

Professorial Permutations

HARVARD'S EVOLVING FACULTIES

by Jonathan Shaw

DURING THE PAST QUARTER-CENTURY, Harvard's faculty has become more diverse and has refocused its intellectual energies. The University's professoriate includes more women and minorities, and is larger, more international, and stronger in science, technology, engineering, and math. Effecting these deliberate changes has been a slow process at times. When Conant professor of education Judith Singer joined the faculty in 1985, for example, there were so few tenured women that she could easily have held a cocktail party for *all* of them in her present Holyoke Center office, where she is senior vice provost for faculty development and diversity. That would be impossible today: there are now 200 senior women faculty members University-wide.

This 300-plus-percent increase might be counted a very great triumph if the starting point hadn't been so low. Singer points out how recently it was that Patricia Graham, the thirteenth woman to receive tenure, became the first female dean: Derek Bok named her to run the Graduate School of Education (GSE) in 1981.

"Ironically," Singer points out, women are now better represented in *leadership* positions than they are in the *faculty* ranks, because it is easier to make changes in leadership: Elizabeth Cohen became interim dean of the Radcliffe Institute on July 1, succeeding Barbara Grosz; Martha Minow became dean of Harvard Law School (HLS) in 2009 when Elena Kagan, that school's first female dean, was named solicitor general of the United States; Kathleen McCartney is dean of the GSE; the dean of Harvard College is Evelyn Hammonds; and the dean of the School of Engineering and Applied Sciences (SEAS) is Cherry A. Murray (see page 76). But when Drew Faust became Radcliffe Institute dean in 2000, she was—remarkably—only the second woman dean at Harvard; and Faust, now president, has pointed out that, had she been an undergraduate here, she would not have been allowed to enter Lamont, then Harvard's student library, until her junior year. As this story of women illustrates (with apologies to Radcliffe and Laurel Thatcher Ulrich for this "womanless" account of Harvard's history; see "Harvard's Womanless History," November-December 1999, page 51), changes in the ranks of faculty occur gradually—at best.

Pipeline Problems

ALTHOUGH Harvard's tenured faculty is almost one-quarter female now, that nevertheless lags the percentage of women

who are earning Ph.D.s: in some fields, such as molecular biology, neuroscience, and ecology, more than 50 percent of the doctorates are awarded to women. Moreover, "The representation of minorities on the Harvard faculties," Faust said earlier this year, "is not what we wish. We have made progress, but we are not satisfied and it is something that we are continuing to work on."

Because the case of women has been so heavily scrutinized, it provides an opportunity for understanding why *any* change in the senior faculty is slow. Low turnover is an obvious factor. "Because relatively few senior faculty leave Harvard for another position, and the rates of retirement since the end of mandatory retirement in 1994 are also low," says Singer, "we estimate that more than 95 percent of the senior faculty in any given academic year were also on the senior faculty in the prior academic year."

Harvard has worked to counter the effect of this low turnover by instituting retirement incentives for faculty members who wish to remain active. These programs gradually reduce teaching load and salary, while allowing professors to continue their research and remain eligible for grants. Typically, the University also makes contributions to retirement funds as though the professors were still working full time. Last year, more than a quarter of eligible faculty signed up for the program.

A second obstacle to increasing faculty diversity—in any dimension—has been termed the "pipeline" problem: the fact that a particular group (e.g., women or minorities) may be poorly represented in the pool of eligible candidates for a position in a given field: women in physics, computer science, and engineering, for example, or blacks in astronomy. One answer is to increase the size of the eligible pool by nurturing young scholars, beginning in college. But progress has been slow. Harvard did not reach gender parity among undergraduates, for example, until 2007; the Ph.D. population downstream necessarily trails.

By 2000, it became apparent that a narrow pipeline itself was not the only problem. In the sciences, in particular, women continued to be underrepresented because they left those concentrations at higher rates than men. "This 'leaky pipeline,'" reported the National Symposium on the Advancement of Women in Science in 2000, "continues to leak throughout graduate school and postdoctoral work."

