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1968 - FY69 #'s

D R A F T

White House Perspectives on Budget Expenditures

SUMMARY:

A. No one now looks systematically at Federal expenditure policies across all major agencies.

B. Overview information such as shown in some of the Tables here are useful because they suggest questions to policy-makers and suggest where changes could be made. They should be temporary and expedient rather than formal and official.

C. To decide what to change and how as opposed to what areas to look at, analyses is needed of current and proposed programs. Are they effective? Are they worth the cost? Are they preferable to alternative Federal, state, or private programs? The analysis should be (a) issue oriented, (b) tied to political analysis and the design of the President's program.

D. In theory the agencies could do much of this, but they don't have people oriented towards or capable of such analyses, and it is very hard for inter-departmental problems. Further, the President must set the tone for how programs are to be evaluated, and he must set the standards for the analyses that will support his desires and the legislative battles of his choice. It is afterall his legislative program, and decisions that may be in his interests will not necessarily be in the interests of the agencies and departments.

E. This type of analytical activity requires continuous stimulation, monitoring, mothering, threatening of the bureaucracy, etc. One-time overviews or expressions of priorities will not be enough.

F. There should be a staff for policy analyses in the Executive Office. The Program Evaluation staff and the Resource Planning staff of the Budget Bureau are the closest we now have. If the Bureau is to be given the role of Comptroller rather than policy adviser, the White House and other Executive Office agencies must have direct access to these staffs. Alternatively they should be relocated organizationally within the Executive Office.

D R A F T

I. The Budget as a Snapshot of Federal Programs

Dollar expenditures by program is a useful way of summarizing what the Executive Branch is doing. The problem is, however, that there is no unique budget display -- how you break it down and how you aggregate programs depends on the purpose of the display.

The Budget of the U. S. Government shows two breakdowns -- one by agency and the other by function (Tables 1 and 2). Unfortunately, the official functional breakdown is not accurate. The Budget Bureau is very reluctant to change the functional assignment of any given account even as the activities funded change over time; and many large accounts cover more than one functional area, so that their assignment to any one function is quite arbitrary.

The idea of a functional budget display is very important, but its purpose should be to inform by being flexible and adaptable to the issues of concern, rather than to conform to historical or legalistic precedent. To give a more informative view of Federal activities, therefore, I have prepared two new functional descriptions of the Federal budget. The first (Table 3) is broken down by 13 broad functional areas and 5 types of activity within each function. The second (Table 4) starts with 5 major categories of Federal programs and breaks these down by function.

Many more budget breakouts are possible and useful (e.g., the PPBS program budgets), and it is important to remember that each has its own purposes. Any given display describes Federal activities along a particular set of dimensions and consequently suggests tradeoffs among those dimensions. Table 1, for example, is appropriate for a discussion of whether one department's budget should be expanded or reduced relative to the others.

Table 3, on the other hand, suggests tradeoffs among functional areas like health, education, and defense, or among direct services, subsidies, and research activities. Table 4 is most appropriate to the important balance among government-provided social services, correction of imperfections in a marketplace, and collective purchases (e.g., defense, judicial, etc.)

Table 5 shows still another cut at budget numbers by special interest group. The expenditures shown for each group or for all programs of special benefit to that group and do not reflect direct subsidy payments alone. There is some double counting because some programs cover more than one of the groups; this is adjusted for in the totals.

Uses of Budget Displays

A particularly important purpose of the budget is to account for and report to the public the scope of Federal activities. For this purpose, a single descriptive categorization is needed that will facilitate public discussion of the scope and allocation of Federal expenditures. The new unified budget concept is adequate for that purpose.

For White House decision-making, however, that single budget is not sufficient even though it will be the framework for presenting the President's budget proposals to Congress. Budget displays for internal Executive Office decision-making should be dictated by the issues the President and the Cabinet choose to raise, not vice-versa. This means that there should be a capability for assembling approximate and estimated budget displays flexible and responsively to their needs. Those needs are typically quite different from the requirements for detailed financial audit, for Congressional submission, or for lower-level operational control.

For all intents, no one in the Executive Branch looks at Federal expenditures as a whole. The aggregate budget target is typically selected by the "Troika," but there is now no significant incentive to look at the balance of

Federal programs in terms of costs, accomplishments, appropriateness for Federal activity, and political invulnerability. The White House staff and the Budget Director typically have not insisted on such information, and it therefore is not generated. "Special Analyses" are printed in the budget for a number of areas that cut across Departmental lines, but these are rarely put together with any decision issues in mind. They are mostly just collections of tables that may or may not have any significance -- and seldom help to decide what to do.

II. Three kinds of efficiency: where the money is

Efficiency in government is a platitude, but most discussion usually blurs together three distinct concepts of efficiency: (1) paper-clip efficiency, (2) program efficiency, and (3) efficiency in priorities. It is essential to distinguish among these if the goal of controlling Federal expenditures is to be achieved.

Paper-clip efficiency holds down costs by holding down inputs to agency activities such as personnel, travel, computer time, and office supplies. Paper-clip efficiency was a useful approach to Federal budgeting when the government did simple and obvious things in simple and obvious ways. It is still important, but mainly to operational managers rather than people in policy positions. It is, however, still reflected at the national level when across-the-board percentage cuts are used to restrain agency expenditures.

Program efficiency is concerned with achieving program objectives at minimal cost. It goes beyond paper-clip efficiency by searching for major alternative ways of achieving specified objectives and by considering explicitly the tradeoffs between cost levels and levels of achievement of objectives. Program efficiency became necessary as the government grew larger and more complex. More attention had to be given to finding the activities that would achieve government objectives most efficiently -- as opposed to how to perform any given activity most efficiently. Higher order efficiency is not now systematically sought in the Executive Branch: Most of the bureaucracy assumes that what it should be doing is what it is currently doing; consequently there is little search for major alternative ways of achieving program goals. The Budget Bureau still concentrates on formula increments for agency budgets and relatively minor (several million dollars) individual program issues. The Planning-Programming-Budgeting

System (PPBS) was set up to focus attention on how agency activities relate to government objectives. It is still in its infancy and has had little impact on programs and budgets. The reasons for this lack of impact will be discussed in a subsequent memo on the supply and demand for analysis; the chief reasons seem to be lack of good people and insufficient White House initiative.

Efficiency in priorities is a still higher kind of efficiency that asks what sets of objectives we should pursue and to what levels in order to get the most benefit out of Federal expenditures. This is of course the highest order of efficiency and should be and is the primary concern of the White House. Most Presidents accept the definition of national objectives and priorities among them as one of their major responsibilities, but all have found it exceedingly difficult to translate their priorities into actual changes in what the Federal government does. Why it is so difficult will be discussed in later memos.

Where the money is

It is hard to estimate how much of the growth in Federal expenditures can be traced to inefficiencies of the above types. This is especially so because much efficiency is attainable only by especially competent people -- and there are never enough to go around.

It is reasonably clear, however, control of Federal expenditures depends primarily on efficiency in priorities. The Budget Bureau typically deals with individual program reductions in the $1 - 20 million range (less than .01% of Federal expenditures). The issues raised by PPBS tend to be in the $100 million - $1 billion range, but the larger savings typically involve questions of priorities among objectives as well as simple program efficiency. (For example, nuclear de-salting plants appear uneconomical but can be justified if abundant water is declared to be an end in itself rather than a

means toward economic growth.) Recent speculation about "needs" of $1 trillion ($1,000 billion) and up for our cities over the next ten years show the kinds of money in the domain of priorities efficiency. (Note that $2 trillion over ten years is about $3,000 per family per year and $200 billion total per year!)

