teaching hospitals. They learn everything they can about a practical problem, by listening to doctors, analyzing the strengths and weaknesses of existing tools, reading the medical literature, and even observing surgeries. According to Assistant Professor of Mechanical and Biomedical Engineering Conor Walsh, the ultimate goal is not to produce devices, but to produce students who know how to design. In fact, his course does both.

Generating a viable approach to any problem requires a deep understanding in three areas: technical issues, business issues, and user issues. Students in ES 227 and many other SEAS courses apply their design skills to innovate, test, and eventually prototype new solutions to real-world problems. This past year, Walsh’s students devised a novel deployable grasper for use in minimally invasive surgery, a soft robotic device to help stroke victims regain functionality in their thumbs, and a cervical spine immobilization device EMTs in the field can use to reduce the risk of neck injury.

SEAS students have won national design competitions, had research papers published in journals, and applied for patents. With support from SEAS advisors, many continue to perfect their designs long after the class has ended, sometimes after they have left Harvard, bringing their ideas to fruition in the form of commercial and non-profit startups.

Mark43, a crime-fighting startup, is one example. It began in ES 96, a junior design course taught by Tarr Family Professor of Bioengineering and Applied Physics Kevin “Kit” Parker. The trio of computer science undergraduates who founded the venture—Scott Crouch, Matthew Polega, and Florian Mayr—won the grand prize in the Harvard President’s Challenge for Social Entrepreneurship. Their spinoff has since received seed funding and they are negotiating contracts with big-city police and public safety agencies around the country.
Three members of the SEAS community were recognized for their dedication to mentoring and advising. David J. Mooney, Robert P. Pinkas Family Professor of Bioengineering, received the Everett Mendelsohn Excellence in Mentoring Award from the Harvard Graduate Student Council. David Parkes, George F. Colony Professor of Computer Science and Harvard College Professor; and Sujata Bhatia, Assistant Director for Undergraduate Studies in Biomedical Engineering, were honored with the Capers and Marion McDonald Award for Excellence in Mentoring and Advising.

Among other accolades for SEAS faculty, Joanna Aizenberg, Amy Smith Berylson Professor of Materials Science, was elected a Fellow of the American Physical Society; Leslie Valiant, T. Jefferson Coolidge Professor of Computer Science and Applied Mathematics, was named a Fellow of the Association for Computing Machinery; and John Hutchinson, Abbott and James Lawrence Professor of Engineering and Gordon McKay Professor of Applied Mechanics, Emeritus, was elected to the Royal Society. Two faculty members—Michael P. Brenner, Glover Professor of Applied Mathematics and Applied Physics and Salil Vadhan, Vicky Joseph Professor of Computer Science and Applied Mathematics—were named Simons Investigators; and Krzysztof Gajos, assistant professor of computer science, was named a 2013 Alfred P. Sloan Research Fellow.

Advances in information technology and statistical computing, combined with the unprecedented ability to collect and analyze vast amounts of data on human behavior and interactions, are transforming computational social science. However, researchers and policymakers face a major challenge: maintaining the privacy of people’s personal data.

Computer scientists at SEAS led by Professor Salil Vadhan received a nearly $5 million National Science Foundation grant to develop technologies and policies to protect the privacy of personal data used in research studies. This initiative is an example of the multi-disciplinary, cross-school focus of research at SEAS. It brings together investigators from computer science, social science, statistics, and law, and involves the Institute for Quantitative Social Science, the Law School’s Berkman Center for Internet and Society, and partners in industry.

Privacy Tools for Sharing Research Data will define and measure privacy in both mathematical and legal terms, and explore alternative definitions of privacy. The research will provide a better understanding of the practical performance and usability of a variety of algorithms for analyzing and sharing privacy-sensitive data. The ideas developed in this project will inform data privacy issues in many other domains, including public health and electronic commerce.
MAJOR EVENTS AND COMMUNITY BUILDING

There were an increased number of high-impact events that brought the SEAS community together and invited colleagues from industry, national labs, and other institutions to campus. Highlights included:

- SEAS hosted the Cambridge 8th-Grade Science & Engineering Showcase as well as Step UP/Project TEACH, to share the excitement of science, engineering, and college life with young people in Cambridge and Boston. (May/June 2012)

- In collaboration with the Department of Physics, SEAS celebrated fall with the annual Pumpkin Drop, tossing Jello-filled gourds from the top floor of the Jefferson Laboratories. (September 2012)

- The Science & Cooking Fair highlighted undergraduates’ unusual (and edible) science projects. (December 2012)

- Hundreds of students showed off apps and more at the CS50 Fair. (December 2012)

- The SEAS Holiday Lecture, an annual tradition, delighted families with rainbows, flames, and an electrified pickle. (December 2012)

- Teams of students from across Harvard mastered virtual foosball in the second annual IACS Computational Challenge, and ComputeFest brought experts and enthusiasts together for a weeklong celebration of computational science and engineering. (January 2013)

- During the winter break, SEAS hosted hands-on workshops on design, prototyping, fabrication, welding, imaging, and much more. (January 2013)

- SEAS hosted a daylong workshop on exascale computing, drawing participants from industry, national laboratories, and academia. (January 2013)

- Faculty and students gathered to dedicate the Connaughton Room, a flexible, active-learning classroom on the third floor of Pierce Hall. Alumna and entrepreneur Stephanie Formica Connaughton gave remarks on the importance of the design process. (April 2013)

- Hundreds of students from more than two dozen classes participated in the end-of-year SEAS Design and Project Fair, held under the Science Plaza tent. (May 2013)

- SEAS collaborated with MIT to host the international symposium of CDIO, exposing 350 engineering educators from around the world to the School, highlighting its pedagogical approach and facilities.
FACULTY TRENDS

DEAN NINA ZIPSER
OFFICE FOR FACULTY AFFAIRS
ACADEMIC YEAR 2012–2013
Faculty Trends

FIGURE 1: LADDER FACULTY SEARCHES IN THE FAS FROM 2007–2008 TO 2012–2013

FIGURE 2: LADDER FACULTY IN THE FAS FROM FALL 1995 TO FALL 2013

Searches
2012–2013 was a very active year for faculty searches, as the FAS continued to build a robust pipeline of exceptional faculty. Overall, the FAS conducted 73 ladder (tenured and tenure-track) faculty searches, the highest number of searches authorized in a single year since the onset of the recession and the subsequent hiring slowdown that began in 2008–2009. This recent increase in search activity has generated a steady stream of incoming faculty, who are set to arrive on campus in the coming years.

From the 73 searches conducted in 2012–2013, the FAS extended 46 offers to a diverse set of candidates, including 21 women and 15 minorities. Of the 46 offers, 28 faculty accepted, 9 declined, and 9 are pending an outcome.

