

**SPECIAL ANALYSES
BUDGET OF THE
UNITED STATES
GOVERNMENT**

**FISCAL YEAR
1979**

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GENERAL NOTES

1. All years referred to are fiscal years, unless otherwise noted.
2. Detail in the tables, text, and charts of this volume may not add to the totals because of rounding.

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PART I

ALTERNATIVE VIEWS OF
THE BUDGET

INTRODUCTION

Part 1 includes alternative views of the budget. It provides two different standards against which the budget totals may be measured—current services estimates and national income accounts. These special analyses are designated A and B.

Special Analysis A (Current Services Estimates) presents the estimates required by the Congressional Budget Act of 1974 (31 U.S.C. 11a). These estimates reflect the anticipated costs of continuing ongoing Federal programs and activities at present levels without policy changes (that is, ignoring all new initiatives, Presidential or congressional, that are not yet law).

Special Analysis B (Federal Transactions in the National Income Accounts) presents the Federal budget estimates in terms of the national income accounts. It also explains the relationships of the unified budget of the Federal Government to the national income accounts, which constitute the most widely used measure of aggregate economic activity in the United States.

SPECIAL ANALYSIS A

CURRENT SERVICES ESTIMATES

The Congressional Budget Act of 1974 (Public Law 93-344) established a requirement for the presentation of current services estimates. Section 605(a) of the act requires that the President submit to the Congress estimates of the outlays and budget authority needed to maintain current Government services and activity levels. More specifically, the act defines the current services levels as

. . . the estimated outlays and proposed budget authority which would be included in the Budget to be submitted pursuant to section 201 of the Budget and Accounting Act, 1921, for the ensuing fiscal year if all programs and activities were carried on during such ensuing fiscal year at the same level as the fiscal year in progress and without policy changes in such programs and activities.

The Act further requires the President to submit the economic and programmatic assumptions underlying the estimates and calls for the Joint Economic Committee of the Congress to review the estimates.

Since current services estimates show what would happen if no policy changes were made, they provide a "base" with which the administration's budget proposals, or other proposals, may be compared. Such comparisons are made in various parts of the budget and serve to highlight the effects of recommended policy changes.¹

This year, in an experiment agreed to by the Congress, the current services estimates are presented in conjunction with the President's January budget (rather than in November), and are based on identical economic assumptions. Changes in economic conditions significantly affect budget estimates because of their effects on tax receipts, unemployment benefits, cost-of-living adjustments, and Federal pay raises. As a result, it can be very difficult to separate the effects of policy change from those of change in the economic outlook when comparing budget estimates made at two different times. Presentation of this year's current services estimates on the basis of the same economic assumptions as the presidential budget facilitates such comparisons. Also, since the estimates were prepared simultaneously, they reflect the same status of enacted legislation and the same technical methods for making estimates.

The economic assumptions common to the budget and the current services estimates are summarized in table A-1. For further details and discussion of these economic assumptions, see Part 3 of the budget, "Economic Assumptions and Long-Range Budget Projections."

¹ Summary comparisons are in the Budget of the United States Government, Fiscal Year 1979, Part 2, "Budget Summary," and Part 3, "Economic Assumptions and Long-Range Budget Projections."

Table A-1. SUMMARY OF ECONOMIC ASSUMPTIONS
(Calendar years)

	1977	1978	1979
Gross national product (in billions of current dollars).....	1,890	2,099	2,335
Rate of growth of constant-dollar GNP (percent change).....	4.9	4.7	4.8
Unemployment rate (percent).....	7.0	6.3	5.9
Consumer Price Index (percent change).....	6.5	5.9	6.1

One premise underlying the economic assumptions is that the President's budget proposals will all be adopted. Continuation of all programs and tax laws unchanged at current services levels would likely result in a somewhat different economic performance. Other factors being the same, in the absence of the net tax reductions and the net increase in outlays above the current services level proposed in the President's budget, economic growth would be expected to be weaker in 1979 and unemployment would be higher. The rate of price increase would be slightly lower in 1978, due primarily to exclusion of the energy program. These changes in economic performance would produce a higher current services deficit in 1979 that is shown in table A-2.

THE CURRENT SERVICES CONCEPT

The current services estimates are neither recommended amounts nor forecasts as to what the figures for 1978 and 1979 will actually be. Rather, they provide a base against which budgetary alternatives may be assessed. This base represents the cumulative effects of all past congressional and presidential budgetary choices. Since the estimates indicate the near-term budgetary implications of the current directions of Federal programs and activities, they in effect answer the question: "How would the budget come out if we simply left the Federal Government on automatic pilot through next year?"

The current services concept used in this analysis, and in previous current services estimates submitted by the executive branch, is not the only one possible. It has proved, however, to be both a practical and a useful formulation. Under the concept adopted, the current services estimates for 1979 reflect the anticipated costs of continuing ongoing Federal programs and activities at 1978 levels without policy changes; that is, omitting all proposed and pending new initiatives, Presidential or congressional, that are not now enacted. In general, the 1978 level on which the current services estimates are based is that which is implied by enacted 1978 appropriations or, for those few 1978 appropriations not yet enacted, by the level authorized or implicit in continuing resolutions. The estimates allow for the future implications of current law, and for anticipated changes of a relatively uncontrollable nature (as distinct from policy changes).

More specifically:

—For entitlement programs (such as social security), the current services estimates take into account inflation adjustments that

- are mandatory under current law, changes in the benefit base (usually earnings), and changes in the anticipated numbers of beneficiaries.
- Grants to State and local governments in 1979 are assumed to be funded at the same dollar amount as in 1978 unless the grants are: (a) scheduled to increase by specified amounts as a result of legislation; (b) tied to cost-of-living increases by legislation; (c) affected by changes in beneficiary populations or other factors that affect benefit payments under entitlement programs; or (d) affected by spending from prior-year commitments; for example, highway grants.
 - Entitlement programs that are not linked by law to the cost of living (such as veterans compensation) are assumed to remain level except for changes in the benefit base and in the number of people eligible.
 - Procurement and construction activities are assumed to proceed in an orderly fashion, consistent with current law and appropriation levels. Outlays for these programs are largely determined by prior-year contracts and obligations. Some appropriations provide for anticipated inflation in the cost of multiyear projects. In such instances, the current services estimates take into account anticipated inflation (consistent with the economic assumptions). In addition, section 806, title VIII, of the Defense Authorization Act of 1977 requires that the President's budget requests reflect anticipated increases in the cost of operations and maintenance. Current services estimates for Department of Defense military programs are adjusted accordingly. Comparable nondefense accounts are not adjusted in this way.
 - Outlays for Federal pay are assumed to increase in accordance with projected results of the annual pay comparability survey.
 - Interest on the public debt is estimated on the basis of the current services deficit and the assumption that market interest rates will not change from their levels at the time the estimates are made.
 - Offsetting receipts are estimated on the basis of judgment as to their most likely level, assuming no change in current law.
 - Budget authority for certain major trust funds consists of trust fund receipts. These are estimated using standard revenue estimating techniques.
 - Proposed rescissions of budget authority are not reflected.
 - It is assumed that deferral actions continue in effect for the period specified in the special message transmitted to the Congress under the Impoundment Control Act of 1974 (unless they have been overturned by the Congress).

Many Federal programs are authorized for a limited number of years, but are routinely renewed. If such programs are scheduled to expire before or during 1979, it is assumed for purposes of current services estimates that they will be renewed. In addition, the current services estimates assume continued renewal of the laws authorizing temporary employment assistance and the antirecession fiscal assistance program, each of which has already been renewed at

least once. The estimates, however, assume no additional funding of the local public works program enacted last year under temporary legislation.

For purposes of estimating receipts on a current service basis, some temporary provisions of existing law are assumed to be extended. In other instances, the estimates assume future tax changes as scheduled under current law.

A guiding principle in establishing a conceptual basis for the current services estimates was to make the results useful to the Congress and the public. Clearly, however, alternative assumptions could have been made and might be more useful for certain purposes. Because of this, rough estimates are presented in a later section indicating a number of adjustments that might be made to the current services outlay estimates if different approaches were used.

CURRENT SERVICES BUDGET TOTALS

Current services budget authority is estimated to be 7.8% higher in 1979 than in 1978, and outlays, 6.9% higher. Receipts for 1979 are estimated to increase 15.7% on a current services basis. The resulting 1979 deficit would be \$28.5 billion, 52% lower than that for 1978.

Table A-2. CURRENT SERVICES BUDGET TOTALS

(In billions of dollars)

	1977 actual	1978 estimate	1979 estimate
Receipts.....	356.9	400.7	463.8
Outlays.....	401.9	460.4	492.4
Deficit (-).....	-45.0	-59.7	-28.5
Budget authority.....	465.2	499.5	538.3

Receipts.—Under the current services concept, the 1979 receipts estimate assumes extension of most of the temporary provisions of the Tax Reduction and Simplification Act of 1977 that are currently scheduled to expire December 31, 1978. The only major exception is the employment tax credit, which was enacted as a 2-year economic stimulus measure. The estimates also take into account the scheduled increases in payroll taxes that have already been enacted.

For purposes of comparison, table A-3 shows receipts by major source on a current services basis for 1978 and 1979. As the table shows, current services receipts are projected to increase by \$63 billion from 1978 to 1979. This is largely due to assumed increases in incomes, reflecting both real economic growth and inflation.

Table A-3. CURRENT SERVICES RECEIPTS BY SOURCE

(In billions of dollars)

	1977 actual	Current services		1979 admin- istration proposals
		1978 estimate	1979 estimate	
Individual income taxes.....	156.7	180.5	214.0	190.1
Corporation income taxes.....	54.9	59.5	68.8	62.5
Social insurance taxes and contributions.....	108.7	124.1	142.5	141.9
Excise taxes.....	17.5	18.3	18.7	25.5
Other.....	19.0	18.3	19.8	19.7
Total.....	356.9	400.7	463.8	439.6

Individual income taxes are estimated to increase by \$33.5 billion from 1978 to 1979 on a current services basis. This increase of 19% is due largely to rising personal incomes. Higher incomes not only increase the aggregate tax base, they also push individual taxpayers into higher tax brackets and thereby raise the average effective tax rate. The assumed extension of the general tax credit and the earned income credit beyond the current expiration date of December 31, 1978, reduces individual income taxes by \$7.2 billion in 1979.

Corporation income taxes are estimated to increase by \$9.3 billion, or 16%, from 1978 to 1979 on a current services basis, largely as a result of the assumed increase in corporate profits. The assumed extension of the temporary corporate rate reductions in the Tax Reduction and Simplification Act of 1977 reduces corporation income taxes by \$1.1 billion in 1979.

Social insurance taxes are estimated to increase by \$18.4 billion on a current services basis. The estimates reflect assumed increases in total wages and salaries paid, and increases under current law in the combined employee and employer social security tax rate from 12.1% in calendar year 1978 to 12.26% in 1979. Similarly, the social security taxable earnings base is scheduled to rise from \$17,700 in calendar year 1978 to \$22,900 in 1979.

Other receipts (excise taxes, estate and gift taxes, customs duties, and miscellaneous receipts) are projected to increase by \$1.7 billion from 1978 to 1979 on a current services basis. These estimates reflect continued phaseout of the telephone excise tax by 1 percentage point each January.

Outlays.—The level of outlays necessary to maintain current services is estimated at \$492.4 billion for 1979. The increase in current services outlays from 1978 to 1979 is \$32 billion.

Table A-4. CURRENT SERVICES OUTLAYS BY FUNCTION

(In billions of dollars)

	1977 actual	Current services		1979 admin- istration proposals
		1978 estimate	1979 estimate	
National defense.....	97.5	107.7	116.8	117.8
International affairs.....	4.8	6.7	7.4	7.7
General science, space, and technology.....	4.7	4.8	5.1	5.1
Energy.....	4.2	7.5	7.6	9.6
Natural resources and environment.....	10.0	11.7	12.0	12.2
Agriculture.....	5.5	9.0	5.5	5.4
Commerce and housing credit.....	—*	3.5	3.1	3.0
Transportation.....	14.6	16.3	17.1	17.4
Community and regional development.....	6.3	9.5	8.5	8.7
Education, training, employment and social services.....	21.0	26.9	29.4	30.4
Health.....	38.8	44.3	50.3	49.7
Income security.....	137.0	147.5	159.2	160.0
Veterans benefits and services.....	18.0	18.9	18.9	19.3
Administration of justice.....	3.6	4.0	4.1	4.2
General government.....	3.4	4.1	4.2	4.3
General purpose fiscal assistance.....	9.5	9.9	9.5	9.6
Interest.....	38.1	43.8	48.7	49.0
Allowances:				
Civilian pay raises.....			1.1	1.1
Contingencies.....				1.7
Undistributed offsetting receipts:				
Employer share, employee retirement.....	—4.5	—5.0	—5.2	—5.2
Interest received by trust funds.....	—8.1	—8.6	—9.1	—9.1
Rents and royalties on the Outer Continental Shelf.....	—2.4	—2.0	—1.8	—1.8
Total outlays.....	401.9	460.4	492.4	500.2

*\$50 million or less.

Table A-4 shows current services outlays by function. Estimates by agency are presented in table A-5. The major increases from 1978 to 1979 occur in the largest functions; that is, those with the most outlays in 1978: income security, national defense, health, and interest.

Table A-5. CURRENT SERVICES OUTLAY ESTIMATES BY AGENCY

(In billions of dollars)

	1977 actual	Current services		1979 admin- istration proposals
		1978 estimate	1979 estimate	
Legislative branch.....	1.0	1.1	1.1	1.2
The Judiciary.....	.4	.5	.5	.5
Executive Office of the President.....	.1	.1	.1	.1
Funds appropriated to the President.....	2.5	4.3	4.2	5.1
Department of Agriculture.....	16.7	22.3	17.9	17.7
Department of Commerce.....	2.6	4.5	4.2	4.4
Department of Defense—Military.....	95.7	105.3	114.3	115.2
Department of Defense—Civil.....	2.3	2.5	2.7	2.5
Department of Energy.....	5.2	8.4	9.0	10.1
Department of Health, Education, and Welfare.....	147.5	164.6	182.1	181.3
Department of Housing and Urban Development.....	5.8	8.4	9.5	9.5
Department of the Interior.....	3.2	3.8	3.7	4.0
Department of Justice.....	2.3	2.5	2.5	2.5
Department of Labor.....	22.4	23.7	24.5	25.1
Department of State.....	1.1	1.2	1.3	1.4
Department of Transportation.....	12.5	14.4	15.5	15.8
Department of the Treasury.....	49.6	55.8	60.3	62.6
Environmental Protection Agency.....	4.4	5.0	5.5	5.7
General Services Administration.....	—*	.3	.3	.3
National Aeronautics and Space Administration.....	3.9	4.0	4.3	4.3
Veterans Administration.....	18.0	18.9	18.9	19.2
Other independent agencies.....	19.9	24.4	24.8	24.9
Allowances.....			1.1	2.8
Undistributed offsetting receipts.....	—15.1	—15.6	—16.0	—16.0
Total outlays.....	401.9	460.4	492.4	500.2

* \$50 million or less.

Budget authority.—Increases in budget authority between 1978 and 1979 generally reflect the higher funding levels that would be necessary to permit the higher level of outlays estimated to be required to maintain 1978 services levels in 1979. In the case of trust funds, however, the funds' receipts automatically become budget authority; thus increases in budget authority for these funds simply reflect year-to-year growth in expected receipts. Budget authority for some programs displays erratic year-to-year changes due to sporadic funding patterns or advance funding. Temporary employment assistance, for example, receives \$7 billion in budget authority in 1977 and \$6 billion in 1979, but none in 1978.

Tables A-6 and A-7 show the current services budget authority estimates by function and by agency, respectively.