The facts are that most of the non-defense budget goes for programs that provide income or services for special groups of people or industries. Table 6 shows gross and net expenditures for 8 special interest groups and for cities and localities. Since some programs fall in more than one area, the double-counting is subtracted at the bottom. The total net expenditures is about $70 billion or about 70% of Federal expenditures outside defense and international affairs.

Any significant reduction in any of this $70 billion of programs would be a highly political act (as would holding growth in these programs below 5 - 7% per year to keep up with inflation, population, and GNP growth). It would also be an assertion of priorities in the most fundamental sense.

In short, asserting meaningful priorities means affecting who gets what share of Federal expenditures and how. This applies to tax incentives and benefits as well. Table 7 shows U. S. Treasury estimates of revenue foregone through special tax treatments, and it is clear that these provisions are jealously guarded by political interests.

Routine increases in existing programs are approximately sufficient to match expected revenue increases. Vietnam will give some relief, but deferred projects and expiration of the surtax will almost certainly eliminate most of that "dividend."

The basic lesson here is that routine calls for paper-clip efficiency and for cutting out waste will not be of much help in controlling expenditures. Mr. Nixon can get control only by taking on selected political

battles that are inherent in a serious exercise of priorities over what the Federal government should and should not do. Continuing to try to spread available resources among a wide spectrum of objectives (read "crises") will result in "insufficient" funds for each objective and constant frustration of public expectations.

III. Budgets and Priorities.

It is not hard to produce a set of objectives for the Nation or for the Federal government, but it is quite difficult to translate objectives into programs and budgets. Two commonly called-for approaches are unfortunately not very useful: "needs" and "priorities." Needs usually add up to more than the resources available because each area of "need" is calculated in isolation from other "needs;" there is no clue to which need is more important. Priority lists give due attention to the relative importance of various objectives, but once the list is produced there are no clues about when to stop spending on #1 priority and begin on #2, etc.

One of the major reasons programs never get cut is that just about any program can be shown to contribute to some high priority objectives. All sorts of programs, from agriculture to astronomy to education, are partially justified on a national defense basis. Agencies regularly find new objectives for threatened programs, so that the Budget Bureau, the Cabinet, and the White House get overwhelmed in justifying program cuts. A list of priority areas sent to the agencies will produce a flurry of studies showing all but 1½ programs of the Federal government to be vital to those priority objectives.

The concept is very appealing of the President setting policy or priorities and the agency heads being left to implement them, but it is not realistic. Policies and priorities get carried out only in the context of decisions among alternative courses of action. Unless White House perspective and preferences are injected into the design of those major alternatives and into their analysis, Presidential priorities will be hollow -- and he will have little real influence over the Executive Branch.

It is, of course, undesirable for the White House or the Budget Bureau to meddle in the operational management that should be left to agency heads. But the President must have the perception and the courage to assert his own

judgment as to what is operations and what is a matter of Federal objectives and priorities. He must be involved, with support from his personal staff, in the substance of agency planning and resource allocation, or he will have no meaningful policy control.

Implementing priorities

It is now pretty well accepted that "budget" and "policy" are inseparable and that the process of putting together the budget is a major tool for defining priorities. But the practice of this principle has a long way to go. The Planning-Programming-Budgeting System (PPBS) is supposed to implement that principle in Federal budgeting through two innovations in budget procedures: (1) description of the budget in terms of end objectives ("outputs") rather than activities or appropriations ("inputs"); and (2) systematic search for and analysis of better or less costly alternative ways of achieving objectives.

PPBS has had trouble for a number of reasons. Lack of people who understand what good analysis is has been a major problem; and so has the lack of good analysts who also understand the political and bureaucratic problems of analysis in government.

A second problem has been the lack of White House support and initiative: The bureaucracy does not take the system seriously because there has been no indication that the President or the Budget Director mean business. To get good analyses done, they must be willing to support their staffs in raising and analyzing significant issues; and they must be willing to select a few decisions based on those analyses and take on the Congressional battles implicit in them. The President is likely to do this only if his staff and the Cabinet have been closely involved in the formulation of the analyses and only if he can be sure of their quality and their adequacy for pressing the case in Congress.

The third major problem of PPBS has been the confusion of its role in seeking program efficiency and in choosing priorities. When a program is shown to be very inefficient or ineffective in achieving its goals, it is only natural to question whether so much money should be spent for those objectives. But because priorities belong to the White House and the Cabinet, there is no clear charter to the PPBS staffs in the Budget Bureau or in the agencies to take on such questions.

The problems of PPBS are not merely procedural. No "system" will produce priorities or decisions in accord with Presidentail priorities unless the President, the White House staff, and the Cabinet work at it. It is not surprising that Cabinet officers have ignored PPBS -- they will ignore any budgeting system unless it is closely tied to live policy decisions. The report of our Budget Task Force calls for better implementation of PPBS through patient and persistent explanation and insistence; but that approach has failed for the last 3 years.

Besides the reasons given above for the failure of PPBS to contribute more to the implementation of budget priorities, there are two important bureaucratic facts that cause problems: First, there is tremendous pressure to "help" the President, the White House, and the Cabinet by negotiating agreed positions on major policy issues at lower levels and sending up recommended actions rather than major options. This often causes significant alternatives and their likely consequences to be stifled, when in fact they could be desirable from the White House perspective. This is particularly true in the case of political infeasibility -- the bureaucracy has its own ideas about what can and can't be gotten through Congress and thereby decides many of the President's Congressional fights for him. Second, there is no history of good policy analysis in preparing the President's legislative program. This is not so important in deciding the issues and broad objectives

the President wishes to pursue, but it is important in the actual design of the new programs to assure that they are fully effective and that they will not backfire because of unsophisticated estimates of costs or effectiveness.

IV. What can be done

There is a great temptation to prescribe a new system and reorganization that will improve on the past. I have not done so because I think most of the important changes are more matters of interest and emphasis by key people than they are organizational. Most of the comments below would apply to any reasonable reorganization of the Executive Office.

The Budget Process

As the process now works, the Budget Bureau will select issues to be raised in the FY 71 budget early in 1969. Issue letters will go to the agencies in the Spring and agency target budgets will be set in May or June. The Budget Preview is held in June to go over with the Director the issues and target planning figures. Agency submissions in draft arrive in August, are commented on, and arrive in final form in September. The Review is held in November at which the Director decides on his recommendations to the White House. In December the budget is submitted to the President and is prepared for printing in early January (1970). The Defense Budget since McNamara has been handled quite differently, largely independent of the Bureau, and is submitted directly to the President by the Secretary of Defense.

There should be more White House involvement throughout the process to see that major options that would be of interest to the White House are kept alive and to provide more staff assistance in White House review. The issue letters should be sent out in the Fall rather than in the Spring (i.e., Fall 1969 for FY 72 rather than the normal date in Spring 1970). This may seem very early, but it is necessary to get the agency analytic staffs working on issues of White House concern during their slack period of the Budget year. As the process now works, these staffs select their

own analyses for that time period and have too short a time (May to August) to respond to Executive Office requests.

