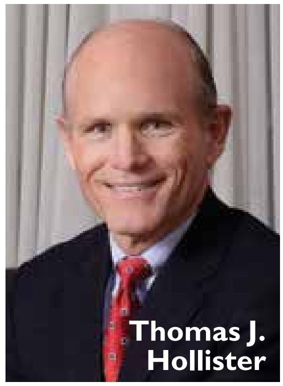
The Best of Times…

Harvard's annual financial report, for the fiscal year ended June 30, 2016 (released in late October), was full of good tidings: operating revenue up 5.6 percent (more than a quarter-billion dollars), to nearly $4.8 billion; operating expenses up 5.3 percent ($237 million)—meaning more funds applied to research and teaching; resulting in a margin of $77 million, a surplus for the year. Unsurprisingly, the underlying indicators were favorable, as well:

- Revenue. Each of the principal sources rose: operating distributions from the endowment (36 percent of revenue), up 7.0 percent ($112 million); tuition and fees (21 percent), up 7.4 percent ($68 million)—led, as in recent years, by contining education and executive programs; and sponsored-research support (17 percent), up 4.9 percent ($40 million)—helped by a larger infusion of federal funds, the chief source of such support, though lagging in the years after the end of U.S. economic-stimulus spending from 2009 through 2011. And Harvard Campaign-augmented giving for current use (9 percent) remained a robust $421 million—essentially even with the past few favorable years.
- Expenses. Salaries and wages (38 percent of expenses), rose 5.6 percent ($96 million), reflecting merit increases and a larger workforce. The associated employee benefits (11 percent) rose 6.1 percent ($30 million)—but that figure was increased by interest-rate-driven changes in pension and retiree medical costs. Healthcare costs for active employees, a source of constant University concern in recent years, increased just 3 percent even with rising employment. (That apparently reflects the effects on care choices and spousal enrollment since the imposition of deductibles and coinsurance on nonunionized employees at the beginning of calendar year 2015; see **harvardmag.com/benefits-17**). Interest expense fell about $16.4 million (to $235 million), reflecting redemption of $316 million of debt early in the fiscal year—and more such savings are in the offing (see below).

Yet financial officers must not only document past achievements but fret about the future. Of the year that was, Thomas J. Hollister, vice president for finance and CFO, said, "The only bad thing is that it's over." In her customary cover letter, President Drew Faust warned, "American higher education is entering an era of constrained financial circumstances" driven by "challenging endowment returns" (for institutions like Harvard that *have* significant endowments) and "intense pressures on both federal research funding and tuition revenue. Long-anticipated shifts across the sector have arrived…." Turning from higher education as a whole to Harvard, Hollister and treasurer Paul J. Finnegan wrote that "each of the schools and operating units is adjusting their spending plans to the new environment. If, as some expect, higher education revenue growth rates are in the 2-3 percent range in the next few years, down from 4-5 percent in the recent past, it will significantly constrain the University's ability to balance budgets." They stressed the need to "carefully analyze our expense ledger," and emphasized further increasing revenue from continuing and executive education, and expanding research funds from "foundations, individual donors, and corporations."



PAIGE BROWN/COURTESY TUFTS MEDICAL CENTER

Thomas J. Hollister

Some of these major anxieties merit further review.

Foremost is the *endowment*—which declined $1.9 billion in value during fiscal 2016 ("The Endowment Ebbs," November-December 2016, page 18). As the annual report documents, operating distributions totaled $1.7 billion; other distributions ("decapitalizations") were $128 million; and total investment return was a negative $626 million—reducing the endowment's value by nearly $2.5 billion. Gifts, reflecting the fruits of the capital campaign, were a robust $492 million, up sharply from fiscal 2015. And so, the endowment was valued at $35.7 billion last June 30, down from $37.6 billion the year before.

The Corporation's formula for endowment distributions (described in detail at **harvardmag.com/distribution-16**) means that this most important source of the faculties' funds will now be constricted. In fiscal 2016, the distribution from existing accounts went up 6 percent (and combined with returns on gift proceeds, rose another percentage point). For the current year, that distribution is budgeted to rise 4 percent—before being held to *no* growth in fiscal 2018. In its own annual report, the Faculty of Arts and Sciences (FAS), which derives 51 percent of its operating funds from endowment distributions, forecast that the flat 2018 distribution will by itself "again result in a deficit" starting that year: sobering, given a capital campaign that by then should have brought FAS $3 billion or more in current-use, construction, and endowment resources.