Identifying the problem as a leaky pipeline led to speculation about the intrinsic causes (most notoriously, by President Lawrence H. Summers in 2005), but the evidence, even years earlier,



ROSE LINCOLN/HARVARD NEWS OFFICE

had suggested that external factors were more important. “Science is a very demanding profession, for anyone, male or female,” physicist Margaret Geller told this magazine for a 1994 article on her work mapping the cosmos. “You are always standing on a precipice, having to prove yourself no matter who you are. And women face an extra problem here, because if as kids they were interested in science, they were interested in something they were not supposed to like.” In graduate school (at an Ivy League university), the article noted, “both faculty members and other students said things about the role of women in science that were deeply shocking [to

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her]. Although she did well academically, she emerged from graduate training with her self-confidence badly shaken.” Geller added at the time that “women are not well represented at the best universities at the senior levels, and there are plenty of good candidates out there.”

In 2002, GSE research associate Cathy Trower and professor of higher education Richard Chait made the case—with data to back it up—that the “pipeline” problem, an inadequate supply of candidates, remained true in the case of minorities but not for women. An “unaccommodating culture,” they said, was the main culprit in discouraging female academics.

A young female scholar wrote anonymously in this magazine in 2006 that “One of the biggest barriers facing young women in science today, long before they ever marry or have children, is a lack of support and encouragement for those very life events.” She described her own first experience with the “oft-discussed ‘discrimination’ against women in science”: in England, a male professor supervising her doctoral studies warned her and another female colleague to focus on their careers, not on their relationships, when he heard that the second woman’s significant other was coming to visit; she had not seen him in more than a year. The writer believed the professor’s concern was well-meant, with “its roots in the fear of losing potentially excellent scientists to the ‘leaky pipeline’ phenomenon once they begin family life.” But his advice, she pointed out, was counterproductive:

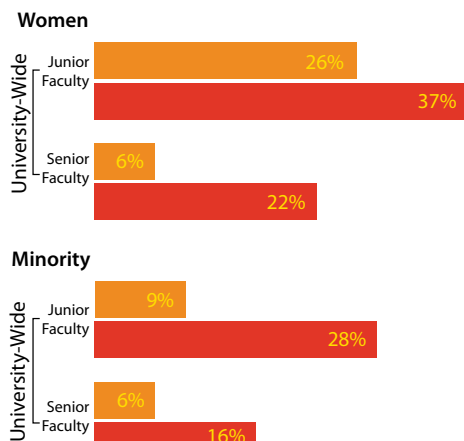
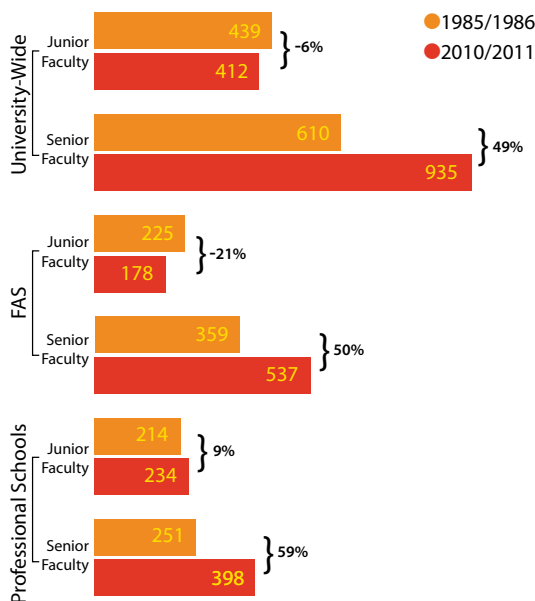
One of the most significant barriers to women in science is the perception that they will become less valuable if they choose to start a family...Thus, even as concrete advances are made in work flexibility, tenure-clock adjustments, maternity/paternity leave, and other policies designed to achieve a healthy work-life balance for both sexes, the attitudes of those at the top have to change alongside, and possibly before, tangible policy modifications are put into place.

