Besides impoundment, there are other budgetary devices whereby congressional directives may be reinterpreted. Transfer authority, written into appropriations bills by Congress, allows a limited amount of money to be switched within an agency's budget—up to $750 million in the Defense Department. Reprogramming is a device that permits funds to be shifted from one purpose to another within the same budgetary account; the procedure is for the agency concerned to check with the chairmen of the relevant congressional committees. In fiscal year 1972, reprogramming in Defense approached $1 billion. Other sorts of money over which congressional control tends to be feeble are secret funds—whose amount is unknown but may be on the order of $10 billion a year—and deferred balances. The latter are special-purpose appropriations that may be carried over from one year to the next; if the original purpose falls through, the unexpended balance may, depending on the wording of the authorization language, be applied to new uses. In fiscal year 1971, Defense had $43 billion in unspent authority from previous years, in addition to its $71 billion budget.

Quite apart from the external mechanisms that erode the appropriations process, the process itself is none too well attuned to modern times. The persistent failure of Congress to pass appropriations bills before the beginning of the fiscal year—this year's HEW appropriation is a case in point—simply invites agencies to develop ways of circumventing Congress. The system of House and Senate appropriations subcommittees is not the ideal machinery for supervising a federal budget of present-day size and complexity. "We have no single, coordinated way in which we view the totality of our appropriations," Representative John A. Blatnik (D–Minn.) has observed. The creation of practically autonomous subcommittees within the appropriations committee has further split responsibility for total spending and overall management, he says. It remains to be seen whether the dissatisfaction of Blatnik and other congressmen will lead to any strengthening of Congress's appropriations system. The constitution may have given Congress what is called the power of the purse, but somehow the purse strings seem to lead round through the back door of the President's Office of Management and Budget.—N.W.

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Health

There are two generalizations that can be made about President Nixon's health budget for fiscal 1974. First, unless you are in an area that is one of the President's favorites—the White House calls them "high priority programs"—you will probably have less money than you did before, whether you are a research scientist or a sick person looking for medical care. Second, even if you are part of the in-crowd of the health establishment, increased funding in your field may not be as great as the Administration implies.

The President's budget for the Department of Health, Education, and Welfare (HEW) is one that reduces federal support for health delivery or service programs, sometimes to the point of extinction, and cuts basic research funds as well. Many observers see some merit in trimming some of the service programs under the Health Services and Mental Health Administration (HSMHA) and the National Institute of Mental Health (NIMH), agreeing with the President that they have either proved unsuccessful or have fulfilled their mission. Regional medical programs under HSMHA fall into the former category. They will be obliterated with little mourning. The NIMH's community mental health centers program, which will cost about $134 million in 1973, fall into the latter. The Administration maintains they have demonstrated their value and should now be supported by local governments. Within NIMH, the only programs in line for major funding increases are those dealing with addiction and drug abuse. The 1974 budget calls for an expenditure of $448 million in this area. The 1973 figure is given as $204 million. Opinions about the merits of this selective boost are mixed.

When it comes to the budget proposals for the National Institutes of Health (NIH) and, therefore, federal support of research, there are few, if any, leaders of the biomedical community who are happy with the choices that the President, through his Office of Management and Budget (OMB), has made.

Nixon's favorite, high priority programs reside within the NIH. As everybody knows, they are cancer and heart disease. Each will benefit from an increase in funds. According to OMB figures, the budget of the National Cancer Institute (NCI) will go up by $74 million to $500 million for fiscal 1974. Heart disease seems to be a lesser favorite. The allotment for the National Heart and Lung Institute (NHLI) will jump by $18 million to $265 million, again according to OMB figures. It is not exactly a staggering rise. It is, however, a big jump over the 1972 budget which was $224 million. Sickle cell anemia has also been singled out as a priority program—NIH officials are beginning to refer to them as the President's "sacred cows"—and population research will go unhurt. As for everything else . . . . According to NIH leaders, this is the first year that general research funds have suffered an absolute decrease, the first year that the emphasis on cancer and heart disease has actually cost other disciplines in dollars and cents. The President's budget is something they do not defend.

The first question anybody asks about the budget when it rolls off government printing presses at the end of January is, simply, is it up or down. Each year, the Administration, as one might expect, tries to emphasize places where its support of popular programs has grown. The press and other observers try to sort out the figures to see whether they will buy the government's analysis of itself. It is never an easy job. This year, with the health budget, it is

A QUICK LOOK AT PARTS OF THE NIH BUDGET
(The 1973 figures are from the "revised" budget for that year.) The figures given are in thousands of dollars.

Institute	1973	1974	Change
Cancer	426,093	500,000	+ 73,907
Heart	247,075	265,000	+ 17,925
Dental	40,333	38,452	− 1,881
Arthritis	139,806	133,608	− 6,198
Neurology	105,539	101,198	− 4,341
Allergy and Infectious Diseases	100,726	98,693	− 2,033
General Medical Sciences	151,587	138,573	− 13,014
Child Health	109,551	106,679	− 2,872
Eye	33,797	32,092	− 1,705
Environmental Health	25,889	25,263	− 626

particularly tricky, because the 1973 budget, which would normally be a standard reference against which to measure the upward and downward trends in the 1974 HEW money bill, does not really exist. It is the budget the President vetoed last summer. It has never been revived. Instead, NIH and all other agencies in HEW have been living on a "continuing resolution," which means that spending has been held, more or less, to 1972 levels.