The long-term concern is perhaps even greater. The Corporation's model is sensitive to inputs. It assumes that Harvard Management Company (HMC)—whose new leader arrived in early December—achieves its targeted rate of investment return on endowment assets of roughly 8 percent. Looking beyond the last year's modestly negative rate of return, its five- and 10-year annualized rates of return are now 5.9 percent and 5.7 percent, respectively. If investment returns are indeed headed for a "challenging" period, closing that gap becomes even harder.

The administration has been encouraged by the growth in *executive-education and extension tuition*. The margins on mature programs are sufficient to throw off unrestricted funds to support schools' core teaching and research. Hollister cited examples such as Harvard Business School's (HBS) world-renowned offerings and FAS's booming operation. (During the year, the 13-person expansion of the continuing-education staff represented the largest increment in FAS's cohort of 2,617 full-time-equivalent employees. During the past three years, continuing-education expenses have grown, as planned, more than 40 percent; that investment, about $25 million, has been essentially matched by equivalent increases in revenue.) The education, law, and medical schools also have especially rapidly growing revenue.

IN THIS ISSUE

Asked whether any of that income (particularly HBS's management programs) might be economically sensitive, Hollister affirmed that it could be—and amplified the point: outlays for financial aid, endowment returns, and government budgets for research are all correlated with the larger economy. Undergraduate financial aid, which soared during and after the Great Recession, has been essentially level for the past several years ("It's the economy," he said). The U.S. expansion has lasted longer than average, at this point, Hollister noted, and although the rate of growth has been subdued, continued favorable economic circumstances cannot be assumed indefinitely.

The rapid growth in *research funding* from nonfederal sources (up more than 9 percent) helps buffer the uncertain prospects for the much larger pool of federal funding. But nonfederal money is often more narrowly focused than federal support for basic research, and is accompanied by much less adequate coverage for indirect costs and overhead (laboratory buildings, libraries, and so on). Asked about continuing deficits posted by FAS, the Paulson School of Engineering and Applied Sciences (SEAS), and the medical school, Hollister noted that "wet-lab basic research" is, essentially, a money-losing proposition. (FAS also is shouldering the costs of House renewal and its large financial-aid budget.) Capital-campaign proceeeds will help, he noted; SEAS is the beneficiary of a $400-million unrestricted endowment pledge, which will, when fulfilled, presumably yield about $20 million in annual operating revenue. But as it prepares to move into its $1-billion Allston facility at the turn of the decade, it remains a small faculty with large—and it hopes growing—scientific research and teaching costs. Shouldering basic research costs remains a long-term concern, University-wide.

Finally, the *capital campaign* is now in its later stages. From fiscal 2012, before the public launch of the fund drive, through fiscal 2016, Hollister and Finnegan noted, current-use giving increased by nearly 50 percent—but now appears to have leveled off. In its second phase, payment of prior pledges for gifts of capital begins to ramp up (as the 45 percent jump in gifts to the endowment in fiscal 2016 suggests).

On the other hand, gifts for facilities and loan funds diminished during the year. Harvard is spending a *lot* on "capital projects and acquisitions," some $597 million in fiscal 2016 (including $97 million to purchase 19 acres in Allston from CSX). In its financial report, FAS alone disclosed investments of $174 million in fiscal 2016 and future-year spending for buildings and equipment (including some $62 million for House renewal; $16 million for the Cabot Library renovation; $24 million for projects to accommodate newly appointed professors' research; and $15 million for "annual renewal" programs). Harvard's financial leaders have been emphasizing the costliness of maintaining and updating a huge physical plant, and the past year makes that point vividly. Spending on House renewal and the science complex in Allston are both likely to rise this year.