In theory, the Budget Director provides this White House liaison. But he is typically too busy fire-fighting for the President. What is needed is a White House staff member to work closely with agency analytic staffs, the Bureau staff, and the Assistant Budget Directors. Assuming he is compatible with the Director, he could greatly amplify the liaison function.

Supply and demand for analysis

The main fact to note here is that the incentives are all wrong under current procedures. For new programs or program expansions, the bureaucracy goes along without question; when the analysis will support program cuts or deletions, the bureaucracy will refuse to do an analysis, will do it in a very biased (but often subtly done) way, or will dredge up new objectives that the program contributes to. They can be expected to contribute relevant information only when it is in their interests, and it is now almost never in their interests. This is true even of the Budget examiners who gain by withholding information and thereby assure being consulted on all sorts of ad hoc matters; it is also true that the examiners are de facto advocates and protectors of their agencies in Bureau affairs. The final word on incentives is that almost no one with line authority takes the need for better analysis seriously. Thus a Budget examiner can say, "The Director doesn't care about PPBS;" the Assistant Director for PPBS can be pressured into saying he was "only kidding" about a particularly important anaylsis; and the Department Secretaries can relegate the analysis of their programs to people who "just fill in the forms."

There should be a concerted White House - Budget Bureau - Cabinet drive to identify perhaps 25 significant policy issues for analysis each year.

Based on their quality, relevance, and the times, perhaps ten would be developed into major options for program change and discussed in detail with the President and the Cabinet. Then perhaps 3 or 4 could be selected for implementation and the attendant battles within the Executive Branch and on the Hill, again depending on their quality and relevance. A few others could be selected for tentative decision, pending better analysis. Such a process would require continuous White House monitoring to assure that the right kinds of issues were chosen initially, that the weeding-out process was done well, and that the analyses covered the right considerations. With proper staff support, this should not place great demands on the time of the President.

The impact of this would go far beyond the 3 or 4 program changes actually made. First, it would set the theme and the precedent that the President cared about the effectiveness and efficiency of Federal programs rather than just the politics and that he really meant what he said about priorities. Second, it would require the agencies to devote their best people to such questions in order to be well represented. Finally, since the agency staffs could never be sure which issues the President would pick to do battle on, they would be pressed to do a good job on them all; with so many good analyses around, some could be implemented below the level of major Presidential involvement.

Political constraints

One of the major factors in putting together the President's budget is the pressure of Congressional interests in particular kinds of programs and in their home districts or states. Right now, these constraints are handled in two ways: The agency staffs or the Budget Bureau decide not to recommend anything that would entail significant political opposition, and the White House Congressional liaison people make judgments about what can

and cannot be passed with what kinds of side payments.

There should be more explicit analysis of political side payments and correspondingly less pre-filtering within the bureaucracy. We soon will be able to get data by Congressional district on what Federal programs aid what kinds of people. We can begin to correlate re-election probabilities with voting behavior of the incumbent. And we can begin to calculate explicitly what payoffs (non-monetary, of course) to key Congressmen would enable passage of Presidential programs with least violence to the economy and the President's priorities. This is a very sensitive area and probably cannot be done outside the White House, but much of the input would necessarily be generated by the Budget Bureau.

The Cabinet

It is well-known that the Secretaries are only marginally the President's men. They soon develop interests, loyalties, and constituencies of their own, leaving only the President with his unique perspective. They necessarily argue for more funds for their programs, and they have to be advocates rather than objective advisors about ultimate Budget allocations.

One of the dangers in some of the above suggestions is that they give the appearance of going around the Secretary into his agencies. This is, of course, inevitable because there has to be considerable staff-to-staff contact between the White House, the Budget Bureau, and the agencies; the principals are too busy to carry the whole communications load. The need is to keep the Cabinet wired into the process so they can participate as their interests dictate and so they can have the information on government-wide budget issues that will help them to be more objective advisors to the President.

One way of carrying this out would be to have White House staff coordinate with the Secretaries and the Cabinet as a whole from time to time as they work with agency and Bureau analytic staffs. If the White House staff member can function well at all these levels of government, the result should be a much more open and constructive flow of information as well as the generation of significant options for the President's budget. It would also serve to keep people aware of the budget implications of some of their decisions; this is very hit or miss now, particularly in the foreign affairs area.

TABLE I

TABLE 1

NET EXPENDITURES BY AGENCY
($ Millions)*

Legislative Branch	285
The Judiciary	102
Executive Office of the President	33
Funds appropriated to the President	5,424
Department of Agriculture	7,167
Department of Commerce	853
Department of Defense - Military	76,657
Department of Defense - Civil	1,343
Department of Health Education & Welfare	45,769
Department of Housing & Urban Development	3,216
Department of the Interior	923
Department of Justice	555
Department of Labor	3,800
Post Office Department	767
Department of State	439
Department of Transportation	6,282
Treasury Department	15,425
Atomic Energy Commission	2,546
General Services Administration	493
National Aeronautics & Space Admin.	4,573
Veterans Administration	7,382
Other Independent Agencies	5,127
Allowances for:	
Civilian & Military Pay Increase	
Contingencies	1,950

*Total is net of $5,049 double-counting.

TABLE 2

TABLE 2

NET SPENDING ($ Millions)
(OFFICIAL FUNCTIONAL BUDGET)*

National Defense	79,789
International Affairs & Finance	5,153
Space Research & Technology	4,573
Agriculture & Agricultural Resources	5,609
Natural Resources	2,490
Commerce & Transportation	8,121
Housing & Community Development	2,784
Health, Labor & Welfare	51,407
Education	4,699
Veterans Benefits & Services	7,342
Interest	14,400
General Government	2,790
Allowances for:	
Civilian and military pay increase	
Contingencies	1,950

* Total is net of *5,049 double-counting.

TABLE 3

NET EXPENDITURES

	Production or Direct Delivery	Subsidization	Regulation & Administration	Transfers to States/Localities	Research	TOTALS
HEALTH	1,892	7,105	187	2,684	1,384	13,252
EDUCATION	728	2,239	59	4,638	199	7,863
HOUSING		1,665	-475	1,281		2,472
LOCAL SERVICES & PLANNING		272	20	2,221		2,513
NATURAL RESOURCES & WATER	2,294	127	354	190	87	3,052
AGRICULTURE		5,666		163	360	6,188
COMMERCE & SPECIAL INDUSTRIES	5,178	2,307	656	73	554	8,770
RETIREMENT	28,538					28,538
OTHER INCOME TRANSFERS	14,455					14,455
PARKS AND PUBLIC FACILITIES	480					480
DEFENSE AND INTERNATIONAL	75,599		1,628		8,030	85,257
SPACE	2,674		384		1,533	4,591
GENERAL GOVERNMENT	2,911					2,911
INTEREST	15,349					15,349
TOTALS	150,241	19,671	2,814	11,251	13,005	

Aggregate total after adjusting for double-counting: $186,074 million net expenditures

