

After Seven Months of Haggling, Clinton and Congress Settle Budget, with Science Better Off Than Feared

In the waning hours of 24 April, almost seven months into the fiscal year, President Clinton and Congress agreed at long last to complete the budget for 1996 for the nine Cabinet departments and 38 agencies that had been running on less than full funding. The agreement was cobbled together a few hours before the 12th continuing resolution of the fiscal year would have run out, avoiding yet another shutdown of those departments and agencies that still lacked an appropriation. The stalemate over the 1996 budget was the longest in US history.

For officials and staff in the executive agencies, the impasse had seemed like a *Perils of Pauline* melodrama, with two shutdowns and 12 last-minute interim funding measures. Both sides emerged bruised but ready for combat once more—this time on the fiscal 1997 budget, which Clinton and Congress hope to complete by early September to fully devote their energy to the election fray. One of the surprising outcomes of the 1996 budget war is that after an unprecedented \$23 billion reduction in nondefense discretionary spending—a down payment on balancing the Federal budget—science emerged more resilient than many had expected.

Claiming key victories

Each side claimed victory—with good reason. Republicans boasted of reducing nonmilitary spending (which doesn't include Social Security, welfare entitlements or debt payments) by \$23 billion from fiscal 1995 levels and of eliminating some 200 federal programs and agencies. Democrats claimed they protected their priorities by restoring around \$5.2 billion that Republicans had tried to cut from programs relating directly to job training, technology, education and the environment. One of Clinton's favorites, the Advanced Technology Program at the National Institute of Standards and Technology, which House Republicans had zeroed out, will now receive \$221 million, compared with the \$491 million that Clinton had originally requested. Money for ATP will be used primarily to continue funding some 250 government-industry cost-shared R&D partnerships. The negotiators gave \$50 million to the Defense Department to fund

Sematech, an R&D operation in Austin, Texas, that has helped restore US semiconductor manufacturers to world leadership after they fell behind Japan in the 1980s. In addition, the White House stubbornly insisted that Clinton would not sign the 1996 omnibus appropriations bill as long as seven riders zeroing enforcement funds for environmental statutes remained in the final bill. Republicans argued that the riders would save them the trouble of going after the statutes one by one. But in the end the environmental riders were dropped or modified.

Senate Republicans, led by retiring Appropriations committee chairman Mark Hatfield of Oregon, credited themselves with adding \$5.2 billion of the \$8.1 billion the White House had fought to restore to the 1996 appropriations. "This is a compromise bill," Hatfield told the Senate, "and it is one that has been crafted... under the best circumstances that we function under." In the House, Representative Steny Hoyer, a Maryland Democrat, noted that Republicans were "trying to snatch victory from the jaws of retreat."

More and more, the battle over who gets what in the Federal government is about less and less. After resolving most of the fights over spending \$160 billion in fiscal 1996, Clinton and Congress wrestled over the last \$1.3 billion—the amount needed to fund the 15 items on a list that White House Chief of Staff Leon Panetta handed Republican lawmakers at the end of March.

For all the fractious committee hearings and floor debates, the Capitol Hill revolution that had been heralded by the newly elected 74 House Republicans at the start of the 104th Congress had fizzled. Led by House Speaker Newt Gingrich of Georgia, the Newtonians, as they called themselves in their first weeks in Washington, had proposed to abolish at least three departments: Commerce, Education and Energy. When all was said and done, the departments were left shaken but standing—though all are in the process of restructuring and downsizing. With their early revolutionary zeal, however, the rookies succeeded in toppling the Interior Department's Bureau of Mines and Congress's own Office of Technology Assessment—the first because the

Newtonians claimed the mining industry could do the job just as well without Federal funds and the second because they believed it was in thrall to Democrats and took too long to complete its reports of issues before Congress.

But education and science fared modestly well under the circumstances. In education, the Head Start program was awarded \$3.57 billion, which is \$43 million more than the original amount passed by the House. Though the House had terminated the Goals 2000 Educated America program, the final bill gave the program \$350 million to help communities raise academic standards. Title 1, the main federal program to improve math, science and reading in public schools with large numbers of low-income students, remained largely unchanged at \$7.2 billion with the restoration of almost all of the \$1.2 billion the House had cut. Education technology programs that help upgrade school classrooms and science labs got \$78 million, some \$23 million more than last year. Education Secretary Richard W. Riley called the budget an "important victory."

Scaling back fusion

The largest basic research agency, the National Institutes of Health, enjoyed a respectable 5.8% increase. The National Science Foundation and NASA endured cuts in new facilities, and their funding of research has more or less been frozen. In addition, nondefense R&D at the Energy Department is down by almost 20%. DOE's magnetic fusion program got the worst of the blows. It was scaled back by one-third in the current fiscal year to \$244 million and the Tokamak Physics Experiment, a major new machine planned for the Princeton Plasma Physics Laboratory, was cancelled by Congress.

Total funding for nondefense science and technology in 1996 comes to about \$32.6 billion, about 3% less than the 1995 budget, in which \$34.2 billion was voted. This compares with a 9% chop overall in the nonmilitary budget. When inflation is taken into account, R&D allocations this year have been cut by 6% and all spending is down by 12%.

The budget settlement was particularly welcome at the National Science Foundation. NSF wound up \$75 million better off than it would have been

if—as widely feared—no deal had been reached and it had remained dependent on continuing resolutions until the end of the fiscal year in September. The additional funds include Clinton's \$40 million add-on for the foundation's research programs, which gives the agency \$2.3 billion for research, just 1% more than 1995, but \$140 million less than the Clinton Administration's request. Though Congress took an \$8 million bite from last year's total, the whole agency wound up with \$3.2 billion. The 1996 budget funds all other NSF programs at the level of the original request, including \$599 million for education programs and \$100 million to refurbish academic research infrastructure.

