

trenchment in the universities and industry, the in-house laboratories of federal agencies appear to have done quite well for themselves. Even accounting for inflation, support of intramural research in such agencies as Defense, Interior, Commerce, and the NIH nearly doubled (from \$1.8 billion in 1961 to \$3.1 billion in 1972), with the fastest rise coming after 1969.

The NSB offers no comment on the fattening of the federal labs, but instead concludes the main body of its report by offering for contemplation two more declining trends in academe and industry.

With evident alarm, the board notes that federal support for R & D equipment and facilities has fallen 75 percent since 1965 and that, between 1966 and 1971, the proportion of NSF and

NIH grants allocated to permanent new equipment dropped by half (from 12 to 6 percent.) "Appropriate tools and plant" the report observes, are "as essential as expenditures for the performance of research itself." Similarly, the report notes that the Nixon Administration has funded only one major new research facility (the Very Large Array radio telescope being built in New Mexico at a cost of \$76 million), although an "evident need" is said to exist from some 30 other major facilities, ranging from a proposed \$10 million National Institute of Ecology to a \$20 million, 200-inch telescope in the Southern Hemisphere.

Finally, there is yet another worrisome trend to be considered in industrial R & D: small companies (fewer than 1000 employees) appear increas-

ingly to be pulling out of R & D and leaving it to major firms (those with 5000 employees or more.) Between 1958 and 1971, small firms' share of R & D dropped from 20 percent to 6 percent, while the large firms' share rose from 70 to 85 percent.

It is true that the actual number of small firms in business fell slightly, but not enough to account for a brain-drain of this magnitude. This trend ought to be investigated, and perhaps lamented, the NSB advises, for historically small firms have turned out more than their share of those luminous technological innovations that engender whole new industries. It is possible that the statistics misrepresent reality, says the NSB, "but it is also possible that they signal a declining rate of technological innovation."—ROBERT GILLETTE

Congress and Executive: Expanding an Adversary Relationship

When Congress returned on 5 September from its summer recess, it faced uncertainties as thick as the pall of late-summer heat and smog that hung over Washington. Relations between Congress and the White House had reached a nadir at the time Congress recessed; more recently both sides had expressed a willingness to cooperate, although neither side seemed particularly disposed to compromise. Then on the day that Congress reconvened, President Nixon in a news conference spoke of the "disappointing performance" of Congress, Hill Democrats bridled, and it began to look like a long hot autumn.

Watergate, of course, has contributed to the tensions, but the central issue still appears to be the contest between Congress and the President over where to draw the line defining the separation of powers. The dispute had been building during Nixon's first term, but developed into open conflict after Nixon's decisive victory in the 1972 election. Democrats in Congress accuse the President of violating the prerogatives of the legislative branch by impounding funds appropriated by Congress. Nixon, on the other hand, charges that Congress

has irresponsibly failed to put a limit on spending which he believes necessary to restrain inflation at home and support the dollar in world markets. There are other issues, of course, but the argument over impoundment has developed into a grudge fight.

Very important in the present conflict is the manner in which it is being carried on. In the past, disagreement between Congress and presidents has ordinarily followed a familiar sequence of congressional enactment of legislation, presidential veto, and congressional attempt to override the veto. Usually it has been possible to fashion a compromise acceptable to both sides.

Today the formula of vote, veto, and compromise is not working. Nixon has vetoed a half-dozen measures in this Congress, the Democrats have not been able to muster the required two-thirds vote to overturn the vetoes, and neither side has so far been willing to compromise. But most significant is that both sides are now going outside established patterns of action.

The Administration has made unusually heavy use of the impoundment device. In response, a number of court

suits have been brought—with some initial success—to gain release of impounded funds. At the same time, Democrats on Capitol Hill are accusing the Administration of using agency reorganizations and administrative subterfuge to work its will in areas where it has been rebuffed by Congress. Congressional Democrats, for their part, are dealing more toughly with agency officials—on occasion, for example, they have made public internal agency documents which in the past would have been kept confidential. In other words, a harsher adversary relationship is developing.

While differences range across the board, the sharpest encounters so far have come on domestic legislation, particularly on programs dating from the Kennedy-Johnson era, when spending on social and welfare programs rose steeply. A key measure is the appropriations bill for the Department of Health, Education, and Welfare (HEW) and the Labor Department. At issue is a \$32.8 billion appropriation passed by the House which contains some \$1.3 billion more than was requested in the Nixon budget. The bill is now before the Senate Appropriations Committee, which is expected to act promptly on it. Nixon has indicated he will veto the bill unless the Senate reduces the total. The Senate has traditionally raised the ante on HEW appropriations bills, so the stage seems set for another veto.

The bill in question contains funds for the 1974 fiscal year, which began on 1 July. If it seems odd that Con-

gress is still working on a funding bill 3 months after the relevant fiscal year began, it is more remarkable that in fiscal 1973 no appropriations bill at all was enacted. There were two Nixon vetoes along the way, and Congress and the President never reached a meeting of the minds.

