SUPERCONDUCTING SUPER COLLIDER

A Senate Victory Would Turn The Tide After House Defeat

Last month, when the House of Representatives voted to delete $620 million from the 1994 federal budget for the Superconducting Super Collider (SSC), the margin of victory, 280 to 150, seemed sufficient to sound the death knell for the enormous Texas project. But a *Science* poll of the House members who switched sides since last year, when a similar motion passed by only 232 to 181, found that most regarded their vote as a mandatory attack on the federal deficit. They say they still approve of the "big physics" project and that it's important for the government to continue supporting basic science. In fact, the $10 billion SSC could well recover from its near-death condition by fall.

For SSC supporters, the shallowness of the opposition is bolstered by the fact that Congress writes its spending bills in a way that stacks the deck against opponents of the project. By law, appropriations bills are introduced in the House and cobbled together by one of 13 subcommittees. Once the bills reach the floor of each body, they can still be amended. That's what happened on 24 June, when House opponents of the SSC won approval to eliminate money to continue building the SSC and, instead, to spend $220 million to terminate the project.

Now the bill moves to the Senate, which for the last 2 years has soundly defeated amendments to kill the SSC. After the Senate acts, any differences in the two bodies' versions of the $22 billion energy and water bill, of which the SSC is only a small part, must be resolved by a conference committee consisting of an equal number of members from the House and Senate chosen by party leaders. Conferees are traditionally selected from among those on the relevant appropriating and authorizing committees, which strongly support the SSC.

The conference report, which must be voted on separately by each body, cannot be amended on the floor. So, if conferees restore funding for the SSC, the House can sustain its earlier rejection only by defeating the entire bill. That's an unlikely fate for a bill containing billions of dollars for public works projects—buildings, dams, bridges, and the like—that traditionally are used to measure a member's ability to bring home the bacon.

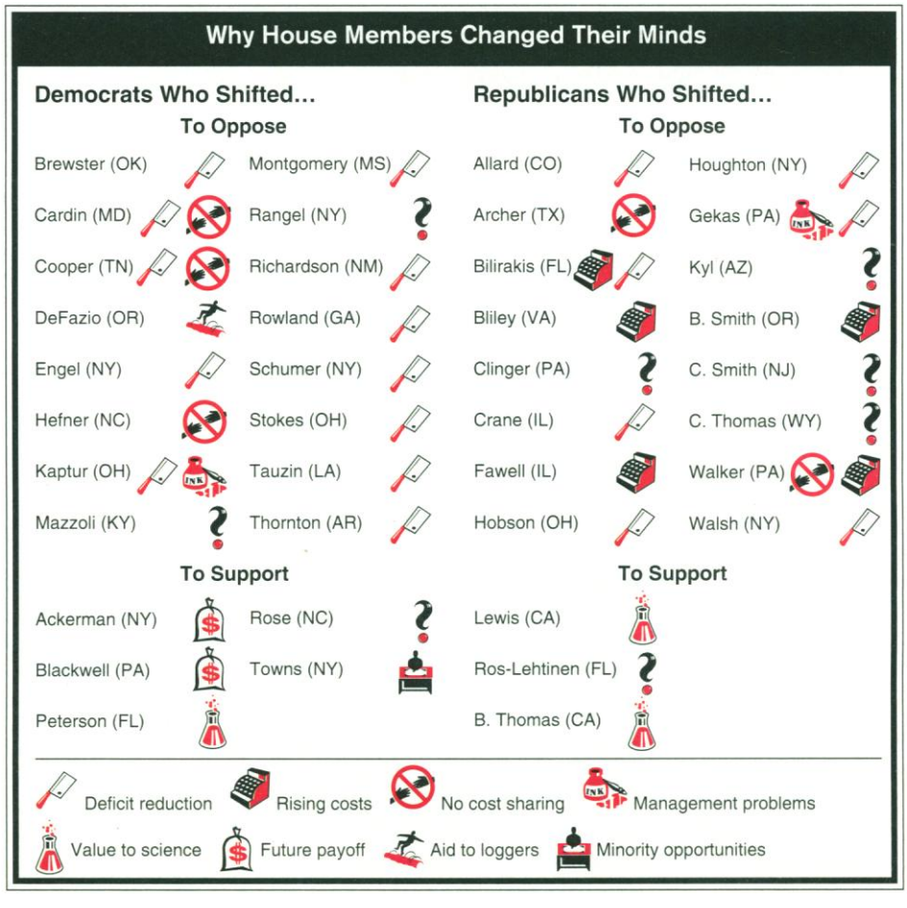
Although a vote to amend the bill, as the House did last month, is much easier, the magnitude of the SSC's defeat surprised even its opponents. In trying to understand how the tally could have been so lopsided, congressional aides say, what appears decisive is the fact that the vote allowed anyone not from Texas to take a swipe at the $300 billion federal deficit without angering constituents, who by and large don't understand or care about the project. Supporters also say several would-be SSC backers defected once it became clear that the motion would pass to avoid being on the losing side of a vote to defeat a big-spending project.