Table A-6. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION

(In billions of dollars)

	1977 actual	Current services		1979 admin- istration proposals
		1978 estimate	1979 estimate	
National defense.....	110.4	117.8	126.4	128.4
International affairs.....	6.6	10.9	11.5	13.8
General science, space, and technology.....	4.6	4.9	5.2	5.2
Energy.....	5.0	7.2	6.9	9.5
Natural resources and environment.....	9.5	12.4	12.2	12.7
Agriculture.....	2.4	3.6	6.6	7.2
Commerce and housing credit.....	5.5	5.4	6.5	6.6
Transportation.....	10.4	15.3	15.5	18.6
Community and regional development.....	12.8	8.4	7.2	7.7
Education, training, employment and social services.....	30.4	22.2	29.1	33.6
Health.....	40.4	46.5	52.1	52.6
Income security.....	168.6	180.0	189.2	190.9
Veterans benefits and services.....	19.1	19.1	18.6	19.1
Administration of justice.....	3.6	3.9	3.9	4.1
General government.....	3.9	4.0	4.2	4.4
General purpose fiscal assistance.....	9.3	9.7	9.5	16.6
Interest.....	38.1	43.8	48.7	49.0
Allowances:				
Civilian pay raises.....			1.2	1.2
Contingencies.....				3.0
Undistributed offsetting receipts:				
Employer share, employee retirement.....	-4.5	-5.0	-5.2	-5.2
Interest received by trust funds.....	-8.1	-8.6	-9.1	-9.1
Rents and royalties on the Outer Continental Shelf.....	-2.4	-2.0	-1.8	-1.8
Total budget authority.....	465.2	499.5	538.3	568.2

Table A-7. CURRENT SERVICES BUDGET AUTHORITY ESTIMATES BY AGENCY

(In billions of dollars)

	1977 actual	Current services		1979 admini- stration proposals
		1978 estimate	1979 estimate	
Legislative branch.....	1.0	1.0	1.1	1.2
The Judiciary.....	.4	.5	.5	.5
Executive Office of the President.....	.1	.1	.1	.1
Funds appropriated to the President.....	4.6	8.2	8.4	11.0
Department of Agriculture.....	15.5	16.8	19.3	20.0
Department of Commerce.....	8.2	2.2	2.3	2.7
Department of Defense—Military.....	108.4	115.2	123.7	125.6
Department of Defense—Civil.....	2.5	2.7	2.6	2.5
Department of Energy.....	6.6	10.0	9.8	11.6
Department of Health, Education, and Welfare.....	147.6	162.2	181.0	185.0
Department of Housing and Urban Development.....	33.9	38.1	32.4	33.1
Department of the Interior.....	3.7	4.1	4.1	4.5
Department of Justice.....	2.3	2.4	2.4	2.5
Department of Labor.....	31.2	20.7	29.1	29.9
Department of State.....	1.2	1.4	1.4	1.5
Department of Transportation.....	9.3	13.5	13.8	17.4
Department of the Treasury.....	49.4	55.9	60.6	69.6
Environmental Protection Agency.....	2.8	5.4	5.4	5.6
General Services Administration.....	.3	.2	.3	.3
National Aeronautics and Space Administration.....	3.8	4.1	4.4	4.4
Veterans Administration.....	19.0	19.0	18.6	19.0
Other independent agencies.....	28.3	31.4	31.9	32.2
Allowances.....	---	---	1.2	4.2
Undistributed offsetting receipts.....	-15.1	-15.6	-16.0	-16.0
Total budget authority.....	465.2	499.5	538.3	568.2

THE OUTLAY IMPACT OF ALTERNATIVE APPROACHES

Since the concept of current services might be defined in different ways, table A-8 indicates the effect on current services outlays of some of the possible alternative approaches.

As indicated above, in estimating current services outlays, not all programs are adjusted for the effects of inflation: most operating expenses (other than salaries), most veterans benefits, and many grants to State and local governments are not. If, in developing the estimates, inflation adjustments were made for all programs not limited by statutory ceilings, current services outlays would be about \$3.0 billion higher in 1979.

For current services purposes, programs that expire under existing law are assumed to be carried forward unless the activities are clearly temporary or nonrecurring. However, there are always borderline cases. Thus the estimates assume that the temporary employment assistance program, which the Congress has already reauthorized twice, would be carried forward in 1979. If this program were terminated

Table A-8. OUTLAY IMPACT OF ALTERNATIVE APPROACHES

(In billions of dollars)

	1979 outlays
Nonmandatory adjustments for inflation: ¹	
Benefit payments for individuals (largely veterans benefits).....	0.6
Nonindexed grants.....	.7
Other programs not adjusted for inflation.....	1.7
Effect of nonrenewal of programs that expire under existing law:	
Temporary employment assistance.....	-5.2
Antirecession fiscal assistance.....	-1.0
Total	-3.3

¹ Includes only those programs not adjusted for inflation under current law. The adjustment is calculated separately for each major function.

before 1979, outlays in 1979 would be reduced by \$5.2 billion. The current services estimates also assume that the antirecession financial assistance program is reauthorized to continue in 1979 at \$1.0 billion. On the other hand, the local public works program established under temporary legislation last year is assumed to receive no additional funding. No estimate is made of the outlays effect of resuming this program because there is no firm basis for developing assumptions about possible amounts of additional funding.

DIFFERENCES BETWEEN CURRENT SERVICES ESTIMATES FOR 1978 AND 1979

Table A-9 shows the major components of the changes in current services budget authority and outlays between 1978 and 1979. Outlays for income security programs are estimated to rise from \$147.5 billion in 1978 to \$159.2 billion in 1979. Outlays for this function increase by \$11.7 billion due to automatic cost-of-living increases in many benefit programs, higher earnings records for new retirees, and increases in the number of beneficiaries. In the case of social security, for example, about half of the 1978 to 1979 outlay increase is due to cost-of-living adjustments, with higher earnings records and net increase in beneficiaries each accounting for about a quarter. On the other hand, outlays

for unemployment compensation decrease by \$539 million, consistent with the projected decline in the number of unemployed. Table A-10 shows caseload projections for major benefit programs, and other selected programmatic assumptions.

Table A-9.—CHANGE IN CURRENT SERVICES BUDGET AUTHORITY AND OUTLAYS, 1978 TO 1979

(In billions of dollars)

	Budget authority	Outlays
1978 current services estimate	499.5	460.4
1978-79 changes:		
Income security:		
Social security.....	12.1	10.6
Federal employee retirement.....	1.6	1.2
Unemployment compensation.....	1.9	-.5
Housing assistance.....	-7.2	.5
Other income security programs.....	.8	-.2
Medicare and medicaid.....	5.6	5.6
Education, employment, and training:		
Elementary and secondary education.....	*	.8
Higher education.....	.2	.5
Temporary employment assistance.....	6.0	1.2
Employment and training assistance.....	.5	*
National defense:		
Department of Defense—Military:		
Procurement.....	2.5	2.5
Operation and maintenance.....	1.5	2.2
Military and civilian pay raises.....	2.4	2.4
Military retired pay.....	.9	.9
Other defense military.....	1.2	1.1
Other national defense.....	.1	.1
Allowance for civilian agency pay raises.....	1.2	1.1
Net interest.....	4.4	4.4
Mortgage purchase activities (GNMA).....	1.5	.3
Farm income stabilization.....	3.0	-3.5
Small Business Administration disaster loans.....	-1.2	-.6
All other programs, net.....	-.2	1.2
1979 current services estimate	538.3	492.4

*\$50 million or less.

Current services outlays for the military functions of the Department of Defense are estimated to increase by \$9 billion between 1978 and 1979. Pay raises for military and civilian personnel, including retired military personnel, account for \$3.3 billion of this increase. Current

services outlays for defense purchases (excluding pay) are estimated to increase by \$5.7 billion. The corresponding increases for budget authority are \$3.3 billion for pay raises and \$5.2 billion for purchases for a total of \$8.5 billion.

Current services outlays for the medicare and medicaid programs are estimated to increase by \$5.6 billion between 1978 and 1979, largely as a result of increases in medical care prices. Current services outlays for employment and training programs increase by \$1.3 billion in 1979, when enacted 1978 increases for public sector jobs and programs for youths operate for a full year.

Current services budget authority is estimated to total \$538.3 billion in 1979, \$38.8 billion more than in 1978. The major increases in budget authority are for income security (excluding housing assistance) and health (\$22.0 billion); this results largely from higher social security (including medicare) receipts, which constitute budget authority for these programs, and for medicaid. Other large increases include the Department of Defense—military (\$8.5 billion), temporary employment assistance (\$6.0 billion), and net interest (\$4.4 billion). Budget authority for housing assistance declines by \$7 billion because \$6 billion will carry over from 1978 to help fund the program in 1979.

Table A-10. CASELOADS AND PROGRAMMATIC ASSUMPTIONS

	Fiscal years	
	1978	1979
Beneficiaries (annual average, in thousands):		
Social security (OASDI)	34,300	35,300
Railroad retirement	1,100	1,100
Federal civilian retirees	1,583	1,636
Military retirement	1,222	1,265
Veterans compensation and pensions	3,264	3,265
GI bill	1,561	1,347
Disabled coal miners	456	433
Supplemental security income	4,208	4,235
Public Assistance (AFDC)	11,014	11,022
Medicaid	21,348	21,378
Medicare:		
Hospital insurance	6,000	6,100
Supplemental medical insurance	15,500	16,400
Public sector jobs	600	725
Automatic benefit adjustments (percent):		
Social security (June)	6.2	6.1
Federal employee retirement:		
March	2.5	3.1
September	2.9	2.9
Food stamps:		
January	3.3	3.5
July	3.4	3.5
Interest rate (91-day bills, calendar years)	6.1	6.1
Budget deficit (current services)	-59.7	-28.5
Unemployment rate (calendar years):		
Total	6.6	6.2
Insured	4.1	3.6

**DIFFERENCES BETWEEN CURRENT SERVICES AND ADMINISTRATION
BUDGET REQUESTS FOR 1979**

The differences between the administration budget estimates for 1978 and the current services levels estimated for this year are relatively small because most appropriation action for the year has been completed, and because those administration proposals that are still pending will have relatively little impact before the end of the year. For 1979, however, the administration estimates add, in aggregate, a net of \$29.9 billion in budget authority and \$7.8 billion in outlays to the current services levels estimated for that year, and receipts are reduced by a net of \$24.3 billion below the current services level.

Receipts.—The administration's income tax reform and reduction proposals call for a net reduction in 1979 receipts of \$23.5 billion below the current services level. Of this amount, \$18.3 billion is a net reduction in individual income taxes, and \$5.1 billion is a net reduction in corporate income taxes below the current services levels. Proposed reduction in the unemployment tax rate and elimination of the telephone excise tax involve reductions in receipts of \$0.6 billion and \$1.0 billion, respectively, below current services levels. The administration's energy proposals entail a net increase in 1979 receipts of \$1.1 billion.

Table A-11. EFFECTS OF ADMINISTRATION TAX PROPOSALS

(In billions of dollars)

	1978	1979
Current services receipts estimates.....	400.7	463.8
Individual income tax proposals:		
Reductions and reforms.....	-.2	-18.3
Energy tax proposals.....	-1.4	-5.6
Other.....		*
Subtotal, individual income tax proposals.....	-1.7	-23.9
Corporation income tax proposals:		
Reductions and reforms.....		-5.1
Energy tax proposals.....	-.6	-1.2
Other.....		
Subtotal, corporation income tax proposals.....	-.6	-6.4
Social insurance tax: Reduction in unemployment tax rate.....		-.6
Subtotal, social insurance tax proposals.....		-.6
Excise:		
Energy tax proposals.....	1.8	7.9
Repeal telephone tax.....		-1.0
Other.....		-.1
Subtotal, excise.....	1.8	6.8
Other.....		-.2
Subtotal, other.....		-.2
Total proposed changes.....	-.4	-24.3
Proposed receipts, President's budget.....	400.4	439.6

*\$50 million or less.

Outlays.—Table A-12 shows the major differences from the 1979 current services levels proposed in the administration's 1979 budget request. The major proposed reductions from current services outlay levels reflect administration proposals to place a limit on allowable price increases under the medicare and medicaid programs, and to reform some aspects of the social security system. The largest outlay increases arise from energy proposals, which add \$3.4 billion in 1979, including tax refunds classified under income security; education, training, employment and social services (+\$1.0 billion); and defense (+\$1.0 billion). In addition, the Presidential budget figures include a \$1.7 billion allowance for contingencies which the current services estimates exclude.

Budget authority.—The difference in budget authority for general purpose fiscal assistance (\$7.1 billion) reflects the proposed taxable municipal bond option, which would allow States and local governments the option of receiving a Federal interest subsidy if they issue conventional taxable bonds instead of tax-free ones. Budget authority for the education, training, employment and social services function is \$4.5 billion higher in 1979, largely because of proposed shifts to advance funding. Transportation has \$3.0 billion more than the current services level, largely due to mass transit proposals; and energy, \$2.7 billion more. The Presidential allowance for contingencies is \$3 billion; the current services figure is zero.

Table A-12. DIFFERENCES BETWEEN ADMINISTRATION 1979 BUDGET REQUEST AND CURRENT SERVICES LEVELS

(In billions of dollars)

	Budget authority	Outlays
Current services estimates for 1979	538.2	492.4
Proposed reductions:		
Medicare and medicaid hospital price increase limitations.....	-.1	-.7
Social security changes.....	*	-.6
Other.....	.5	-.4
Subtotal, reductions.....	.4	-1.8
Proposed increases:		
Energy programs.....	2.7	2.1
Fuel efficiency tax refund.....	1.3	1.3
Education, training, employment and social services.....	4.5	1.0
Defense.....	2.1	1.0
International affairs.....	2.3	.3
Transportation.....	3.0	.3
Taxable municipal bond option.....	7.1	.1
Allowance for contingencies.....	3.0	1.7
Other.....	3.5	1.8
Subtotal, increases.....	29.5	9.6
President's request for 1979	568.2	500.2

*\$50 million or less.

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM

(In millions of dollars)

	1977 actual	Current services		1979 admini- stration request
		1978 estimate	1979 estimate	
050 NATIONAL DEFENSE				
051 Department of Defense—Military:				
Military personnel.....	26, 118	27, 282	27, 479	27, 211
Retired military personnel.....	8, 238	9, 240	10, 149	10, 149
Operation and maintenance.....	32, 108	34, 869	36, 399	37, 376
Procurement.....	27, 922	29, 487	31, 954	31, 928
Research, development, test, and evaluation.....	10, 439	11, 338	12, 020	12, 468
Military construction.....	2, 204	1, 633	1, 909	2, 677
Family housing.....	1, 258	1, 355	1, 455	1, 576
Revolving funds and other.....	139	3	-55	-123
Allowances: Civilian and military pay raises:				
Existing law.....			2, 371	2, 371
Proposed legislation.....				-136
Other legislation:				
Retired military personnel.....				23
Military personnel and O. & M.....				46
Subtotal, Department of Defense—Military..	108, 425	115, 205	123, 680	125, 567
053 Atomic energy defense activities.....	2, 089	2, 512	2, 663	2, 829
054 Defense-related activities:				
Existing law.....	-81	59	42	222
Proposed legislation.....				-177
Subtotal, defense-related activities.....	-81	59	42	45
Deductions for offsetting receipts.....	-*	-2	-2	-2
Total budget authority.....	110, 432	117, 775	126, 384	128, 439
150 INTERNATIONAL AFFAIRS				
151 Foreign economic and financial assistance:				
International financial institutions.....	1, 141	1, 926	1, 926	3, 505
International organizations.....	244	231	232	282
Agency for International Development.....	1, 121	1, 286	1, 365	1, 651
Food for Peace.....	1, 169	923	806	806
Security supporting assistance (AID).....	1, 758	2, 219	1, 854	1, 854
Other foreign economic and financial assistance...	193	192	174	237
Subtotal, foreign economic and financial assist- ance.....	5, 626	6, 777	6, 357	8, 335
152 Military assistance:				
Grant military assistance.....	265	220	134	134
Foreign military training.....	25	30	32	32
Foreign military credit sales.....	698	676	672	672
Offsetting receipts and other.....	-312	-302	-297	-297
Subtotal, military assistance.....	676	624	541	541

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
150 INTERNATIONAL AFFAIRS—Continued				
153 Conduct of foreign affairs:				
Administration of foreign affairs.....	650	736	768	792
International organizations and conferences.....	376	441	412	413
Other.....	27	30	34	35
Subtotal, conduct of foreign affairs.....	1,054	1,206	1,213	1,240
154 Foreign information and exchange activities...	400	451	481	500
155 International financial programs:				
Export-Import Bank.....			377	660
Military sales trust fund (net).....	-744	2,400	3,100	3,100
Participation in International Monetary Fund.....				
Other offsetting receipts.....		-20	-20	-20
Subtotal, international financial programs.....	-744	2,380	3,457	3,740
Deductions for offsetting receipts.....	-425	-540	-555	-555
Total budget authority.....	6,587	10,898	11,493	13,801
250 GENERAL SCIENCE, SPACE, AND TECHNOLOGY				
251 General science and basic research				
National Science Foundation programs.....	783	868	920	939
Energy research programs.....	351	397	426	426
Scientific information exchange activities.....	2	2	2	2
Subtotal, general science and basic research.....	1,136	1,267	1,349	1,368
253 Space flight.....	2,138	2,198	2,256	2,247
254 Space, science, applications, and technology...	964	1,056	1,201	1,210
255 Supporting space activities.....	340	369	393	393
Deductions for offsetting receipts.....	-2	-2	-2	-2
Total budget authority.....	4,576	4,889	5,197	5,216
270 ENERGY				
271 Energy supply:				
Department of Energy—Operations.....	3,519	3,510	3,469	3,436
Proposed legislation.....				-163
Petroleum reserves.....	431	210	210	186
Petroleum reserves—receipts.....	-379	-492	-553	-553
Power marketing.....	156	138	145	152
Other offsetting receipts.....	-219	-262	-304	-304
Other energy supply.....	95	96	96	115
Subtotal, energy supply.....	3,603	3,200	3,063	2,869