Money to operate HEW programs and pay bureaucrats was provided under a "continuing resolution" passed by Congress, which, in effect, permits an agency to spend money at a rate set by appropriations legislation in the previous fiscal year. Under a continuing resolution, new programs or higher budgets for old ones simply cannot be funded. Under these conditions, federal funds are usually released late; this and the general air of uncertainty produced can be demoralizing to universities and other institutions which rely on these funds.

The prognosis for this year seems to be for more of the same. Asked if he foresaw another year without an HEW appropriations bill, one Senate committee staff member said wryly he saw the next 3 years that way and that "what we've got is government by continuing resolution."

Difference over Education

The HEW bill contains funds for myriad programs. It is in the education sector, however, that the differences between Congress and Executive, both philosophical and financial, appear greatest. The President's budget asked for a total of \$5.3 billion for the "education division" of HEW, while the committee recommended \$6.2 billion. Direct comparisons are very difficult here because the President is asking for an entirely new approach to providing federal aid to elementary and secondary schools. He prefers that most such aid should be delivered through the mechanism of revenue sharing with the states. Some \$2.5 billion in federal funds is earmarked in the Nixon budget for revenue-sharing funds for the schools. This would represent a consolidation of funds now distributed through so-called categorical aid programs for specific purposes and the abolition of most of these programs. Democrats generally defend the categorical aid approach and charge that the Administration's revenue-sharing plan would result in reduction of up to a billion dollars a year in total federal funds reaching the schools, a charge that raises very complex questions of interpretation. Most observers feel the

clash on school funding is a standoff and that the existing pattern will be preserved by continuing resolution.

The situation is different with respect to higher education, which is only marginally affected by the revenue-sharing issue. Authorizing legislation in the field is concentrated in the Higher Education Amendments of 1972. This law does not expire for several years. The amendments were greeted as landmark legislation (*Science*, 28 May 1972) when they were passed, but the catch is that new programs authorized under the law haven't been funded because of the tieup on appropriations. The two programs most affected are probably student aid and a new program of institutional aid.

In the case of student aid there is an argument, not over the level of funding, but rather over how the money will be spent. The Administration is enthusiastic about a new program of student aid called Basic Opportunity Grants (BOG's). The Nixon budget carries a request for \$622 million for these grants, which with other funds would increase the total for student aid to nearly \$900 million, perhaps \$130 million higher than last year.

Congress, which fears that the Administration would cut or end existing student aid programs if given funds for the BOG's, wrote a proviso into the new law prohibiting the spending of money for the BOG's until other student aid programs had been funded at current levels.

Institutional aid remains hypothetical unless the appropriations impasse is broken, but the present institutional aid is of a type that the Administration is said to dislike. Observers on Capitol Hill say the Administration is anxious not to see more "uncontrollable" programs created. By that is meant programs for which funds are provided according to a formula without effective limits on the total to be committed. The White House, it is said, for example, would rather see innovative programs financed through project grants on which limits can be placed. Financing for the institutional grant program is based on a formula that makes funding open ended, and this, in part, has caused the Administration to be cool toward it.

In the impoundment battle, frustrated designees of funds have begun to sue, and an increasing number of the disgruntled are following this route. At least a score of cases involve education funds, and in several of them fed-

eral judges have ruled that the President has exceeded his authority by impounding funds against the specific actions of Congress.

The last word may not be said in these matters for some time. The Administration is appealing the cases, and it will likely take a Supreme Court ruling to decide the issue. The court action, however, does not seem to have been without practical effect. In June the Office of Management and Budget (OMB) released some \$34 million in impounded HEW funds. Among the items included was \$10 million in funds for land-grant colleges in a program which is a legacy of the original land-grant legislation. OMB does turn loose funds at the end of the fiscal year, and the legal issue remains moot since the funds were released before a decision was reached, but a lot of people think the suit served its purpose. The larger implications of bringing the Judicial Branch into the appropriations process have hardly begun to be assessed.

Critics See New Tactics

Critics on Capitol Hill insist that the Administration has developed new tactics of its own to accomplish its aims. Through the reorganization of an agency, it is charged, a bureau may be downgraded and lose visibility, for example, as the official heading it loses rank, fiscal authority, and the power to carry on a research program. When this happens, it is difficult for Congress to oversee programs it has legislated. Charges that this has happened to a significant degree in HEW are likely to be aired in hearings on the Hill in the coming year.

If the problems of higher education and health do not seem to have a very high national priority these days, it is partly because the attention of congressional leaders and Administration officials is directed to economic issues or distracted by Watergate. There was speculation that the appointment as a top White House adviser of former Congressman Melvin Laird, with his knowledge of Capitol Hill and interest in domestic issues, might open a new route of negotiation down Pennsylvania Avenue. But now it is unclear whether the President in his press conference, and in the legislative message which he dispatched as *Science* went to press, would have the effect of extending an olive branch or simply throwing more fuel on the fire.

—JOHN WALSH