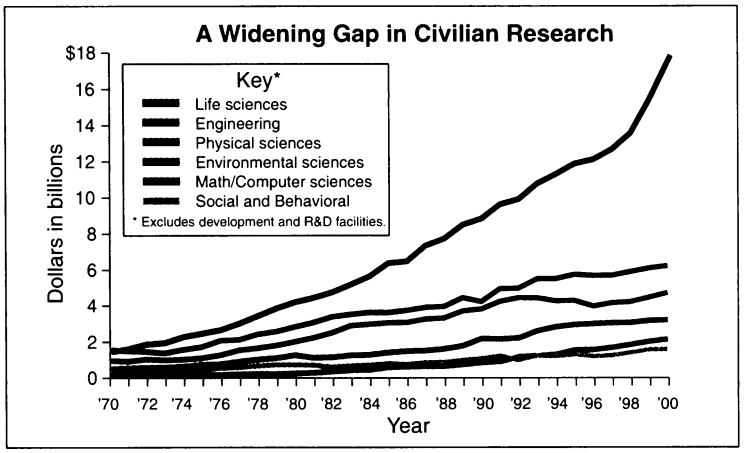
civilian and military science spending—long tilted in favor of defense—to parity. They also warned that U.S. scientists were falling behind their counterparts in Japan and Europe. "There was a lot of fear [then] of being overtaken in key technologies," says David Hart, a science policy scholar at Harvard University.

This year, in contrast, the focus is on "restoring the balance in the federal R&D portfolio," noted NSF's Rita Colwell. There was little talk of foreign economic threats or of the relative merits of civilian and defense science. And Neal Lane, the president's science adviser, apparently felt little need to defend the Administration's enthusiasm for basic science. "It's so clear from every study ... that the federal investment in science and technology is about as good an investment as you can possibly make," Lane said last month, as Clinton gave a preview of this year's R&D proposal at the California Institute of Technology (Caltech) in Pasadena (*Science*, 28 January, p. 558).

MIT's Crowley calls that speech "one of the most unprecedented and passionate presentations on science I have ever heard from an American president." Still, one Administration official labels the shift in R&D strategy as "mostly rhetorical." Indeed, White House budget statistics show that both basic and applied research funding have gone up significantly—52% and 32%, respectively—since Clinton's arrival. But they also show that defense and civilian R&D have essentially reached parity from a starting ratio of nearly 3 to 2 in favor of defense. "Times have changed,

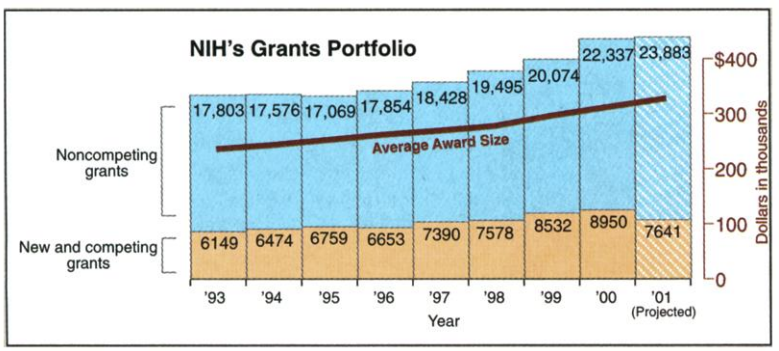


Catching up. The 2001 budget would accelerate growth in nonmedical research.

Plan to Reduce Number of New Grants Tempers Enthusiasm for NIH Budget Hike

The Administration's proposed 2001 budget for the National Institutes of Health (NIH) is receiving less than a standing ovation from biomedical lobbyists. But they admit that the 4.5% increase supports their campaign to double NIH's budget between 1999 and 2003, even if it doesn't come close to offering the 15% increase they want this year.

The budget request is "positive," says the Federation of American Societies for Experimental Biology (FASEB), an organization of 60,000 scientists based in Bethesda, Maryland, which acknowledges that it's much more generous than last year's offer by the president of an additional 2.1% that turned into 15% by the time Congress had finished its work. The White House says it wants to give NIH a $1 billion boost, to $18.8 billion, although nearly a quarter of that increase is money that NIH must pass along to other agencies. FASEB president David Kaufman, a pathologist at the University of North Carolina, Chapel Hill, calls the request the "largest dollar increase ever requested by a president," and Richard Knapp, government relations chief for the Association of American Medical Colleges (AAMC), sees this as a "good start."



Going down? NIH's 2001 budget would curb new grants.

Although FASEB and the AAMC liked the overall message, FASEB, at least, had "serious concerns" about the fine print. The main problem, according to Kaufman, is that the agency wants to reduce the number of new and competing grants to individual investigators, from 8950 this year to 7641 in 2001. In a prepared statement, Kaufman warned that this could "prove very discouraging to young investigators."

Acting NIH director Ruth Kirschstein defends the decision, saying that the total number of grants supported in 2001 would be the largest in NIH's history, topping 33,000. "NIH has built up a very large commitment base," she says, so the number of new grants must be reined in until the base stabilizes. Another problem is the sharp rise in the average cost of an NIH grant, from $227,000 in 1992 to a projected $327,800 in 2001. As one House appropriations committee staffer said, "We've reached a point where we have to have a $1 billion increase [in the NIH budget] every year just to stay even." To avoid a crunch, NIH managers plan to hold down annual increases in the size of new and continuing grants to no more than 2%.

While NIH is trying to apply the brakes to the cost of grants, its latest budget contains two major new initiatives—one at universities around the country, and the other on its Bethesda campus. Kirschstein confirmed that NIH is planning to spend $110 million in 2000 and is seeking $147 million next year to fund an interdisciplinary program to create academic centers of excellence in biocomputing, known as the Biomedical Information Science and Technology Initiative (BISTI). National Cancer Institute director Richard Klausner has already been working with the National Science Foundation to help set up new BISTI training centers. Meanwhile, six NIH institutes involved in brain research are joining forces to fund a new, 18,500-square-meter neuroscience lab on the NIH campus. This budget contains the first down payment of $73 million to plan a project whose total cost is still up in the air, Kirschstein says.

Congress begins the process of chewing over NIH's budget with a House hearing on 15 February, with lobbyists hoping that lawmakers will be as generous as in years past. Republicans and the White House have already agreed to raise mandated spending limits on the overall federal budget. That move is expected to allow NIH to spend $3 billion this year that Congress has previously delayed until 2001 in a maneuver designed to stay within those limits.

–ELIOT MARSHALL

SOURCES: (TOP TO BOTTOM) NSF; NIH