GROSS EXPENDITURES

	Production or Direct Delivery	Subsidization	Regulation & Administration :	Transfers to States/Localities	Research	TOTALS
HEALTH	1,987	7,681	194	2,684	1,384	13,931
EDUCATION	741	2,384	59	4,638	199	8,024
HOUSING		4,912	45	1,986		6,942
LOCAL SERVICES AND PLANNING		272	20	2,240		2,532
NATURAL RESOURCES AND WATER	2,687	147	368	190	87	3,481
AGRICULTURE		21,991		163	383	22,536
COMMERCE AND SPECIAL INDUSTRIES	11,420	3,171	871	73	1,413	16,949
RETIREMENT	28,886					28,886
OTHER INCOME TRANSFERS	15,544					15,544
PARKS AND PUBLIC FACILITIES	488					488
DEFENSE AND INTERNATIONAL	78,259		1,628		8,030	87,917
SPACE	2,686		384		1,533	4,603
GENERAL GOVERNMENT	2,977					2,977
INTEREST	15,349					15,349
TOTALS	161,170	40,557	3,571	11,974	13,029	

Aggregate total after adjusting for double-counting: $224,010 million gross expenditures

TABLE 3

Table 4 *

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
DEFENSE AND INTERNATIONAL	85,224	88,029
Military Forces *	73,289	75,786
Military Assistance	3,938	3,978
Foreign Affairs	696	851
Economic Assistance	4,244	4,357

* Appendix A shows a more detailed breakdown of these categories

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
SPACE DEVELOPMENT*	4,592	4,604
Manned Space Flight	2,924	2,924
Space Research	968	968
Support	384	384
Space Applications	311	323

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*Note: Figures except totals are obligations which total $5 million less than actual expenditures. The totals for Space Development are net of that adjustment and are actual expenditures.

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
MARKET ASSISTANCE	24,124	51,845
Agriculture	4,841	20,415
Natural Resources	2,166	2,206
General Commerce	1,936	3,719
Postal Service	767	7,009
Transportation	6,764	6,771
Area and Community Subsidies	3,813	4,689
Manpower Development	334	334
General Research	2,703	2,704
Private Housing	800	3,998

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
SOCIAL SERVICES	56,865	57,881
Public Housing	320	560
Health Services Assistance	10,127	10,178
Education	3,563	3,724
Public Assistance	13,480	13,694
Retirement Plans	28,418	28,760
Law Enforcement and Justice	523	523
Parks and Public Facilities	434	442

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
GENERAL GOVERNMENT	18,305	19,294
Fiscal Operations	1,082	1,132
Interest	15,349	15,349
General Personnel Management	73	996
Maintenance of Federal Lands	628	628
TOTAL EXPENDITURES*	186,074	224,010

*Note: Individual entries do not add to totals because of some double-counting that cannot be identified with individual programs and (for net expenditures) because some receipts from the public are not identified with individual accounts.

TABLE 4

TABLE 5

	GROSS $ Millions	NET $ Millions
SPECIAL INTERESTS	97,994	70,110
Veterans	9,008	7,875
Farmers	26,393	5,621
Aged	37,348	34,722
Disabled	7,086	6,793
Poor	15,382	13,710
Maritime	1,334	1,319
Higher Education	4,738	4,092
Aviation	1,200	1,173
Cities/Towns	6,331	5,025
OTHER PUBLIC PROGRAMS	3,922	2,850
HIGHWAYS	4,239	4,239
POST OFFICE	7,009	767
GENERAL GOVERNMENT	2,977	2,911
DEFENSE AND INTERNATIONAL	87,917	85,257
SPACE	4,603	4,591
	224,010	186,074

TABLE 5

TABLE 6

REVENUE LOSSES FROM SPECIAL TAX PROVISIONS
($ millions)

Veterans	400	
Farmers	700	
Aged	2,300	
Disabled	100	
Poor	1,500	
Higher Education	400	
Cities/Towns	1,800	
		8,100
Natural Resources exploitation	2,200	
Encouraging home ownership	5,600	
Investment encouragement	14,200	
Encouraging bank reserves	400	
Military pay provisions	500	
		22,900
		31,000

Note: Entries listed by beneficiary, not necessarily by tax payer (e.g., charity deductions fall under "poor", etc.)

TABLE 6

APPENDIX A

Appendix A

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
DEFENSE AND INTERNATIONAL	85,224	88,029
Military Forces *	73,289 ~~76,346~~	75,786 ~~78,843~~
Strategic Forces	10,658	10,881
General Purpose Forces	34,955	35,200
Intelligence and Communications	6,300	6,300
Mobility	1,800	1,800
Reserve Forces	3,000	3,000
Military Research	5,095	5,100
Central Supply & Maintenance	5,998	8,019
Personnel and Administration	11,597	11,600
Military Assistance	3,938	3,978
Foreign Affairs	696	851
Economic Assistance	4,244	4,357

* Sub-entries under Military Forces are obligations figures which total $3,057 million more than actual expenditures. Military Forces totals are net of that excess & reflect actual expenditures.

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
SPACE DEVELOPMENT	4,592	4,604
Manned Space Flight	2,924	2,924
Lunar Landing	2,502	2,502
Other Manned Space Flight	422	422
Space Research	968	968
Scientific Investigations in space	494	494
Space Technology	474	474
Support	384	384
Space Applications	311	323

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
MARKET ASSISTANCE	24,124	51,845
Agriculture	4,841	20,415
Farm Income	4,190	18,660
Capital Improvement of Farms	12	1,045
Technical Assistance Services	639	710
Natural Resources	2,166	2,206
Land, Water, & Cropland Improvement	2,055	2,095
Fish & Wildlife Resources	111	111
General Commerce	1,936	3,719
Encouragement of Business	180	1,912
Research	920	920
Services to Business	323	343
Regulation of Business	297	327
Consumer Protection	216	216
Postal Service	767	7,009
Transportation	6,764	6,771
Maritime Subsidies & Coast Guard	980	987
Highways	4,239	4,239
Aviation Subsidies & Flight Control	1,270	1,270
Regulation and Research	275	275
Area and Community Subsidies	3,813	4,689
Urban Renewal & Model Cities	1,194	1,683
Municipal Service Subsidies	1,852	1,871
Regional Economic Development	767	1,135
Manpower Development	334	334
General Research	2,703	2,704
NIH and Other Health Research	1,494	1,494
Other Basic Research not mission oriented	1,209	1,210
Private Housing	800	3,998
Farm Housing	434	711
All Other Housing	756	3,282

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
SOCIAL SERVICES	64,742	66,529
Public Housing	320	560
Health Services Assistance	10,127	10,178
Medicare	7,130	7,145
Medicaid	2,093	2,093
Direct Health Care	303	333
Public Health Programs	601	607
Education	3,563	3,724
Primary & Secondary	2,065	2,065
Higher Education	1,498	1,659
Public Assistance	13,480	13,694
Income Maintenance	3,998	4,005
Unemployment & Disability Insurance	5,798	5,986
Vocational Training &Opportunities	3,199	3,218
Indian Assistance	485	485
Retirement Plans	28,418	28,760
Social Security	24,792	24,906
Civil Service Retirement	3,626	3,854
Law Enforcement and Justice	523	523
Executive Branch	40	40
Judicial Branch	483	483
Parks and Public Facilities	434	442
Veterans Benefits	7,877	8,648

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
GENERAL GOVERNMENT	18,305	19,294
Fiscal Operations	1,082	1,132
Interest	15,349	15,349
General Personnel Management	73	996
Maintenance of Federal Lands	628	628
All Other	1,173	1,189