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
270 ENERGY—Continued				
272 Energy conservation:				
Fuel efficiency tax refund (proposed legislation) ..				500
Other energy conservation	242	457	484	1,010
Subtotal, energy conservation	242	457	484	1,510
274 Emergency energy preparedness:				
Department of Energy	78	2,797	2,486	4,255
Department of the Interior		—*	—*	—*
FAP: Petroleum reserves	367			
Subtotal, emergency energy preparedness	445	2,797	2,485	4,255
276 Energy information, policy, and regulation:				
Department of Energy—Operations	462	508	590	670
Proposed legislation				5
Nuclear Regulatory Commission	249	292	328	331
Subtotal, Energy information, policy, and regu- lation	711	800	917	1,006
Deductions for offsetting receipts	—23	—26	—95	—95
Total budget authority	4,978	7,228	6,855	9,544
300 NATURAL RESOURCES AND ENVIRON- MENT				
301 Water resources	3,664	3,645	3,527	3,284
302 Conservation and land management:				
Management of national forests and forestry research	1,234	1,432	1,450	1,570
Management of public lands	340	356	367	386
Surface mining reclamation	1			109
Conservation of agricultural lands	641	512	512	388
Other, including offsetting receipts	—650	—525	—705	—697
Subtotal, conservation and land management ..	1,566	1,775	1,624	1,755
303 Recreational resources:				
Land and water conservation fund	561	656	630	755
Operation of recreation resources	675	959	975	1,003
Proposed legislation				11
Subtotal, recreational resources	1,236	1,615	1,605	1,769
304 Pollution control and abatement:				
Sewage plant construction grant program	1,980	4,500	4,500	4,500
Regulatory and research programs	711	778	824	1,024
Proposed legislation				180
Subtotal, pollution control and abatement ...	2,691	5,278	5,324	5,704

See footnote at end of table.

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
300 NATURAL RESOURCES AND ENVIRONMENT—Continued				
306 Other natural resources	1,087	1,207	1,254	1,331
Deductions for offsetting receipts.....	-786	-1,084	-1,178	-1,178
Total budget authority.....	<u>9,457</u>	<u>12,436</u>	<u>12,156</u>	<u>12,664</u>
350 AGRICULTURE				
351 Farm income stabilization:				
Price-support and related programs.....	899	2,054	5,005	5,022
Proposed legislation.....				478
Federal Crop Insurance Corporation.....	102	12	12	12
Agricultural credit insurance fund.....	141	165	144	144
Other programs.....	51	14	38	37
Unallocated salaries and expenses.....	157	171	171	228
Subtotal, farm income stabilization.....	<u>1,351</u>	<u>2,416</u>	<u>5,369</u>	<u>5,920</u>
352 Agricultural research and services:				
Research programs.....	420	490	481	530
Extension programs.....	242	269	269	262
Marketing programs.....	104	66	66	74
Proposed legislation.....				2
Animal and plant health programs.....	183	209	210	222
Economic intelligence.....	110	124	124	133
Other.....	16	52	54	54
Unallocated overhead.....	61	65	65	72
Offsetting receipts.....	-51	-55	-59	-59
Proposed legislation.....				-7
Subtotal, agricultural research and services..	<u>1,084</u>	<u>1,220</u>	<u>1,210</u>	<u>1,282</u>
Deductions for offsetting receipts.....	-11	-3	-6	-6
Total budget authority.....	<u>2,424</u>	<u>3,633</u>	<u>6,574</u>	<u>7,197</u>
370 COMMERCE AND HOUSING CREDIT				
371 Mortgage credit and thrift insurance:				
Mortgage purchase activities (GNMA).....	10	7	1,507	1,507
Mortgage credit (FHA).....	661	555	555	451
Housing for the elderly and handicapped.....	850	750	750	800
Department of Agriculture—rural housing programs.....	522	747	337	442
Proposed legislation.....				6
Federal Deposit Insurance Corporation.....				
Federal Home Loan Bank Board and other.....	1			
Subtotal, mortgage credit and thrift insurance..	<u>2,044</u>	<u>2,059</u>	<u>3,149</u>	<u>3,206</u>
372 Postal Service:				
Existing law.....	2,266	1,787	1,830	1,830
374 Federal Financing Bank	-143			

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
370 COMMERCE AND HOUSING CREDIT—Con.				
376 Other advancement and regulation of commerce:				
Small business assistance.....	692	824	670	637
Technology utilization.....	179	195	200	222
Economic and demographic statistics.....	112	142	263	310
Other.....	335	370	381	394
Subtotal, other advancement and regulation of commerce.....	1,318	1,532	1,514	1,564
Deductions for offsetting receipts.....	-4	-4	-3	-3
Total budget authority.....	5,481	5,375	6,491	6,597
400 TRANSPORTATION				
401 Ground transportation:				
Highway improvement and construction.....	3,848	7,411	7,574	3,967
Proposed legislation.....				4,146
Mass transit.....	583	551	458	219
Proposed legislation.....				2,665
Railroads.....	1,224	2,060	1,927	2,015
Proposed legislation.....	-120			-279
Regulation.....	58	63	69	69
Subtotal, ground transportation.....	5,593	10,084	10,029	12,803
402 Air transportation:				
Airways and airports.....	2,564	2,795	2,884	3,094
Proposed legislation.....				-3
Aeronautical research and technology.....	378	441	554	522
Air carrier subsidies.....	82	74	69	69
Regulation.....	23	25	26	27
Subtotal, air transportation.....	3,047	3,336	3,523	3,709
403 Water transportation:				
Marine safety and transportation.....	1,286	1,385	1,423	1,494
Ocean shipping.....	388	519	525	537
Regulation.....	9	10	10	11
Subtotal, water transportation.....	1,683	1,914	1,959	2,042
407 Other transportation.....	83	86	83	86
Deductions for offsetting receipts.....	-42	-86	-44	-66
Total budget authority.....	10,363	15,334	15,549	18,573

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
450 COMMUNITY AND REGIONAL DEVELOPMENT				
451 Community development:				
HUD: Community development block grants	3,248	4,000	4,000	4,150
HUD: Expiring categorical programs	3	3	18	18
HUD: Rehabilitation loans	50	-----	45	95
HUD: Research and planning	118	109	109	119
HUD: Other programs	89	135	63	68
Proposed legislation	-----	-----	-----	10
HUD: Departmental management	129	156	156	170
Rural development grant program	285	265	265	275
Pennsylvania Avenue development	30	21	27	27
Other programs	17	17	17	20
Subtotal, community development	3,969	4,706	4,700	4,952
452 Area and regional development:				
Department of Agriculture: Community and business assistance	640	489	522	531
Economic development assistance	418	411	411	656
Local public works programs	6,000	-----	-----	11
Coastal energy impact	115	115	4	4
Other Department of Commerce	282	106	106	106
Indian programs	734	797	796	858
Appalachian programs	250	458	456	485
Offsetting receipts and other	-285	-402	-392	-392
Subtotal, area and regional development	8,153	1,974	1,902	2,259
453 Disaster relief and insurance:				
Small Business Administration disaster loans	291	1,515	340	190
Disaster relief	300	150	150	200
Flood insurance	75	91	120	114
Other	17	18	18	19
Subtotal, disaster relief and insurance	684	1,774	628	523
Deductions for offsetting receipts	-16	-17	-18	-18
Total budget authority	12,790	8,438	7,213	7,716
500 EDUCATION, TRAINING, EMPLOYMENT, AND SOCIAL SERVICES				
501 Elementary, secondary, and vocational edu- cation:				
Elementary and secondary education	2,722	3,191	3,181	3,395
Proposed legislation	-----	-----	-----	400
Impact aid	793	800	841	856
Proposed legislation	-----	-----	-----	676
Education for the handicapped	469	623	623	972
Occupational, vocational, and adult education	1,166	733	733	726
Other aid to education agencies	589	632	632	683
Child development	525	676	676	735
Subtotal, elementary, secondary, and vocational education	6,265	6,654	6,686	8,443

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
500 EDUCATION, TRAINING, EMPLOYMENT, AND SOCIAL SERVICES—Continued				
502 Higher education:				
Student aid and institutional support.....	3,622	4,136	4,369	4,414
Special institutions.....	143	160	175	175
Subtotal, higher education.....	3,765	4,296	4,544	4,588
503 Research and general education aids:				
Special projects and training.....	85	101	101	105
Proposed legislation.....				11
National Institute of Education.....	70	90	90	100
Other educational research.....	22	28	28	40
Cultural activities.....	425	498	507	560
Other.....	475	515	525	524
Subtotal, research and general education aids..	1,078	1,232	1,251	1,339
504 Training and employment:				
Temporary employment assistance.....	6,847		5,955	5,955
Employment and training assistance.....	5,890	3,454	3,980	4,853
Older workers.....	150	220	228	228
Work incentive program.....	370	365	365	365
Proposed legislation.....				50
Federal-State employment service.....	636	693	739	745
Other programs.....	76	91	90	91
Subtotal, training and employment.....	13,969	4,824	11,359	12,287
505 Other labor services.....	383	442	464	490
506 Social services:				
Grants to States for social and child welfare services.	2,730	2,519	2,578	2,578
Proposed legislation.....				285
Retroactive claims (proposed legislation).....				
Services for the disabled, elderly, and other special groups.....	1,383	1,548	1,542	2,913
Community service programs.....	631	598	543	538
Domestic volunteer programs.....	109	118	118	131
Other social services.....	71	7	10	13
Proposed legislation.....				3
Subtotal, social services.....	4,924	4,790	4,792	6,461
Deductions for offsetting receipts.....	-7	-5	-5	-5
Total budget authority.....	30,377	22,234	29,090	33,604

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
550 HEALTH				
551 Health care services:				
Medicare.....	22,757	27,482	31,703	31,703
Proposed legislation.....	-----	-----	-----	-----
Medicaid.....	10,229	10,699	12,065	12,065
Proposed legislation.....	-----	-----	-----	-----
Other health care services.....	3,041	3,495	3,623	4,130
Proposed legislation.....	-----	-----	-----	-----
Unallocated overhead.....	79	110	124	124
Proposed legislation.....	-----	-----	-----	-----
Subtotal, health care services.....	36,107	41,786	47,515	47,987
552 Health research:				
National Institutes of Health research.....	2,367	2,640	2,678	2,678
Alcohol, Drug abuse, and Mental Health Adminis- tration research.....	173	180	222	222
Other research.....	115	68	68	68
Unallocated overhead.....	-----	71	74	74
Subtotal, health research.....	2,654	2,959	3,043	3,043
553 Education and training of health work force:				
National Institutes of Health training.....	177	205	207	207
Health Resources Administration training.....	561	555	345	345
Alcohol, Drug abuse, and Mental Health Adminis- tration training.....	109	109	111	111
Other.....	-----	-----	-----	6
Subtotal, education and training of health care work force.....	847	868	663	669
554 Consumer and occupational health and safety:				
Occupational safety and health.....	226	249	249	290
Consumer product safety.....	544	610	627	627
Subtotal, consumer and occupational health and safety.....	770	859	876	917
Deductions for offsetting receipts.....	-10	-12	-12	-12
Total budget authority.....	40,368	46,461	52,085	52,604
600 INCOME SECURITY				
601 General retirement and disability insurance:				
Social security (OASDI).....	79,962	88,042	100,138	100,138
Proposed legislation.....	-----	-----	-----	15
Railroad retirement.....	3,597	3,973	3,902	3,902
Special benefits for disabled coal miners.....	992	995	1,048	1,048
Other.....	3	4	5	5
Proposed legislation.....	-----	-----	-----	1
Subtotal, general retirement and disability insurance.....	84,553	93,013	105,093	105,109

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
600 INCOME SECURITY—Continued				
602 Federal employee retirement and disability:				
Retirement and disability programs.....	16,665	17,844	19,426	19,426
Federal employee compensation.....	307	292	228	228
Subtotal, Federal employee retirement and disability.....	16,972	18,136	19,654	19,654
603 Unemployment compensation:				
Federal unemployment benefits.....	860	1,200	950	950
Unemployment insurance (trust fund).....	14,439	14,760	16,682	16,677
Proposed legislation.....	-----	-----	-----	-600
Advances to the UI and other trust funds.....	5,000	-----	-----	-----
Offsetting receipts.....	-3,442	-600	-400	-400
Proposed legislation.....	-----	-----	-----	400
Subtotal, unemployment compensation.....	16,857	15,360	17,232	17,027
604 Public assistance and other income supplements:				
Supplemental security income.....	5,895	5,250	5,715	5,715
AFDC and other.....	6,306	6,542	6,823	6,823
Proposed legislation.....	-----	-----	-----	23
Fuel efficiency tax refund (proposed legislation) ..	-----	-----	-----	1,333
Food stamps.....	5,506	5,618	5,779	5,779
School lunch and other nutrition programs.....	3,369	3,399	3,438	3,681
Proposed legislation.....	-----	-----	-----	-217
Housing assistance.....	28,629	32,272	25,078	25,519
Proposed legislation.....	-----	-----	-----	74
Refugee assistance.....	132	196	148	148
Other.....	346	194	208	217
Subtotal, public assistance and other income supplements.....	50,184	53,472	47,189	49,096
Deductions for offsetting receipts.....	*	-1	-1	-1
Total budget authority.....	168,566	179,981	189,168	190,885
700 VETERANS BENEFITS AND SERVICES				
701 Income security for veterans:				
Veterans compensation and pension.....	8,982	9,606	9,577	9,577
Proposed legislation.....	-----	-----	-----	421
National service life insurance trust fund.....	913	972	964	964
U.S. Government life insurance trust fund.....	37	38	36	36
All other insurance programs.....	7	2	6	6
Insurance program receipts.....	-486	-507	-469	-469
Subtotal, income security for veterans.....	9,454	10,112	10,114	10,535

See footnote at end of table.