In the wake of Summers’s controversial remarks about women in science (see “Gender Gap,” March-April 2005, page 62), two 2005 task forces appointed by the president (their work organized by then-Dean Faust) made several important recommendations about women pursuing academic careers at Harvard, including one that led to the creation of the office that Singer now heads. Soon Harvard began programs to address the specific problems that the task forces had identified: by increasing recruitment efforts, implementing improved mentoring and advising, and instituting retention strategies designed with women in mind. Official parental leave for faculty members began in 2006-2007 (previously, women—and men—had to approach their department heads to ask permission for leave on a case-by-case basis); and the tenure clock began to be extended automatically during such leave. “Harvard’s childcare program is now the best in higher education,” says Singer, with grants of up to \$20,000 made to 50 to 60 faculty members per year. A dependent-care

Faculty Demographic Trends

(excluding the medical and dental schools)

While the senior faculty has grown 50 percent since 1985-86, the number of junior faculty has remained nearly steady, reflecting the shift to a tenure-track system. The number of senior women faculty has quadrupled, a rate of growth that exceeds the underlying growth rate. The number of minorities among senior faculty has increased two-and-a-half-fold, and more than tripled in the ranks of junior faculty.



SOURCES: 1985-6 FACT BOOK, 1990 IR DATA TRENDS, PEOPLESOFT; SOME TOTALS MAY REFLECT DUAL APPOINTMENTS

fund even pays for children to travel to conferences with their parents, and a baby-sitting service is being rolled out this fall. Job-seeking assistance is available for dual-career academic couples. “We’ve changed as an institution,” she notes, “but we still have to be vigilant.”

Getting Junior Professors on Track

SUCH CHANGES have made the prospect of working at Harvard more attractive to *any* scholar seeking a job. But no change has been as important to Harvard’s ability to recruit the best scholars—men, women, minorities, scientists, engineers, applied mathematicians, or scholars from abroad—as its improved treatment of junior faculty members, especially the creation of a tenure track.

In 1986, this magazine repeatedly reported news of celebrated junior professors being denied tenure. Harvard’s dominant practice was to recruit senior faculty—proven scholars—from other institutions. But that strategy of predominantly external recruitment progressively hampered the University’s ability to fill its internal pipeline with good candidates for the senior faculty—particularly in an era of dual-career couples and prohibitive housing prices. That made it especially difficult to nurture under-represented groups for possible future promotion—particularly blacks, Latinos, and Native Americans whom other elite Ph.D.-granting institutions were also actively recruiting. Why would an outstanding young scholar accept a junior faculty position at Harvard when the prospects of advancing to tenure were far less than 50 percent?

Recognizing the problem in 1986, President Bok said, “We should greatly increase our efforts to develop people from within.” In 2000, after a period of financial austerity, then dean of the Faculty of Arts and Sciences (FAS) Jeremy Knowles announced

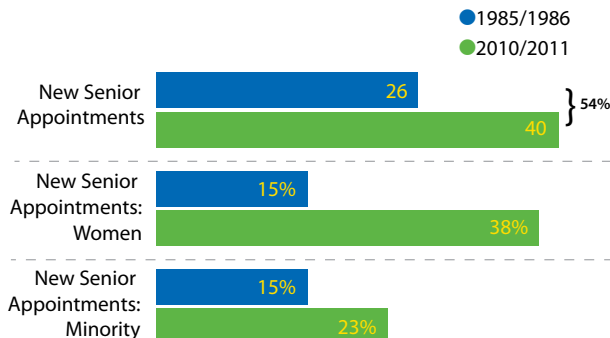
Political Diversity?

THE UNIVERSITY’S FACULTY are increasingly diverse demographically—but are they diverse politically as well? “I’d rather entrust the government of the United States to the first 400 people listed in the Boston telephone directory than to the faculty of Harvard University,” the late William F. Buckley is said to have quipped in 1963. The Yale-educated conservative writer said he was concerned with “conformity among intellectual cliques,” particularly in education and the arts.

