indicated the annual revenue at stake for FAS could reach into eight figures—significant relative to the remaining deficit projected for this year.

Smith understandably focused on the current year and the reshaping of FAS necessary to rein in the still-large operating deficit projected for next year. Accordingly, he offered no hints about succeeding fiscal years.

Among peer institutions, Stanford and Yale have recently indicated that they will make major reductions in endowment distributions this year and next, and then both institutions project only flat distributions thereafter, extending into fiscal years 2012 or 2013 at least. Those two universities, with investment strategies and performance similar to Harvard’s, are, respectively, less and more reliant on endowment funding than Harvard as a whole, but both are much less reliant on endowment funding than FAS is (approaching 60 percent of revenue in fiscal year 2009). In a September 29 update, Princeton president Shirley M. Tilghman—who plans cuts in that institution’s endowment distribution similar in proportion to Harvard’s—raised the possibility of continuing to trim the budget in fiscal year 2012.

Harvard has not detailed its financial expectations beyond next year. President Drew Faust has said that the University aims to reduce the rate of distributions from the now-reduced endowment to a normal level within five years. Depending on external conditions and success in reducing costs internally, she has said, that could imply further reductions in the funds distributed in fiscal year 2012 and beyond.

Thus, alongside the uncertain prospects for revenue derived from the endowment, the dean and his financial staff and working groups must consider likely growth in future expenses: for financial aid and compensation, to cite just two large items. For the moment, the most threatening financial problems facing FAS have been whittled down. But as far as setting FAS on a sustainable path later in the decade, much still depends on continued momentum in fundraising, the future performance of the endowment, faculty success in winning research grants in a very competitive environment, and effective implementation of the cost reductions announced so far—and those yet to be identified.

Critical Mass, and World-Class

Cherry A. Murray, the physicist who became its dean on July 1, already knows her aspirations for Harvard’s young School of Engineering and Applied Sciences (SEAS): to reach “critical mass” in research areas that will make an impact on twenty-first-century problems, and to be recognized among peers as a world-class institution.

Though small, SEAS is already ranked first when it comes to citations per paper, and Murray judges the research areas in which it is now engaged (see graphic) “an excellent, coherent set of synergistic disciplines.” Now the new dean—currently president of the American Physical Society and formerly a senior vice president for physical sciences and wireless research at Bell Laboratories and then an executive at Lawrence Livermore National Laboratory—has embarked on a strategic review that by next summer will produce a 10-year hiring plan, a development plan, and a space plan to expand SEAS’s capacity and influence.

The three plans are closely connected. The school needs to hire 50 more faculty members during the next decade—roughly five per year, says Murray—in order to achieve her first goal. Task forces in each research area will define their own “critical-mass” benchmark, but to Murray it means “breaking into the top 10” among engineering schools (one recent survey ranked Harvard at 19, up from 24 a year ago), having enough people to support “an excellent undergraduate concentration,” and running a “robust research program that attracts people.” The school’s development and space plans will need to be consistent with that hiring schedule. In the short term, she says, “enhancements of space will tide us over,” but eventually the school will need to raise money for a building. Murray hopes it will be located in Cambridge to allow engineering to remain close to related Faculty of Arts and Sciences (FAS) departments, facilitating collaboration and the development of new undergraduate and graduate programs.

The planning process charges eight task forces with answering a range of questions: Should Harvard have an undergraduate or graduate concentration in this area in 10 years? What sort of knowledge should all students have acquired by the time they graduate? Given Harvard’s resources, what is SEAS’s niche? What gaps need to be filled? What synergies exist with other areas?

Synergies are critical to the school’s success even now. “If you add up all the faculty who self-identify with each research area, the total number, 130, is much larger than the actual full-time-equivalent number of our faculty, which is about 70,” Murray points out. “For example, applied chemistry, bioengineering, and computer science are completely synergistic.”

To ensure the continuity of this approach, she plans “adjacency hiring” that will balance the disciplines (which
E very year as hundreds of freshmen come to Harvard intent on the pre-med track, hundreds of upperclassmen leave it. I became one of the many who leave after I discovered that, although medicine is an honorable field, it was not the right choice for me. Taking courses that fill pre-med requirements, such as Life Sciences 1a and Math 1b, becomes a sort of rite of passage for approximately half of the freshman class who are considering a career in medicine: most complain about the difficulty of the courses and the hard problem sets. Meanwhile, I found that even though I was celebrating because my pre-med career had ended before I had to take the often dreaded organic-chemistry requirement, I also began lamenting losing the sense of community that comes with being pre-med.

During my senior year of high school, I decided on a career in medicine after learning about the organization Doctors Without Borders. Their work inspired me, and the prospect of pursuing a career that would enable me to participate in similar work was exciting. I enjoyed math and science and was active in many related clubs in school, so I figured this was enough to determine that medicine was the perfect choice. The summer before coming to Harvard, I began mapping out the pre-med requirements and which courses would fulfill them, so my academic schedule would allow me to be pre-med while I concentrated in English.

I arrived on campus relieved that I didn't have to go to the many meetings offered during freshman orientation that catered to students undecided about their concentration. I knew where I was going and what I had to do to get there. I took the necessary courses, signed up for the Harvard Pre-medical Society (HPS) mailing list (by spring semester I was the organization's secretary), and picked up pamphlets from the Office of Career Services (OCS). I didn't have to worry about what my future would hold because—though it was not set in stone—I knew the direction it was going to take.

By the end of freshman year, my seemingly ironed-out path began to show some wrinkles. I didn't enjoy the science courses as much as I had anticipated. While making a difference in my community still appealed to me, medicine didn't as much. These doubts were confirmed after I attended the national Summer Medical and Dental Education Program funded by the Robert Wood Johnson Foundation, which enables college freshmen and sophomores to take classes that will prepare them for their pre-med courses and gives them the opportunity to shadow doctors in a hospital. I enjoyed the writing course much more than the science courses and during the hospital visits—unlike my classmates who looked eagerly at the procedures—I leaned against the wall, trying to prevent myself from fainting and ending up on the bed next to the patient we were supposed to observe. At the end of the program, I happily made my official decision to stop being pre-med.

When I arrived back on campus for sophomore fall, I discovered that a couple of friends had also decided to drop