SCIENCE FUNDING

NSF's Hopes Filibustered

The prospects for getting a quick funding increase for basic research at the National Science Foundation (NSF) this year, and for launching the "data superhighways" program at the Department of Commerce, have gone from dazzling to desperate almost overnight. The lights went out when President Clinton's emergency supplemental request bill died last week. As a result, scientists seeking new NSF grants can expect funds to remain extremely tight this year and next—unless something dramatic comes along between now and October to change the situation.

The bill, whose main purpose was to pay for summer jobs and highway construction, ran into a wall of opposition from Republican senators who argued it would run up the deficit without any clear reason for doing so. In the face of an unbreakable filibuster, the Democrats have now withdrawn the bill, and it's not clear what will come next. For science, the crucial part of the moribund package was a section requesting $207 million for NSF in 1993, most of it earmarked for research. The Administration hoped to get NSF back on a track of steady growth, repairing setbacks that occurred last fall when Congress curbed growth in investigator-originated, or "curiosity-driven," NSF grants. Strategic programs—high-speed computing, manufacturing research, and small business subsidies—were allowed to grow. Had the supplemental bill passed, it would have restored the cuts and expanded the baseline on which the 1994 increase will be calculated.

Without that interim boost, NSF will be hard pressed to get anything like the $3.2 billion budget it has requested for 1994. To hit that target from the lower baseline, NSF would have to receive a 1-year increase of 16%—a figure that would be out of line with what most other agencies are likely to get in 1994. A 16% increase will be a "hard sell" in Congress, according to Kevin Kelly, chief aide for Senator Barbara Mikulski (D–MD) on the staff of the Senate appropriations subcommittee that approves funding for NSF and the space program. As a result, Kelly warned an audience at the AAAS annual R&D colloquium that 1994 could be a tough year for all agencies, and science would not escape the pain.

Commerce, meanwhile, will lose a $64 million boost proposed this year for the new National Telecommunications and Information Administration. The primary effect, says a spokesman, will be to delay the data superhighway program 6 months. The National Institute of Standards and Technology (NIST) will suffer two setbacks, according to spokesman Michael Newman. It will have to do without the $14 million it was slated to get this year to start developing high-speed network technology. And it will have to reduce the number of grants it hoped to award under the advanced technology program. About 250 proposals have been submitted in the technology competition now under way, Newman says. If the supplemental funding had passed, NIST would have been able to fund 40 of them; now, lacking the $103 million increase proposed for 1993, NIST can support only 15 to 20 proposals. What really hurts, Newman says, is that many people who might have been able to start work this year will now have to resubmit proposals and go through the mill again.

That might change if the White House can salvage some of the proposals in the stimulus package. According to a Senate commerce committee aide, "there are lots of discussions going on" about that possibility. The Administration still plans to ask for a supplemental appropriation—to pay for peace-keeping in Somalia and Russian aid—but it is not clear whether it will try to fund high-speed computer networks once again. Even the summer jobs and the childhood immunization programs remain in limbo just now. There's been talk of shifting money out of certain accounts and into the computer technology program to get it moving—although, as the commerce committee aide points out, "that's already happened, in a sense," because high-performance computing was protected from budget cuts in the 1993 NSF budget, even while basic research suffered. But no new plan for brightening the prospects for R&D—by either increasing or reprogramming funds—has yet been submitted to Congress.

–Eliot Marshall

BEHAVIORAL RESEARCH

Sex Surveys Come Out of the Closet

It's not often that an article in a peer-reviewed scientific journal becomes a hot topic of conversation around breakfast tables and in offices across the country. But that's what happened earlier this month when the March/April issue of *Family Planning Perspectives* printed the results of one of the most thorough surveys ever of U.S. sexual behavior, and newspapers around the nation carried its findings on their front pages. The survey's statistics about homosexuality, condom use, and other provocative topics stirred up a good deal of scientific attention as well.

Experts in sexual behavior are hailing the study, performed by a team from the Battelle Human Affairs Research Center in Seattle, as a major advance in understanding human sexual habits. Says Robert Michael, an economist at the University of Chicago who works on sexual behavior studies, "The [Battelle] study moved us forward substantially" by corroborating data from other, smaller studies. But the survey also underscored the pressing need for additional research: Its sample was relatively small—only 3321 men—and an even newer (and smaller) survey has already disputed one of its most striking findings, that only about 2% of men report a homosexual encounter in the past 10 years.

SURVEY OF RECENT SEX SURVEYS

	British	French	Battelle
Percentage who reported a homosexual encounter in past 5 years	1.4	1.4	2.3 (past 10 yrs)
Number of sexual partners in the previous year	1.2 (heterosexual only)		
in the previous 18 months			1.1
Number of occasions of intercourse in previous 4 weeks		8.0	3.7 (vaginal sex)
Total number of partners		11.0	7.3 (heterosexual)

All statistics are for men only. Because of differences in methodology, findings are not strictly comparable.

Confirming and extending the Battelle survey would have been slow work in the Bush years, when conservative politics stalled large sex research projects. The Clinton Administration, however, seems to have "a much more positive attitude towards this kind of work," says Joseph Catania, a psychologist at the Center for AIDS Prevention Studies (CAPS) of the University of San Francisco, and researchers are hoping to conduct new studies in the next few years.

The need to learn more about the prevalence of various sexual behaviors in the United States and about how prevalence varies with age, ethnic group, and other factors is not strictly academic, points out Sevgi Aral, a sociologist at the Centers for Disease Control and Prevention who focuses on the prevention of sexually transmitted diseases. Only by studying sexual behavior, researchers say, can they hope to understand—and staunch—sexual

transmission of the AIDS virus. But two big surveys that might have filled in the picture were killed within the past few years. A pilot study for a survey of sexual behavior among adults was halted in 1989 when the Office of Management and Budget refused to grant routine approval of the survey questions. And a similar study of teenage sexual behavior was canceled in 1991 in response to opposition from conservative legislators.