A total of 33 new faculty members will join our community this September—15 from the searches conducted in 2012–2013 and 18 from searches conducted in previous years. Of these incoming faculty members, 13 are women and 10 are minorities.

Looking ahead, our faculty pipeline now consists of the 9 offers where the outcome is pending and an additional 18 faculty who have accepted offers to start in future years.

Departures
On the other side of the pipeline, we bid farewell to 11 faculty who retired from the FAS in 2012–2013 as part of the FAS Faculty Retirement Program, which allows faculty to choose a personalized and phased retirement path. Since the launch of the program in 2009, 62 faculty members have entered into retirement agreements.
An additional 23 faculty departed the FAS for reasons other than retirement, including 11 tenured faculty and 12 tenure-track faculty.

**Faculty Size**

As of September 1, 2013, the FAS had 711 active ladder faculty, down slightly from 712 a year ago due to 33 incoming faculty and 34 departures. However, the size of the faculty is expected to increase to 718 by January 1, 2014, as 7 faculty members have accepted offers to arrive on campus this winter, with no known departures by then.

**Promotions**

In addition to the external search activity during the last academic year, the FAS concluded 22 promotion reviews to Associate Professor and 23 promotion reviews to tenure. Twenty-one of the associate professor reviews and 14 of the tenure reviews were successful.

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 during the 2008–2009 through 2012–2013 academic years.

Promotion rates to Associate Professor over the last five years, conditional on standing for review, remain high for both women and men at 96%.

The promotion rate to tenure over the last five years, conditional on standing for review, was 71% overall. Broken down by gender, women experienced a 66% success rate compared to a 74% success rate for men. A chi-square test for independence shows no statistical difference ($p=0.41$) between the two groups. We will continue to monitor these rates in the coming years.
Diversity

Currently, women comprise 26% of ladder faculty in the FAS. The number of women has grown from 181 to 188 since last fall, due to 13 new female appointments compared with 6 departures. This is the first year of growth in this area over the last five years. Furthermore, our pipeline consists of 8 acceptances with deferred start dates from women and 4 pending acceptances from women. Thus, we are hopeful that we can sustain this upward trend.

When broken down into tenured and tenure-track faculty, we see that the representation of tenured women has continued to slowly increase. Most of this increase is due to internal promotions of women from the tenure track. Currently, women comprise 24% of the tenured faculty (135 out of 561), up slightly from 23% last year. The representation of women on the tenure track remains constant since last year, at 35% (53 out of 151).

In 2012–2013, the Standing Committee on Women (SCW) updated its 2010 report on gender demographics and faculty hiring. In addition to some of the trends above, the report noted that, in many departments, the proportion of women on the tenure track falls well below female representation in the PhD pipeline and at peer institutions. The report suggested some best practices applicable to the recruitment of both women and minority faculty.

Currently, minorities comprise 19.3% of ladder faculty, up slightly from 18.3% last year. Underrepresented minorities and multi-race faculty together comprise 8.2% of ladder faculty, up from 7.4% last year.
When broken down by rank, minorities comprise 17.5% of the tenured faculty and 26% of the tenure-track faculty.

To continue to improve minority representation and in response to the SCW's report, the Committee on Appointments and Promotions and the senior adviser to the FAS Dean for Faculty Development have compiled a list of best practices during faculty searches. This document, “Recommendations for Ensuring the Integrity of Faculty Searches,” draws on departmental feedback and behavioral science research in suggesting ways to minimize bias when launching a search, developing a short list of candidates, conducting interviews and campus visits, holding departmental discussions, and voting. “Recommendations” was sent to department chairs with search authorizations for 2013–2014. Chairs and all search committee members are asked to use “Recommendations” as a guide when conducting tenure-track and senior searches.

* The document is available on the FAS Faculty Affairs website
FAS LIBRARIES

SUSAN FLISS, ASSOCIATE LIBRARIAN OF HARVARD COLLEGE FOR RESEARCH, TEACHING AND LEARNING AND INTERIM LIBRARIAN OF HARVARD COLLEGE
ACADEMIC YEAR 2012–2013
The 2012–2013 academic year continued to be a period of transition for the FAS libraries within the Harvard Library, as this was the first year when library services were delivered in a University-wide shared-services model. As expected, a major organizational change such as this presented challenges, but also provided opportunities for collaboration and integration of like services. The library leadership continued working to form a coordinated FAS organization to provide access to the world-renowned collections in all fields of scholarship, and create tools to support the use of those collections in developing, advancing, and disseminating knowledge.

**Shared Services and the Harvard Library Transition**

Officially launched in August 2012, the Harvard Library transition centralized most personnel in access services, information and technical services, and preservation, conservation, and digital imaging services. Collection development, as well as research, teaching, and learning, continues to be provided at the local library level. The FAS libraries recognize the important benefits the University can achieve through the Library transition to a shared-services model, and throughout the year the FAS libraries worked together with the Harvard Library to identify solutions to the type of challenges expected with the implementation of any new operational model. The FAS libraries remain committed to the goal of creating a sustainable information ecosystem for the 21st century.

**Refined Mission and Vision of the FAS Libraries**

At the request of FAS Dean Michael D. Smith, the FAS libraries (those within the Harvard College Library (HCL) structure, as well as those associated directly with FAS departments, institutes, and museums) have been working to develop a mission and vision for a coordinated organization. While the FAS libraries have a long history of working collaboratively to meet the needs of faculty and patrons, this work represents the first time that the leadership of the FAS libraries has collaborated to articulate a shared purpose. Having a common mission and vision will allow the FAS libraries to work together to support the priorities of the FAS. The principles of a coordinated organization continue to be refined through input from faculty and staff.

In conjunction with developing a shared mission and vision, the FAS libraries are also developing shared annual and long-term plans that will ensure alignment among FAS, division, department, and library priorities; leverage staff expertise across all libraries; maximize investment of funds for shared benefit; allow for assessment of progress toward vision; and facilitate and encourage collaboration between FAS libraries and partners inside and outside of Harvard.

**Administrative Services within the Harvard College Library**

Changes have been made to administrative services in HCL enabling policies and practices to be more closely aligned with those of the FAS and the University. This also allows library staff in the HCL structure to focus on key competencies—collection development and research, teaching, and learning.
Human resources and facilities/operations are now provided by the FAS, while communications and information technology services are provided by University-wide entities, HPAC and HUIT, respectively; all of these services are performed with careful consideration for the unique needs of the Library community.

Leveraging University and FAS-wide support for common administrative functions has allowed a smaller, dedicated team to focus on those services and activities that provide the most value to the Library. This realignment has already produced results as the HCL Financial Services team was able to study FY14 budgets and identify an additional $1.1 million that will be invested in collection development.