	NET Expenditures $ Millions	GROSS Expenditures $ Millions
ADJUSTMENTS		
TOTALS OF INDIVIDUAL ENTRIES	196,982	230,301
Add: Allowances	1,950	1,950
	198,932	232,251
Deduct:		
Proprietary Receipts from the public	4,617	
Interfund and intragovernmental payments	8,241	8,241
	186,074	224,010

	NET Expenditures $Millions	GROSS Expenditures $ Millions
Adjustment	(3,057)	(3,057)
Military Forces (Expenditures Basis)	84,223	87,491
Adjustment	5	5
Space Development (Expenditures Basis)	4,592	4,604

To reach expenditures, Unified budget basis: (in thousands)

Gross expenditures	230,300,877
Add: allowances	+ 1,950,000
Deduct:	
Receipts from the public credited to individual accounts	- 33,319,265
Proprietary receipts from the public	- 4,617,000
Interfund and intra-governmental payments	- 8,241,000
	186,073,812

APPENDIX B

Illustrative FY 1970 Major Program Issues

The discussions of these major program issues are based on material available up to the FY 1970 BOB Fall Budget Review. These discussions are based on analyses that have been performed, will be performed, or can be performed prior to the new Administration's budget review.

This collection of papers illustrates that

1) presenting major program issues for decision is different from presenting the ordinary collection of budget issues or from budget formatting;

2) impartial analysis of these issues frequently reveals new aspects of them;

3) because of the conflicts inherent in producing these analyses or in raising these issues, the matters would ordinarily be suppressed before reaching the President.

Major Program Issue: Highway Safety

FY70 Budget Impact: $100-150 million

FY71-74 Budget Impact: $200-500 million+ per year

Budget Impact Beyond FY74: $500 million+

Social Impact: Large

Preliminary analysis indicates that the highway safety program is moving into a series of high cost areas where the impact on lives saved, injuries avoided, and damage prevented will be very small. The total program is about $175 million at present.

Summary of Analysis

The highway safety program is moving into a series of expensive programs involving grants for driver licensing, driver education, inspection, braking standards, and other areas. Rough studies indicate that the payoffs from these investments will be low, as is shown by one measurement--lives saved--in the following table.

Program	Lives Saved per Million Dollars of Expenditure: Accepted Estimates	Lives Saved per Million Dollars of Expenditure: Probable Results with Careful Further Analysis
Driver education	66	6
Driver licensing	65	5 1/
Alcohol control	131	5-20
Dual brakes	.9	.9
Tire standards	?	?
Vehicle inspection	2.7	1
Seat belts	12	12 2/
Steering column	20	20 2/
Emergency medical treatment	10-20	10
Highway construction:		
(urban interstate)	3	2
rural interstate	2-8	3

1/ Includes private costs to those deprived of license.

2/ Includes cost of installation on all new vehicles.

This is a statutory matching grant program. Unless brought under control quickly, it will become a major user of resources with a very low payoff.

Alternatives

1. Concentrate program on areas of known high payoff.

2. Concentrate program on areas of known high payoff plus information and research effort.

3. Maintain present trend.

Major Program Issue: International Financing of the Illinois 200-BEV Accelerator
FY70 Budget Impact: About $50 million
FY71-74 Budget Impact: About $150 million
Budget Impact Beyond FY74: About $400 million
Social Impact: $600 million to $1.0 billion savings for Europeans and Japanese

Preliminary analysis indicates that the United States and other major Western nations engaged in high energy physics research could jointly save $1.2 to $1.6 billion by avoiding duplication of facilities and consolidating their research on the new Illinois accelerator. Approximately the same amount of research could be performed in the consolidated programs as with duplicated facilities. Investigation reveals that the British and the Germans have expressed to the U.S. an interest in such a cooperative project but have been discouraged before feelers could reach the Budget Bureau or the White House.

The U.S. is committed to building the Illinois 200-BEV accelerator, which should begin operation about 1974. The accelerator will carry investment and other pre-operating costs of $360 million (starting with about $100 million in FY 1970), an average annual operating cost of approximately $80 million, and possible additional one-time costs for major improvements. At the same time, the 13-nation European Organization for Nuclear Research (CERN) is considering building an accelerator of similar energy to begin operation in the late 70s. The CERN accelerator would involve an investment and 10-year operating cost of about $1.3 billion. Japanese scientists are urging their government to build a smaller accelerator that would entail similarly computed costs of $300 - 400 million.

There are enormous economies of scale with high energy accelerators, i.e., it costs little more to use one machine to do the work of two machines. For $50- to $100 million more, the U.S. accelerator can double its capacity and can service, in addition to the U.S. experiments, most or all of the experiments that the Europeans and Japanese may pay $1.6 to $1.7 billion to perform on their own machines. A sharing arrangement, where the Europeans and Japanese paid approximately half the cost of the Illinois accelerator and the $50- to $100 million to upgrade it, could save the United States approximately $600 million and the Europeans and Japanese somewhat more than that.

In 1967 British and German officials expressed to a high U.S. official an interest in the U.S. project instead of the CERN project. The U.S. official, feeling that these inquiries were not necessarily specific, failed to report them to the Budget Bureau or the White House. In 1968 Britain dropped out of the Cern project while Germany, France, and Italy--intending to pay 29 percent, 24 percent, and 14 percent of the cost, respectively--joined most of the other CERN members in announcing their intention to pursue the project.

The issue is: Should the United States approach the Europeans and/or the Japanese about cooperation on the Illinois accelerator? Over and above the economic arguments, the case for such cooperation is:

1) the precedent of international cooperation in large accelerators would be established; and, since high energy physics is not expected to produce any practical applications, this would be all to the good;

2) proponents of large accelerators would be less able to use international competition as a justification for pouring hundreds of millions of extra dollars into high energy accelerators.

The disadvantages to a sharing arrangement would include:

1) the American physics community expects that the United States ultimately would itself undertake the $50- to $100 million upgrading of the Illinois accelerator; if other nations purchased additional capacity, then it could take as much as twice as long to complete a given American experimental program in the late 1970s and 1980s;

2) CERN would not have its "showcase" accelerator to attract high energy physics talent to Europe;

3) opposition is expected to arise from U.S. and European high energy physicists, Europeanists, and technology-gap types. The opposition could be expected to be especially intense since the United States would be interfering with an on-going European program. The United States might partially deal with this objection by offering to allow the construction in the late 1970s or 1980s of a cooperative "next generation" accelerator in Europe.

Major Program Issue: Post Office "Modernization" Funds

FY70 Budget Impact: $250-400 million

FY71-74 Budget Impact:

Budget Impact Beyond FY74:

Social Impact: Expenditure of these funds will not increase productivity and may increase the difficulty of converting the POD to a self-sustaining Postal Corporation

The FY 1970 budget submission of the Post Office Department shows $250-400 million included for "modernization" funds which are over and above operating requirements and over and above the modernization increase for the previous year. However, the Post Office has spent $200 million on mechanization since 1956 and, as the chart indicates, this has not contributed to any increase in productivity. It would be difficult for the Post Office to argue that this stagnation of productivity is due to declining quality in personnel since the average salary has increased more rapidly than in U.S. industry as a whole. It is apparent that modernization funds will be wasted in the Post Office without a major change in management and planning.

