to be holding its annual meeting in Atlantic City and was able to respond immediately to the news of Nixon's rejection of Long.

Eminent individual scientists have also deplored the Nixon administration's action. All four previous science advisers, in response to queries from *Science*, said they were upset over the implications of the Long incident.

James R. Killian, Jr., science adviser to the late President Eisenhower, called the rejection of Long "troubling" and said it is "urgently important" for the Nixon administration to reaffirm the nonpolitical nature of the NSF direc-

torship so that the foundation can "command the confidence it must have."

George B. Kistiakowsky, Killian's successor as science adviser to Eisenhower, said he was "gravely distressed and troubled about the mixing of military issues into the process of appointing the director of an agency that has nothing to do with military policies."

Jerome B. Wiesner, science adviser to the late President Kennedy, said he is "very troubled" at the "politicalization" of the science foundation and at the notion that the Nixon administration "will systematically exclude"

opinions it doesn't like, with the result that "people with contrary scientific opinions will be very reluctant even to talk about a post in the Administration."

And Donald F. Hornig, science adviser to former President Johnson, said he is "deeply distressed" at Long's rejection because Long is a "first-class man" and because he (Hornig) wouldn't like NSF to become a political agency.

Another prominent member of the science establishment, Robert L. Sproull, chairman of the Defense Science Board, said he is extremely dis-

Nixon Science Budget Cuts Less Severe Than Feared

When President Nixon sent his revised 1970 budget to Congress last week, science cuts were less sharp than had been originally feared. With the exception of the National Science Foundation, whose budget was left untouched, every major science-related agency received some cuts, but in most cases the slashes were not deep wounds. Hard hit were funds for higher education. Conspicuously absent from the Nixon budget was any mention of new funds for the Supersonic Transport Program (SST).

With Nixon's revisions of the Johnson budget in hand, Congress will now have an opportunity to make its cuts. Leading congressional figures have already indicated that the Nixon cuts are not deep enough and that sharper reductions will probably be made by Congress. The cuts may well come in the form of limitations on expenditures, as they did last year.

The Atomic Energy Commission (AEC) was one of the biggest dollar-losers. From the \$2.4-billion figure in the proposed Johnson budget for 1970, \$78.6 million was eliminated. About \$25 million of this cut resulted from Nixon's earlier decision to reorient the ABM system to a scaled-down "Safeguard" program. A general slowdown in operations accounted for another \$30-million cut. The light-water breeder-reactor program was reduced by \$10 million; the 200-Bev national accelerator program was cut by \$6 million, to \$127 million, and a \$1.5-million food irradiation program was canceled.

National Space and Aeronautics Administration (NASA) funds were also reduced by a net \$45 million, from the \$3.87 billion that had been proposed in the Johnson budget. Hardest hit were NASA's space sciences and applications programs (\$41 million) and its advanced research and technology programs (\$13 million). In general, the NASA cuts were in the unmanned space science programs, while the manned programs—the Apollo moon-landing operation and the Saturn 5—received an \$86-million boost, whereby the number of possible manned moon landings is increased and additional instrumentation for future flights is provided for. NASA's nuclear rocket program, which includes the

development of a specialized nuclear engine system (NERVA), will remain at a \$36.5-million funding level.

The total Health, Education, and Welfare (HEW) budget did not change as much as expected, but programs for higher education suffered. According to HEW, funds for university facilities and construction were reduced by \$107 million, on the grounds that "colleges and universities should be encouraged to finance construction from non-federal sources." HEW has indicated that federal funding in the form of subsidized interest on private loans will be stressed. College work-study programs and a program to strengthen developing institutions were reduced by \$6 million. Scientific activities abroad, which are funded under special foreign-currency programs, were slashed from about \$15 to 3.5 million.

The National Institutes of Health (NIH) budget was cut by \$47.4 million from the Johnson request of \$1.5 billion. NIH research grants were cut slightly—\$7.8 million from a total of \$634 million. NIH's research manpower development program, which provides training for researchers in the health sciences, was cut by \$11 million. On the other hand, aid to medical schools was increased by \$5 million—action which was taken, NIH says, to meet a national need for more trained physicians.

The total National Science Foundation budget, some \$497 million, remained unscathed. It includes a new \$10-million program for interdisciplinary studies relevant to problems of our society and the modern environment, and \$5 million for a National Sea Grant Program.

The Nixon budget makes no mention of new funds to start construction of a prototype for the SST. It does make available, as did the Johnson budget, funds estimated at \$92.7 million leftover from previous years, for continued research and development. Sources say that if Nixon consents to continuing the SST program, which has already cost the government nearly \$500 million, he could take the money from his contingency fund or ask Congress for a supplemental appropriation, but, as of this writing, the President has not approved plans to move ahead with construction of the SST.

-Marti Mueller