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
700 VETERANS BENEFITS AND SERVICES—				
Continued				
702 Veterans education, training, and rehabilitation:				
Existing law.....	3,984	2,665	2,193	2,193
Proposed legislation.....				-100
Subtotal, veterans education, training, and re- habilitation.....	3,984	2,665	2,193	2,093
703 Hospital and medical care for veterans:				
Medical care and hospital services.....	4,374	4,925	5,080	5,280
Proposed legislation.....				-142
Construction.....	508	499	316	422
Medical administration, research, and other.....	192	224	233	236
Subtotal, hospital and medical care for veterans.....	5,074	5,648	5,630	5,795
705 Other veterans benefits and services:				
Undistributed expenses and other.....	531	611	626	628
Proposed legislation.....				-1
Non-VA support programs.....	27	27	26	26
Subtotal, other veterans benefits and services.....	558	637	653	653
Deductions for offsetting receipts.....	-1	-3	-3	-3
Total budget authority.....	19,069	19,059	18,587	19,074
750 ADMINISTRATION OF JUSTICE				
751 Federal law enforcement activities:				
General investigation.....	513	554	552	557
Narcotics violation investigation.....	168	188	193	193
Alcohol, tobacco, and firearms investigations.....	119	129	134	136
Border enforcement activities.....	604	685	690	729
Protection activities.....	121	135	144	144
Other enforcement.....	159	184	185	256
Subtotal, Federal law enforcement activities.....	1,685	1,875	1,898	2,015
752 Federal litigative and judicial activities:				
Civil and criminal prosecution and representation.....	333	358	359	384
Federal judicial activities.....	404	472	478	495
Representation of indigents in civil cases.....	125	205	205	255
Subtotal, Federal litigative and judicial activities.....	863	1,036	1,042	1,133
753 Federal correctional activities.....	297	308	293	353
754 Criminal justice assistance.....	758	656	659	651
Deductions for offsetting receipts.....	-2	-8	-8	-8
Total budget authority.....	3,601	3,867	3,884	4,144

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
800 GENERAL GOVERNMENT				
801 Legislative functions.....	871	868	913	941
802 Executive direction and management.....	83	77	80	81
803 Central fiscal operations:				
Collection of taxes.....	1,808	1,955	1,976	2,047
Proposed legislation.....				31
Other fiscal operations.....	155	215	297	300
Subtotal, central fiscal operations.....	1,963	2,170	2,273	2,378
804 General property and records management:				
Real property.....	132	-66	9	9
Personal property.....	157	168	168	167
Other.....	185	177	178	189
Subtotal, general property and records manage- ment.....	475	279	355	365
805 Central personnel management:				
Existing law.....	109	119	121	123
Proposed legislation.....				1
Subtotal, central personnel management.....	109	119	121	124
806 Other general government:				
Territories.....	160	132	128	157
Treasury claims.....	153	207	147	147
Panama Canal Zone.....	51	51	53	53
Federal Election Commission.....	6	8	8	8
Other.....	167	241	266	266
Subtotal, other general government.....	538	639	602	632
Deductions for offsetting receipts.....	-186	-156	-159	-159
Total budget authority.....	3,851	3,997	4,184	4,361
850 GENERAL PURPOSE FISCAL ASSISTANCE				
851 General revenue sharing:				
General revenue sharing payments.....	6,652	6,855	6,855	6,855
Administration.....	6	8	7	7
Subtotal, general revenue sharing.....	6,658	6,863	6,862	6,862

Table A-13. CURRENT SERVICES BUDGET AUTHORITY BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
850 GENERAL PURPOSE FISCAL ASSIST- ANCE—Continued				
852 Other general purpose fiscal assistance:				
Antirecession fiscal assistance.....	1,570	1,400	1,040	1,040
Payments and loans to the District of Columbia..	317	348	436	436
Mineral impact loan assistance (proposed legisla- tion).....				40
New York City seasonal financing fund.....	1	1	1	1
Taxable municipal bond option (proposed legisla- tion).....				7,094
Payments to States from Forest Service receipts..	50	226	242	242
Payments to States and counties from Federal land management activities.....	248	393	429	434
Other.....	427	462	483	483
Subtotal, other general purpose fiscal assistance..	2,614	2,829	2,631	9,770
Total budget authority.....	9,272	9,691	9,493	16,632
900 INTEREST				
901 Interest on the public debt	41,900	48,600	55,100	55,400
902 Other interest	-3,807	-4,759	-6,409	-6,410
Total budget authority.....	38,092	43,841	48,691	48,990
920 ALLOWANCES				
921 Civilian agency pay raises			1,197	1,150
923 Contingencies for other requirements				3,000
Total budget authority.....			1,197	4,150
950 UNDISTRIBUTED OFFSETTING RECEIPTS				
951 Employer share, employee retirement	-4,548	-5,024	-5,157	-5,157
952 Interest received by trust funds	-8,131	-8,595	-9,060	-9,064
953 Rents and royalties on the Outer Continental Shelf	-2,374	-2,000	-1,800	-1,800
Total budget authority.....	-15,053	-15,619	-16,017	-16,021
Total budget authority	465,231	499,517	538,274	568,172

*—\$500 thousand or less.

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM
(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
050 NATIONAL DEFENSE				
051 Department of Defense—Military:				
Military personnel.....	25,715	26,832	27,122	26,866
Retired military personnel.....	8,216	9,211	10,122	10,122
Operation and maintenance.....	30,587	33,494	35,655	36,454
Procurement.....	18,178	21,546	24,072	24,208
Research, development, test and evaluation.....	9,795	10,714	11,600	11,861
Military construction.....	1,914	1,919	1,941	1,976
Family housing.....	1,358	1,455	1,365	1,436
Revolving funds and other.....	-114	123	68	-11
Allowances: Civilian and military pay raises:				
Existing law.....			2,353	2,353
Proposed legislation.....				-135
Other legislation:				
Retired military personnel.....				23
Military personnel and O. & M.....				46
Subtotal, Department of Defense—Military.....	95,650	105,294	114,309	115,200
053 Atomic energy defense activities.....	1,936	2,308	2,446	2,536
054 Defense-related activities:				
Existing law.....	-84	61	41	222
Proposed legislation.....				-177
Subtotal, defense-related activities.....	-84	61	41	45
Deductions for offsetting receipts.....	-*	-2	-2	-2
Total outlays.....	97,501	107,661	116,794	117,779
150 INTERNATIONAL AFFAIRS				
151 Foreign economic and financial assistance:				
International financial institutions.....	875	838	844	909
International organizations.....	250	233	230	270
International fund for agricultural development.....		10	20	20
Agency for International Development.....	976	1,160	1,203	1,293
Food for Peace.....	850	1,068	1,069	1,069
Security supporting assistance (AID).....	1,062	1,813	1,666	1,666
Other foreign economic and financial assistance.....	201	168	142	180
Subtotal, foreign economic and financial assistance.....	4,214	5,289	5,174	5,407
152 Military assistance:				
Grant military assistance.....	209	190	200	200
Foreign military training.....	25	29	31	31
Foreign military credit sales.....	570	540	530	530
Offsetting receipts and other.....	-311	-302	-296	-296
Subtotal, military assistance.....	494	457	465	465

See footnotes at end of table.

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
150 INTERNATIONAL AFFAIRS—Continued				
153 Conduct of foreign affairs:				
Administration of foreign affairs.....	587	672	743	766
International organizations and conferences.....	368	408	409	409
Other.....	26	31	33	35
Subtotal, conduct of foreign affairs.....	981	1,111	1,184	1,211
154 Foreign information and exchange activities...	386	443	469	480
155 International financial programs:				
Export Import Bank.....	340	196	391	404
Military sales trust fund (net).....	-1,159	-200	300	300
Other offsetting receipts.....		-20	-20	-20
Subtotal, international financial programs.....	-819	-24	671	684
Deductions for offsetting receipts.....	-425	-540	-555	-555
Total outlays.....	4,831	6,736	7,409	7,691
250 GENERAL SCIENCE, SPACE, AND TECHNOLOGY				
251 General science and basic research:				
National Science Foundation programs.....	753	825	848	857
Energy research programs.....	324	363	415	415
Scientific information exchange activities.....	2	2	2	2
Subtotal, general science and basic research.....	1,078	1,190	1,264	1,274
253 Space flight.....	2,252	2,192	2,271	2,264
254 Space, science, applications, and technology...	1,006	1,018	1,144	1,150
255 Supporting space activities.....	343	358	390	390
Deductions for offsetting receipts.....	-2	-2	-2	-2
Total outlays.....	4,677	4,757	5,068	5,077
270 ENERGY				
271 Energy supply:				
Department of Energy—Operations.....	2,526	3,053	3,291	3,280
Proposed legislation.....				-163
Petroleum reserves.....	107	405	304	300
Petroleum reserves—receipts.....	-379	-492	-553	-553
Power marketing.....	1,136	1,309	1,416	1,427
Other offsetting receipts.....	-219	-262	-304	-304
Other energy supply.....	95	121	104	126
Subtotal, energy supply.....	3,266	4,134	4,258	4,113
272 Energy conservation:				
Fuel efficiency tax refund (proposed legislation) ..				500
Other energy conservation.....	143	398	363	902
Subtotal, energy conservation.....	143	398	363	1,402

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
270 ENERGY—Continued				
274 Emergency energy preparedness:				
Department of Energy.....	1	1,923	2,205	3,285
Department of the Interior.....		—*	—*	—*
FAP: Petroleum Reserves.....	122	245		
Subtotal, emergency energy preparedness.....	123	2,168	2,205	3,284
276 Energy information, policy, and regulation:				
Department of Energy—Operations.....	433	518	547	619
Proposed legislation.....				3
Nuclear Regulatory Commission.....	231	275	304	307
Subtotal, energy information, policy, and regu- lation.....	664	793	851	930
Deductions for offsetting receipts.....	—23	—26	—95	—95
Total outlays.....	4,172	7,467	7,582	9,634
300 NATURAL RESOURCES AND ENVIRON- MENT				
301 Water resources.....	3,241	3,628	3,617	3,392
302 Conservation and land management:				
Management of national forest and forestry re- search.....	1,109	1,331	1,385	1,407
Management of public lands.....	367	335	344	382
Surface mining reclamation.....				70
Conservation of agricultural lands.....	468	649	456	432
Other, including offsetting receipts.....	—665	—547	—719	—711
Subtotal, conservation and land management..	1,279	1,768	1,466	1,579
303 Recreational resources:				
Land and Water Conservation fund.....	344	472	520	554
Operation of recreation resources.....	670	845	925	980
Proposed legislation.....				11
Subtotal, recreational resources.....	1,014	1,317	1,445	1,545
304 Pollution control and abatement:				
Sewage plant construction grant program.....	3,530	4,135	4,660	4,660
Regulatory and research programs.....	750	795	773	905
Proposed legislation.....				50
Subtotal, pollution control and abatement....	4,279	4,930	5,433	5,615
306 Other natural resources.....	973	1,171	1,202	1,268
Deductions for offsetting receipts.....	—786	—1,084	—1,178	—1,178
Total outlays.....	10,000	11,730	11,986	12,222

See footnote at end of table.

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 admini- stration request
		1978 estimate	1979 estimate	
350 AGRICULTURE				
351 Farm income stabilization:				
Price-support and related programs.....	4,128	7,136	3,996	4,013
Federal Crop Insurance Corporation.....	91	99	20	27
Agricultural credit insurance fund.....	393	183	-188	-388
Other programs.....	-288	183	305	305
Unallocated salaries and expenses.....	160	167	167	224
Subtotal, farm income stabilization.....	4,485	7,769	4,300	4,180
352 Agricultural research and services:				
Research programs.....	415	498	481	511
Extension programs.....	240	268	266	263
Marketing programs.....	95	70	66	74
Proposed legislation.....				1
Animal and plant health programs.....	192	220	221	219
Economic intelligence.....	105	124	124	133
Other.....	11	52	54	54
Unallocated overhead.....	45	64	64	71
Offsetting receipts.....	-51	-55	-59	-59
Proposed legislation.....				-7
Subtotal, agricultural research and services.....	1,052	1,241	1,217	1,259
Deductions for offsetting receipts.....	-11	-3	-6	-6
Total outlays.....	5,526	9,007	5,511	5,433
370 COMMERCE AND HOUSING CREDIT				
371 Mortgage credit and thrift insurance:				
Mortgage purchase activities (GNMA).....	-1,082	39	332	333
Mortgage credit (FHA).....	492	407	407	221
Housing for the elderly and handicapped.....	4	335	713	713
Department of Agriculture—rural housing pro- grams.....	100	455	-103	-99
Proposed legislation.....				6
Federal Deposit Insurance Corporation.....	-852	-379	-947	-945
Federal Home Loan Bank and other.....	-1,933	-390	-503	-503
Subtotal, mortgage credit and thrift insurance.....	-3,270	467	-101	-274
372 Postal Service.....	2,267	1,787	1,830	1,830
374 Federal Financing Bank.....	-143			

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION
AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
370 COMMERCE AND HOUSING CREDIT—Con.				
376 Other advancement and regulation of commerce:				
Small business assistance.....	516	547	576	543
Technology utilization.....	175	190	196	212
Economic and demographic statistics.....	102	133	228	275
Other.....	326	388	380	386
Subtotal, other advancement and regulation of commerce.....	1,118	1,258	1,380	1,415
Deductions for offsetting receipts.....	-4	-4	-3	-3
Total outlays.....	-31	3,508	3,106	2,969
400 TRANSPORTATION				
401 Ground transportation:				
Highway improvement and construction.....	6,301	7,115	7,801	7,785
Proposed legislation.....				
Mass transit.....	2,000	2,180	1,991	2,311
Proposed legislation.....				
Railroads.....	1,676	1,776	1,854	1,825
Regulation.....	59	62	68	69
Subtotal, ground transportation.....	10,037	11,133	11,714	11,990
402 Air transportation:				
Airways and airports.....	2,369	2,753	2,865	2,877
Proposed legislation.....				-3
Aeronautical research and technology.....	344	415	476	466
Air carrier subsidies.....	80	77	69	69
Regulation.....	23	24	26	27
Subtotal, air transportation.....	2,816	3,269	3,436	3,436
403 Water transportation:				
Marine safety and transportation.....	1,149	1,350	1,385	1,403
Ocean shipping.....	591	546	531	532
Regulation.....	8	10	10	10
Subtotal, water transportation.....	1,749	1,906	1,926	1,946
407 Other transportation.....	76	82	85	93
Deductions for offsetting receipts.....	-42	-86	-44	-66
Total outlays.....	14,636	16,303	17,116	17,399

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
450 COMMUNITY AND REGIONAL DEVELOPMENT				
451 Community development:				
HUD: community development block grants.....	2,089	2,584	2,793	2,803
HUD: expiring categorical programs.....	905	667	440	440
HUD: Rehabilitation loans.....	41	43	54	85
HUD: research and planning.....	140	124	114	118
HUD: other programs.....	86	140	61	63
Proposed legislation.....				2
HUD: Departmental management.....	120	149	156	167
Rural development grant program.....	122	297	292	260
Pennsylvania Avenue Development.....	1	25	34	34
Other programs.....	22	20	17	20
Subtotal, community development.....	3,526	4,049	3,961	3,991
452 Area and regional development:				
Department of Agriculture: Community and business assistance.....	343	313	334	344
Economic development assistance.....	305	325	338	400
Local public works programs.....	585	2,300	2,001	2,011
Coastal energy impact.....		4	15	15
Other Department of Commerce.....	122	258	109	109
Indian programs.....	719	681	673	743
Appalachian programs.....	351	459	449	458
Offsetting receipts and other.....	-285	-401	-392	-392
Subtotal, area and regional development.....	2,139	3,940	3,526	3,689
453 Disaster relief and insurance:				
Small Business Administration disaster loans.....	184	1,195	632	550
Disaster relief.....	331	174	225	284
Flood insurance.....	97	144	152	150
Other.....	23	23	23	24
Subtotal, disaster relief and insurance.....	634	1,536	1,032	1,007
Deductions for offsetting receipts.....	-16	-17	-18	-18
Total outlays.....	6,283	9,509	8,502	8,669
500 EDUCATION, TRAINING, EMPLOYMENT, AND SOCIAL SERVICES				
501 Elementary, secondary, and vocational education:				
Elementary and secondary education.....	2,352	2,574	2,988	3,003
Proposed legislation.....				28
Impact aid.....	765	787	830	838
Proposed legislation.....				-58
Education for the handicapped.....	249	367	561	562
Occupational, vocational and adult education.....	693	740	804	803
Other aid to education agencies.....	530	594	616	642
Child development.....	489	587	636	664
Subtotal, elementary, secondary, and vocational education.....	5,078	5,649	6,436	6,484

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
500 EDUCATION, TRAINING, EMPLOYMENT, AND SOCIAL SERVICES—Continued				
502 Higher education:				
Student aid and institutional support	2,953	3,626	4,104	4,107
Special institutions	152	162	182	182
Subtotal, higher education	3,104	3,788	4,286	4,289
503 Research and general education aids:				
Special projects and training	43	75	88	92
Proposed legislation				2
National Institute of Education	64	80	86	90
Other educational research	19	24	27	32
Cultural activities	409	519	473	501
Other	392	476	513	530
Subtotal, research and general education aids ..	927	1,173	1,187	1,247
504 Training and employment:				
Temporary employment assistance	2,340	4,765	5,956	5,956
Employment and training assistance	3,291	4,852	4,878	5,400
Older workers	72	150	198	198
Work incentive program	361	365	365	365
Job opportunities program	98	13		
Proposed legislation				35
Federal-State employment service	627	693	739	745
Other programs	88	91	88	88
Subtotal, training and employment	6,877	10,930	12,224	12,787
505 Other labor services	374	432	452	477
506 Social services:				
Grants to States for social and child welfare services	2,551	2,703	2,578	2,578
Proposed legislation				264
Retroactive claims (proposed legislation)				
Services for the disabled, elderly, and other special groups	1,379	1,463	1,532	1,597
Community service programs	529	613	561	558
Domestic volunteer programs	109	116	116	128
Other social services	64	28	10	13
Proposed legislation				3
Subtotal, social services	4,632	4,924	4,798	5,142
Deductions for offsetting receipts	-7	-5	-5	-5
Total outlays	<u>20,985</u>	<u>26,890</u>	<u>29,377</u>	<u>30,421</u>