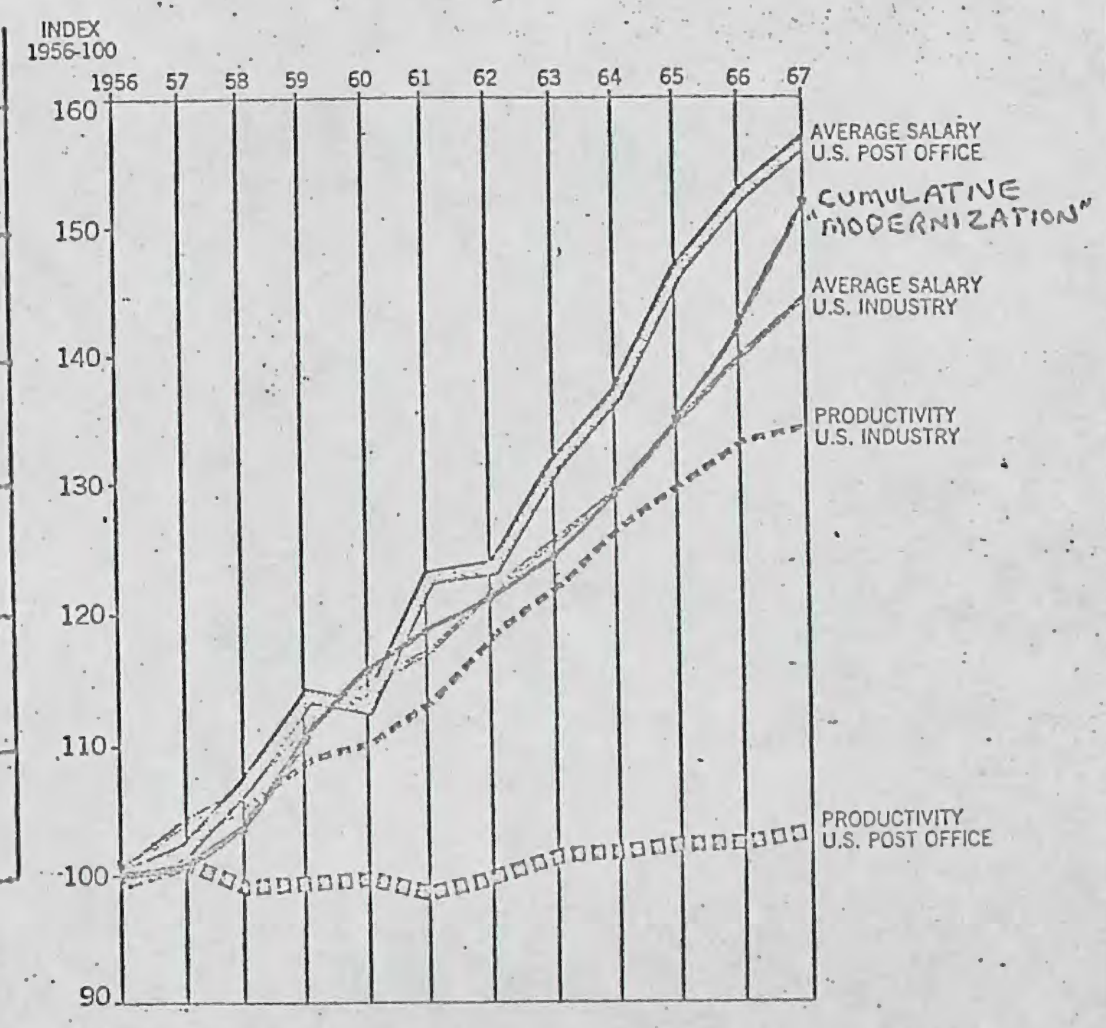
Alternatives

a. Eliminate the "modernization" money;

b. Hold it to use in converting the POD to a self-sustaining postal corporation.

SAVINGS

Figure 6–2. PRODUCTIVITY AND SALARY TRENDS
(Post Office and U.S. Industry, 1956–1967)



Post Office average salary.

Sources: Post Office salary, Post Office Department Annual Report, various years.
Post Office productivity (weighted) Robert R. Nathan Associates.
U.S. Industry data, Economic Report of the President, February 1968.

Major program issue: Deferral or phase-down of R&D on liquid metal fast breeder reactor (LMFBR).

FY 1971 budget impact: $55-170 million

FY 1971-74 budget impact: $1 to $1½ billion.

Budget impact beyond FY 74: over $2 billion.

Social impact: lower electricity cost starting in 1985.

The AEC's highest priority civilian program is the LMFBR, which will produce benefits in the form of lower cost electricity after 1985--with the bulk of the benefits not occurring until after the year 2000. Investigation has revealed the unexpected fact that the LMFBR will cost approximately $5 billion to develop, with the Federal Government paying about $4 billion of this. The FY70 cost is $200-250 million (95% Federal Government).

The AEC has used a set of optimistic assumptions that give the LMFBR the appearance of providing a marginally acceptable rate of return, 10%. However, the electric utilities and the electrical manufacturers that ordinarily conduct R&D on electricity generation receive an average rate of return of 10%-15% on their investments. Analysis shows that less optimistic assumptions than the AEC's yield exceedingly low or even negative rates of return: the project could even be a net loss to the economy of up to $3 billion.

AEC assumes that there will be no major new uranium discoveries and no uranium imports, so that the price of uranium will rise rapidly. AEC forecasts of the rate of growth of electric power consumption and their use of the reactors for low load duty also inflate the total number of LMFBR's that must be procured and the economic benefits. AEC estimates of capital and operating costs of the LMFBR and the dates in which the LMFBR will be commercially available also are more optimistic than those of industry and university experts. Further, other technologies such as fossil fuel MHD plants may become highly competitive in the next two decades.

There is strong evidence that the AEC development (as opposed to continued research) is premature. Current estimates of economic benefits are marginal and there are large uncertainties that could produce large losses. The often-cited characteristic of these reactors that they produce more atomic fuel than they consume is cause for technical fascination, but does not promise free power; only lower costs that may or may not be worth the cost of development.

There are two important alternatives to the rapid development proposed by AEC:

(1) A two-year delay of the program:

-- To learn the result of the current uranium exploration boom (results should start coming in during 1969 to 1970), which should give newer and higher confidence predictions of a long-term uranium price;

-- To learn more about the outlook for competing technologies; PSAC hopes to evaluate the nearest term competitor, MHD, in the next year;

-- To redesign the program (perhaps with more international competition) so that the present value of the R&D costs will make the relationship between benefits and costs more attractive;

(2) A longer or indefinite delay to continue a low-cost level of effort in LMFBR research so that a decision later in the 1970's may be made --if then desirable--to capture the benefits available after the year 2000.

Finally, there is a real question about why the Federal government, rather than industry, should undertake what is simply a technological economic investment.

Major Program Issue: Reduction of aid to India and Pakistan

FY 1970 Budget Impact: Fraction of $603 million.

FY 1971-74 Budget Impact: Similar .

Budget Impact beyond FY 1974: Alleged to slowly taper off.

Social impact: Less than 1% change in Indian and Pakistan growth rates.

Preliminary analysis suggests that a $183 million cut in the $603 million FY 70 India-Pakistan aid proposal would have far fewer deleterious effects than anticipated. The cut would appear to reduce the India-Pakistan growth rate no more than from about 6% to about 5.5%, not to the "stagnation" 3% that AID and the BOB International Programs Division fear.