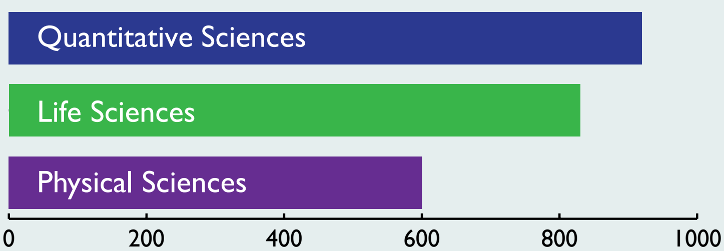
Pledge balances naturally declined (by more than $100 million). The pipeline, so generously filled by the University's sup-

Here Come the Quants!

It's not news that student interest in computer science and other applied disciplines is burgeoning nationwide, for diverse reasons: intellectual interest in using new tools to solve pressing problems; a Facebook effect (the transformative power of computing meets who wants to be a billionaire?); strong employment prospects (have you seen starting salaries in Silicon Valley?).

There is interesting evidence on just how attractive this lure has become for Harvard undergraduates. Looking within the traditional academic divisions (arts and humanities; social science; science; and engineering and applied sciences) to actual concentrations reveals a swift, tectonic shift in fields of study. Based on recent data, the clearly quantitative courses of study (computer science, applied mathematics, mathematics, and statistics) now have more than 920 disciples: about triple the census just before the financial crises and recession in 2007-2008. The surprise is that this outnumbers the 830 or so concentrators in the eight biology- and life-sciences-focused fields, which have long been of major interest to would-be researchers and physicians alike. The physical sciences in the aggregate have nearly 600 acolytes. Given the growth in quantitative concentrators, and steady cohorts in life and physical sciences, undergraduates as a whole have swung decidedly toward scientific fields, broadly defined, in the recent past.

Math-related concentrators appear to have outstripped those in life-sciences right at the midpoint of this decade, propelled by the expected, continuous expansion of computer-science enrollments, beginning with the astounding success of the gateway CS 50 course and significant renewal of and growth in those faculty ranks; strong interest in applied math; and a little-noticed explosion of excitement about studying statistics. The latter likely reflects not only intellectual advances and the enthusiasm for big data, but also a refreshed faculty and improvements in pedagogy and outreach to potential concentrators. (*The Harvard Crimson* highlighted statistics in a September article, noting a nearly tenfold growth in concentrators and joint concentrators in just the past seven academic years.)



For what it is worth, the faculty ranks are evolving, too. Faculty of Arts and Sciences data show that in the fall of 2006, when there were 701 ladder faculty members, 30 percent were in arts and humanities disciplines, 35 percent in social science, and 35 percent in sciences and engineering and applied sciences combined. This past fall, when the census numbered 732 professors, the relative proportions were 27 percent, 33 percent, and 40 percent.

~J.S.R

porters during the past four years, is now perhaps on the point of emptying somewhat.

Turning to *expenses*, Harvard is likely to record higher employee-benefits costs when it reports fiscal 2017 results. Interest-rate-driven and other changes in accrued retirement obligations ($287 million in fiscal 2016) dictate higher charges this year. The University does not provide estimates of active employees' healthcare costs, but Hollister characterized the 3 percent growth in fiscal 2016 as a very good financial result, and has continued to focus on such costs as the primary benefits challenge for all employers. For the 2016 and 2017 calendar years, employee premiums have risen at about a 7 percent annual rate, and under its progressive premium program, Harvard will also assume a larger share of those costs for its lowest-paid workers (see page 22), starting in January. So it is at least plausible that University spending on health benefits will inflate more rapidly.

The University scored a significant success in reducing one expense under its control after fiscal 2016 closed. In early autumn, it refinanced $2.5 billion of long-term debt (assumed at high rates in the years 2008 through 2010) and also extended maturity of $400 million in existing short-term debt. The net effect of those transactions is to achieve annualized interest savings of about $35 million, Hollister estimated—funds that can be invested in Harvard priorities. The timing was fortuitous: the transactions closed about a month before the spike in interest rates that followed the November presidential election, enabling Harvard to lock in what are believed to be the lowest 30- and 40-year yields in U.S. corporate bond history (from 3.159 percent to 3.334 percent).