"I am immensely relieved and pleased that Congress has agreed upon a final budget," said Neal Lane, NSF's director. "We can now put behind us the distractions and confusion of the shutdowns and continuing resolutions," he added, though he went on to warn that the coming year "may prove to be even more difficult."

Winning concessions for NASA

NASA also won concessions from the budget agreement. It received an extra \$83 million for its science, aeronautics and technology accounts. While the space agency's funding for 1996 declined by 3.3% from the previous year, the final amount of \$13.9 billion is almost \$100 million higher than Clinton's request for 1997 and almost \$400 million more than the House Science Committee has proposed in its authorization for next year.

In fact, only a day before the 1996 budget agreement, the House Science Committee, chaired by Robert S. Walker, a Republican of Pennsylvania, had narrowly approved an Omnibus Civilian Science Act for R&D in FY 1997 that would reduce spending on all R&D programs under its jurisdiction (not including military and biomedical research) from \$20.3 billion to \$19.7 billion. By comparison, the Clinton Administration proposed to increase R&D spending to \$20.9 billion in 1997. After a rancorous nine-hour session, the committee's Republican majority produced a bill that would increase basic research allocations by about \$250 million or 5% above current levels, but would make sharp cuts in global climate change studies and industrial partnership programs.

The science committee's bill would fully fund continued construction of NASA's space station and provide \$14.5 million more than this year's allocation for space science and life and microgravity research. The House committee proposed increases for other space

science programs that the agency's administrator, Daniel S. Goldin, has championed. These include the Discovery planetary missions, which would get \$20 million more than the President requested for next year, the New Millennium technology development program (\$18.5 million more), Explorer projects (\$25 million more) and missions to Mars (\$30 million more). But the Republican majority is sour on NASA's Mission to Planet Earth and the program's Earth Observing System of orbiting remote-sensing spacecraft. It would slash about \$374 million from the proposed \$1.4 billion for the Planet Earth project, then make additional cuts in EOS data gathering and analysis. Last October, in the same week that three scientists were awarded a Nobel Prize for their research in global climate change, the House Science committee held hearings on the scientific findings, which one Republican member, Dana Rohrabacher of California, denounced as "liberal claptrap."

For NSF the committee authorized \$3.25 billion next year—\$75 million below the President's request and about \$30 million above the final 1996 budget. The bill would give NSF \$26 million more than its current levels for science and engineering research grants but is still \$32 million short of Clinton's request for fiscal 1997. The authorization measure also directs the agency to eliminate one of NSF's seven directorates, which veteran committee

watchers say is an unambiguous message to drop the directorate for the social, behavioral and economic sciences. In public statements last year, Walker belittled the social sciences as "not real science" and as too "politically correct" for his tastes. Lane and John H. Gibbons, Clinton's science adviser, publicly declared their strong opposition to such a move. Representative George E. Brown Jr of California, the senior Democrat on the committee and a House member for 32 years, has characterized Walker as "the most ideologically driven chairman in the entire House."

In addition, the bill includes an amendment proposed by Representative Joe Barton, a Texas Republican, to change the agency's name to the National Science and Engineering Foundation. The amendment squeaked into the bill by a vote of 23 to 22 in the committee.

Walker has stated that since the committee passed a two-year authorization last year for research programs in the Energy Department, there's no need to vote on the programs for 1997. But it was clear from the squabbling among Republican committee members that they are deeply divided over DOE programs ranging from magnetic fusion to fossil fuel research and energy renewables. The arguments suggest that the compromises reached for the 1996 budget may not be easily repeated in the few months left before fiscal 1997 begins in October.

IRWIN GOODWIN

Nuclear Club Agrees on Test Ban But China Holds to Big Bang Theory

After half a century and more than 2000 mega-blasts in the atmosphere, in the oceans and mostly underground, the five avowed nuclear powers have declared their intention to sign a nuclear test ban treaty. Endorsement of such a treaty, once the dream of the world's ban-the-bomb movements, came once again from leaders of the G-7 richest industrialized nations and Russia, who met in Moscow's Kremlin on 20 April. Among the leaders were President Bill Clinton, who spoke forcefully against the proliferation of nuclear weapons and against further testing, and President Boris Yeltsin, who appealed for Russia's membership in the G-7.

The US, Britain and Russia have not set off nuclear tests for nearly three years. France has insisted that the test series conducted last year at its Pacific atolls, amid a fallout of protests from near and far, is its last. Only China continues to test, though it says

it will stop once a treaty is in force.

Despite its stated position, China is the sole holdout in negotiations for a total ban. Last March, at a meeting of the Conference on Disarmament in Geneva, China's representative called for an exemption from the test ban to allow for low-yield "peaceful" nuclear experiments. "The door to peaceful nuclear explosions should not be closed," he said, but he did not elaborate.

Chinese diplomats in Washington have filled in a few details. It seems that China sees beneficial uses for nuclear explosives in digging deep craters for storing water or oil, in excavating canals or other waterways and even in warding off asteroids, meteorites or comets on a collision course with Earth. Both the US and Russia have detonated nuclear explosions for civilian purposes, such as gouging rocky gorges for gas storage and creating artificial lakes for reservoirs, but stopped such ventures because of public pressure