The FY 70 recommendation from the BOB International Division to the Director for India-Pakistan aid (excluding PL-480 and technical assistance) is $603 million. The division also submitted a "low" figure of $420 million, which it argues would permit only a "stagnation" growth rate for the countries.

Examination of the GNP's, annual net investment, and annual foreign investment of the countries shows that the $183 million change of aid would be only about 5% of the annual net investment and 8% of the annual foreign investment. Assuming that all of the country's growth results from net investment, the impact of the aid reduction would be less than a 0.3% reduction in growth rate, from 6.0% to more than 5.7%. Assuming that all of the growth results only from foreign investment, the aid reduction would have a less than 0.5% impact.

Another justification for this aid is that it gives the United States the leverage to promote a "none-too-fluent dialogue" to prevent further war between India and Pakistan. It is not clear that the last $183 million of this aid has a major effect on preventing further war; indeed, there seem to be less expensive arrangements (such as an agreement with the Soviet Union over the India-Pakistan rivalry) for keeping the peace.

Major Project Issue: National versus Regional Ranking in Selection of Corps of Engineers New Starts

FY 70-74 Budget Impact: Potential $750 Million

Social Impact: Potential $2.4 Billion

Nature of Issue

The Corps of Engineers (Civil Works) has recognized that when projects are selected after initial regional allocations --i.e., on a political basis--there will be a real loss in total benefits even if project selection within regional allocations is made solely on efficiency criteria. By their own calculations, the loss in benefits from $4 billion investment in FY 1970-74 would be $2.4 billion if initial allocations to 19 regions on a combined need and equity basis were made.

Alternatives

1. National ranking of projects on pure efficiency criteria from the list of projects available.

2. Regional allocation which comes closer to the one which would result from choosing projects on the basis of a national ranking.

3. Continuation of regional allocations, which assures greater geographical dispersion and preference for the poorer areas but sacrifices sizeable benefits.

The third alternative is a compromise between the other two. It retains the stability of regional allocations, but achieves total benefits much closer to the maximum. This alternative is currently being tested by joint Budget Bureau and Corps of Engineers agreement.

NOTE: This issue could be framed in an alternative manner, i.e., "How much could be saved in the FY70-74 period and still have an impact equal to that obtainable under the regional allocation scheme?" An exact calculation would require going back to the individual project files, but a minimum budget saving would be $750 million in the FY 1970-74 period.

Further analysis of detailed options should show:

1. how much one is paying for the substitution of political for economic preferences;

2. which regional commitments are most costly.

3. which regional commitments might be replaced by other types of programs that provide similar political impact, but more useful economic or social impact.

Major Program Issue: Phase down of R&D on nuclear space rocket. (Project Rover)

FY Budget Impact: About $60 million

FY 71-74 Budget Impact: About $560 million

Budget Impact Beyond FY 74: About $600 million

Social Impact: Same as Other Space Programs

AEC and NASA estimate that the program will cost about $1,400 million over the next ten years. NASA's most serious justification of the project is that it will reduce the cost of manned Mars landings that could be planned for the 1980's at the earliest.* However, there are many uncertainties:

(1) The program is premature because other technological problems are expected to take longer to solve for a manned Mars landing --e.g., 500 day life support. The project could be delayed perhaps 5 years with no loss of benefits.

(2) The U.S. may well decide not to press for a manned Mars landing in the 1980's; current cost estimates for such a venture are $40--$100 billion plus $4 billion per mission.

(3) The manned Mars landing can be carried out with chemical rockets, but at a higher cost with current technology estimates. Because of its high R&D costs, however, Project Rover will cost just about as much as it might save.

The following table shows three major alternatives to the current program and the savings over the current pace of the project:

Alternative to Current Pace of Project Rover	Dollars** Saved (Spent) Over Current Pace, in $ Millions, at Discount Rate	
	Total	Present value at 10% Discount
1. Phase down project in FY70; restart project in FY75; use nuclear rockets for manned Mars landing(s) in 1980's	(100)	120-500
2. Phase down project in FY70; restart project in FY85; do not go to Mars until 1990's	(100)	530-1,300
3. Phase down project in FY70; do not restart project; use chemical rockets for manned Mars landing(s) in FY85	(1,400)-1,700	50-1,600
FY 85 and FY 88	(3,900)-1,000	(490)-1,400

This table is based on $20 million research funding per year while the project is phased down. The 10% discount column reflects the productivity of resources in alternative uses during the phase-down period.

* Other uses such as lunar ferry missions, unmanned deep-space missions, or earth orbit maneuvering are even more tentative.

**These estimates encompass a range of explicit cost and benefit assumptions, from those somewhat more optimistic than the agencies have advanced to those that BOB believes are most likely.

Major Program Issue: Indian Welfare

FY70 Budget Impact: Estimated $5-15 million

FY71-74 Budget Impact: Estimated $50-100 million/year

Social Impact: Improved economic and social conditions of disadvantaged Indians

In 1967 the Federal Government spent about $5,000 per Indian family for programs on Indian reservations. Yet three-fourths of Indian families have an income below the $3,000 poverty level. Budget and program data available suggest substantial improvements in the economic status of poor Indians could be effected by substantial reallocation of current Federal outlays on Indians.

Analysis conducted by the Bureau of Indian Affairs indicates that additional Indian income generated per Federal dollar varies from $10.80 for direct employment activities to as low as $1.25 for range lands. Similarly, cost per additional job opportunity created ranges from a low of $1,100 to $15,900.

While income and employment opportunities are not the sole objectives served by Indian programs (such as education, preservation of Indian culture, etc.), the data does suggest that substantial redirection of existing Federal outlays for Indians could produce significant savings or significant alleviation of Indian problems with current funding levels.

Consideration should be given not only to redistribution of outlays among existing activities. Redistribution might also be made among groups of Indians. Some Indian tribes have high per capita income, yet still receive substantial Federal assistance. An additional consideration is the viability of a guaranteed income in place of outlays on selected activities.

Current funding levels would permit income floors on the order of $2,000 to $4,000 per family of 5 plus free education and medical care (or perhaps $3,000--$5,000 if higher-income Indians paid local taxes for education and Medicaid replaced free medical care). These numbers are just informed guesses that could be firmed-up by a little analysis.

Analysis should include detailed examination of current Federal outlays and their distribution to determine how they can be feasibly redistributed to attain maximum impact on the income and social conditions of those Indians worst off. Potential savings for the same level of benefit, or redistribution of funds to achieve higher overall results, might total $50 to $100 million.

Major Program Issue: SST Continuation--Stretchout, Refinancing or Termination

FY 70 Budget Impact: $247 million

FY 71-74 Budget Impact: About $1/2 billion

Budget Impact beyond FY 74: Less than $200 million

Social Impact: Sonic Boom, more rapid travel, reduction in subsidy of air travel and business and upper-income travelers.

The next decision period for the SST project is scheduled to occur February 15 - April 15, 1969. The Administration must evaluate during this time period whether it is willing to accept Boeing's new airframe design or reject it as unresponsive to the performance specifications. It is expected that there will be enough difference in Boeing's new design and the performance criteria to give the Administration discretion as to whether it wishes to accept the new airframe design and proceed as previously agreed upon, reenegotiate the contract, or cancel the airframe contract altogether. The engine contract (GE) has less flexibility and is even ahead of schedule. If the airframe contract is cancelled, it may require some additional buy-out expenditures to cancel it.