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
550 HEALTH				
551 Health care services:				
Medicare.....	21,549	25,611	30,039	30,039
Proposed legislation.....				-629
Medicaid.....	9,876	10,851	12,065	12,067
Proposed legislation.....				-113
Other health care services.....	3,045	3,325	3,559	3,604
Proposed legislation.....				18
Unallocated overhead.....	57	114	94	94
Proposed legislation.....				20
Subtotal, health care services.....	34,527	39,901	45,756	45,097
552 Health research:				
National Institutes of Health research.....	2,103	2,454	2,612	2,612
Alcohol, Drug abuse, and Mental Health Ad- ministration research.....	167	173	199	199
Other research.....	122	61	65	65
Unallocated overhead.....	151	50	60	60
Subtotal, health research.....	2,543	2,738	2,935	2,935
553 Education and training of health care work force:				
National Institutes of Health training.....	150	188	203	203
Health Resources Administration training.....	728	537	459	459
Alcohol, Drug abuse, and Mental Health Ad- ministration training.....	104	110	109	109
Other.....				-1
Subtotal, education and training of health care work force.....	981	836	771	770
554 Consumer and occupational health and safety:				
Occupational safety and health.....	222	237	241	273
Consumer product safety.....	521	599	613	613
Subtotal, consumer and occupational health and safety.....	743	835	855	887
Deductions for offsetting receipts.....	-10	-12	-12	-12
Total outlays.....	38,785	44,299	50,306	49,677
600 INCOME SECURITY				
601 General retirement and disability insurance:				
Social security (OASDI).....	83,861	93,088	103,725	103,725
Proposed legislation.....				-644
Railroad retirement.....	3,800	4,094	4,280	4,280
Special benefits for disabled miners.....	978	1,006	1,029	1,029
Other.....	3	4	5	5
Proposed legislation.....				1
Subtotal, general retirement and disability insurance.....	88,642	98,192	109,039	108,396

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
600 INCOME SECURITY—Continued				
602 Federal employee retirement and disability:				
Retirement and disability programs.....	9,228	10,519	11,767	11,767
Federal employee compensation.....	275	292	228	228
Subtotal, Federal employee retirement and disability.....	9,503	10,811	11,995	11,995
603 Unemployment compensation:				
Federal unemployment benefits.....	833	1,200	950	950
Unemployment insurance (trust fund).....	13,529	11,160	11,271	11,277
Proposed legislation.....				-400
Advances to the UI and other trust funds.....	4,338	600		
Offsetting receipts.....	-3,442	-600	-400	-400
Proposed legislation.....				400
Subtotal, unemployment compensation.....	15,258	12,360	11,821	11,827
604 Public assistance and other income supplements:				
Supplemental security income.....	5,297	5,974	5,555	5,555
AFDC and other.....	6,351	6,712	6,823	6,823
Proposed legislation.....				23
Fuel efficiency tax refund (proposed legislation).....				1,333
Food stamps.....	5,399	5,655	5,748	5,748
School lunch and other nutrition programs.....	3,129	3,588	3,548	3,744
Proposed legislation.....				-216
Housing assistance.....	2,957	3,756	4,275	4,359
Proposed legislation.....				52
Refugee assistance.....	180	189	166	166
Other.....	289	243	210	219
Subtotal, public assistance and other income supplements.....	23,601	26,118	26,326	27,807
Deductions for offsetting receipts.....	*	-1	-1	-1
Total outlays.....	137,004	147,481	159,181	160,024
700 VETERANS BENEFITS AND SERVICES				
701 Income security for veterans:				
Veterans compensation and pension.....	9,000	9,564	9,586	9,586
Proposed legislation.....				395
National service life insurance trust fund.....	698	700	750	750
U.S. Government life insurance trust fund.....	71	64	69	69
All other insurance programs.....	-67	-75	-56	-56
Insurance program receipts.....	-486	-507	-469	-469
Subtotal, income security for veterans.....	9,216	9,745	9,880	10,275
702 Veterans education, training and rehabilitation:				
Existing law.....	3,710	3,142	2,730	2,730
Proposed legislation.....				-100
Subtotal, veterans education, training, and rehabilitation.....	3,710	3,142	2,730	2,630

See footnote at end of table.

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
700 VETERANS BENEFITS AND SERVICES—				
Continued				
703 Hospital and medical care for veterans:				
Medical care and hospital services.....	4,291	4,904	5,077	5,276
Proposed legislation.....				-142
Construction.....	242	325	397	409
Medical administration, research and other.....	176	205	210	214
Subtotal, hospital and medical care for veterans.....	4,708	5,434	5,684	5,757
704 Veterans housing:				
Loan guaranty revolving fund.....	1	54	27	27
Direct loan revolving fund.....	-139	-75	-73	-73
Other (HUD PC sales fund).....	-7	-10	-9	-9
Subtotal, veterans housing.....	-145	-31	-55	-55
705 Other veterans benefits and services:				
Undistributed expenses and other.....	524	598	624	626
Proposed legislation.....				-1
Non-VA support programs.....	25	28	27	27
Subtotal, other veterans benefits and services.....	549	625	651	652
Deductions for offsetting receipts.....	-1	-3	-3	-3
Total outlays.....	18,038	18,914	18,889	19,257
750 ADMINISTRATION OF JUSTICE				
751 Federal law enforcement activities:				
General investigation.....	520	550	551	555
Narcotics violation investigation.....	167	190	195	194
Alcohol, tobacco, and firearms investigations.....	117	127	133	135
Border enforcement activities.....	592	680	688	727
Protection activities.....	123	135	143	143
Other enforcement.....	154	197	189	258
Subtotal, Federal law enforcement activities.....	1,673	1,880	1,899	2,011
752 Federal litigative and judicial activities:				
Civil and criminal prosecution and representation..	317	354	356	378
Federal judicial activities.....	400	468	481	497
Representation of indigents in civil cases.....	125	154	205	243
Subtotal, Federal litigative and judicial activities.....	842	976	1,042	1,118
753 Federal correctional activities.....	240	319	304	373
754 Criminal justice assistance.....	847	817	819	717
Deductions for offsetting receipts.....	-2	-8	-8	-8
Total outlays.....	3,600	3,984	4,056	4,211

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
800 GENERAL GOVERNMENT				
801 Legislative functions.....	841	898	914	941
802 Executive direction and management.....	76	80	79	80
803 Central fiscal operation:				
Collection of taxes.....	1,790	1,948	1,974	2,039
Proposed legislation.....				30
Other fiscal operations.....	140	216	295	298
Subtotal, Central fiscal operations.....	1,930	2,164	2,268	2,367
804 General property and records management:				
Real property.....	-124	9	9	11
Personal property.....	103	168	168	167
Other.....	162	186	186	191
Subtotal, general property and records manage- ment.....	141	364	364	369
805 Central personnel management:				
Existing law.....	100	120	118	120
Proposed legislation.....				1
Subtotal, central personnel management.....	100	120	118	121
806 Other general government:				
Territories.....	130	160	158	144
Treasury claims.....	153	207	147	147
Panama Canal Zone.....	48	53	53	53
Federal Election Commission.....	7	8	8	8
Other.....	117	198	234	233
Subtotal, other general government.....	455	626	600	586
Deductions for offsetting receipts.....	-186	-156	-159	-159
Total outlays.....	3,357	4,097	4,183	4,304
850 GENERAL PURPOSE FISCAL ASSISTANCE				
851 General revenue sharing:				
General revenue sharing payments.....	6,758	6,827	6,852	6,852
Administration.....	4	8	8	8
Subtotal, general revenue sharing.....	6,762	6,835	6,860	6,860

Table A-14. CURRENT SERVICES OUTLAYS BY FUNCTION AND PROGRAM—Continued

(In millions of dollars)

	1977 actual	Current services		1979 adminis- tration request
		1978 estimate	1979 estimate	
850 GENERAL PURPOSE FISCAL ASSIST- ANCE—Continued				
852 Other general purpose fiscal assistance:				
Antirecession fiscal assistance.....	1,699	1,573	1,050	1,050
Payments and loans to the District of Columbia..	316	370	426	426
Mineral impact loan assistance (proposed legis- lation).....				40
New York City seasonal financing fund.....	1	1	1	1
Taxable municipal bond option (proposed legis- lation).....				99
Payments to States from Forest Service receipts..	50	226	242	242
Payments to States and counties from Federal land management activities.....	247	395	429	434
Other.....	424	461	483	483
Subtotal, other general purpose fiscal assistance..	2,737	3,026	2,632	2,776
Total outlays.....	9,499	9,860	9,492	9,636
900 INTEREST				
901 Interest on the public debt	41,900	48,600	55,100	55,400
902 Other interest	-3,808	-4,759	-6,409	-6,409
Total outlays.....	38,092	43,841	48,691	48,991
920 ALLOWANCES				
921 Civilian agency pay raises			1,145	1,100
923 Contingencies for other requirements				1,700
Total outlays.....			1,145	2,800
950 UNDISTRIBUTED OFFSETTING RECEIPTS				
951 Employer share, employee retirement	-4,548	-5,024	-5,157	-5,157
952 Interest received by trust funds	-8,131	-8,595	-9,060	-9,064
953 Rents and royalties on the Outer Continental Shelf	-2,374	-2,000	-1,800	-1,800
Total outlays.....	-15,053	-15,619	-16,017	-16,021
Total outlays.....	401,902	460,424	492,376	500,174

*—\$500 thousand or less.

SPECIAL ANALYSIS B

FEDERAL TRANSACTIONS IN THE NATIONAL INCOME ACCOUNTS

The budget is designed to serve several purposes:

- It is an *economic document* that reflects the taxing and spending policies of the Government for promoting economic growth, high employment, relative price stability, and a strong balance-of-payments position.
- It proposes an *allocation of resources* between the private and public sectors and within the public sector. Through its impact on consumption and investment decisions and the distribution of income it also affects allocation decisions within the private sector.
- It sets forth the *President's request to the Congress* for appropriation action on existing or new programs and for changes in tax legislation.
- It is a *report to the Congress and the people* on how the Government has spent the funds entrusted to it in past years.

No single budget concept can satisfy all these purposes fully. The budget document and related Treasury reports provide complete, detailed information on the finances of the Federal Government and on the tax and spending programs proposed by the President. For study of aggregate economic activity, however, the Federal sector of the national income accounts (NIA) of the United States provides the most useful measures.

This special analysis shows Federal finances as measured in the national income accounts. The analysis is divided into three major sections. The first shows the size, composition, and trends in Federal sector receipts and expenditures. Additional details will be published in the February 1978 issue of the Department of Commerce publication, *Survey of Current Business*. The second section of this analysis presents quarterly estimates of Federal sector receipts and expenditures seasonally adjusted at annual rates, and the final section explains the major differences between the budget and the NIA concepts. A brief discussion of fiscal policy can be found in Part 2 of the *Budget of the United States*, and a more detailed one in the *Economic Report of the President*.

FEDERAL SECTOR RECEIPTS AND EXPENDITURES

Table B-1 shows Federal sector NIA receipts, expenditures, and deficits for 1977-79.

Table B-1. FEDERAL RECEIPTS AND EXPENDITURES IN THE NATIONAL INCOME ACCOUNTS (in billions of dollars)

Description	1977 actual	1978 estimate	1979 estimate
RECEIPTS			
Personal tax and nontax receipts.....	165.5	185.5	195.6
Corporate profits tax accruals.....	57.4	63.1	69.7
Indirect business tax and nontax accruals.....	24.6	28.5	34.8
Contributions for social insurance.....	116.5	133.7	151.3
Total receipts.....	364.0	410.8	451.4
EXPENDITURES			
Purchases of goods and services.....	140.7	158.4	171.6
Defense.....	(92.0)	(99.8)	(108.1)
Nondefense.....	(48.7)	(58.6)	(63.5)
Transfer payments.....	169.7	184.2	201.8
Domestic ("to persons").....	(166.5)	(180.7)	(198.0)
Foreign.....	(3.2)	(3.5)	(3.8)
Grants-in-aid to State and local governments.....	66.0	77.0	81.6
Net interest paid.....	29.3	34.5	39.8
Subsidies less current surplus of Government enterprises.....	6.1	9.5	9.2
Total expenditures.....	411.8	463.6	504.0
Deficit (-).....	-47.8	-52.8	-52.6

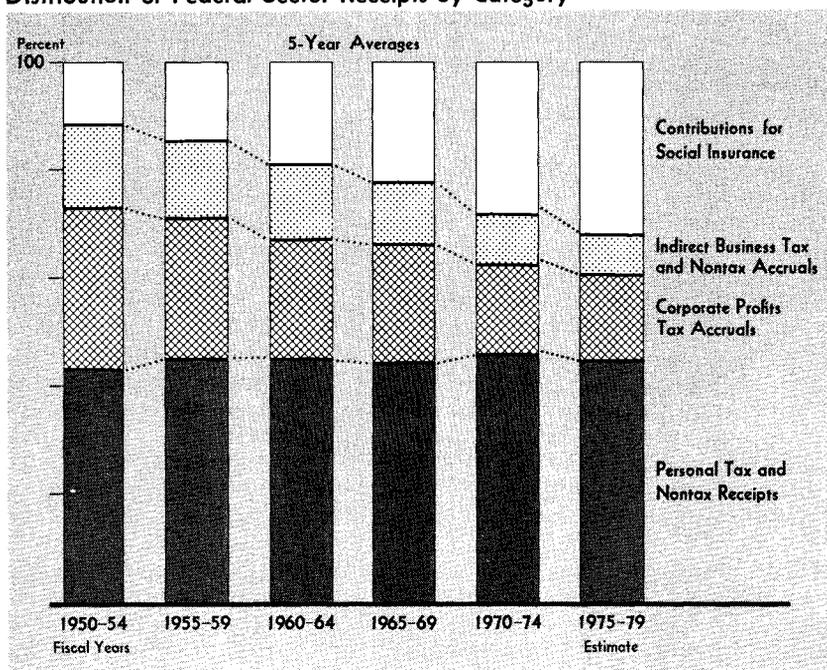
Trends in Federal sector receipts.—Table B-1 divides receipts into four major categories, which are also illustrated in the chart on the distribution of Federal sector receipts by category.

Personal tax and nontax receipts.—The largest receipt category—personal tax and nontax receipts—is composed primarily of individual income taxes but also includes estate and gift taxes and some miscellaneous receipts. Increases in income, because of both real growth and inflation, automatically increase these receipts. Since personal income taxes are progressive, these receipts normally grow at a faster rate than personal income. However, tax reductions enacted periodically over the past three decades have offset much of the increase in effective tax rates resulting from the progressive tax structure. Table B-2 shows Federal sector receipts at 10-year intervals as a percent of the gross national product (GNP).

Table B-2. FEDERAL SECTOR RECEIPTS AS A PERCENT OF GNP

Description	1947-49 average actual	1957-59 average actual	1967-69 average actual	1977-79 average estimate
Personal tax and nontax receipts.....	7.6	8.3	9.0	8.9
Corporate profits tax accruals.....	4.5	4.5	4.0	3.1
Indirect business tax and nontax accruals.....	3.3	2.6	2.1	1.4
Contributions for social insurance.....	2.0	2.8	4.7	6.5
Total receipts.....	17.3	18.1	19.8	19.9

Distribution of Federal Sector Receipts by Category



Corporate profits tax accruals.—These tax accruals vary significantly from year to year because corporate profits are among the most volatile components of national income. The NIA corporate profits taxes generally differ from the corresponding budget category primarily because: (1) The NIA includes the deposit of earnings by the Federal Reserve System as corporate profits taxes, while the budget treats these collections as miscellaneous receipts; and (2) the NIA records corporate profits taxes when the profits are earned (that is, accrued), while the unified budget records the cash receipts.

Estimates of corporate profits tax accruals are normally subject to greater error than any other category of receipts. The NIA estimate is derived from estimates of corporate profits before tax, estimated tax rates, and adjustments for tax changes. These estimates are subject to significant revisions based on later data. As is shown in table B-8, the estimated corporate profits tax accruals for 1976 are now \$1.2 billion higher than was estimated a year ago, even though both estimates were for a period that had ended. There is about a 3-year lag between initial and final estimates of corporate tax liability data; in the interim, successive estimates are made using the better data that gradually become available.

The secular decline in corporate profits tax receipts relative to GNP and (as shown in the chart above) to total receipts results mainly

from three factors: (1) a long-term decline in corporate profits relative to GNP; (2) a narrowing of the corporate profits tax base resulting from changes in the definition of corporate profits for tax purposes (largely increases in permissible depreciation allowances); and (3) reductions in effective tax rates on corporate profits resulting from statutory rate reductions and provision for investment tax credits.