Yet researchers have been able to conduct a handful of relatively limited studies. Last year, for example, a team led by Catania published a study of condom use and behavior related to risks of HIV infection among more than 10,000 American men and women (*Science*, 13 November 1992, p. 1101). And the Battelle survey provides key statistics about the number and turnover of sexual partners and the prevalence of homosexuality. Among its most provocative findings was that only 1.1% of the men who participated in the study said they had had sex exclusively with other men in the past 10 years—a sharp contrast to the famous Kinsey survey, conducted in the 1940s, which concluded that 10% of U.S. males are homosexual. The Battelle study's conclusion in this area is in general agreement with the results of much larger studies published in France and Britain last year (see chart). Last week, however, Louis Harris & Associates reported that a poll of 739 men indicated that 4.4% had had sex with another man in the previous 5 years.

These studies will be followed up by a few other small surveys. A team at the University of Chicago is expected to publish results soon from a more limited, privately funded version of their canceled adult survey. And just last month, the same group received federal funding for another offshoot of the canceled survey, which will investigate the social networks that connect sexual partners. Further information will come from the General Social Survey (GSS) at the University of Chicago and the National Survey of Family Growth (NSFG), administered by the National Center on Health Statistics. Although the GSS has traditionally focused on demographics and social attitudes and the NSFG on family planning, both have recently added more questions about sexual behavior.

Researchers may have to content themselves with such studies for a while yet. A comprehensive survey of the magnitude many researchers believe will be needed to fill gaps in their knowledge—involving 10,000-25,000 people—would cost an estimated $15 million to $20 million. That kind of money may be hard to come by. The National Institutes of Health, for instance, will channel only 13% of its $1.08 billion AIDS budget into prevention this year. It may therefore be years before U.S. researchers can fulfill their dream of a detailed portrait of sexual habits in their own country.

–Traci Watson

Clinton's Science and Technology Team Takes Shape

With only half of the top science and technology jobs filled and dozens of key second-tier positions occupied on an acting basis, it might appear that the Clinton Administration has been exceptionally tardy in getting its scientific act together. Clinton is, however, running well ahead of his predecessor in filling research posts: Although only two of Clinton's nominees have so far been congressionally confirmed, he's already announced more appointments than George Bush had 6 months further into his own tenure. And, while the pace of appointments on the science and technology front may seem glacial, it's even slower in other areas where highly publicized missteps have added to the delays caused by the White House clearance process.

One reason science and technology appointments are moving along relatively quickly is that Clinton broke with tradition by choosing his science and technology adviser even before he nominated some of his Cabinet members. He announced his selection of John (Jack) Gibbons for that post on 24 December, almost 1 month before the Administration took office. In contrast, Presidents Reagan and Bush didn't get around to naming their science advisers until they had been in office for 4 and 3 months, respectively. Gibbons' early start enabled him to participate in the selection of most of the other science and technology nominees to date. The choices that have been announced so far—and several others that are expected soon—suggest that there will be more women and minorities in the top echelons of the research agencies. Here's a scorecard at the 100-day mark:

OFFICE OF SCIENCE AND TECHNOLOGY POLICY

Director: Jack Gibbons, former director of the congressional Office of Technology Assessment (OTA). Gibbons started by bringing over a few of his top OTA aides to the Office of Science and Technology Policy (OSTP). Gibbons has decided to merge the former associate directorships for life sciences and physical sciences into a single science unit, with assistant directors covering each major research area, and to create new units for the environment and technology.

Associate Director for Science: Unfilled.

Associate Director for Environment: Climatologist Robert Watson, currently chief scientist for the National Aeronautics and Space Administration's (NASA) Mission to Planet Earth program, is expected to be nominated for this post.

Associate Director for Technology: Gibbons has appointed Skip Johns, former head of OTA's Energy, Materials, and International Security division, to this position.

Associate Director for National Security and International Affairs: Unfilled.

OSTP has been allocated 40 full-time staff slots, most of which are not yet filled or even defined. Gibbons and each associate director will have a staff of about seven, and the rest will serve as the in-house staff for an outside advisory body. Gibbons has not decided whether that body should be the presidentially appointed President's Council of Advisers on Science and Technology (PCAST) that Bush launched, or something new.

PUBLIC HEALTH SERVICE

Assistant Secretary for Health: Philip Lee, an M.D. who directs the Institute for Health Policy Studies at the University of California, San Francisco, was nominated last month to return to the job he held during the Carter Administration. Lee will oversee the three top health science agencies below.

Administrator, Food and Drug Administration: Clinton has asked David Kessler, a pediatrician, to stay on in the job he occupied during the Bush Administration.

Director, National Institutes of Health: Bernadine Healy has announced she will leave by 30 June, and a search committee has been assembled to find her replacement.

Director, Centers for Disease Control: William Roper is also leaving on 30 June, but a spokesman says a search committee for that job has not yet been formed.

NATIONAL SCIENCE FOUNDATION

Director: Walter Massey departed earlier this month to take the number two slot in the University of California system, but already the Administration is said to be close to naming his replacement. According to White House sources, the top candidate is Sandra Faber, a University of California, Santa Cruz, astronomer. If Faber turns down the job, the backup list is said to include Linda Wilson, the president of Radcliffe College (who is also on the search committee for the NIH director), and University of Maryland Chancellor Donald Langenberg, who formerly served as NSF deputy director.