Science's survey backs the idea that larger budgetary concerns were a major factor in the House vote (see table). "Programs that in the past have gotten support must be reexamined in light of what the voters are telling us," says Rep. Marcy Kaptur (D–OH), a member of the House Appropriations Committee, in a typical response. "We have to help the president balance the budget." New members, who voted 83 to 31 to kill the project, appear to be particularly sensitive to that shift. As one of them, Rep. Sherrod Brown (D–OH), said during the House debate, "Let the cuts begin."

Many who switched, however, say that they agonized over their decision and do not regard it as a vote against basic science. "He had urged Georgia to bid for [the SSC]," says an aide to Rep. Roy Rowland (D–GA). "He thinks that finding out what the universe is made of would be kind of interesting." Kaptur, echoing the sentiments of many of her colleagues, admits that "it was a very tough vote." For a few, the decision was made easier by concern about continuing management problems and rising costs (*Science*, 9 July, p. 157), along with the broken promise of significant contributions from other countries.

The new emphasis on reducing the deficit has also led some House members to conclude that the country can't afford to support two big-ticket science items like the SSC and the space station. And for many of those representatives, the choice was easy. "He knew a lot more about the space station and what it was supposed to do than about the [SSC]," explains an aide to Rep. David Hobson (R–OH). "The benefits of the SSC are pretty fuzzy." Adds Rep. Jay Kim (R–CA), a freshman whose state is already reeling from job cuts in the aerospace industry, "I don't want to see Japanese or Germans walking around in space without Americans up there, too."

While most House members who switched their votes went from supporting the SSC to opposing it, a handful—five Democrats and three Republicans—bucked the trend. Their



reasons are idiosyncratic, although most are related either to a personal contact with the science of the SSC or a seat on a relevant committee. Rep. Jerry Lewis (R–CA) told colleagues on the House floor that a constituent was successfully treated for cancer with proton-beam therapy, while an aide to Rep. Lucien Blackwell (D–PA) says that scientists from the University of Pennsylvania, who are helping to design and build one of the SSC's two detectors, convinced him that the project "directly benefits his constituents."

Yet the dire news from the House isn't by any means the last word. The Senate is expected to take up the bill soon after it returns from a 4-week summer recess on 7 September. The delay is intentional; supporters believe waiting drains momentum away from the opposition and provides time for additional lobbying.

And, as far as SSC supporters are concerned, lobbying is definitely in order. The leading opponent in the Senate, Sen. Dale Bumpers (D–AR), plans for the third year in a row to propose killing the project. And turnover of members is likely to make the vote much closer than last year's, when Bumpers' amendment was defeated by a 62-to-32 margin. Of the 14 senators who have left office since last year's vote, 10 were SSC supporters and only two opposed the project. (Two ex-members did not vote last year.) One especially heavy blow to supporters was Clinton's appointment of Texas Democrat Lloyd Bentsen as secretary of the treasury. His absence from the Senate—and replacement by Republican Kay Bailey Hutchison—robs the project both of an influential backer and of the ability to make a bipartisan plea for support.

Some freshmen have already announced their opposition. Of the 14 new members, three voted against the SSC while in the House—Ben Nighthorse Campbell (D–CO), Brian Dorgan (D–ND), and Barbara Boxer (D–CA); two more—Russell Feingold (D–WI) and Nancy Murray (D–WA)—say they support Bumpers' amendment. The rest have not taken a position or could not be reached for comment. In addition, three incumbents who have supported the SSC in the past told *Science* that they now oppose it—Daniel Inouye (D–HA), Max Baucus (D–MT), and Harris Wofford (D–PA).