Indirect business tax and nontax accruals.—These receipts are composed of excise taxes, customs duties, and various miscellaneous receipts such as rents and royalties. The import fees on crude oil and petroleum products, most of which have been eliminated, are classified as an indirect business tax; these began in 1975 and amounted to \$1.9 billion in the peak year of 1976. In 1979 these taxes will total \$0.2 billion. Over time, indirect business tax and nontax accruals have become a much less important part of total Federal sector receipts, partly because they normally do not rise in proportion to the growth in the economy and partly because some of them, such as the automobile and telephone excise taxes, have been reduced or repealed. This trend is expected to be reversed due to proposed new taxes to discourage energy consumption in general and to encourage the conversion away from the use of oil and natural gas to other types of fuel.

Contributions for social insurance.—This group of receipts constitutes the second largest category of Federal sector receipts. The increase since World War II has been caused by the growth in the labor force and in wage rates, the expanded coverage of existing social insurance programs, the enactment of new ones, and increases in the taxable wage base and tax rates needed to finance liberalization of benefits. As a result of the rapid rise in social insurance taxes (mainly social security) and the passage of legislation reducing or eliminating individual income taxes for many low- and moderate-income individuals and families, millions of Americans now pay significantly higher social insurance taxes than income taxes.

Major tax changes.—Federal sector receipts in the budget reflect both the impact of tax changes scheduled under current law and proposed tax legislation. The major changes in taxes reflected in the budget are the following:

- Permanent individual and corporation income tax reductions, generally effective October 1, 1978, and tax reforms, generally effective January 1, 1979, are proposed. In comparison to current law, these reductions—which would replace some of the temporary provisions of the Tax Reduction and Simplification Act of 1977—would reduce receipts by about \$34 billion in 1979. In comparison to the receipts that would result from extending the temporary provisions of the Tax Reduction and Simplification Act of 1977, the reductions are \$24 billion in 1979.
- The social security tax base increased from \$16,500 in calendar year 1977 to \$17,700 in 1978 and the rate increased from 11.7% to 12.1%. Prior to recent legislation, the base was scheduled to

increase to \$18,900 in 1979. The Social Security Amendments of 1977 legislated further increases in the rate and base in future years beyond what was previously scheduled. In calendar year 1979, the rate is scheduled to rise to 12.26% and the base is scheduled to increase to \$22,900. The increases resulting from the 1977 legislation will raise 1979 receipts by \$3.2 billion.

- The administration's energy tax proposals were announced last year. They include the crude oil equalization tax, the oil and natural gas consumption tax, and other excises designed to raise the price of oil and gas. The proposals also include several tax incentives for energy-saving investments, such as home insulation and solar heating devices. They also provide for per capita refunds of the excise tax collections.
- Legislation is proposed to eliminate the telephone excise tax effective October 1, 1978, and to reduce the Federal unemployment insurance tax rate from 0.7% to 0.5% effective January 1, 1979.¹

Part 4 of the budget discusses tax changes and proposed legislation in greater detail.

Trends in Federal sector expenditures.—Federal sector expenditures are also divided into several major NIA categories. The principal distinction is between purchases of goods and services (which are divided between defense and nondefense purchases) and all other transactions. Purchases are that portion of the Nation's output that is bought directly by the Federal Government and, therefore, included in GNP. The other expenditure categories consist primarily of payments to individuals and grants to State and local governments. These individuals and governments, in turn, can use the income to finance their own consumption or purchases of goods and services, to save, and—in the case of States and localities—to hold down taxes or to make transfer payments.

A major shift in the composition of Federal sector expenditures has been underway for years. As the chart on expenditures indicates, defense purchases of goods and services have been a declining share of Federal spending ever since the Korean war. This pattern was temporarily reversed for 2 years during the Vietnam period, but by 1970 the defense share was well below the pre-Vietnam percentage. There has been a corresponding rise in other components, especially grants-in-aid and domestic transfer payments. While this shift has been underway for a quarter of a century, it accelerated in the past decade due to the sharp increases in Federal transfer payments and grants. Defense purchases in current prices dropped significantly after the 1969 peak, but have since risen again largely in response to the impact of inflation on the defense budget. Defense purchases are expected to total 21.4% of Federal sector expenditures in 1979; they were 22.3% in 1977.

¹ The Federal unemployment tax finances administrative expenses of the Unemployment Insurance Service and the Federal-State Employment Service as well as the Federal share of extended unemployment benefits paid when unemployment is high. State taxes deposited in the fund finance benefits.

Distribution of Federal Sector Expenditures by Category

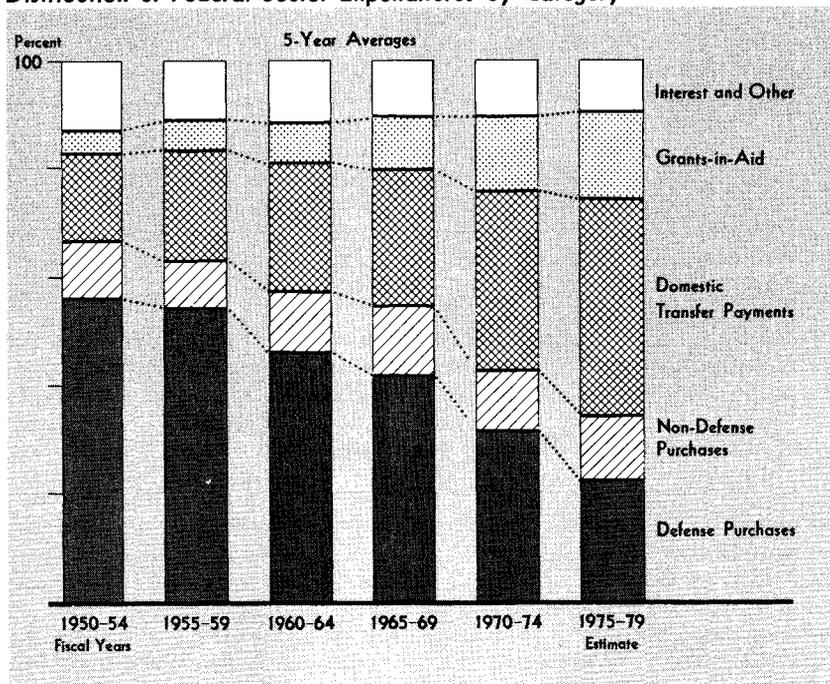


Table B-3 shows average Federal sector expenditures by category for 3-year periods as a percent of GNP at 10-year intervals.

Table B-3. FEDERAL SECTOR EXPENDITURES AS A PERCENT OF GNP

Description	1947-49 average actual	1957-59 average actual	1967-69 average actual	1977-79 average estimate
Defense purchases	4.3	9.9	8.7	4.9
Nondefense purchases	2.0	1.6	2.4	2.8
Domestic transfer payments	3.4	3.9	5.1	8.9
Foreign transfer payments	1.3	.4	.3	.2
Grants-in-aid to State and local governments .....	.7	1.1	2.0	3.6
Net interest paid	1.7	1.2	1.3	1.7
Subsidies less current surplus of Government enterprises .....	.2	.6	.6	.4
Total expenditures	13.8	18.6	20.4	22.4

Defense purchases and foreign transfer payments are, of course, largely devoted to the conduct of our national defense and foreign

affairs.² In 1947–49 defense purchases—reduced by receipts from large-scale sales of World War II materials—were only 4.3% of GNP, while foreign transfer payments were 1.3% of GNP. The total of these—5.6%—reflects roughly the cost of the conduct of external affairs. The years 1957–59, while a post-Korean war peacetime period, reflected a higher level of defense expenditures than was prevalent prior to the Korean war. In that period, defense purchases and foreign transfers combined were equal to 10.3% of GNP. Even though the 1967–69 period included the peak spending for the Vietnam war, defense purchases and foreign transfers were down to 8.9% of GNP. In the 1977–79 peacetime period, they are expected to be equal to 5.0% of GNP.

In contrast, spending on most other expenditure categories relative to GNP has risen dramatically, especially nondefense purchases, domestic transfer payments, and grants-in-aid. In 1947–49, spending for everything except defense purchases and foreign transfer payments was equal to 8.1% of GNP; in 1977–79 it is estimated to equal 17.4% of GNP.

Defense purchases of goods and services.—Defense purchases consist of all purchases of goods and services under programs included in the national defense function in the budget document. Almost all defense purchases are made by the Department of Defense—Military, but some are made by the Department of Energy (for atomic weapons) and other accounts included in the defense function. In addition, defense purchases include purchases of goods and services by the military assistance programs that are now classified in the international affairs function in the budget.

The budget calls for an increase in defense purchases of \$8.3 billion in 1979 over 1978. This increase more than offsets the impact of inflation, thus continuing the reversal of the pattern of a steady decline in real terms from 1968 through 1976. While NIA defense purchases are not estimated in constant prices,³ the budget includes constant price estimates of outlays in the national defense function. This category and defense purchases in the NIA are sufficiently similar so that these figures give a rough approximation of the same transactions. The unified budget estimates of outlays in constant prices for the national defense function are as follows (in billions of 1972 dollars):

At 5-year intervals:		For selected years:	
1949.....	27.5	1950 ¹	29.4
1954.....	88.0	1953 ²	96.3
1959.....	75.3	1956 ³	72.9
1964.....	77.0	1965 ⁴	69.3
1969.....	97.9	1968 ²	101.4
1974.....	67.9	1976 ⁵	65.5
1979 estimate.....	70.3	1977 ⁶	66.5
		1978 estimate.....	68.9

¹ Last year prior to Korean war.

² Wartime peak year.

³ Post-Korean war low in the 1950's.

⁴ Lowest year between Korean and Vietnam wars.

⁵ Lowest year since Vietnam war.

⁶ Last year for which actual data are available.

² However, in recent years a significant portion of foreign transfers has arisen from payments under general domestic social programs—for example, payments to social security retirees living abroad.

³ The Department of Commerce is developing a data series on constant price defense purchases, and according to current plans will publish the data this calendar year.

Nondefense purchases of goods and services.—This category covers the goods and services purchased by Federal nondefense agencies. These include such programs as operation of national forest, park, and recreation areas; space exploration; promotion of commerce; acquisition and disposal of agricultural commodities; construction of flood control and navigation projects; operation of the Federal airway system; a wide variety of medical, energy, space, and other scientific research; the capital outlays of Government enterprises; Federal law enforcement; and operation of veterans hospitals. Table B-4 shows the composition of this spending by agency for the years 1975 through 1979.

Table B-4. NONDEFENSE PURCHASES OF GOODS AND SERVICES BY AGENCY (in billions of dollars)

	1975 actual	1976 actual	1977 actual	1978 estimate	1979 estimate
Legislative branch.....	0.7	0.8	1.0	1.1	1.2
The judiciary.....	.3	.3	.4	.5	.5
Agriculture:					
Commodity Credit Corporation (CCC).....	.2	.2	2.7	3.0	.9
Other.....	2.4	2.3	2.9	3.8	3.6
Commerce.....	.9	1.0	1.1	1.2	1.5
Defense—Civil.....	2.1	2.2	2.4	2.6	2.6
Energy ¹	1.8	2.4	3.1	5.9	6.6
Health, Education, and Welfare.....	5.3	5.7	6.3	7.0	7.6
Housing and Urban Development.....	.8	.5	.6	.6	.5
Interior.....	1.8	1.4	2.8	3.3	3.3
Justice.....	1.3	1.4	1.6	1.9	2.0
Labor.....	.7	.9	1.1	1.6	2.4
State.....	.7	.9	1.0	1.1	1.2
Transportation.....	3.0	3.2	3.6	4.1	4.6
Treasury.....	2.5	2.7	2.9	3.2	3.4
Civil Service Commission.....	.8	1.0	1.1	1.3	1.5
Environmental Protection Agency.....	.5	.5	.6	.7	.8
General Services Administration.....	.4	*	*	.3	.3
National Aeronautics and Space Administration.....	3.2	3.6	3.9	3.9	4.2
Postal Service ².....	.7	.7	.4	.5	.5
Tennessee Valley Authority.....	1.0	1.1	1.2	1.5	1.5
Veterans Administration.....	4.1	4.6	5.2	6.0	6.4
All other ³	2.3	3.4	2.8	3.9	6.3
Total.....	37.6	40.7	48.7	58.6	63.5

*\$50 million or less.

¹ 1975 and 1976 figures are spending by predecessor agencies.

² Not included in outlays shown in the Federal budget.

³ Includes allowances for civilian agency pay raises and contingencies.

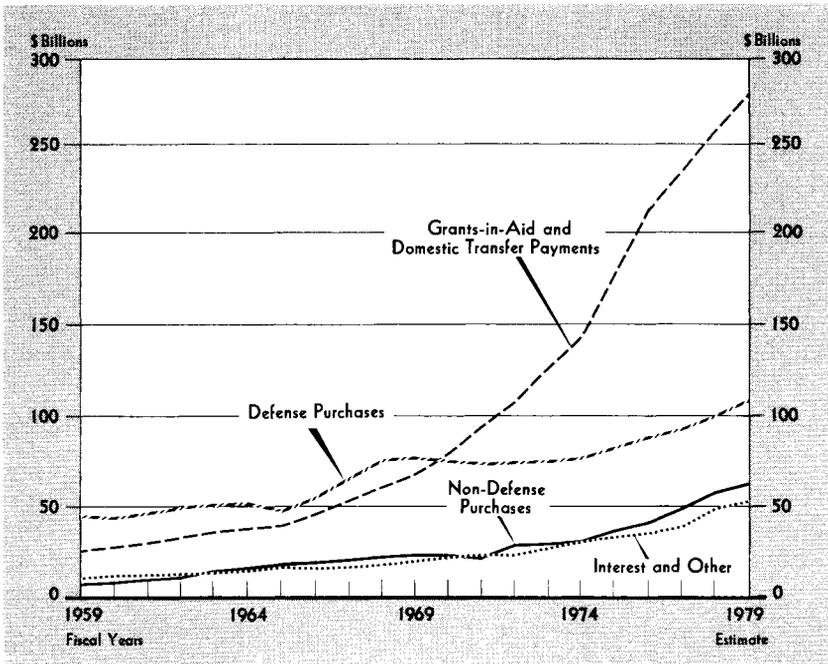
Note.—Excludes the transition quarter.

Nondefense purchases consist mainly of the cost of operating the various nondefense agencies. In the case of Government enterprises (including the CCC and the Postal Service), however, the purchases figures reflect net capital formation.

Domestic transfer payments.—This is now the largest category of Federal sector expenditures. Spending for domestic transfers has expanded rapidly in recent years, mainly because of more beneficiaries

and higher benefit payments under social insurance programs.⁴ As can be seen, spending on human resources programs—especially income security programs—dominates domestic transfer payments. This spending is expected to continue to rise in 1979, largely due to demographic and economic conditions—increases in the covered population and adjustments to compensate for inflation. Program trends (on a unified budget basis) are discussed extensively in Part 5 of the Budget and elsewhere in the budget documents.

Composition of Federal Sector Expenditures



Grants-in-aid.—These expenditures help State and local governments to provide general public services and to finance programs for the needy. There is a substantial degree of substitutability between grants-in-aid and domestic transfer payments and—to a lesser degree—nondefense purchases. For example, low-income veterans could be eligible for free medical care under medicaid (grants), in a veterans hospital (nondefense purchases), or, perhaps, medicare (transfer payments). The supplemental security income transfer payments have substituted for the previous program of grants to States for public assistance for the elderly and handicapped. (The State and local spending of Federal grant money for public assistance programs is

⁴ Table B-3 shows the growth in domestic transfer payments as a percent of GNP at 10-year intervals, and the chart on the distribution of Federal sector expenditures by category shows this growth trend over time relative to total Federal sector expenditures. Table B-5 provides data on the composition of domestic transfer payments by budget functional category and major program.