Appointment of Sarah Adams and Mary Clare Altenhofen
Mary Clare Altenhofen was named the Herman and Joan Suit Librarian for the Fine Arts Library, and Sarah Adams was named the Richard F. French Librarian of the Eda Kuhn Loeb Music Library in June. Both had been serving in those respective roles on an interim basis. They are responsible for day-to-day management of their libraries and programs, and supporting the mission and curriculum within FAS.

Aligning Library Spaces to FAS Needs
As part of the FAS libraries’ continuing efforts to support research, teaching, and learning, construction began on a video-capture room in Widener Library to be used for HarvardX and for FAS curricular use. Driven in part by the new Harvard and MIT-founded online learning enterprise, edX, video capture has become an increasingly essential tool in enabling faculty to work with blended models of teaching in the classroom and to reach and engage a global audience of learners. Even as the methods by which knowledge is created and disseminated evolve, the FAS libraries continue to work collaboratively with the entire community of users to support research and pedagogy.

A new Collaborative Learning Space was created in Widener Library. The new space includes large touch-screen and high-resolution LED displays, as well as a ceiling-mounted document camera. With this new space, librarians and faculty can partner to support teaching from both print and digital library collections, including special formats such as maps.

A new Sound Studies Lab (SLab) was installed in the Music Library’s G. Wallace Woodworth Listening Room. Funded by a grant from the Hauser Fund and the Harvard Initiative for Learning and Teaching, the SLab gives students access to cutting-edge tools for composition, audio capture and recording, digital media, and video editing, as well as audio mixing, mastering, and restoration.
The project to relocate all materials from Tozzer Library, in preparation for a major renovation, was completed in August 2012. In all, 104,000 volumes were transferred to the Harvard Depository and 25,000 volumes were transferred to William James Hall, where library services have been re-established as well. Tozzer is scheduled to reopen in May 2014.

Staff Additions in Collection Development

In April, Gregory Eow became the Charles Warren Bibliographer for American History, the primary selector for library materials in the subjects of American history, literature, government, and culture, and provider of specialized reference services to students and faculty in American fields. A highly regarded and talented bibliographer, Eow came to Harvard from Yale University.

In August, 2013, Lidia Uziel became Librarian for Western Europe in the Widener Library's Collection Development Department, which carries primary responsibility for collection development and related services for all materials originating in Western Europe, Hungary, Romania, and Albania. She previously worked as the Librarian for Western European Humanities and Coordinator for Humanities Collections at the Yale University Libraries.

Richard Lesage joined Widener’s Collection Development Department early in 2013 as Librarian for South and South-East Asia, following an assignment in the Harvard Library’s Information and Technical Services area. This new position reflects the increasing prominence of these regions in the academic programs of FAS, and of the University as a whole.

SHARP Program

The HCL was excited to participate in the FAS Summer Humanities and Arts Research Program (SHARP) program, a 10-week summer immersion experience working on projects designed by Harvard faculty and library administration. Widener Library hosted two SHARP interns to explore innovative ways to contextualize and interpret its holdings of “zines” and related sources, following the recent purchase of some 20,000 pieces from a private collector.

Middle Eastern Division

The Middle Eastern Division (MED) continued its aggressive acquisitions and processing activities despite obstacles imposed by the ongoing political upheaval and change in the regions of its collecting. Acquisitions reached 22,701 titles (25,352 volumes) in 46 languages—Arabic, Persian, Turkish, and Urdu being the top languages—and cataloging amounted to 21,175 titles in 55 languages.

Slavic Division

Dr. Gjorge Ivanov, president of Macedonia, visited Harvard and Widener Library in September. Ivanov made a donation of nearly 130 books of Macedonian literature translated into English. The Slavic Division collects materials from Russia, Eastern and Central Europe, Central Asia, and the Caucasus in all Slavic, Baltic, and Western languages.

Houghton Library

Houghton Library hosted nearly 6,000 visitors and held over 200 classes. With an ever-increasing demand for object-based learning as part of the Harvard
curriculum, efforts have begun to better collaborate across Harvard using a shared Archives and Special Collections Class Request Tool. Technical Services made landmark progress this year, especially in making Harvard Theatre Collection material more accessible to users. Houghton staff also facilitated a number of exciting and interesting exhibitions, three of them created with Harvard University faculty and students in relation to courses or programs in the Faculty of Arts and Sciences.

The Woodberry Poetry Room hosted over 50 public programs for students, faculty and the community at large, among them, poetry readings, audio seminars, translation workshops, walking tours, and oral histories.

**Fine Arts Library**
The staff of the Fine Arts Library continued to be very active in outreach for curricular and research support, including extensive research assistance, LibGuides, in-classroom presentations, and specialized curricular support. The staff worked collaboratively to publish “The Fine Arts Library at 50” (volume 23:3 of the Harvard Library Bulletin) which celebrates the Library through the recollections of 35 scholars from 1962 through 2012. A successful project to select and send over 4,000 volumes from the Rübel Asiatic Research Collection to Harvard Depository is enabling Fine Arts to bring new acquisitions in Chinese, Japanese, and other East Asian arts to the on-campus collection during the next two years.

The Fine Arts Library, in collaboration with the Frances Loeb Library, sponsored a photographic survey of Harvard architecture. To date, over 1,000 architectural views and details have been added to Harvard’s visual resource catalog. Notable acquisitions include an album of albumen photographs of India and Afghanistan, ca. 1878, compiled for Sir Frederick Paul Haines, commander-in-chief of British forces in India during the Second Afghan War. Also acquired were a number of facsimiles of illuminated manuscripts, which are actively used in undergraduate courses and upper-level seminars. Use of special photographic collections by both Harvard affiliates and visiting scholars continues to grow.

**Ernst Mayr Library**
The Ernst Mayr Library plays an ongoing leadership role in the Biodiversity Heritage Library. EML continues to provide greater access to the Archives and Rare Books section through the use of “flash” exhibits. These exhibits are short notice and often relate to a local or national event. EML is also nearing completion on a project to digitize the portion of William Brewster’s field notes related to his book The Birds of the Cambridge Region of Massachusetts, and connect them to specimens in the Museum of Comparative Zoology as well as Brewster’s other publications.

**Eda Kuhn Loeb Music Library**
During the fall semester, Professor Anne Shreffler’s graduate seminar “Patronage and Contemporary Music” focused on the activities of Paul Fromm, one of the most significant patrons of contemporary art.
music in the United States in the second half of the 20th century. The impetus for the seminar was the previously unexamined and extensive archive of the Fromm Foundation, established in 1952 and based at Harvard since 1972. A student- and faculty-curated exhibition, “Composing the Future: The Fromm Foundation and the Music of Our Time,” was the outcome of the seminar; it featured library materials from the Archives and the Houghton and Music Libraries, and was prepared in collaboration with library staff.