But those newcomers to the opponents' fold don't seem likely to reverse last year's outcome. And if SSC backers prevail in the Senate, final victory seems assured. An aide to Rep. James Walsh (R–NY), one of the newly minted SSC opponents, agrees that, to some extent, the House vote was symbolic. "The House amendment gave him a chance to say no, but the conference report is a whole new ballgame," the aide says. "It involves a lot more than the SSC."

–Jeffrey Mervis & Karen Fox

SCIENCE OVERSIGHT

NSF's New Random Inspections Draw Fire

The inspector general (IG) at a federal agency is supposed to look for trouble—usually financial, and usually serious. So when three investigators from the IG's office at the National Science Foundation (NSF) notified the biology department of the University of Virginia (UVA) in Charlottesville that they would be coming on 9 March, rumors began to fly about management problems, faculty conflicts of interest, or worse.

"We're not going to sell away our academic independence."
–John Scott

But when the inspectors arrived, they told UVA researchers to relax: They were not there to probe allegations of wrongdoing; the visit, they said, was simply the first in a series of regular, random inspections of universities and other institutions that receive NSF grants. Unlike the typical investigation into financial irregularities, this 4-day affair was, according to the IG's report on the visit, designed to "promote an increased awareness by principal investigators and their sponsoring institutions of the importance of accountability in the management of, and the performance under, NSF grants."

UVA officials were relieved but hardly reassured. Although they say that the inspectors acted professionally and were generally fair, they were disturbed by the breadth of the NSF team's inquiries. NSF officials didn't just pore over the university's accounts; they also looked into internal university policies governing such areas as hiring and promotion, maintaining laboratory notebooks, and mentoring. "This sort of activity is easy to abuse," says John Scott, UVA's assistant provost for research. "In our case it wasn't too bad, but it could degenerate into something onerous." An NSF program officer not involved in the inquiry is more blunt in his criticism. "As a scientist, I'm frightened," he says. "When they go out to do an audit," the official says, "they're under pressure to find [infractions]." That can lead to creating problems where there are none, he says, not to mention the turmoil on site.

IG officials say that the inspections focus on issues related to NSF's overall aims. One of those stated goals is "infrastructure improvement" at institutions receiving grants, which the IG has interpreted to cover matters as broad as hiring and advancement, teaching, and authorship polices. In the case of laboratory notebooks, IG officials justify their interest by noting that NSF regulations require that data be retained for 3 years.

A 38-page report issued last month on the UVA inspection contains no shocking revelations. Indeed, the worst offense seemed to be that university officials did not always sign departmental timesheets and storeroom requisitions. But the inspectors devoted pages to the university's inability to attract more women and minority faculty and to its lack of formal mentoring guidelines. They recommended that the department establish a policy on maintaining data notebooks and require students to take a course on scientific ethics, and they suggested that the university review the department's recruitment programs for women and minorities. UVA agreed to adopt the recommendations, but not without protest. "I told them that I thought that mentoring is a special thing—to try to legislate it or establish some guidelines was not a very good idea," says Scott. "We're not going to sell away our academic independence."

The IG's office plans to conduct four to six such inspections a year, with each team typically including a management and a financial expert along with a staff scientist who is knowledgeable in the discipline being examined. Last month, IG team members conducted their second investigation, visiting the seven-person Carnegie Institution of Washington's department of plant biology on the campus of Stanford University. IG officials say the two institutions were picked because of their proximity to NSF. (The headquarters of the Carnegie Institution, where officials conducted some interviews, is in Washington.) Carnegie officials declined to comment on the specifics of their inspection until the IG releases its findings.

Inspectors general are autonomous offices within federal agencies and are intended to serve as internal watchdogs. NSF's IG is overseen by the 24-member, presidentially appointed National Science Board, which has approved the IG's initiative. Roland Schmitt, chairman of the board's audit and oversight committee, defends the inspections as "preventive medicine" but adds that the procedures are new and must be refined.

–Christopher Anderson