Table B-5. FUNCTIONAL COMPOSITION OF DOMESTIC TRANSFER PAYMENTS (in billions of dollars)

Description	Actual										Estimate	
	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
HUMAN RESOURCES PROGRAMS												
Income security:												
Social security (OASDI).....	22.5	25.8	28.6	34.0	38.0	46.6	53.2	61.5	70.3	81.2	90.3	100.0
Railroad retirement.....	1.4	1.5	1.6	1.9	2.1	2.4	2.6	3.0	3.4	3.7	4.0	4.2
Civil service retirement.....	2.1	2.4	2.7	3.2	3.7	4.5	5.6	7.0	8.2	9.4	10.8	12.0
Unemployment benefits.....	2.2	2.2	3.0	5.6	6.5	4.8	5.5	12.2	18.2	14.1	11.3	10.7
Benefits for coal miners.....			*	.3	.4	.9	1.0	.9	1.0	.9	1.0	1.0
Supplemental security income.....							1.9	4.2	4.6	4.7	4.8	5.3
Food and nutrition.....	.2	.2	.6	1.5	1.8	2.2	2.7	4.2	4.8	4.6	4.8	5.0
Special payments, Treasury ¹								1.7	.9	.9	1.2	2.0
Workmen's compensation.....	.1	.1	.1	.2	.2	.2	.3	.4	.5	.6	.7	.7
Other.....	*	.1	.1	.1	.1	.1	.1	.1	.2	.2	.2	.2
Subtotal, Income security.....	<u>28.5</u>	<u>32.3</u>	<u>36.7</u>	<u>46.7</u>	<u>52.8</u>	<u>61.7</u>	<u>72.8</u>	<u>95.2</u>	<u>112.2</u>	<u>120.4</u>	<u>129.1</u>	<u>141.1</u>
Health:												
Medicare.....	5.0	6.2	6.7	7.5	8.3	9.0	10.9	14.0	16.8	20.6	24.4	28.1
Other.....	.3	.3	.4	.4	.4	.4	.4	.5	.6	.7	.7	.7
Subtotal, Health.....	<u>5.4</u>	<u>6.6</u>	<u>7.2</u>	<u>7.9</u>	<u>8.8</u>	<u>9.4</u>	<u>11.4</u>	<u>14.5</u>	<u>17.4</u>	<u>21.3</u>	<u>25.1</u>	<u>28.9</u>

Education, training, employment, and social services:												
Education.....	.4	.4	.5	.7	.9	1.0	1.0	1.5	2.1	2.7	3.2	3.8
Training, employment, and social services...	.6	.7	.7	.9	.9	.7	.7	.4	.3	.3	.4	.4
Subtotal, education, training, employment, and social services.....	1.0	1.0	1.3	1.5	1.7	1.7	1.7	1.9	2.4	3.0	3.6	4.1
Veterans benefits and services.....	5.6	6.2	6.9	8.0	8.8	9.7	10.4	12.8	14.3	13.3	13.2	13.2
Total, human resources programs.....	40.5	46.1	52.0	64.2	72.1	82.6	96.3	124.4	146.1	157.9	171.0	187.3
ALL OTHER FUNCTIONS												
National defense (military retired pay).....	2.1	2.4	2.8	3.3	3.8	4.3	5.1	6.2	7.2	8.1	9.1	10.1
All other functions.....	.1	.2	.2	.2	.2	.2	.4	.5	.6	.5	.6	.6
Total functions not included in human resources grouping.....	2.2	2.6	3.0	3.5	4.0	4.5	5.4	6.7	7.8	8.6	9.7	10.7
Total domestic transfer payments.....	42.7	48.7	55.0	67.7	76.1	87.1	101.7	131.1	153.9	166.5	180.7	198.0

*\$50 million or less.

¹ Includes both \$50 tax rebates and earned income tax credits in excess of tax liabilities; the latter are now counted in the budget as refunds of receipts.

Note.—Excludes the transition quarter.

Table B-6. FUNCTIONAL COMPOSITION OF FEDERAL GRANTS-IN-AID (in billions of dollars)

Description	Actual										Estimate	
	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
HUMAN RESOURCES PROGRAMS												
Income security:												
Public assistance cash.....	3.2	3.6	4.1	5.5	6.6	5.9	5.4	5.1	5.8	6.3	6.7	6.8
Child nutrition and related programs.....	.2	.3	.4	.6	.9	1.1	1.2	1.7	2.1	2.6	2.9	2.7
Other.....	.2	.3	.3	.4	.4	.5	.5	.7	1.0	1.3	1.3	1.5
Subtotal, income security.....	<u>3.7</u>	<u>4.2</u>	<u>4.8</u>	<u>6.5</u>	<u>7.8</u>	<u>7.5</u>	<u>7.1</u>	<u>7.5</u>	<u>8.9</u>	<u>10.2</u>	<u>10.9</u>	<u>10.9</u>
Health:												
Medicaid.....	1.8	2.3	2.7	3.4	4.6	4.6	5.8	6.8	8.5	9.8	10.8	11.9
Other (includes research, construction, services, and medical training).....	.9	.8	1.2	1.2	1.5	1.7	2.0	2.6	3.1	2.9	3.0	3.1
Subtotal, health.....	<u>2.7</u>	<u>3.1</u>	<u>4.0</u>	<u>4.6</u>	<u>6.1</u>	<u>6.3</u>	<u>7.8</u>	<u>9.4</u>	<u>11.6</u>	<u>13.0</u>	<u>13.8</u>	<u>15.0</u>
Education, training, employment, and social services:												
Education.....	3.1	3.1	3.4	3.7	4.0	4.0	3.9	4.8	4.9	5.3	5.9	6.6
Training and employment.....	.8	.7	.8	1.1	1.7	2.2	1.9	3.4	5.6	6.1	9.6	10.7
Social services.....	.9	1.0	1.4	1.6	2.9	2.6	2.5	3.4	3.4	3.9	4.7	4.3
Subtotal, education, training, employment, and social services.....	<u>4.8</u>	<u>4.8</u>	<u>5.6</u>	<u>6.4</u>	<u>8.6</u>	<u>8.7</u>	<u>8.4</u>	<u>11.7</u>	<u>13.9</u>	<u>15.2</u>	<u>20.2</u>	<u>21.7</u>
Veterans benefits and services.....	*	*	*	*	*	*	*	*	.1	.1	.1	.1
Total, human resources programs.....	<u>11.2</u>	<u>12.2</u>	<u>14.4</u>	<u>17.5</u>	<u>22.6</u>	<u>22.5</u>	<u>23.3</u>	<u>28.6</u>	<u>34.5</u>	<u>38.5</u>	<u>44.9</u>	<u>47.7</u>

See footnotes at end of table.

ALL OTHER FUNCTIONS

Natural resources and environment:												
Environment .....	.2	.2	.2	.5	.5	.7	1.6	2.0	2.5	3.7	4.3	4.8
Natural resources .....	.2	.2	.2	.2	.3	.3	.4	.4	.6	.4	.5	.6
Subtotal, natural resources and environment .....	.4	.3	.4	.8	.8	1.1	2.0	2.4	3.1	4.1	4.8	5.5
Community and regional development:												
Urban renewal .....	.5	.5	1.0	1.0	1.2	1.0	1.2	1.3	1.2	.9	.6	.4
Other HUD grants .....	.1	.2	.3	.5	.5	.9	.8	.7	1.3	2.2	2.7	2.9
Local public works .....										.6	2.3	2.0
Area and regional development .....	.2	.3	.3	.4	.4	.5	.5	.5	.6	.5	.6	.5
Other .....	.1	*	.1	.1	.1	.2	.1	.2	.3	.3	.4	.4
Subtotal, community and regional development .....	.8	1.0	1.8	2.0	2.2	2.6	2.7	2.8	3.3	4.4	6.6	6.2

Table B-6. FUNCTIONAL COMPOSITION OF FEDERAL GRANTS-IN-AID (in billions of dollars)—Continued

Description	Actual										Estimate	
	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Transportation:												
Highways (including safety).....	4.2	4.2	4.4	4.6	4.7	4.7	4.5	4.7	6.2	6.0	6.8	7.6
Urban mass transit.....	.1	.1	.1	.2	.3	.4	.5	.8	1.0	1.3	1.4	1.4
Other (mainly airport construction).....	.1	.1	.1	.1	.1	.2	.2	.3	.3	.4	.6	.6
Subtotal, transportation.....	<u>4.3</u>	<u>4.4</u>	<u>4.6</u>	<u>4.9</u>	<u>5.1</u>	<u>5.3</u>	<u>5.3</u>	<u>5.8</u>	<u>7.5</u>	<u>7.7</u>	<u>8.8</u>	<u>9.6</u>
General purpose fiscal assistance:												
General revenue sharing.....						6.6	6.1	6.1	6.2	6.8	6.8	6.9
Other.....	.2	.3	.3	.3	.3	.4	.4	.5	.5	2.3	2.5	2.2
Subtotal, general purpose fiscal assistance.....	<u>.2</u>	<u>.3</u>	<u>.3</u>	<u>.3</u>	<u>.3</u>	<u>7.0</u>	<u>6.5</u>	<u>6.7</u>	<u>6.7</u>	<u>9.0</u>	<u>9.3</u>	<u>9.0</u>
All other functions (includes allowance for contingencies in 1979).....	.9	1.0	1.1	1.3	1.7	1.9	1.9	2.1	2.3	2.3	2.5	3.6
Total functions not included in the human resources grouping.....	<u>6.6</u>	<u>7.0</u>	<u>8.1</u>	<u>9.2</u>	<u>10.0</u>	<u>17.9</u>	<u>18.4</u>	<u>19.8</u>	<u>23.0</u>	<u>27.5</u>	<u>32.1</u>	<u>33.9</u>
Total grants-in-aid.....	<u>17.8</u>	<u>19.2</u>	<u>22.6</u>	<u>26.8</u>	<u>32.6</u>	<u>40.4</u>	<u>41.6</u>	<u>48.4</u>	<u>57.5</u>	<u>66.0</u>	<u>77.0</u>	<u>81.6</u>

*\$50 million or less.

Note.—Excludes the transition quarter.

classified as State and local government transfer payments.) In addition, there is significant substitutability between different grant programs; for example, the substitution of block grants and general revenue sharing for categorical grants can significantly change administrative controls without changing the total size of grants. In some cases a more accurate picture of Federal efforts to meet domestic needs through income transfers is obtained by treating grants and domestic transfer payments together, rather than looking at them separately, as is done in the preceding chart.

The chart on the composition of Federal sector expenditures combines grants-in-aid and domestic transfer payments. Table B-6 shows detail on grants-in-aid by budget function and major activity, and table B-5 shows similar detail for domestic transfer payments.

Grant expenditures are discussed in greater detail in Special Analysis H of this document. While the definition of Federal aid used in that analysis differs somewhat from that used in the NIA, the two sets of data largely overlap. Special Analysis H explains the relationship between the two data series.

Foreign transfer payments.—There are three major types of foreign transfer payments: expenditure of dollars to assist foreign economic development, grants of surplus agricultural products, and payments under social security and similar programs to individuals living abroad. Although payments to individuals are gradually rising (roughly in proportion with the rise in GNP), total foreign transfer payments have been stable (and a declining proportion of GNP) for many years.

Net interest paid.—Net interest depends on the size of Federal debt, loans outstanding, and the interest rates on borrowing and lending. For the 1947–49 period, net interest paid amounted to 12.3% of total Federal sector NIA expenditures; since 1952 it has generally ranged between 6% and 7% of the total. In 1977 net interest comprised 7.2% of total Federal sector expenditures and it is expected to rise to 7.9% in 1979.

Subsidies less current surplus of Government enterprises.—Subsidies less current surplus of Government enterprises consist of two elements: (1) Subsidy payments to resident business (including farms); and (2) the “current surplus” or “deficit” of Government enterprises. In this context, a subsidy is a monetary grant to a unit engaged in commercial activities. Examples are housing subsidies, subsidies for railroads, and the construction and operating differential subsidies paid to operators of U.S.-flag merchant ships.

“Government enterprise” is the term used in the NIA to designate certain business-type operations of the Government, which usually appear in the budget as public enterprise revolving funds. The operating costs of Government enterprises are, to a great extent, covered by the sale of goods and services to the public, as distinguished from tax receipts. The difference between the sales and the current operating expenses of a Government enterprise constitutes its surplus or deficit. As noted above, the capital formation of Government enterprises is

classified as nondefense purchases. The largest Government enterprises are the Commodity Credit Corporation, the Postal Service (which is not now included in the budget), and the Tennessee Valley Authority.

Table B-7 shows the composition of this aggregation by major category.

Wage disbursements less accruals.—This is an adjustment item occasionally made in the NIA to take account of the fact that wages and salaries are not always received at the same time as they are earned. The national income component of wages and salaries is counted in the GNP on an accrual basis; that is, when the income is earned rather than when it is received. Personal income, however, including wage and salary disbursements, is estimated on the basis of when the cash is received.

Ordinarily, wage and salary payments disbursed in one period but earned in the preceding period are approximately offset by payments disbursed in the next period but earned in the current period, thus making the adjustment between national income and personal income small or zero. No adjustment for wage accruals by the Government is anticipated for the 3 years covered by this budget.

Table B-7. SUBSIDIES LESS CURRENT SURPLUS OF GOVERNMENT ENTERPRISES (in billions of dollars)

Description	Actual										Estimate	
	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Subsidies:												
Commodity Credit Corporation.....	2.6	3.0	3.1	3.6	3.0	4.0	2.4	0.6	0.3	0.6	2.4	2.0
Other Department of Agriculture.....	.5	.5	.4	.3	.3	.4	.2	.4	.2	.3	.4	.3
Maritime.....	.3	.3	.3	.4	.4	.4	.4	.5	.5	.6	.5	.5
Housing (HUD).....	.3	.4	.5	.8	1.3	1.7	1.9	2.2	2.5	2.9	3.5	4.2
Railroad and mass transit.....				*	.1	.1	.1	.4	1.1	1.3	1.4	1.4
Energy related subsidies.....											.2	.8
Other (mainly airline subsidies) ¹.....	.1	*	*	.1	.1	.7	.1	.1	.2	.1	.2	.2
Subtotal.....	3.7	4.2	4.4	5.2	5.2	7.3	5.2	4.2	6.9	5.7	8.7	9.4
Enterprise surpluses (-) or deficits:												
Commodity Credit Corporation.....	.3	.5	.6	.6	.6	1.3	1.5	.3	.2	.2	.5	.6
Postal Service.....	.9	.9	1.3	2.0	1.4	1.3	2.0	2.2	2.3	1.3	1.7	.8
Tennessee Valley Authority.....	-.1	-.1	-.2	-.2	-.2	-.2	-.3	-.3	-.4	-.5	-.8	-.9
Federal Housing Administration.....	-.2	-.2	-.2	-.3	-.3	-.3	-.1	-.2	-.2	-.2	-.2	-.2
Federal Deposit Insurance Corporation.....	-.1	-.1	-.1	-.1	-.2	-.1	-.1	-.2	-.2	-.2	-.3	-.3
Federal Savings and Loan Insurance Corporation.....	-.1	-.1	-.1	-.1	-.1	-.1	-.2	-.2	-.2	-.2	-.2	-.2
All other ²	-.3	-.3	-.2	-.3	-*	.1	-.1	-.1	-.3	-.*	-.*	-.*
Subtotal.....	.4	.4	1.1	1.6	1.2	1.8	2.7	1.5	1.2	.4	.8	-.2
Total subsidies less current surplus.....	4.1	4.6	5.4	6.8	6.4	9.1	8.0	5.7	6.1	6.1	9.5	9.2

*\$50 million or less.

¹ Includes subsidies by the disaster loan fund of \$0.7 billion in 1973.

² Includes impact of retroactive pay raises.

Note.—Excludes the transition quarter.

Estimating errors.—Estimates of NIA receipts and expenditures are necessarily imprecise. Data are frequently not available when needed and in the detail desired, yet it is important that the estimates be prepared in a timely manner. In addition, the budget process does not generate all of the data needed to make precise NIA estimates, so approximations are required in the NIA translation. Table B-8 provides some indication of the magnitudes of these estimating errors. When the 1978 budget was published a year ago, fiscal year 1976 had been over for 7 months, and the 1976 estimates were labeled "actual"; yet, as table B-8 shows, the figures for 1976 are now significantly different. These data, therefore, need to be recognized as approximations, not precise figures.

Table B-8. FEDERAL RECEIPTS AND EXPENDITURES IN THE NATIONAL INCOME ACCOUNTS FOR 1976: COMPARISON OF JANUARY 1977 AND JANUARY 1978 ESTIMATES

(In billions of dollars)

Description	"Actuals" for 1976 shown in 1978 budget	Change	Currently reported "actuals" for 1976
RECEIPTS			
Personal tax and nontax receipts.....	137.2	—*	137.2
Corporate profits tax accruals.....	51.0	1.2	52.2
Indirect business tax and nontax accruals.....	24.5	—3	24.2
Contributions for social insurance.....	100.9	—4	100.5
Total receipts.....	313.6	.5	314.1
EXPENDITURES			
Purchases of goods and services.....	127.2	—0.7	126.5
Defense.....	(85.8)	(*)	(85.8)
Nondefense.....	(41.4)	(—7)	(40.7)
Transfer payments.....	156.7	.1	156.8
Domestic ("to persons").....	(153.6)	(.3)	(153.9)
Foreign.....	(3.1)	(—1)	(3.0)
Grants-in-aid to State and local governments.....	57.5	*	57.5
Net interest paid.....	25.8	—4	25.4
Subsidies less current surplus of Government enterprises.....	5.8	.3	6.1
Total expenditures.....	373.0	—7	372.3
Deficit (—).....	—59.4	1.2	—58.2

*\$50 million or less.

