News & Comment

Pork: Washington's Growth Industry

From a modest beginning in 1983, non-peer-reviewed research projects have grown like topsy, threatening, some say, the planning and coordination of the federal research agenda



THE TERM "POWERFUL chairman" takes on real dimensions when you stumble onto an oddity like the "Christopher Columbus Center of Marine Research

and Exploration," to be built in Baltimore, Maryland. It was approved as a new start this fall for the National Aeronautics and Space Administration (NASA). How in the world did it become part of the space program? Don't expect NASA to explain: "Nobody around here seems to know what's going to be done with it," said a NASA spokesman last week. "It's not something NASA requested We're waiting for more direction" from Congress. Could it be an accident that this new science center is to be located in the hometown of Senator Barbara Mikulski (D-MD), who chairs the panel that writes NASA's appropriation? Not at all. The same bill contained a dozen such projects located in the states of senior committee members.

It's pork season once again—the time of year when surprises pop up all over the place in congressional funding bills: new roads, waterways, sewage treatment plants, and—in an increasing trend—research laboratories. Quite often these items appear in committee reports, inserted at the last minute by committee members as a favor to constituents or friends. Indeed, the mysterious Christopher

Columbus center is only one of a growing number of "earmarked" scientific research projects that slip through Congress like Stealth bombers. Earmarking academic centers began in the early 1980s as a way of



getting Congress's pet initiatives into the research budget without the ordeal of peer review (see story next page). Since then, the practice has grown to the point that friends of federally supported research fear that it is beginning to eat at the core R&D budget. And now in the 1990s, it is not only Congress but the universities themselves that have acquired an appetite for pork.

This year's crop of academic projects, though not likely to beat last year's all-time record, will be plentiful. According to a study by the Congressional Research Service (CRS) commissioned by Representative George Brown (D-CA), a whopping total of \$509 million in special R&D projects were put in the budget by unconventional means in 1991, almost twice the sum for the previous year (see table). Indeed, the total value of earmarked appropriations for academic institutions has climbed steeply since 1980about 50-fold. The agriculture appropriation subcommittee has been a prodigious earmarker-with about 27% of the total academic pork in 1991. Yet CRS data show that other sources are becoming important, such as the subcommittees that handle the appropriations for the Department of Defense (whose share of academic pork has risen from 16% to 25% since 1989) and the Department of Energy (holding steady at 25%).

The final tally for 1992 isn't available, but

EARMARKED ACADEMIC FUNDING (millions of dollars)

FY89	FY90	FY91
21.74	14.60	11.80
42.50	29.30	129.70
70.00	27.20	123.14
0.00	21.50	20.00
13.73	15.05	4.50
19.60	3.85	13.50
59.33	101.11	138.00
3.65	8.90	5.06
35.80	28.15	45.98
3.50	17.73	17.95
269.85	267.39	509.63
	21.74 42.50 70.00 0.00 13.73 19.60 59.33 3.65 35.80 3.50	21.74 14.60 42.50 29.30 70.00 27.20 0.00 21.50 13.73 15.05 19.60 3.85 59.33 101.11 3.65 8.90 35.80 28.15 3.50 17.73

a White House budget watcher who wishes to remain anonymous says it probably won't match last year's peak. For example, the Energy and Water Development Bill topped out with a mere \$84 million in academic earmarks, much less than the \$123 million of last year. The NASA bill—which also covers the environment, housing, and veterans affairs—will give birth to the Columbus research center and \$95 million in other targeted research projects, according to Brown.

Agriculture is also running strong, with its customary three-page list of earmarked "special research grants" worth \$74 million this year. And the Defense appropriation, still in the works, is likely to include many geographically targeted R&D projects. For example, the House version of the bill includes such items as \$1.3 million to lay the groundwork for "a national center of excellence in electronic display technology" based at the Oregon Institute of Science and Technology, and \$6 million for "establishment of an Advanced Materials Research and Development Center at Northeastern University in Boston, Massachusetts."

And who is leading the earmarking drive? "Some university presidents tell me their member of Congress made them do it—the 'devil-made-me-do-it explanation,'" says Joseph Wyatt, chancellor of Vanderbilt University, who has been leading an effort to get earmarking under control. In the past, the Association of American Universities (AAU) and the National Academy of Sciences also inveighed against earmarking, to no great effect.

Wyatt says the practice follows no single pattern. In some cases university staffs appeal to Congress for aid; other times they are led to the trough by aggressive lobbyists. Howard Gobstein, vice president of AAU, says he knows of cases in which lobbyists go over the head of university officials and seek out trustees willing to make an appeal to Congress. "Someone says, 'Give me \$15,000 a month for a year and I'll get you a \$5 million building'—and that sounds pretty good."