Buckley would no doubt be disheartened to know that the Harvard faculty is probably slightly *more* liberal than in the past. A rigorous study of the political attitudes of U.S. professors (Harvard faculty members were among the study subjects, but in numbers too small to draw reasonable inferences specific to the University) by Neil Gross, then an assistant professor of sociology, and Solon Simmons of George Mason University, found that although the academy is still dominated by liberals, as it was 25 years ago, traditional attitudes among conservative faculty members have subsequently given way to more centrist views among the younger generation. Gross’s work went on to posit a reason: conservative labeling of universities as liberal has led to typecasting—more liberals than conservatives, in other words, grow up *wanting* to be professors, just as more women than men grow up wanting to be nurses. “The irony is that the more conservatives complain about academia’s liberalism,” Gross told the *New York Times* in 2010, “the more likely it’s going to remain a bastion of liberalism.”

Newly Tenured Faculty University-Wide

Across the University, the percentage of new senior faculty who are female more than doubled from 1985-86 to 2010-11, while the percentage of minorities increased by half.



SOURCES: OGB APPOINTMENTS DATA BASE; PEOPLESOFT

significant increases in junior-faculty compensation. But it was not until mid decade that a true tenure track was instituted. “The biggest reputational challenge we have right now is getting the word out that we *do* have a tenure track. It’s robust; it’s effective,” says Singer. “In FAS, we went from a 40/60 internal versus external hiring ratio 25 years ago to a 60/40 ratio today. That is a big shift.” Every junior faculty member hired now is considered for tenure within seven or eight years.

The change also means that Harvard now takes greater care in selecting its junior faculty members. Empty positions used to be filled in a year. “Now,” says Singer, “we’ll wait another year if we have to for the right candidate,” to ensure they are worthy of future promotion if their work progresses as planned.

The shift to a tenure track is also evident in the comparative size of the junior faculty cohorts of 1985-86 and 2010-2011. Given *senior* faculty growth of 50 percent University-wide during this period,* the number of *junior* faculty remained relatively steady during the past 25 years. The effect of the tenure track is most evident within FAS, where the number of junior faculty today is 21 percent *lower* than it was 25 years ago.

A Generation of Growth

THE MOST DRAMATIC CHANGE in FAS has been the growth in the professorial ranks beginning around 2000. During the preceding 40 years, the number of tenured and tenure-track (“ladder”) faculty members had remained relatively steady, at around 600. But that January, in his annual letter to the faculty, Dean Knowles an-

*Excluding Harvard Medical School and the School of Dental Medicine, for which historical data don’t separate Quad faculty from affiliated-hospital faculty. This applies to all the data in this article.

nounced that financial discipline, low inflation, and “superb” endowment performance meant that it was time to consider how to “invest our new resources to transform the educational experience of our undergraduates and graduate students and to improve the scholarly lives of the faculty.” He proposed adding six new faculty members per year for a decade, for growth of 10 percent in the ladder faculty.

The ensuing growth, which continued after Knowles stepped down in 2002, exceeded his expectations, ranging from 16 percent in the physical sciences, to 17 percent in the social sciences, 19 percent in the arts and humanities, and 20 percent in the life sciences. Extraordinary as it was, this growth was dwarfed by the deliberate 40 percent growth in engineering and applied sciences—the only group within FAS that expanded in relative size during the decade prior to the financial crisis of 2008 (at which point all new hiring slowed almost to a halt).

The origins of this renewed emphasis on applied sciences—work potentially of direct benefit to society—go back to the early 1990s, when then-president-elect Neil Rudenstine named Knowles, a chemist, as the first scientist to lead FAS. The stated reason was to balance Rudenstine’s expertise in Renaissance literature. Knowles, in turn, further extended scientific leadership of the University when he named McKay professor of computer science Harry Lewis dean of the College.