Hollister emphasized that Harvard does not have an "asset problem": it is blessed with those endowment billions, and with buildings that are in good condition or on a trajectory (protracted in some cases) to be brought into shape. Nor does the institution have a "leadership problem" or a "liability problem": from the Corporation through the president and on down, he said, financial planning and budgeting disciplines are sound and effective—and the University has not left its pension and retiree obligations to the future. What Harvard faces is "a revenue pinch for the next few years." Matching that reality to campaign-fueled perceptions of abundance, within the com-

HARVARD PORTRAIT

Heather Henriksen

"This might be a little in the weeds, but trust me, it's cool." Heather Henriksen is warming up an impassioned (but definitely cool) oration about a University-wide push to get harmful chemicals—"flame retardants, antimicrobials, stain repellents, water repellents"—out of campus buildings. "I'm a bit obsessed with this." It's her job to be: Henriksen directs the Office for Sustainability, a post she took in 2008, a few months after the office formed as a successor to the Harvard Green Campus Initiative. Among her tasks: shepherding into existence Harvard's five-year Sustainability Plan, a wide-ranging "road map" for enhancing well-being and reducing the University's overall environmental footprint by 2020. The campus, she says, is "an excellent test bed" for solutions: "If we can pilot and prove it here, we can scale it" to the world beyond. "That's the real goal." A child of northern California, Henriksen grew up hiking, biking, and volunteering for beach cleanups. "I was the kid who was reading the *Berkeley Wellness* letter." She interned one summer with Save the Bay, removing mercury pollution from the San Francisco Bay—and would discover 10 years later that her own mercury levels had skyrocketed from eating fish. "That's when I said, 'OK, this environmental work isn't casual anymore.'" Before coming to Harvard as a Kennedy School student (she's M.P.A. '08), she worked for five years in business development for Time Warner in New York; she spent her off-hours two blocks away at the National Resources Defense Council, listening, learning, working. These days Henriksen spends her nights with her two-year-old daughter, Liv, whose name means "life" in Danish. "She reminds me why we're doing all this." ~LYDIALYLE GIBSON

Photograph by Stu Rosner

Yesterday's News

From the pages of the *Harvard Alumni Bulletin* and *Harvard Magazine*

1922 Jerome Napoleon Charles Bonaparte, A.B. 1899, declines an invitation to ascend the Albanian throne. "Sometimes Harvard indifference is really carried too far," comment *Bulletin* editors.

1927 At a Harvard Club of Boston colloquium titled "What is the Sub-Freshman Thinking About?" the principal of Phillips Exeter Academy reports that many high-school seniors and college freshmen alike answer, "with surprising frankness, 'Why, Mr. Perry, most of us are not thinking at all.'"

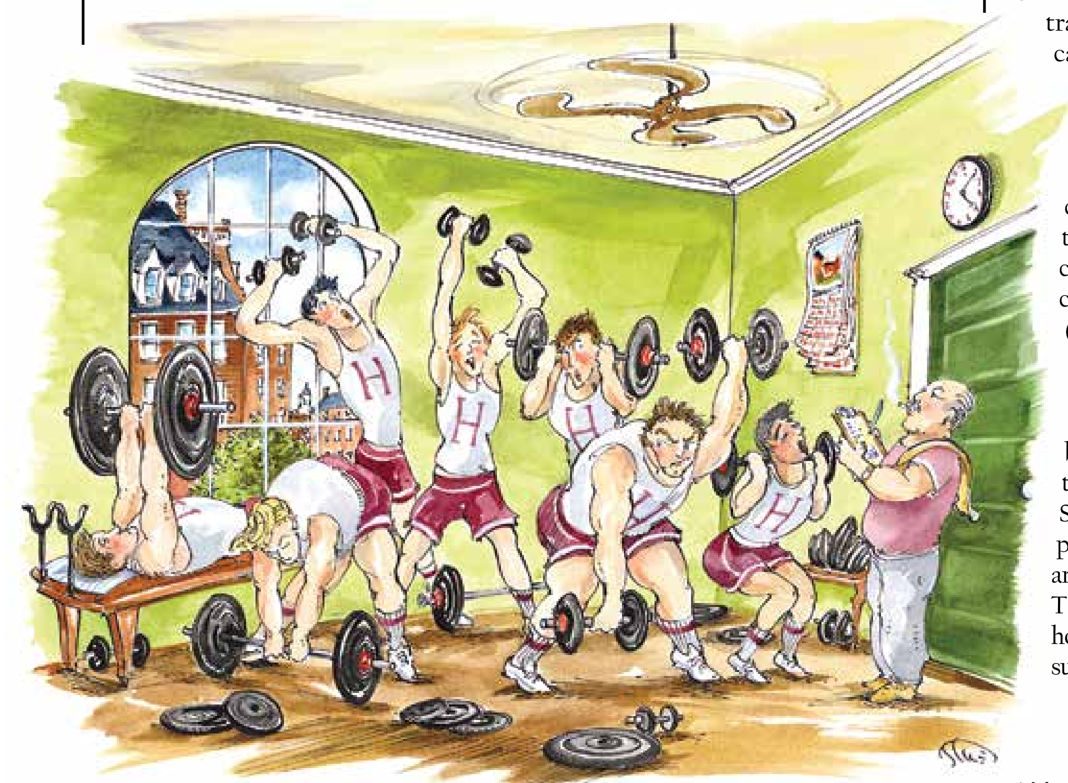
1942 The Faculty of Arts and Sciences approves a compulsory four-hours-a-week program of physical exercise for all undergraduates for the duration, with an emphasis on "physical conditioning and hardening," not recreation.