As an aid for determining the best alternative for continuing, delaying or cancelling the SST project, FAA (based upon a request from BOB) has contracted with Charles Rivers Associates for a reevaluation of the investment quality of the SST. Three years ago, similar analyses revealed that the rate of return would likely be between 1.3% (IDA study) and 6.9% (FAA study) and that there may be a $100 million a year adverse effect on the balance of payments (because of increased U.S. tourist expenditures abroad).

The Charles Rivers Associates' reevaluation and BOB's assessment of the study will likely show a lower rate of return than the previous studies because growth in air passenger travel across the North Atlantic is now estimated to be lower in the future, subsonic airfares are dropping faster than expected, the performance of competing aircraft is now estimated to be higher (e.g., stretch DC-8), the cost of competing aircraft is better known (e.g., Boeing 747 and the Airbus). However, competitive SST's such as the British-French Concorde and the Russian aircraft are running into one-and two-year delays and significant escalation of costs which may partially offset the adverse factors.

The Administration has several alternatives:

1. Accept Boeing airframe proposal (Feb. 15-April 15, 1969) and appropriate $247 million for FY 1970 to be followed by about $1/2 billion further Government investment in the next three years.

2. Accept Boeing's airframe proposal but stretch out the project one additional year by appropriating only $152 million in FY 1970 but including an additional cost of the delay, totaling about $35-60 million in subsequent years.

3. Renegotiating airframe contract and engine contract to stretch out project more than an additional year at a likely cost increase of 10-20%. Delays up to 4 years appear to enhance the economic viability of the SST, but it also reduces U.S. predominance in and of being first in new aircraft technology. Beyond four years, competing designs abroad may capture the market and dictate developing the next generation of aircraft.

4. Cancel the project entirely, which will reduce the FY 70 budget by $247 million and FY 70-74 budgets by about $3/4 billion.

However, cancellation of the engine contract may require $100 million additional expenditures beyond FY 1969.

Major Program Issue: Legislative Renewal of the Hill-Burton Program

FY 70 Budget Impact: Only appropriation

FY 71-74 Budget Impact: $300 million/year

Budget Impact beyond FY 74: Similar or growing

Social Impact: Health, especially of the poor

The Hill-Burton program aids in the construction of short-term hospitals, rehabilitation centers, diagnostic and treatments centers, and long-term care hospitals. The aid is based on allocations among the States through which care institutions may gain one-third matching support for construction. Only the program appropriation can be affected in FY 70, but the authorizing legislation will be up for renewal for FY 71. There are a considerable number of questions surrounding the form which the new legislation should take. Preliminary analysis indicates that the present program is ineffective in serving certain target groups. Moreover, there are several alternative ways of spending the amount of money involved which would be more fruitful.

Preliminary analysis assumed that it was preferable to distribute funds to programs which are effective in meeting their current targets, have benefit/cost ratios of more than unity (1.00) and, where appropriate, aid the poor. The present Hill-Burton program fails in many of these respects. It is estimated that only 30 percent of the funds in the Hill-Burton program are allocated indirectly to those with incomes under $3,000. This figure takes into account the geographic distribution of the poor and their higher rate of hospital utilization. Although modernization of urban hospitals has priority in hospital construction, only 23 percent of Hill-Burton funds go to cities with populations over 100,000, which have a disproportionate share of the modernization demands. Since 80 percent of the funds in the Hill-Burton program are used for modernization, it may be concluded that only 18 percent of Hill-Burton funds go for modernization in cities over 100,000 population. It has also been estimated that the benefit/cost ratio for Hill-Burton hospitals is less than unity. That is, the estimated social valuation of construction is less than the valuation of the resources used to construct the facilities.

A number of programs have a higher payoff (See Table 1). For example, the following programs are preferable.

1. An increase in the number of physicians.

2. An increase in the number of neighborhood or OEO health centers. It should be noted that encouragement of ambulatory care centers and other appropriate alternatives to hospital care can be expected to reduce the demand for acute care beds. (It is reasonable to contend that an imbalance between acute care beds and alternatives such as ambulatory care facilities results in unnecessary use of hospital beds.)

3. An increase in the number of prenatal and infant care centers in health depressed areas.

4. An increase in public expenditures for birth control in health depressed areas. (Family planning is one of the most effective means of breaking the poverty cycle among young, low income families.)

Table I
Comparison of Alternatives to the Hill Burton Program

Characteristics of Beneficiaries

	Benefit-cost ratio	Age distribution (Percent)			Income distribution			Race			Location			
		21	21-55	55+	4,000	4,000-9,999	+10,000	N	W	O	Central City 250,000+	Suburbs of cc 250,000+	Other Urban	Rural
Hill Burton	.55	20	46	34	38	48	14	12	87	1	19	7	68	6
Neighborhood health facilities	1.43	60	23	17	95	5	0	65	20	15	45	15	20	20
Increase in physicians	1.90	35	42	23	24	50	27	8	91	1	24	23	27	26
Family planning	5.00	59	41	0	90	10	0	35	60	5	29	15	28	28
Maternity centers in health depressed areas	1.30	43	57	0	100	0	0	60	35	5	29	15	28	28
Optimal distribution	--	41	41	18	21	49	30	11	88	1	22	21	27	30

Major Program Issue: Phasing down to a "base" manned space program.

FY 1970 Budget Impact: $1/2 to $1 billion.

FY 1971-74 Budget Impact: $1 to $1-1/2 billion/year.

Budget Impact beyond FY 1974: Smaller.

Social impact: Small.

As with DOD programs, the manned space program can be analyzed in terms of a "committed base" plus options. However, the NASA budget submissions view a program of three manned launches per year as "minimal" to keep launch crews alert; the only lower option is viewed as a phaseout of the manned space program. Such a rate of activity forces the total NASA budget to about $4 billion per year.

Investigation reveals that it is possible to save large amounts of money with the constraint that we avoid "going out of business" in manned space flight. The table below, drawn together from rough data, indicates that on an average NASA budget for the next three years of $2-1/2 to $3-1/2 billion, the United States could:

1. Continue a "staying in business" post-Apollo program of one manned launch (Lunar or Orbital) per year;

2. Carry on a substantial unmanned program of about 17 launches per year (the planned FY 1969 level);

3. Give the space program a "new direction" and a major ten-year goal with a commitment to a "Grand Tour" unmanned flight past Jupiter, Saturn, Uranus, and Neptune in the late 1970's.

Various combinations of options over and above the "base" are possible. A noteworthy possibility is "Increment B" to reassure the advocates of a military space option that, even with the smaller manned space program, we still have the same "mobilization time" to a large space program as we had in FY 1968.

Option	FY 70 NOA ($M)	FY 71-72 average NOA ($M)
Base NASA Program: 1 manned launch per year post-Apollo through FY74; no new unmanned starts till FY71; reschedule unmanned launches for level rate of about 10/year; about 42 months lead time for reviving manned program to 6 launches per year; aeronautics at $100 M/year.	2900-3200	2300-2800
Increment A: 1 additional manned launch per year post-Apollo through FY74.	100-400	100-400
Increment B: about 24 month lead time for reviving manned program to 6 launches per year.	100-200	100-200
Increment C: new unmanned starts for level launch rate of about 17/year.	50-200	100-400
Increment D: commit to Grand Tour as major new direction.	10-50	50-200