In February, the Music Library hosted a symposium titled “The Yakut Epos Olonkho: Past—Present—Future” featuring Dr. Vasily Vasilievich Illarionov and Dr. Sergei Yefimovich Vasiliev, both of the North-Eastern Federal University in Yakutsk, Russia, as well as Robin Harris from the Graduate Institute of Applied Linguistics, Dallas. The guests presented their research on the olonkho, a vast corpus of song and poetic recitative that encompasses spiritual beliefs, ritual practices, philosophy, and historical memory at the root of Yakut cultural identity. While in residence they also assisted with metadata creation and description of materials in the Yakut Collection: “The Eduard Alekseyev Fieldwork Collection of the Musical Culture of Yakutia.”

### Science Libraries

In Cabot Library, testing continued on the usability of gesture-based technologies using a surface table. Feedback from the testing resulted in the need for new interfaces and further development and exploration with students. In February, a workshop on touch technologies and libraries, LIBERACT, was held, spawning a lecture series on digital futures to be held in 2014. The surface table at Cabot will be used to accompany exhibits and digital collections for a course with Professor Laurel Thatcher Ulrich in the fall of 2013.

### Maps, Media, Data, and Government Information in Lamont and Pusey Libraries

The Expanding the Boundaries of Authorship team—an HCL, FAS, Bok Center, and HUIT partnership with the Multimedia Lab in Lamont—organized and ran its first Wintersession Multimedia Authoring Boot Camp in January. The boot camp gave students, staff, and faculty firsthand experience in using a wide range of multimedia tools, which are becoming increasingly necessary in the pursuit of scholarship.

The Galvin family, in honor of Kevin Galvin, made a substantial gift to the Harvard Map Collection. The donation included approximately 800 maps and atlases of New England, focusing on early transportation systems—including steamboat routes, trolley lines, bicycle paths, and early automobile roads.

In building collaboration with HUIT Research Computing in the Arts and Humanities and the libraries, a humanities research computing specialist position was created in HUIT. This position shares a staff office in Lamont in order to enable partnering on appropriate projects relating to the digital humanities and building stronger connections with faculty to better support their research and teaching needs.

### Wolbach Library

The John G. Wolbach Library continues to be a leader in research data services in the Harvard Library community and beyond, driving such projects as the Astronomy Dataverse and contributing to the greater project, the Dataverse Network at Harvard. Perceiving a skills gap in libraries and an inability to respond to the growing needs surrounding “big data,” Wolbach has launched several initiatives, primarily one called Data Scientist Training for Librarians, which has been recognized as an innovative training program within the larger library community to help librarians build improved data services.

A recent partnership with CERN has allowed Wolbach Library to contribute to a Big Data project, called Zenodo, a new publication and preservation platform built to address not only open access to research data, but also grey literature or non-refereed literature, which can include everything from conference proceedings to theses and dissertations.

This year research librarians continued to foster partnerships with faculty to incorporate library and research services into existing and new academic programs. At the same time, research librarians continued to support undergraduate researchers to help them as they develop critical understanding of the information landscape at Harvard. One faculty member cited the efforts of the research librarians as key to the radical improvement in students’ abilities to confront a research paper.
Librarians and library staff across the FAS are focused on ensuring that library services continue to support FAS academic programs in the future. In May 2012, the library hosted “Min(d)ing the Gaps: A conversation about student research, and teaching and learning” to bring librarians together with academic leaders for the first-ever on-campus conversation about how students think about the information landscape. The expert panel and audience considered important questions like how students conduct research for coursework, and how librarians, faculty, and teaching fellows can partner to ensure effective curricular encounters.

Finally, new positions for entry-level research librarians were developed and filled on a term basis. These positions create unique professional opportunities for librarians new to the profession to join the Research, Teaching and Learning community in FAS, bringing new skills and perspectives.
FAS SUSTAINABILITY PROGRAM

ACADEMIC YEAR 2012–2013
The FAS Sustainability Program works in partnership with the Harvard Office for Sustainability to meet the University’s sustainability commitment, including the goal to reduce greenhouse gas (GHG) emissions 30 percent below a FY2006 baseline by FY2016, including growth, through a mix of:

- Collaboration with students, researchers, and staff to incubate and launch innovative solutions and behavior-change efforts.
- Upgrades to infrastructure and operations that increase efficiency and reduce energy costs.
- Integration of University-wide Green Building Standards into new construction and renovation projects.

### Student Researcher and Staff Collaboration

**Highlights**

- 1,400 freshmen attended the Green Fair as part of Opening Days activities.
- Over 1,500 students took a sustainability pledge during the Green Cup House competition, including more than 1,400 pledges to reduce energy over winter break.
- The Shut the Sash Competition in the chemistry labs yielded $250,000 in annual savings.
- 750 staff participated in the Green Office program.

Community engagement campaigns at FAS mobilize students, faculty, and staff to adopt more sustainable practices and develop innovative solutions in support of the University’s sustainability commitment. Launched in 2002, FAS’s behavior change programs have a strong presence in student residences, offices, and labs. College students have always been a powerful voice in Harvard’s sustainability efforts and have driven many flagship initiatives, including Harvard’s Sustainability Principles (adopted in 2004) and Harvard’s GHG Reduction Goal (launched in 2008, following an undergraduate referendum in 2006).

### Student Engagement and Leadership

- Opening Days programming, including Green Brain Break, continued to catch the attention of freshmen as they enter Harvard.
- Undergraduate Resource Efficiency Program representatives (REPs) helped to develop new—and improve existing—educational tools to make sustainability more accessible to students, including recycling and energy quizzes, the sustainability pledge, and a carbon footprint evaluation tool. 34% of upperclassmen took the recycling quiz, with 74% and 70% participation in the top two Houses, Cabot and Leverett, respectively.
- Recycling rates at football games rose to 30 percent in the fall of 2012, compared with 2 percent in 2008. Attendees recycled over 24,000 gallons of material at the Harvard/Yale game alone.
- The green living program expanded to GSAS Residence Halls.
- The reusable mugs program—a collaboration between REP, Harvard University Dining Services, and the Freshman Dean's Office—received awards and recognition from MassRecycle and the National Association of College and University Food Services.
Supporting Research with Greener Laboratories
- Key energy reduction and outreach programs expanded including Green Lab Certification, FAS Freezer Preventative Maintenance, and the Shut the Sash Competition.
- The new online Labs Reuse List for lab equipment and supplies has been embraced by the research community. The webpage was viewed over 570 times in February alone. Over 80 items have been posted to date.
- New waste reduction pilot programs were established in response to researcher feedback, including reuse areas at the Harvard Department of Stem Cell and Regenerative Biology (HSCRB) and an expanded polystyrene recycling study at the molecular and cellular biology department.
- The average compliance for Shut the Sash is now 68%, up from 57% in 2012 as a result of targeted outreach efforts. Two new labs were added to the competition for a total of 19 participating labs.
- 340 Greenerbenches listserv members shared best practices in lab and research operations.
- Over 260 items were traded and reused at two Lab Freecycle events.