1947 A *Bulletin* "agent" reports that graffiti have been scrawled on Claverly Hall: "Heloise loves Abelard" appears on one corner, "Henry Tudor is insatiable" on another.

On January 7, 300 men gather in a new glass-and-brick building north of Pierce Hall for the official opening of the University's Computation Laboratory.

1987 "Harvard's endowment is so large," report *Bulletin* editors, "that market swings can have dramatic consequences. In January alone,…the endowment rose 13.75 percent, or $495 million, to reach an all-time high of $4.1 billion." But University financial managers issue warnings amid the good news: "Expenses for personnel and physical-plant maintenance are rising at a time when federal support for research and for student aid is dropping."

1997 The magazine's editors report on the advent of Crimson Cash, which was rolled out in College dining halls the previous fall. It has just been extended to the College Library (replacing the 10 separate copier cards required for its 10 component libraries, recalls then-program administrator Jeff Cuppett), and is about to be extended to laundry and vending machines in all undergraduate dorms and Houses.



munity and externally, means shifting from 5 percent revenue growth to 3 percent. "And that's no fun," he acknowledged.

As autumn progressed and administrative deans and financial officers digested the implications of the flattening endowment distribution, Hollister said, concerted work to restrain fiscal 2017 budgets was their "dominating focus" across the institution.

~JOHN S. ROSENBERG

Workers and Wages

At a time of national concern about stagnating incomes, rising inequality, and middle-class malaise, the University confronted contentious issues with its lowest-paid workers throughout the autumn, yielding the first strike in more than three decades; a last-minute agreement with another union; and an unprecedented organizing election among graduate students and other teaching and research assistants.

For several years, Harvard has sought to control rising costs for employee health benefits. It subjected nonunionized faculty and staff members to deductibles and coinsurance beginning in 2015, and made similar changes a focus of bargaining with its unions thereafter. The settlement between the University and its largest union, the Harvard Union of Clerical and Technical Workers (HUCTW), last January, seemed to set something of a pattern: somewhat slimmer salary increases than in prior contracts; higher copayments for medical care—but no deductibles or coinsurance; and, under Harvard's progressive insurance structure, a new tier for workers whose incomes are less than $55,000, who will now pay 13 percent of premiums (in the previous low tier, under $70,000, workers paid 15 percent). HUCTW also gave Harvard some concessions on retiree health coverage. (Details are available at **harvardmag.com/huctwcontract-16.**)

But both Harvard University Dining Services (HUDS) workers, represented by UNITED HERE Local 26, and custodians, represented by 32BJ SEIU (the Service Employees International Union), present a different employee profile. They are, in general, paid less than most HUCTW members, and even though their hourly wages and employee benefits are superior to those of many workers in com-

Illustration by Mark Steele