Growth in the professional schools exceeded that of FAS. In particular, expansion of the so-called STEM fields of science, technology, engineering, and mathematics was reflected in the professional schools’ focusing on health sciences. Interdisciplinary, collaborative, and frequently holistic endeavors such as systems biology, which uses math to elucidate biology; neuroscience, which melds engineering with life sciences; and the study of stem cells, both for basic research and poten-

“We’re ‘passport-blind’ in our recruiting for appointments...so if you are a top scholar and interested in teaching, we’re interested in you.”

tial therapeutic benefit, drove expansion at the medical school, while greater National Institutes of Health funding from the late 1990s and a renewed focus on global health fueled increases in the number of faculty at the School of Public Health.

Harvard is working to address the needs of all these scientists, too, with mini-courses in subjects they don’t teach in graduate school, such as how to explain complex scientific ideas to the media, or how to run a lab. “Being a scientist is like running a small business,” says Judith Singer. “You have grant money, a lab to run, and you have staff relations.” The office for faculty development and diversity provides mentoring in such skills—“How to turn your dissertation into a book,” was a popular recent offering—and more. Michael Sandel, a young faculty member himself in 1986, recently shared his experience in turning his popular

course, “Justice,” into an online offering for alumni. The point of all this, says Singer, is to make academic life at Harvard as attractive as possible.

A More Global Faculty

DURING THE past quarter-century, even as the percentage of women quadrupled in FAS and quintupled in the professional schools, the internationalization of the faculty proceeded faster still. In 1993, just 1 percent of tenured and tenure-track faculty were nonresident aliens (neither U.S. citizen nor permanent resident). By 2010, 7 percent of these ladder faculty members were international.

In his annual report of 1987, Derek Bok stressed Harvard’s role as an international institution, and subsequent presidents have enlarged both the institution’s global presence and the repre-

sentation in Cambridge of scholars from abroad. As in the case of female deans, change is—ironically—easier at the top. Julio Frenk, the dean of the School of Public Health, is from Mexico; Nitin Nohria, the dean of the Business School, hails from India; and Mohsen Mostafavi, dean of the Graduate School of Design, is from Iran. The successful internationalization of the faculty in part reflects the breadth of Harvard’s language instruction: Singer notes, “We teach more languages than any other institution.”

Institutional leadership has also played an important role. The growth of the Ken-

neddy School, which in 1986 had been in its current location less than a decade and has the most international student body among Harvard’s schools, was of special interest to Bok. Globalization has grown apace since, as other schools—business (with research offices and programs abroad), design, arts and sciences, and public health (with a renewed focus on global health)—have become increasingly international as well. The trend is likely to continue,

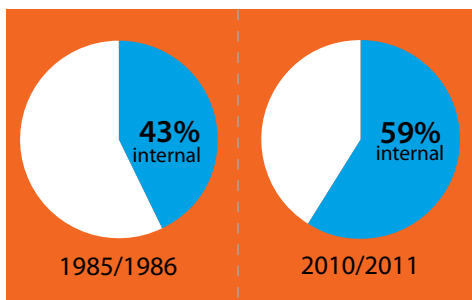
according to Singer. “We’re ‘passport-blind’ in our recruiting for appointments,” she says. “We reach out internationally in all our searches, so if you are a top scholar and interested in teaching, we’re interested in you.”

GETTING THIS MESSAGE OUT to underrepresented minority candidates for faculty positions—and making the University a more attractive place for them to work—may be next on Harvard’s agenda. (A resumption of faculty growth and more diversity are likely goals for the prospective capital campaign, the first in the twenty-first century.)

Attracting such minority scholars has proven difficult, not only because of “pipeline” problems born of such factors as first-generation immigrant parents who would rather see their children earn an M.D. than a Ph.D., but also because of Boston’s reputation as a place with a history of fraught race relations. Nevertheless, the Business School and the Kennedy School outpace their peers in minority tenure-track faculty. Why not the rest of Harvard? ▽

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Internal versus External Promotion to Tenure within FAS



SOURCES: OGB APPOINTMENTS DATA BASE; PEOPLESOFT