some time in this fiscal year.

Martha Krebs, director of DOE's office of energy research, has testified before Congress that US hopes of contributing as a meaningful partner in CERN's Large Hadron Collider and in the multi-nation ITER project would go unrealized under the fiscal limits now proposed by leaders of both political parties. She also expressed concerns about the future of basic scientific research in the US if severe cuts are made in DOE's budgets.

Her warnings about DOE's projected research budgets in fiscal 1998 and afterwards were reinforced in a letter to President Clinton from the heads of 12 research universities. In the letter, sent on 13 September, the university presidents, led by Gerhard Casper of Stanford University, expressed fears of the damaging effects on academic scientists and on the nation's research program if, as forecast, DOE's research programs were to de-

cline by 25% by fiscal 2000. The reduction would be 34% after inflation is taken into account, the presidents Most of the 15 000 refigured. searchers who rely on the department's scientific facilities, such as synchrotron sources, accelerators and reactors, are at various universities, which would be unable to support them under the proposed fiscal scenario, the letter suggested. "If the facilities were maintained, there would be little opportunity for the university groups to use them," the presidents wrote. "If the facilities were cut back, there would be little opportunity for the university groups to carry out research. In either case, both science and the country's long-term research program would be damaged." They made a direct appeal to Clinton: "We very much hope that you can correct this situation as the fiscal 1998 budget is being formulated and fund [the energy research programs] at a level that sustains this fundamental branch of scientific inquiry not just in the next fiscal year but for the future." Among the signers with Casper were Richard Atkinson of the University of California, William Brody of Johns Hopkins University, John Buechner of the University of Colorado, Richard McCormick of the University of Washington, Richard Peck of the University of New Mexico, Neil Rudenstine of Harvard University and George Rupp of Columbia University.

Anticipating these problems, the Council of the American Physical Society issued a statement on 6 May urging "sustained support for plasma and fusion science by the US government." The council noted the prospective one-third reduction in funding in fiscal 1996 and declared that additional cuts "would seriously damage" the field. "Once dismantled," the council stated, "these research programs may take decades to rebuild."

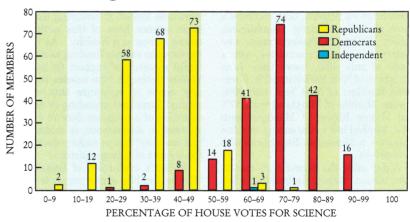
IRWIN GOODWIN

Watchdog Group Grades House on Science Issues, But Is Assailed for 'Politicizing' Science

For certain eminences in the science establishment, the idea seemed right. After all, data on the voting records of members of Congress have been collected for decades by special interest groups ranging from the American Association of Retired Persons, to the National Rifle Association, to Ralph Nader's Public Citizen, to various environmental organizations. But on 18 September, when ten distinguished scientists released a scorecard of voting by House legislators on science issues, the reaction was so scathing and skeptical that the organizers must have felt something like Wile E. Coyote, the determined pursuer in those "Road Runner" cartoons. Like Wile E., the scientists had prepared to trap their prey, only to find that the trap didn't have much effect and the prey escaped with little or no harm.

What angered many on Capitol Hill and in science-related organizations was that the outcome of the voting survey—that Democrats in the 104th Congress voted to back science and technology 72% of the time, against the Republican average of 35%—could do more harm than good in building political support for R&D funding.

The survey, called "Science Score-Board," was done by Science Watch Inc, a newly formed nonpartisan organization led by Roland Schmitt, a former vice president for research at General Electric and past chairman of the Na-



THE GAP IN GRADES between Democrats and Republicans in the House indicates voting records in defense of science.

tional Science Board. Science Watch's founder and chief operating official is Martin Apple, executive director of the Council of Scientific Society Presidents. He kept tabs on lawmakers through 30 roll-call votes out of nearly 1200 taken on the floor of the House of Representatives in the past two years-mostly on proposed cuts in science research and in technology programs. The House members were rated on their "pro-science" votes.

The results were a surprise to Apple. Schmitt and many others who follow science on the Hill. "It knocked my socks off for a whole day," Apple told reporters at a news conference.

We didn't expect the wide gap [in voting]. The degree of difference we found was extraordinary." Apple said all Science Watch members had seen the findings and agreed to their public

Only one Republican, Jimmy Hayes of Louisiana, who had run as a Democrat until he switched parties last year, was rated high, with a "pro-science" grade of 71%, while 132 Democrats scored above 70%. At the top end of the scorecard, 16 members, all Democrats, received a grade of 90% or higher. while 14 members, all Republicans, ranked below 20%. The top grades went mostly to House members repre-

The Science Watching Ten

ollowing are the names of the ten members of Science Watch, who between

them put up \$2500 to fund the survey on House voting records:

Roland Schmitt, chairman; former chairman of the National Science Board, former senior vice president for research at General Electric and former president of Rensselaer Polytechnic Institute; now chairman of the governing board of the American Institute of Physics;