Office Space
- The offices of Deans Smith (FAS), Pfister (College), and Lichten (Physical Resources and Planning) are among the now 48 certified Green Offices on campus.
- Five FAS-wide Freecycle events welcomed over 800 community member attendees and diverted 4,000 pounds of items from landfills.
- 40 staff and celebrity professors participated in Earth Month Photo Booth, including GSAS Dean Xiao-Li Meng.
- The FAS Sustainability Program also hosted monthly environmental movie screenings and discussions.

Reducing Energy and Saving Money in Existing Buildings
Highlights:
- The University has achieved a 27.1% reduction in greenhouse gas emissions, a 12.9% reduction in energy use, a 31% reduction in water usage, and an estimated annual avoided utility cost of $2,290,370 in buildings that have been on campus since 2006.
- Energy conservation measures funded through the FAS energy fund yielded $250,000 in annual energy savings and a reduction of 600 metric tons of carbon dioxide (MTCDE).
- The .LISE ongoing commissioning project has resulted in $3.15 million in savings and a reduction of 7,421 MTCDE since 2009.
- Motor upgrades in Bauer resulted in $17,300 in annual savings and a reduction of 48 MTCDE per year.
- Installation of LED bulbs in the Carpenter Center resulted in $18,292 in annual savings and a reduction of 146,340 kWh per year.

Over 1,500 students took Sustainability pledge as part of Green Cup House competition, including more than 1,400 pledges to reduce energy over winter break.

Harvard community members attend one of five Freecycle events.

FAS staff and faculty participated in the Earth Month photobooth.
The FAS Office of Physical Resources and Planning (OPRP) has developed an extensive and financially viable strategy to operate FAS buildings as efficiently as possible. Comprehensive assessments of energy use and GHG emissions are the cornerstone of the FAS energy-management approach. The FAS Energy and Sustainability team within OPRP continually evaluates opportunities to achieve greater savings by optimizing building infrastructure, systems, and operations.

Energy-efficiency upgrades in existing buildings are a leading factor in the overall reduction in greenhouse gas emissions at FAS. Despite the more drastic changes in recent weather patterns and the challenge this puts on mechanical cooling and heating systems, the FAS continued to successfully roll out new energy conservation projects in FY2013. Some of the most successful measures will be repeated in FY2014 where applicable, including LED lighting upgrades, direct digital control (DDC) system programming upgrades, premium efficiency motor upgrades, and conversions from constant volume to variable volume fluid systems.

The end of the fiscal year was just the beginning of planning for additional energy reductions through enhanced DDC programming, as well as prioritizing conservation measures within the recently completed building retrocommissioning efforts. State-of-the-art technology is being explored for pilot projects including higher-efficiency building-level electrical transformers and high-efficiency water pump packages that are electrically commutated, converting alternating current (AC) to direct current (DC).

**Green Building and Construction Highlights:**
- FAS is a green building leader on campus with 31 LEED-certified projects (Platinum: 1, Gold: 16, Silver: 11, Certified: 3) and 9 registered projects, the largest number among all Harvard Schools and units.
- Old Quincy, the first House renovated as part of the House Renewal Program, will use over 33% less energy compared to building code.
- The FAS was the first Harvard School to have adopted University-wide Green Building Standards. Since 2008, all major renovation and construction projects follow Harvard’s requirements for energy efficiency, indoor air quality and other environmental criteria.
- The first building to be renovated as part of House Renewal, Old Quincy, includes a wide variety of energy-efficiency and resource-conservation improvements that provide students with a healthier, more sustainable environment in which to live, collaborate, and learn.
- The projects are inherently sustainable in their emphasis on preserving the unique character of the Houses, including the recycling and reuse of existing materials in the historic structures. Some of the Old Quincy doors are made of eastern white pine, an old-growth wood that is not available anymore and that was preserved and resized to fit new entrances. Wood floors were re-sanded and refinished, rather than replaced.
- Old Quincy has passed stringent indoor air quality test to ensure levels of harmful and toxic compounds are well below what is required due to the use of low-toxic paints and adhesives.
- After the construction is done and students move back in, the new residents will play a big role in continuing to reduce the environmental footprint of Harvard’s Houses. Extensive sub-metering in Old Quincy by use type (i.e. plugs or lighting) will allow the peer-to-peer Resource Efficiency Program to track energy use to increase effectiveness of environmental competitions and behavior-change campaigns.
- State-of-the-art, energy-efficient improvements are expected to reduce overall energy consumption 33% below what is required by building code, leading to a 29% reduction in greenhouse gas emissions. Walls and roofs were insulated for the first time in its 83-year lifespan and technology to recover and reuse waste energy from the steam tunnel and ventilation systems pre-heats domestic hot water. Upgraded windows and super-efficient LED lighting will improve student comfort.
- For the first time at Harvard, rainwater is being collected and reused for use in toilets and for irrigation in order to reduce water use.
FINANCIAL REPORT

LESLIE KIRWAN
DEAN FOR ADMINISTRATION AND FINANCE
FISCAL YEAR 2012–2013
We are pleased to present here the FAS’s financial results for Fiscal Year 2013, the fiscal year ending June 30, 2013. For purposes of comparison, the results for Fiscal Year 2012 are also displayed. This report follows a standard set in October 2009, when FAS Dean Michael D. Smith presented a financial report to the faculty to help them and other key audiences gain a deeper understanding of the FAS’s financial condition in light of the impacts of the global recession. At that time, the dean committed that future annual reports would be published each October following this new, more timely, and more comprehensive standard, of which this report is the fifth in a series.

This report is intended solely to present a managerial view of the FAS’s finances and operations, and to explain how our financial resources changed and how they were used during the year in support of our academic mission. It is important to note that these results are not audited in accordance with generally accepted accounting principles (GAAP), nor should they be confused with the audited financial statements of Harvard University as a whole, which will be published in November 2013.

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 Fiscal Year 2013 consolidated revenues and 73 percent of Fiscal Year 2013 consolidated expenses, we also present a Fiscal Year 2013 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 Fiscal Year 2012 and Fiscal Year 2013.

