Proposed federal budget keeps R&D afloat

President Clinton's proposed 1995 federal budget would mean lean times for almost everyone, but research and development would fare better than most.

Though the $1.52 trillion budget sent to Congress this week cuts many programs, it keeps R&D spending virtually level for fiscal year (FY) 1995, which begins Oct. 1. Limited by efforts to cut the deficit, R&D spending would increase by nearly $2 billion, or 2.8 percent. But after subtracting 3 percent for inflation — FY 1995's rate, as estimated by the Office of Management and Budget (see chart) — federal R&D spending would actually *decline* by 0.2 percent. (Subsequent percentages in this article have been adjusted for inflation.)

Under the Clinton plan, civilian R&D would get a $1.2 billion boost, representing an increase of 0.8 percent, while defense spending would rise $1.4 billion, or 0.7 percent, excluding large cuts in funding for laboratory facilities. As in the FY 1994 budget, civilian R&D would get 47 percent of the R&D pie; defense snares the rest.

In paving the way for an "information highway," the President is requesting $1.2 billion, a 20 percent increase, for research on building more sophisticated computers for use in endeavors such as weather forecasting and drug design. The federal government also would spend $865 million on technology transfer, 54 percent more than in the current fiscal year.

The administration has requested $1.8 billion — a 21 percent jump — for the U.S. Global Change Research Program, which coordinates work by 12 federal agencies. Some of the $349 million increase would address criticisms that the multiagency program has neglected studying how global warming and other environmental problems will affect societies and ecosystems.

Funding for the space station, now a joint U.S.-Russian endeavor, would maintain its annual cap of $2.1 billion. The Ballistic Missile Defense Organization, formerly the Defense Department's "Star Wars" office, would receive $3.25 billion, a hefty 15.7 percent increase. The multiagency Human Genome Project also would enjoy sizable growth — $42 million, or 18 percent.

National Science Foundation: NSF would continue its growth spurt of recent years, albeit at a slower pace. Global change would win the agency's biggest percentage increase in research. The $208 million it's slated to receive would constitute a generous 43 percent raise over last year. High-performance computing and communications research also would be given a large boost — 20 percent — to $329 million. The President had good news for researchers: Average individual awards would expand 6.6 percent, up $8,000 from this year. Funding for academic research facilities, however, would suffer a 48 percent cut.

Biomedicine: Under the President's proposed budget blueprint, the National Institutes of Health (NIH) would receive 1.7 percent more next year, or $11.5 billion. Breast cancer studies would garner $383 million, an increase of 25 percent. Funding for research on the AIDS virus would climb 3 percent over last year, to $1.4 million. Programs combating tuberculosis, a disease that has resurged in recent years, would grow 7 percent, to $51 million. In addition, the NIH budget request includes $82 million for development of high-performance computing and telecommunications networks, an increase of 38 percent over current spending.

Energy: The administration would continue a shift in energy R&D priorities begun last year, with fossil energy funding falling again, this time by 24.8 percent, to $519.9 million, and nuclear (fission) programs falling 30.8 percent, to $247.6 million. Energy efficiency and renewable-energy programs would increase 30 percent, to $1.36 billion.

Funding for civilian radioactive-waste management would jump $152.2 million, or roughly 37 percent, much of it to study the suitability of Nevada's Yucca Mountain for long-term storage of nuclear wastes (SN: 10/26/91, p.262). The $454.6 million cut slated for the Energy Department's fundamental science budget — dominated by physics programs — comes from the defunct Superconducting Super Collider (SSC).

NASA: Forget those accolades the space agency garnered for fixing the Hubble Space Telescope. For the first time since 1973, total spending by NASA would decline from the previous year — a sizable $250 million, even without accounting for inflation. Human space flight would take the deepest cut, with an 8.8 percent drop from current funding of $6.1 billion. The agency also would abandon plans to build an advanced solid-rocket motor for the space shuttle and delay development of a second-generation launch vehicle to replace the shuttle.

The President's blueprint would include one new planetary mission: The $78 million Mars Surveyor program would include the 1996 launch of a small orbiter to the Red Planet and duplicate about half the science payload lost with the Mars Observer spacecraft (SN: 9/4/93, p.149). The biggest winner: Mission to Planet Earth. This program for studying Earth's environment from orbit would enjoy a 17.9 percent hike over the $1.02 billion allocated in the current year.

Technology: With a 1995 request of $964.3 million, the Department of Commerce's Technology Administration would receive a $438.4 million increase. Most of the hike would go to the National Institute of Standards and Technology (NIST). The $935 million slated for NIST is 77 percent above its 1994 amount. Some $451 million of this would go for its Advanced Technology Program for high-risk, high-payoff projects; another $316 million for basic research; and $100 million to renovate obsolete labs.

Environment: As part of the government-wide effort to boost environmental programs, the President would raise funding for all environmental and natural resource programs 2 percent, to $35.2 billion. International environmental programs would receive one of the biggest percentage increases — 21 percent — raising their funding to $2.2 billion. At the Environmental Protection Agency, the total budget would grow 5 percent, to $7.2 billion. Some of the funds would promote private industry development of environmental technology.

— R. Cowen, T. Adler, and staff reports

RESEARCH AND DEVELOPMENT FUNDING
Budget Authority (in millions of dollars)*

Department or Agency	FY 1993 actual	FY 1994 estimate	FY 1995 proposed	% Change: 1994/1995**
Defense-military	$38,617	$35,538	$36,971	+ 1.0
Health and Human Services (National Institutes of Health)***	10,336 (10,217)	11,033 (10,845)	11,484 (11,359)	+ 1.1 (+ 1.7)
NASA	8,090	8,493	8,597	− 1.8
Energy	5,827	6,054	6,052	− 3.0
National Science Foundation	1,882	2,026	2,220	+ 6.6
Agriculture	1,335	1,393	1,394	− 2.9
Commerce	728	985	1,322	+31.2
Transportation	587	605	692	+11.4
Environmental Protection Agency	495	533	571	+ 4.1
All other	1,853	1,824	1,726	− 8.4
R&D total without facilities	**69,750**	**68,484**	**71,029**	**+ 0.7**
R&D facilities	2,728	2,589	2,016	−25.1
R&D total with facilities	**$72,478**	**$71,073**	**$73,045**	**− 0.2**

*Derived from OMB data; figures reflect rounding
**After subtracting OMB's projected FY '95 inflation rate of 3.0%
***Breakout of NIH figures from HHS total