James Duderstadt, former president of the University of Michigan and past chairman of the National Science Board;

D. Allan Bromley, dean of engineering at Yale University and science and technology adviser to President Bush as well as director of the White House Office of Science and Technology Policy in the Bush Administration;

Erich Bloch, distinguished fellow at the Council on Competitiveness, former director of the National Science Foundation and former vice president of the IBM Corp;

Maxine Singer, president of the Carnegie Institution of Washington;

Nobel laureates: Kenneth Wilson of Ohio State University; F. Sherwood Rowland of the University of California, Irvine; Herbert Simon of Carnegie Mellon University; Gertrude Elion of Glaxo Wellcome Laboratories and Leon Lederman of the Illinois Institute of Technology and former director of Fermilab.

senting Texas-Ken Bentsen, Eddie Bernice Johnson and Sheila Jackson Lee, each with 97%. Only slightly below them were Texans Ronald Coleman, Martin Frost and E. "Kiki" de la Garza. Tom Bevill of Alabama, senior Democrat on the Appropriations subcommittee on Energy and Water Development, and George E. Brown Jr of California, senior Democrat on the Committee on Science, both received a score of 93%. Among Republicans, Robert Walker, of Pennsylvania, who chairs the science committee, got a grade of only 40%, lower than Amo Houghton of New York with 67%, Sherwood Boehlert of New York with 60%, Connie Morella of Maryland with 57% and Vernon Ehlers of Michigan with 52%. Ranked last in the survey was Jim Ramstad, a Minnesota Republican who received 4%.

A day after the ScoreBoard results were issued, Walker declared that the ratings were misleading and contaminated by "overt subjectivity" in an attempt to "politicize" science. In a po-

lemical letter to Apple, Walker wrote that Science Watch's choice of floor votes was wrong, because it equated preserving the scientific status quo with support for science and excluded many unrecorded voice votes in which members demonstrated their support for science. Those voice votes, Walker argued, indicated that "there was broad, bipartisan support for these measures aimed at ensuring that the basic science base of this nation remains strong and healthy." As for using votes on science funding as a meaningful measure of support for science, Walker declared, "the science community needs to recognize that a vote against increased spending or for termination of a program doesn't mean a member is anti-science; it means that [the member] had to make a decision in the context of a larger picture."

Walker's evaluation of ScoreBoard: "The bottom line of this survey is that if you're a big spender you get an 'A.'"

Attacks on the survey came from some circles that sought to insulate

science from politics.

Cornelius Pings, president of the Association of American Universities, which represents 64 major research universities in the US and Canada. warned that assigning grades to lawmakers "is a serious mistake and may anger members of Congress who have been among the best friends of scientific research." Washington representatives of leading universities criticized the ScoreBoard concept as "wrongheaded" and "politically naive." And David Goldston, legislative director for Congressman Boehlert, who is a longtime member of the science committee and recognized as an advocate of science, characterizes the survey as "a silly way to start an argument with Congress. Ratings are done by lobbyists to defeat people—to say in effect, 'Let's get rid of the guys who don't support us.' By circulating the ratings the people behind Science Watch, no matter how many of them have Nobel Prizes, are taking a big risk of a backlash in Congress.'

In defense of the survey, Schmitt says, "We decided this was the right thing to do for two reasons: to increase the sensitivity of members of Congress to the well-being of science and to stimulate the interest of the scientific community to what's happening on Capitol Hill." Science Watch was created, he says, "because a lot of us are convinced that the health of science cannot be maintained by a few of us walking the marble corridors of Congress to plead for support of a certain program or a costly facility."

That tactic is still necessary, Schmitt observes, "but it's not enough. Members of Congress still say 'We don't hear from your people in my district.' Our aim with this survey is to stir up the grassroots. Well, it's making quite a stir already."

IRWIN GOODWIN

Washington Ins & Outs

Departures and Changes at NSF and OSTP and New Science Board Members Are Nominated

A wave of resignations and retirements has hit Washington's science bureaucracy this fall, suggesting perhaps that the old order is making way for the new.

Several top-level changes have occurred at the National Science Foundation. In mid-September Anne Petersen left NSF, where she was deputy director, to fill the new post of senior vice president for programs at the W. K. Kellogg Foundation in Battle

Creek, Michigan. With \$6 billion in assets, the Kellogg Foundation ranks second only to the Ford Foundation. Founded on cornflakes profits in 1930, the Kellogg Foundation awards "seed money" and other grants for programs that apply existing knowledge, rather than research, to advance education, health and community development. Petersen, a statistician, was vice president for research and dean of the graduate school at the University of

Minnesota before joining NSF. As NSF's deputy director, she was given the additional job of chief operating officer by Neal Lane, the agency's director. The post of deputy director requires Presidential nomination and Senate confirmation, which means it will be months before her successor is cleared by the White House and by security agencies.

Meanwhile, Lane has designated **Joseph Bordogna**, assistant director