Overview

This report will expand on the following key themes:

· Led by Dean Michael D. Smith and following his three-year plan, the FAS community took prompt and effective action to avoid significant deficits forecasted to result from the global economic crisis.
· The FAS met the Dean’s goal of balanced budgets in Fiscal Years 2012 and 2013 (on a non-GAAP basis) through savings reductions, some new revenues, greater use of restricted funds, and organizational change and consolidation.
· During these challenging times, we made important targeted investments in faculty, financial aid, innovative learning including edX/HarvardX, and our physical plant – notably launching House Renewal.
· The budgetary balance we have achieved is precarious; it has required some cuts that are not sustainable and depleted some restricted funds and reserves at the Dean’s level and in local units, and the outlook is for slow revenue growth outpaced by even modest spending increases.
· Fiscal Year 2014 will be a challenging year reflecting revenue constraints and uncertainty as well as the need to make a number of unavoidable investments, and will require unsustainable use of FAS reserves. Additional careful prioritization, tradeoffs and discipline will be required.
· The newly instituted requirement for schools to use the University’s internal GAAP accounting standard in reporting their financial results will introduce depreciation expenses at an individual school level. The FAS will be unable to fund these expenses in the near term while addressing the monumental, long-deferred House Renewal project and other capital needs. While this will generate reported deficits during this period, the FAS recognizes the importance of providing for future capital renewal and the need to make steady progress toward meeting this standard over time as we balance academic priorities and other obligations.
· The planning and preparation we have done during this period will ensure the Harvard Capital Campaign – while not a panacea -- will directly address both academic priorities and financial pressures in the FAS. The FAS’s campaign goals are aligned with our priorities and our needs. The changes we have made will also provide assurance that current use and endowment gifts raised in the Campaign will be used effectively, responsibly, and in service of our mission.
Background: Fiscal Recovery and Regaining Balance (Fiscal Year 2009-2012)

When the impending impacts of the global financial crisis on the endowment of Harvard University and the FAS became apparent during Fiscal Year 2009, it was estimated that the FAS was on a path to experience budgetary gaps of as much as $220 million absent prompt and decisive action. Almost immediately, Dean Smith announced a comprehensive recovery that spanned three years, Fiscal Years 2009–2011. 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 were deemed available for restrained and strategic use as a funding bridge while other solutions were developed. These solutions included a mix of immediate savings across most expense categories, exploration of new revenues, use of restricted funds and accumulated balances, administrative and academic reorganizations, and other initiatives. Through tremendous citizenship, innovation, and hard work during the budgeting cycles of Fiscal Years 2010, 2011 and 2012, the projected deficits were largely avoided.

Fiscal Year 2013 Results

Consistent with the Dean’s financial goal for the year, the FAS has completed Fiscal Year 2013 with an essentially balanced budget (on a non-GAAP basis) in its unrestricted core operations.

“Unrestricted core operations” can best be understood as the accounts that are available to the Dean to fund strategic initiatives as well as day to day activities. The result of operations was a very modest deficit of $3.7 million, an improvement over the submitted budget.

The small deficit reflects a tight operating environment as well as the prudent choice to retire $4.9 million of debt related to House Renewal projects. Factoring in unrestricted funds set aside and designated for House Renewal, the Unrestricted bottom line result was a surplus of $16.7 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 result was a deficit of $12.2 million, almost entirely attributable to the deficit in SEAS of $11.5 million. On an all-funds basis the consolidated bottom line of the FAS was a surplus of $31.2 million, almost entirely attributable to a $31 million gift to support the Center for the Environment.

Among the elements that contributed to this outcome in Fiscal Year 2013:

- Total revenue growth exceeded expense growth. While core unrestricted revenue grew less than 2 percent over Fiscal Year 2012 (approximately $10 million), growth in total revenues was 6 percent in the core and 5 percent on a consolidated basis. Core revenue sources that increased included Net Tuition (+4.9 percent), Endowment Distribution (+5.9 percent), and Current Use Gifts (+4.9 percent). Revenue sources that decreased included: Grants and Contracts (-2.9 percent), Other Investment Income (-2.9 percent) and Transfers from the University/Academic Programs (-10.5 percent).

- Continued careful operations management and favorable utility rates. Our Physical Resources and Planning staff was reorganized to deliver building management services more effectively. Across the FAS Core and affiliated departments the investment in facilities renewal was $43 million, reflecting the FAS commitment to maintaining our exceptional physical plant. Similarly, our investment in the greenhouse gas reduction program has resulted in a 28.5 percent reduction in emissions in FAS base buildings compared to 2006. Of particular note is the installation of a very large solar panel array on the Gordon Indoor Track and Tennis facility. Tied to the Harvard campus electrical distribution system, at peak output the 500 kW array provides half the electric requirements for the entire athletic area.

- Staffing. We continue to pay close attention to personnel costs and look for opportunities to organize effectively. Faculty and staff compensation (salary, wages and fringe benefits) represent the largest component of the FAS budget. On June 30, FAS staff stood at a count of 2515 FTE, compared to 2841 FTE at the end of Fiscal Year 2012. This decrease is the result of two reorganizations of staff: the transfer of 88 employees formerly part of FAS IT to HUIT, and the transfer of 268 FAS library employees to the Harvard Library. Controlling for these large transfers, the FAS FTE count in other academic and administrative departments increased by 23 FTE. Two-thirds of these new employees were added in the academic units and one-third in administrative units. Also, a faculty-led, internal reorganization of the public elements of the FAS museums was accomplished, which relocated 37 staff
members from the parent museums in the Sciences and Social Sciences to the new Harvard Museums of Science and Culture.

- **Purchasing enhancements.** The procure-to-pay process was strengthened across the University and FAS in Fiscal Year 2013. Use of the Harvard Crimson Online Marketplace (HCOM) generated approximately $5.3 million in savings in its second full year of operation, up from $4.1 million in Fiscal Year 2012. The savings are a result of improved pricing, early payment discounts, and free shipping. Through the use of HCOM, procurement managers have access to spending data that enable more targeted vendor negotiations, harnessing volume to achieve more competitive pricing and discounts. Other benefits of detailed spending analysis include strengthened management of vendor performance, improved monitoring and compliance with negotiated agreements, and assuring favorable terms and conditions.

- **Pay down of debt obligations to lower debt service.** To relieve our operating budget and also reserve future debt capacity for the House Renewal Project, the FAS has engaged in a deliberate strategy of paying down debt where possible. Over the past three years, the FAS has reduced its outstanding debt by $150 million. As a result, Principal and Interest on Internal Debt declined by a net 6.5 percent, or $6 million, between Fiscal Year 2012 and Fiscal Year 2013.

- **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. However, there are diminishing opportunities of this kind as balances have gradually been depleted, both in local units and in FAS central accounts.

**Targeted Investments Continue**

Though fiscal discipline remained an important principle in Fiscal Year 2013 as we worked to meet the Dean’s goal of maintaining a balanced budget, the work of the faculty did not stop and several targeted investments were prioritized during the year.

**Faculty Searches.** Fiscal Year 2013 was a very active year for faculty searches, as the FAS continued to build up a robust pipeline of exceptional faculty. Overall the FAS conducted 73 ladder faculty searches, the highest number of searches authorized in a single year since the onset of the recession and the subsequent hiring slowdown that began in Fiscal Year 2009. This recent increase in search activity has generated a steady stream of incoming faculty, whose arrival on campus in the coming years will be reflected in future operating budgets. Our multi-year financial planning incorporates these future costs.