Wyatt thinks there will be more deals of this kind, in part because the government is leaning on universities to cut their demands for indirect cost reimbursement. "You don't have to include debt service [for a new laboratory building] in your indirect cost rate" if Congress funds the building. James Savage, a political scientist at the University of Virginia and an expert on the subject, agrees that new indirect cost limits are "going to really add to the drive for earmarking."

Earmarked projects often bypass public hearings and nearly always elude peer review and site selection procedures. Any one of them taken in isolation probably wouldn't cause a fuss. But considered in bulk, they worry the defenders of federal science funding—like Brown, who chairs the House Committee on Space, Science, and Technology—and, on the other side of Capitol Hill, Senators Sam Nunn (D–GA) and John Danforth (R–MO).

The "drastic increase" in the number of participants in the "pork-barrel game," Brown said last week, undermines long-term planning for academic facilities and undercuts the authorizing committees in Congress. Brown has declared war on the use of earmarks, claiming, "We're going to change it." But Wyatt says he's discouraged: "I wish I could give a more optimistic projection, but I see no prospects for a decrease; if anything I see more and more pressure to earmark....I am alarmed by it."

So is the picture really so gloomy? Can the rising tide of pork be turned back? Possibly. The remedies, at least in principle, seem clear, according to

Brown, Wyatt, and others. They say the solution is twofold. First, it would help to have funds for congressionally backed research centers pass through a merit review system, possibly based at the National Science Foundation (NSF). Although many agree that's a good idea, only a pittance has been appropriated for such a system. So far, the Administration has been willing to put only \$20 million into this category, a "tiny" amount compared to the amount that's earmarked each year for special projects, says Wyatt. In the past 3



George Brown

years, he notes, Iowa State University alone has won through earmarking more than the entire NSF academic facilities budget. The NSF channel will not provide a real alternative, Wyatt says, unless more money is appropriated.

The second part of the remedy—congressional restraint at the trough—seems less likely to come about. Even Brown

admits it will require "unprecedented levels of discipline," but he is already laying out a strategy, which may involve a head-to-head confrontation with members of the appropriations committees. Brown claims that other authorizing committee chairmen will join him, including John Dingell (D–MI).

"Our funding priorities are not worth a damn," Brown says, unless they are developed in a rational way rather than "by the whim of senior committee members."

ELIOT MARSHALL

Yesterday's Pork Projects: Where Are They Now?

Right where they always were—but not necessarily doing what they were funded for, our correspondent discovers



THE PROCESS BY WHICH Congress funds scientific research is full of twists and turns and mechanisms understood only by a rare breed: the Avid Bud-

get-Watcher. Members of the breed recall 1983 with particular fondness. In that year an ingenious mechanism that had never been employed before was spotted: the "Congressional Initiative." Here was a kind of budge-teer's magic wand. Forget about the hazards of peer review; all acongressman had todo was wave the wand and portions of the nation's energy research budget turned to pork.

Since 1983 the innovation has found many new applications. Congress has used it to fund some two dozen projects despite the fact that their proposers never stood before their scientific peers. Indeed, the process has accelerated and the pork dollars have climbed. The projects individually, and the trend generally, have aroused deep concern in the scientific community, where grant-seekers are being forced to compete ever harder for precious federal research dollars. But few critics—or supporters—of pork projects have taken the trouble to examine their history to find out whether they lived up to the stellar advance promises offered by their congressional sponsors. Have these projects truly improved U.S. competitiveness in international markets, as has so often been the rationale? Have they driven the development of advanced technology? Since few in the research community have time to delve into the history of pork, it isn't surprising that



Columbia University's chemistry building, site of one of the first congressional pork projects.

until now there has been little data on these questions. In an attempt to get some preliminary answers, *Science* chose three pork projects of the 1980s (more or less at random) and asked, "Where are they now?"

Hors d'oeuvres

Take the National Center for Chemical Research (NCCR) at Columbia University, funded as one of the first two Congressional Initiatives in 1983. Did this institution deserve its \$23.7 million total authorization? Before addressing the evidence on this issue, it is worth recalling that, unlike most of the projects that request Department of Energy (DOE) funding, the Columbia chemical research center hadn't been reviewed first by a DOE committee. That is, the NCCR appeared in Congress before experts in the field had evaluated the project's goals, means, and value compared to other proposals. Moreover, if the NCCR proposal had played by the usual rules, it would then have gone to the Office of Management and Budget and the White House to get their input, all before being included in a presidential budget sent to Congress's Appropriations Committee as an item in the Energy and Water Develop-

> ment Bill. This typical procedure, which the NCCR was bypassing, is intended to permit the coordination of scientific concerns and energy policy, and to remove science as much as possible from the reach of individual legislators—a kind of anti-pork protection device.

But in 1983, Congress took a page