As a result of this unusual and highly confusing situation, there are three different sets of 1973 figures one can use as a yardstick for measuring the 1974 budget. There are the figures in the original 1973 budget, the one Nixon sent to Congress last January just as he is sending the 1974 budget to the Hill now. There is the "revised" 1973 budget which is listed in the 1974 budget and which the Administration now considers the one that counts. It's figures are consistently lower than those originally presented for 1973. And, there is the 1973 budget according to the Congress of the United States. It's figures are consistently higher than either of the other two.

By looking at the various numbers as they apply only to the budgets for the NIH's institutes and research divisions, one can get an idea of the numbers games there are to be played. The total request in the 1974 budget is $1.531 billion. The total request in the revised 1973 budget is $1.483 billion. Thus, the new NIH budget is $48 million more than the old one. However, if you compare the 1974 figure with the original 1973 request ($1.570 billion), you get a different answer: $1.570 (1973) − $1.531 (1974) = −$0.39

Viewed that way, NIH comes out way behind, particularly because these figures do not include inflationary factors. If you look at NIH from the perspective of what Congress wanted, the situation is poorer yet. Congress passed a bill appropriating $1.783 billion to NIH for 1973. By that measure, the President's 1974 request puts research $252 million behind.

Whatever set of figures you use to evaluate the situation, it is obvious that federal spending for medical care and for biomedical research is declining. Neither area was accorded any special treatment in the Administration's overall plan to trim federal spending. Certainly, this will offend those who used to be the recipients of federal largesse. Along these lines, the Administration will continue to push for development of controversial Health Maintenance Organizations which involve pre-paid care. However, it will bow out of graduate training and its concomitant institutional support altogether (*Science*, 26 January). Some institutional support will come through capitation grants, but they will be funded only at 1973 levels which many schools consider inadequate. Furthermore, the Administration has acted to reduce capitation. It will limit those funds to the country's 125 schools of medicine and osteopathy and 58 schools of dentistry. Nurses and other health professionals are now out of the capitation picture. Whether these budgetary actions will really have an irreparable and adverse affect on the progress of biomedical research and the quality of medicine is hard to gauge, to put it mildly. But one aspect of all this that the biomedical brass finds most distasteful is the fact that they are really not in on the decision-making any more. For political reasons, for example, cancer and heart disease are targeted to be conquered and the implication is that, with enough money and good management, they will be. The OMB apparently believes this. Most scientists still do not, but their opinions carry little weight.

—BARBARA J. CULLITON

Science Foundation

The proposed budget for the National Science Foundation (NSF) for fiscal 1974 will be going up and down at the same time. In terms of actual spending, there will be a 2 percent rise to $584 million. In obligations, which include future spending, NSF will seek $641.5 million, or $33.2 million less than it did last year, and $8.7 million less than Congress appropriated when it voted $650.2 million for NSF's 1973 budget.

This has happened partly because this year NSF didn't get its full appropriation. The OMB held in reserve about $62 million of NSF's budget during fiscal 1973. The Administration plans to spend that money instead during fiscal 1974. Hence it can seek a lower new appropriation. This system of reducing new appropriations is being used throughout the budget this year.

At a press briefing on the budget, NSF director H. Guyford Stever maintained that NSF's basic research was being sustained in fiscal 1974. Most NSF basic research is funded through the Science Research Project Support (SRPS) program which seeks a 5 percent increase to $275 million. But if current 5 percent general inflation rates persist into fiscal 1974, this increase will be absorbed by inflation.

There are no new staff slots or funds for NSF to take over the functions of the now-abolished Office of Science and Technology. The White House announced on 26 January that Stever would be the new science adviser and NSF would assume OST's role. However, without new funds for this change, it is unclear how NSF can effectively don such a new, broadened role.

What will be cut back in fiscal 1974? The 1973 NSF budget was artificially swollen by about $20 million which paid for three ski-equipped C 130 aircraft for Antarctic research. More important for the future, graduate student support will decline by $4.8 million with the finish of the graduate traineeships. Institutional grants for science will decrease by $2 million to $6 million. NSF will seek $3 million only in special foreign currency for international programs; last year it sought $7 million.

There are some interesting increases reflecting NSF's interest in the newer so-called "practical" programs. The Very Large Array telescope will need $10 million in fiscal 1974 for construction. RANN, or Research Applied to National Needs, will get a healthy $9 million boost—largely in its hardware-oriented advanced technology applications section. Most of the basic science areas in SRPS receive $1 million raises; but engineering and social sciences did much better with $2.6 million and $2.1 million increases, respectively. The technology assessment program —one of the few relics of last year's Presidential Technology Message—will still be funded at $2 million, and the money for the R & D incentives program, which for a time had most of its $18 million 1973 appropriation held up by OMB, now expects to get $15 million before the end of fiscal 1973 and $18 million in fiscal 1974. Science education, which had $30.8 of its funding held up last year by OMB, will receive that money during fiscal 1974 along with a smaller new amount of $29 million—a clear example of how OMB holds on funds are being applied to the 1974 budget.

The NSF budget also illustrates the lesson that such documents cannot be read too skeptically. NSF's lead chart shows steady increases in NSF's "direct program funds" from $600 million in fiscal 1972 to the $641 sought for fiscal 1974. But in terms of budget authority—the ceilings