**Financial Aid.** During Fiscal Year 2013, 4,053 undergraduate students, or approximately 60 percent, received some level of scholarship grant aid to attend Harvard. After a number of years in which sharp increases in undergraduate financial aid expenditures were experienced, undergraduate aid rose modestly in Fiscal Year 2013 to $166 million. In comparison, financial aid expenses were less than half this total as recently as Fiscal Year 2005. 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 35,000. Additionally, stipend levels for graduate students were increased modestly. Between Fiscal Year 2008 and Fiscal Year 2013, the FAS’s total financial aid grew by $69 million, or 43 percent, remarkable growth in the context of the financial pressures experienced during this period. This growth required significant expenditure of unrestricted FAS funds.

**Capital Investments.** In Fiscal Year 2013, consistent with University priorities, the FAS capital program emphasized investment in renewal of our facilities. The FAS has a program of scheduled upgrades and modernization of the life safety systems. In Fiscal Year 2013, safety related projects were completed in six FAS buildings, including new fire sprinklers in the Loeb Drama Center and sections of the Chemistry Labs. A significant upgrade to life safety equipment was completed in the very large University Museum complex. Several large multi-year renewal projects continued in Fiscal Year 2013, most notably the three-year project of replacing all the single-pane steel frame windows in Currier House with modern thermal windows. Favorable bids to replace the main electrical equipment in the Biology Labs have also allowed replacement of the main distribution wiring to be included in the project, a great improvement for the building.

The FAS also initiated a number of projects supporting our teaching and research programs. The Tozzer renovation project, which will facilitate the consolidation of the Anthropology department, is well underway with completion of construction anticipated by February 2014. A new elevator will provide access for persons with disabilities to the Semitic Museum and the department of Near Eastern Languages and Civilizations. We have undertaken the planning for
upgrades to five large classrooms in William James Hall and Jefferson Physics Lab with construction anticipated next summer. And, with the support of HILT funding we have constructed in the Science Center the “SciBox”, described as a completely flexible, wide-open teaching and lab space in which different modes of teaching and learning can be blended together within a single class meeting. In 2013 the FAS successfully began recycling helium through our new recovery system, first conceived in 2007. The closed-loop system captures vented gas from Physics, SEAS and Chemistry research labs and pipes it to the helium liquefer at 38 Oxford Street. There it is converted back to liquid for delivery and re-use in laboratories. This project enables conservation of a nonrenewable scarce resource and ameliorates a growing threat to cryogenic research.

House Renewal. Fiscal Year 2013 saw significant progress in the FAS’s massive undertaking to renew the undergraduate residential houses. The construction of the first test project, Old Quincy, consumed the entire year; the project was completed slightly ahead of schedule and below budget, and the Certificate of Occupancy was received immediately after the end of the fiscal year. It has recently been unveiled as Stone Hall thanks to a generous gift, while other philanthropy contributed to the creation of new tutor communities and student learning and social spaces within the building. Also during Fiscal Year 2013, final design was completed for the next project, Leverett McKinlock, construction of which began this past June; as well as for the swing house to be housed in the former Inn at Harvard. Additionally, design and planning progressed for the next project in Dunster House, scheduled for construction in 2014-15.

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, both incremental and non-incremental long term debt and cash from operations. As of June 30, 2013, the Corporation has approved $209 million to finance the construction plans for the project outlined above.

Although in its beginning phases, the project affects the Fiscal Year 2013 results in several ways. First, FAS invested $51 million in Old Quincy construction and planning for Leverett McKinlock, Dunster and the Inn at Harvard, as reflected in fixed assets. Second, $2.3 million in housing costs were incurred to accommodate displaced students. Last, although the campaign has still not been formally launched, it has begun to provide needed support for the project with over $140 million pledged to date.

As the pace and scope of the project quickens, its full impact will be felt in other areas of our financial statements such as increased housing costs for displaced students, loss of income from the Inn at Harvard and de-capped endowments and debt service costs associated with the funding model.

Balance Sheet View:
As set forth in the Consolidated Balance Sheet, total net assets for the FAS rose by $973.6 million, or 6 percent, during Fiscal Year 2013, from $15.3 billion at the close of Fiscal Year 2012 to $16.3 billion at the close of Fiscal Year 2013. The increase is the result of positive investment returns in Fiscal Year 2013, reflected in a 6 percent increase (+$800 million) in Long-term investments (primarily endowment) and a 15 percent increase (+$90 million) in deposits with the University. An increase of 24 percent (+$66 million) in pledges receivable reflects activity in the nucleus phase of the Capital Campaign. In contrast, between Fiscal Year 2011 and Fiscal Year 2012 the FAS’s net assets declined by 3.2 percent, principally as a result of slightly negative investments returns.

At June 30, the FAS’s Long-term investments (primarily endowment) stood at $14.3 billion, up 6 percent from $13.5 billion a year ago. In contrast, this figure was $16.6 billion at the close of Fiscal Year 2008, before dipping to a low of $11.6 billion at the end of Fiscal Year 2009. At $14.3 billion, the FAS’s endowment position at June 30, 2013 was approximately 86 percent of what it was on June 30, 2008. Put another way, the endowment has not yet recovered 46 percent of the value lost in the downturn.

In Fiscal Year 2013, the FAS continued to pay down internal debt obligations in anticipation of House Renewal-related borrowing planned later in the project. Internal debt dropped by 3.1 percent, or $25.7 million, as part of this deliberate strategy.

Current Budget Balance: Hard Won and Precarious
A comparison of the FAS’s Fiscal Year 2009 and Fiscal Year 2013 financial results demonstrates the fiscal discipline that was achieved during the recovery while forecasting some challenges still ahead.

Revenues grew very slowly over this period. Between Fiscal Year 2009 and Fiscal Year 2013, Core FAS revenues grew by a net of $60 million or 6.8 percent, for a compound annual growth rate (CAGR) of 1.7 percent. The biggest factor was the
significant decrease in the Endowment Distribution and Other Investments during this period, which combined stand at $48.4 million or -9.4 percent less in FY2013 than in FY2009. Offsetting the loss of endowment revenues over this period were increases in Net Tuition, Grant Revenue and Current Use Gifts totaling $81.8 million or +24 percent (CAGR of 5.6 percent).

Expenses were carefully managed during this time. Core expenses grew by $74 million or 9.2 percent, for a compound annual growth rate of 2.2 percent. This was a sharp decrease from the pace of pre-crisis spending. Through concerted effort, spending actually declined even in nominal dollars in a number of expense categories: Supplies (-10.7 percent), Plant Operations and Maintenance (-3.6 percent) and All Other Expenses (-24 percent). In other areas, spending was curtailed below prior rates, including Salaries and Wages (+3.2 percent, CAGR of 0.8 percent); fringe benefits (+10.8 percent, CAGR of 2.6 percent); and principal and interest on debt (3.5 percent, CAGR of 0.9 percent).

