NSF's budget, which is relatively modest to begin with, does not go solely to the support of research projects. For fiscal 1970 NSF has proposed spending only about 50 percent of its budget on support of scientific research, of which about three-fourths would support research projects initiated by investigators and the rest would support various national research centers, national research programs, and specialized research facilities. The remainder of NSF's budget would support science education (22.6 percent), institutional development (14.3 percent), computing activities in research and education (4.2 percent), and a host of smaller programs.

There are many reasons for NSF's failure to grow larger and more influential, and most of them involve inherent difficulties in attracting political support. For one thing, NSF lacks the powerful constituency that the mission agencies enjoy. Academic scientists are an anemic bunch compared to the "military-industrial complex" and the other strong constituencies that clamor for more research spending on defense, atomic energy, and space, or even compared to the organized health groups that push for more medical research. For another thing, NSF does not deal in research that has an obviously useful application, and it therefore has a harder time "selling" its program to Congress than, for example, the National Institutes of Health, which can justify its research program in terms of health benefits. Third, NSF has never found a congressional champion —no one to rival Lyndon Johnson's support of the space program, or Lister Hill's and John Fogarty's support of health research. Indeed, NSF's basic philosophy of supporting excellence in science conflicts somewhat with its need for broad political support. Many Congressmen are more interested in how much "pork barrel" money is funneling into their own state university than in whether outstanding scientists at the nation's leading institutions are receiving adequate support. Philip Handler, chairman of the National Science Board, the policy-making body for NSF, told *Science* that NSF "has suffered from the lack of a congressional advocate—someone who truly identified his political career with the fortunes of the agency." However, Handler said that the chief reason NSF hasn't been able to assume the leadership role originally proposed has less to do with the fortunes of NSF than with the fact that the mission agencies have supported research with "a great positive thrust" that had not been anticipated by the founders of NSF.

But, after all the explanations have been made, it must be acknowledged that much of the blame for NSF's political impotence lies with the agency itself. NSF has shown little interest or talent for political affairs, and it has occasionally been so inept as to damage its standing on Capitol Hill. In a wide-ranging interview with *Science* last January, Ivan L. Bennett Jr., then deputy director of the President's Office of Science and Technology, called NSF "absolutely the most politically ineffective agency I've seen." Bennett said he was "amazed at how much the scientific community relies on NSF. It's a broken-down, pitiful, ineffectual agency, but the scientists feel it is theirs. They don't realize what a weak sister it is." Bennett was speaking in the wake of a discouraging budget year and before McElroy, who has an aggressive political effort planned, had been named to head NSF.

Perhaps the most glaring deficiencies in NSF's political effort have involved its relationships with the White House, the Congress, and the press. NSF has not only failed to cultivate these sources of political power; it has, in fact, deliberately avoided making much effort to cultivate political backers. The reasons lie partly in a feeling that science and politics shouldn't mix, and partly in the personal preferences of NSF's first two directors, Alan J. Waterman and Leland Haworth.

With respect to the White House, neither Waterman nor Haworth enjoyed direct access to the President. If a matter of importance to NSF came up, they would present their case to the president's science adviser and leave it up to the science adviser to carry the ball from there. Last year, during NSF's budget crisis, Haworth did not

Panel on Oil Spills Warns of More

The presidential panel on oil spills which was set up in the wake of the Santa Barbara Channel blowout issued its report last week, warning of the possibility of a sharply rising incidence of such disasters. Coincidentally, the report followed by only a few days an announcement by Secretary of the Interior Walter J. Hickel indicating that the fast pace of offshore oil development—interrupted by the Santa Barbara blowout—soon will be resumed. Hickel said an oil lease sale will be held in December for tracts totaling 96,000 acres in the federal domain off Louisiana, and that this sale probably will be followed by another Gulf of Mexico sale next year. Furthermore, the possibility of holding a lease sale on tracts off Alaska [probably in the Gulf of Alaska] is being considered, the secretary said.

The oil spill panel, which was set up by Lee DuBridge, the White House science adviser, at President Nixon's request, said that the know-how for controlling blowouts or cleaning up spills from offshore drilling or tanker mishaps is still lacking. The panel noted that, since 1954, some 8000 wells have been drilled offshore and that eight oil and 17 gas blowouts have occurred, though only a few of the blowouts have been major. If offshore drilling continues to increase at the present rate, "3000 to 5000 wells will be drilled annually by 1980, and we can expect to have a major pollution incident every year," the panel said. According to the panel, the Santa Barbara spill has involved the loss of from 1 to 3 million gallons of oil—an amount vastly larger than previous estimates by the oil industry or the government.

The group, which is chaired by John C. Calhoun of Texas A & M University, recommended a 5-year program of research and development on the problem of coping with blowouts and oil spills. Other recommendations of the panel included one calling for deferral of decisions on whether to allow drilling on some offshore lands and one stating that "common sense and the public interest" require that the government obtain more information about the offshore lands it administers (if necessary, by purchasing it from the oil industry or possibly obtaining it through regulation).—L.J.C.