Reflected in these results are some significant organizational changes. Notably, the FAS participated in the University-wide voluntary retirement program as well as in combining IT and shared library services organizations with the University. While the retirement program caused a reduction of staff FTEs, the reorganizations shifted employees to central payrolls. Consequently, a fuller picture of salary costs should recognize that some salary, benefits and other costs shifted to Purchase of Services, consistent with the consolidation plans initiated by the FAS Dean and University leaders. For instance, in the Core, Purchase of Services increased sharply by 71 percent (CAGR of 14.4 percent), reflecting principally the transfer of FAS IT employees to HUIT. A similar result related to library personnel is reflected in the Consolidated Statement of Activity.

Financial Aid for graduate and undergraduate students continued its steady increase during this period, rising 20 percent from $178.8 million to $215.8 million during this time. Transfers to the University grew by 40 percent (CAGR of 8.8 percent) for the administrative assessment and 188% for Academic Programs (CAGR of 30.3%).

The Net Operating Result in Fiscal Year 2013 was $55.4 million, over 20 percent below the $68.4 million result in Fiscal Year 2009, even without factoring in the effects of inflation (which was fortunately low during this time). In one sense, it has been a triumph to regain a positive operating position in view of the significant challenges during these four years. However, it is a concern that at an annual growth rate of 1.7 percent, revenue growth was outpaced by expense growth -- even though expenses were growing at rate of only 2.2 percent, very low by historical standards and achieved only with a concerted effort.

For this reason, and because we also had to make room for important investments that could not wait, we have had to make hard choices, rely on reserves and deplete some balances during this time. That has occurred at the FAS level as well as in some local units.

The Outlook: Fiscal Year 2014 and Beyond

Fiscal Year 2014 will be a challenging year reflecting revenue constraints and uncertainty as well as the need to make a number of strategic investments. The Fiscal Year 2014 budget was developed with an assumption of 2 percent endowment distribution growth, the output of a University formula taking into account the slightly negative investment earnings in Fiscal Year 2012. In light of ongoing uncertainty about the federal budgetary climate and how it will affect funding for basic research, we also anticipated some loss of sponsored revenues. Ongoing upward pressure on some of our expense categories, coupled with, at best, modest increases to our key revenue sources for the foreseeable future, will demand 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. In her September 9, 2013 speech to the Harvard community, President Drew Gilpin Faust commented on the risk to American universities when, at the same time “other nations invest heavily in new universities and scientific institutes...here in the United States the decades-old partnership between universities and the federal government is at risk of unraveling.” In the FAS, federal research funding comprises approximately 18 percent of annual revenues. These revenues face a significant threat in the current sponsored environment. The FAS has already seen a reduction in sponsored awards that will affect future budgets and
spending despite similar or increased grant proposal activity by our faculty. It is difficult to predict the size and duration of this challenge, but material reductions should be anticipated.

With a national spotlight on the growing costs of higher education and concerns about affordability for American students and families, revenue from tuition is under tremendous pressure. Annual increases in the cost of attendance are expected to remain modest in the coming years. At the same time, our dedication to sustaining Harvard’s “best in class” financial aid program remains steadfast, though keeping this commitment intact in recent years has exerted considerable pressure on the unrestricted budget. In addition, tackling the long-deferred renewal of the undergraduate residential Houses is expected to require significant draws on reserve funds in addition to endowment decapitalizations and the philanthropy that will be essential to making the program possible.

Overall, current operating pressures combined with important strategic investments spell a projected operating deficit and large anticipated draw on FAS reserves during Fiscal Year 2014. While this is possible for one year, sustained draws of this magnitude would deplete available balances very quickly. Continued difficult choices and fiscal discipline will be needed to manage the trajectory of spending.

On a related note, as part of a coordinated University-wide effort to understand and manage the trajectory of operating and capital commitments, the FAS develops annual multi-year operating and capital budget scenarios. In connection with these planning efforts, the University has introduced Generally Accepted Accounting Principles (GAAP) as a standard applying to the component schools as well as to the University as a whole. In that view, depreciation of certain physical assets is charged as an expense in the operating budget. This accounting practice is intended to clarify the true costs of responsibly maintaining and using our facilities over time. The FAS’s large and valuable physical plant generates a significant depreciation expense. At this time of constrained revenues and large outlays for House Renewal—our biggest capital renewal need—the FAS is not in a position to reserve additional cash to fully fund depreciation in the near term. Consequently, a GAAP view results in material current and projected deficits for the FAS. As the House Renewal and other FAS renewal projects demonstrate, we share the commitment to preserving our capital assets, and aspire to make progress toward the GAAP standard over time in balance with our academic priorities.

### The Capital Campaign: Aligned with our academic aspirations and our financial needs

The FAS portion of the University Campaign, set to make the transition from a successful quiet phase with a public launch in October 2013, has been designed to address directly the academic needs and financial challenges described in this report. As described more fully in a dedicated section of this report (see page 8), the Campaign will provide:

- Undergraduate Financial Aid
- Graduate Aid and Fellowships
- Funding for House Renewal
- Leadership Aid to give the Dean flexibility to invest where needed

Since the beginning of the economic downturn, the FAS’s investments in faculty compensation and research, undergraduate financial aid and graduate aid and fellowships have increased from $352 million to $488 million, or almost 40 percent. As stated above, total expenses grew less than 10 percent during this time, demonstrating the priority placed on these investments. Moreover, the dedicated restricted funding for these expense categories declined from 71 percent to 58 percent over the same period. This has meant that unrestricted funds have had to increase by 70 percent to enable the increased investments. Campaign goals designed to replenish and augment dedicated funding will fortify and sustain our ability to provide for these important priorities, while at the same time relieving the pressure on unrestricted funds.

House Renewal is a long-deferred, massive capital project that is essential to the student experience at Harvard College, as well as imperative for competitive, safety and fiduciary reasons. While the financial model will also consume FAS endowment funds, reserves and debt, the capital campaign goal represents a significant and essential share of the costs of this project.

Through the economic recovery, the Dean’s ability to implement resourceful measures and provide bridge funding for essential activities was threatened by the lack of unrestricted funds. Fortunately, donors responded with generosity to the request for more current use funds. This
experience has prompted an explicit campaign goal for Dean's Leadership funds to provide the opportunity for expeditious, innovative funding for immediate impact.

The planning and preparation we have done during this period will ensure the Harvard Capital Campaign—while not a panacea—will directly address both academic priorities and financial pressures in the FAS. The FAS's campaign goals are aligned with our priorities and our needs. The changes we have made will also provide assurance that current use and endowment gifts raised in the Campaign will be used effectively, responsibly, and in service of our mission.

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

Respectfully submitted,
Leslie A. Kirwan
Dean for Administration and Finance