QUARTERLY ESTIMATES

Table B-9 presents quarterly NIA receipts and expenditures estimates (at seasonally adjusted annual rates) for the period covered by the budget.

Table B-9. FEDERAL RECEIPTS AND EXPENDITURES IN THE NATIONAL INCOME ACCOUNTS, QUARTERLY, 1977-79

(In billions of dollars; seasonally adjusted at annual rates)

Description	Actual				Estimated							
	Oct.- Dec. 1976	Jan.- Mar. 1977	Apr.- June 1977	July- Sept. 1977	Oct.- Dec. 1977*	Jan.- Mar. 1978	Apr.- June 1978	July- Sept. 1978	Oct.- Dec. 1978	Jan.- Mar. 1979	Apr.- June 1979	July- Sept. 1979
RECEIPTS												
Personal tax and nontax receipts.....	157.1	170.0	168.6	168.6	175.5	180.0	185.1	197.5	188.7	188.6	195.0	206.8
Corporate profits tax accruals.....	55.1	55.4	59.9	59.5	63.2	61.6	63.0	64.5	69.0	67.0	70.0	72.8
Indirect business tax and nontax accruals.....	23.8	24.2	24.6	25.4	25.2	25.7	30.9	32.0	31.1	34.9	36.0	37.3
Contributions for social insurance.....	108.4	115.4	118.1	119.7	122.4	134.6	137.9	141.4	143.0	154.8	157.3	159.8
Total receipts.....	344.5	364.9	371.2	373.2	386.3	401.9	416.9	435.4	431.8	445.3	458.3	476.7
EXPENDITURES												
Purchases of goods and services.....	134.2	136.3	143.6	148.1	153.8	156.8	160.0	163.3	169.2	168.6	172.3	176.2
Defense.....	(88.4)	(89.7)	(93.4)	(95.6)	(98.6)	(99.5)	(100.3)	(101.0)	(104.4)	(106.7)	(109.3)	(111.9)
Nondefense.....	(45.8)	(46.7)	(50.2)	(52.5)	(55.2)	(57.3)	(59.7)	(62.3)	(64.8)	(61.9)	(63.0)	(64.3)
Transfer payments.....	166.3	170.7	169.3	174.8	177.6	180.3	184.3	193.6	197.1	198.7	201.3	210.0
Domestic (to "persons").....	(163.1)	(167.8)	(166.4)	(171.2)	(174.0)	(176.9)	(180.8)	(190.1)	(193.5)	(195.0)	(197.4)	(206.0)
Foreign.....	(3.2)	(2.9)	(2.9)	(3.6)	(3.6)	(3.4)	(3.5)	(3.5)	(3.6)	(3.7)	(3.9)	(4.0)
Grants-in-aid to State and local governments...	65.5	62.0	63.6	72.7	72.2	75.6	79.3	80.9	81.7	81.6	81.8	81.7
Net interest paid.....	28.5	28.6	29.1	29.4	30.9	33.4	35.8	37.8	39.0	39.5	40.1	40.6
Subsidies less current surplus of Government enterprises.....	6.0	6.1	5.9	7.2	12.3	10.2	8.6	8.1	10.4	9.3	9.0	8.2
Total expenditures.....	400.4	403.7	411.5	432.1	446.7	456.3	468.0	483.7	497.4	497.7	504.5	516.7
Deficit (-).....	-55.9	-38.8	-40.3	-58.9	-60.4	-54.4	-51.1	-48.3	-65.6	-52.4	-46.2	-40.0

*Preliminary.

Note.—Because of the methods normally used in seasonally adjusting NIA data, the average of seasonally adjusted data for the 4 quarters of a fiscal year may not be equal to the unadjusted fiscal year total.

As noted above, the translation of the budget into the national income accounts categories is inexact. The budget itself is a mixture of a forecast of what receipts and outlays are expected to be for some items under current law and a Presidential request for congressional approval of proposed amounts for others. In compiling this special analysis, each budget receipt and outlay is analyzed and translated into NIA categories. Nonetheless, one can anticipate revisions similar to those shown in table B-8 even for the "actuals" each year. The margin of error for the estimated years (1978 and 1979 in this budget) is even greater, since they involve estimating errors and differences between proposals and what is realized in the basic unified budget, as well as errors in translating unified budget transactions into NIA terms. When these annual estimates are converted into quarterly distributions that are seasonally adjusted at annual rates, greater imprecision should be expected. The data presented in table B-9 are the best available estimates of the quarterly NIA receipts and expenditures consistent with the 1979 budget, but should be used with clear recognition of their limitations.

**RELATIONSHIP OF THE BUDGET TO THE FEDERAL SECTOR
OF THE NATIONAL INCOME ACCOUNTS**

Table B-10 shows the major differences between the budget and the Federal sector of the NIA. These differences are explained below.

Table B-10. **RELATIONSHIP OF THE BUDGET TO THE FEDERAL SECTOR, NIA (in billions of dollars)**

Description	1977 actual	1978 estimate	1979 estimate
RECEIPTS			
Total budget receipts	356.9	400.4	439.6
Government contributions for employee retirement (grossing)....	6.4	7.1	7.5
Other netting and grossing.....	3.7	3.9	4.4
Adjustment to accruals.....	-1.9	.5	1.1
Other.....	-1.0	-1.1	-1.2
Federal sector, NIA receipts	364.0	410.8	451.4
EXPENDITURES			
Total budget outlays	401.9	462.2	500.2
Lending and financial transactions.....	-1.3	-7.1	-4.7
Government contribution for employee retirement (grossing)....	6.4	7.1	7.5
Other netting and grossing.....	3.7	3.9	4.4
Defense timing adjustment.....	2.7	.3	-.2
Bonuses on Outer Continental Shelf land leases.....	1.5	1.2	.9
Other.....	-3.2	-4.0	-4.1
Federal sector, NIA expenditures	411.8	463.6	504.0

Lending and financial transactions.—Conceptually, the national income accounts measure the Nation's current income and production, and therefore do not include transactions, such as loans, that are an exchange of existing assets and liabilities rather than current income or

production. Loan transactions have a significant economic impact, affecting income and output, but they are analyzed more appropriately within a financial market framework, such as provided by the flow-of-funds data of the Federal Reserve Board. Special Analysis E (Borrowing, Debt, and Investment) and Special Analysis F (Federal Credit Programs) both contain information on the financial market implications of the budget.

Most of the lending and financial transactions displayed in table B-10 are shown in Special Analysis F. However, this total differs from the total for direct loans shown in Special Analysis F because: (a) the NIA records nonrecourse agricultural commodity loans as purchases rather than loans; (b) capital contributions to international financial institutions, while not technically loans, are treated as financial transactions and, therefore, excluded from the NIA; and (c) Special Analysis F also shows lending by off-budget Federal entities, which do not require reconciliation with the NIA because they are not included in the budget.

Government contribution for employee retirement.—The contributions of Government agencies to the retirement trust funds of their employees are not included in the budget totals. While the outlays are recorded in each agency's budget, they are offset by an intragovernmental deduction. However, the NIA counts Government payments for employee retirement as part of the compensation paid to Government employees and, therefore, as Government expenditures; this treatment maintains comparability with the treatment of employee retirement contributions in the rest of the economy. This category includes contributions by Government enterprises such as the Postal Service. Government enterprise contributions are recorded as an increase in the current deficit of enterprises whereas the contributions by other accounts are recorded as purchases of goods and services. The receipt of these retirement contributions is treated in the NIA as contributions for social insurance. Since receipts and expenditures are increased by identical amounts, this treatment has no effect on the surplus or deficit. Around 80% of these payments go to the civil service retirement fund, while most of the remainder is for Federal employees insured under social security.

Other netting and grossing.—The budget normally counts as receipts only income from taxation or similar sources that arises from the exercise of governmental power to compel payment. Money received in the course of business-type transactions, therefore, is normally shown as offsets against expenditures. For instance, receipts from social insurance programs operated by the Veterans Administration (such as the National Service Life Insurance and U.S. Government Life Insurance) are netted against expenditures in the budget since these programs are voluntary, commercial-type activities. However, in the NIA these insurance premiums are treated as social insurance receipts just as are receipts from compulsory Government programs. Adjustments of this type affect total receipts and expenditures identically and, thus, do not alter the surplus or deficit of either the budget or the Federal sector of the NIA.

Other netting and grossing includes some imputed contributions for social insurance for unemployment compensation and workmen's com-

compensation for Federal employees. The 1979 budget reflects a reclassification of receipts in excess of tax liabilities otherwise owed (the earned income credit) from being budget outlays to being offsets to receipts. This reduced the recorded budget receipts and outlays for 1976 by \$0.8 billion and for 1977 to 1979 by \$0.9 billion each year. The NIA treats these payments as transfer payments, therefore requiring a grossing adjustment between the two data series. Similarly, the NIA treats a proposed energy tax refund (amounting to \$0.3 billion in 1979) as subsidies rather than as tax refunds.

Timing adjustments.—The budget records receipts at the time the cash is collected regardless of when the income is earned, and outlays (except interest paid to the public) are generally recorded at the time the checks are issued. The NIA attempt to record most receipts from the business sector in the time period in which the income is earned rather than when taxes are actually paid, while personal income taxes and social insurance contributions are recorded at the time of payment by the individual taxpayer rather than when the liability is accrued or the cash is received by Treasury.

The principal timing adjustment to expenditures is for defense purchases. The major defense timing adjustment normally involves procurement items (such as missiles and airplanes) purchased under most fixed-price contracts. These items are recorded in the Federal sector NIA as defense purchases at the time of delivery to the Federal Government, rather than when the payment is made (as the budget does) or when they are fabricated. Work in progress is counted as part of private business inventories until the goods are completed and delivered to the Government. An additional defense timing adjustment is made to convert foreign military sales, which are recorded on a cash basis in the unified budget, to a basis consistent with net exports in the NIA. In addition, some accounting adjustments are included with the defense timing adjustment in this translation.

Since in both the budget and the NIA accounts public debt interest to the public is recorded when it accrues, no timing adjustment is needed for most interest transactions.

Bonuses on Outer Continental Shelf land leases.—In recent years bonuses paid on the Outer Continental Shelf oil leases have become a significant reconciliation item between the unified budget and the NIA. The budget records these bonuses as proprietary receipts and, therefore, deducts them from budget outlays. The NIA excludes these transactions as being a transfer of assets, because the payments are not included in calculating book profits under current corporate accounting practice.

Other.—This category includes some miscellaneous adjustments, largely for certain specialized aspects of the national income accounts, such as the purchase and sale of land and geographical exclusions arising out of transactions with Puerto Rico, the Virgin Islands, and other U.S. territories. Geographical exclusions will reduce NIA receipts by about \$1.3 billion and NIA expenditures by about \$3.3 billion in 1979. Certain nondefense timing adjustments—for example, the difference between State withdrawals of unemployment benefits and actual payments to individuals—are included here because of the

difficulty in separating them from other adjustment categories. This also includes a \$0.4 billion shift of cash payments from 1978 to 1979 in the supplemental security income transfer payments. Under new legislation, when these payments fall due on a weekend or holiday the payments are to be made early. The budget records 13 such monthly payments for 1978 and 11 for 1979; the NIA records 12 for each year. This category includes adjustments for certain foreign currency transactions that are not included in the budget, and transactions of Federal entities or activities that are excluded from the budget but included in the Federal sector NIA.

Table B-11. FEDERAL TRANSACTIONS IN THE NATIONAL INCOME ACCOUNTS, 1968-79 (in billions of dollars)

Description	Actual										Estimate	
	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
RECEIPTS, NATIONAL INCOME BASIS												
Personal taxes and nontax receipts.....	71.4	90.0	93.6	87.5	100.3	107.3	122.6	127.3	137.2	165.5	185.5	195.6
Corporate profits tax accruals.....	33.2	37.0	33.0	32.0	34.2	41.0	43.7	42.1	52.2	57.4	63.1	69.7
Indirect business tax and nontax accruals.....	17.1	18.6	19.2	20.0	19.9	20.7	21.4	22.1	24.2	24.6	28.5	34.8
Contributions for social insurance.....	38.4	44.5	49.2	52.9	59.1	71.5	84.2	92.1	100.5	116.5	133.7	151.3
Total receipts, national income basis.....	160.0	190.1	194.9	192.5	213.5	240.5	271.8	283.6	314.1	364.0	410.8	451.4
EXPENDITURES, NATIONAL INCOME BASIS												
Purchases of goods and services.....	95.0	98.0	97.0	94.8	100.9	101.7	104.6	117.9	126.5	140.7	158.4	171.6
Defense.....	(74.9)	(76.1)	(75.3)	(72.1)	(72.5)	(73.3)	(74.1)	(80.3)	(85.8)	(92.0)	(99.8)	(108.1)
Nondefense.....	(20.1)	(21.9)	(21.7)	(22.7)	(28.4)	(28.4)	(30.5)	(37.6)	(40.7)	(48.7)	(58.6)	(63.5)
Transfer payments.....	44.8	50.9	57.0	70.1	78.9	89.7	104.7	134.2	156.8	169.7	184.2	201.8
Domestic ("to persons").....	(42.7)	(48.7)	(55.0)	(67.7)	(76.1)	(87.1)	(101.7)	(131.1)	(153.9)	(166.5)	(180.7)	(198.0)
Foreign.....	(2.1)	(2.2)	(2.0)	(2.3)	(2.8)	(2.7)	(3.0)	(3.1)	(3.0)	(3.2)	(3.5)	(3.8)
Grants-in-aid to State and local governments...	17.8	19.2	22.6	26.8	32.6	40.4	41.6	48.4	57.5	66.0	77.0	81.6
Net interest paid.....	10.5	12.1	13.6	14.2	14.1	15.9	19.8	21.9	25.4	29.3	34.5	39.8
Subsidies less current surplus of Government enterprises.....	4.1	4.6	5.4	6.8	6.4	9.1	8.0	5.7	6.1	6.1	9.5	9.2
Wage disbursements less accruals.....	-----	-----	-.1	.1	-----	-.5	.2	.4	-----	-----	-----	-----
Total expenditures, national income basis.....	172.2	184.7	195.6	212.7	232.9	256.2	278.8	328.7	372.3	411.8	463.6	504.0
Excess of receipts (+) or expenditures (-), national income basis.....	-12.2	+5.4	-.6	-20.2	-19.5	-15.7	-7.0	-45.0	-58.2	-47.8	-52.8	-52.6

Note.—Excludes the transition quarter.

PART 2

ECONOMIC AND FINANCIAL
ANALYSES OF
THE BUDGET TOTALS

INTRODUCTION

Part 2 provides analyses and tabulations of the budget totals that cover Government finances and operations as a whole, and reflect the ways in which Government finances affect the economy. These special analyses are designated C through I.

Special Analysis C (Funds in the Budget) classifies budget information by the groups of funds (Federal and trust) that comprise the budget.

Special Analysis D (Investment, Operating, and Other Budget Outlays) classifies budget outlays in terms of the duration and nature of the benefits derived, distinguishing those of an investment or developmental type from those that primarily yield current benefits. Apart from this analysis, the U.S. budget, unlike those of some other governments, includes outlays that are for "capital" or investment-type activities in the same accounts in which "current" activities and costs are shown.

Special Analysis E (Borrowing, Debt, and Investment) describes current developments and trends in Federal borrowing and debt, and the investment by Government accounts in Federal securities. It summarizes Federal and federally assisted borrowing from the public in order to display a measure of the Government's impact on the credit market.

Special Analysis F (Federal Credit Programs) covers direct loans, guarantees of private loans, and loans of Government-sponsored enterprises. It includes aggregate measures of total credit supplied to the public, and raised from the public, under Federal auspices.

Special Analysis G (Tax Expenditures) provides a discussion of revenue losses due to provisions of the Federal income tax laws that allow a special exclusion, exemption, or deduction from gross income or that provide a special credit, preferential rate of tax, or deferral of tax liability.

Special Analysis H (Federal Aid to State and Local Governments) contains information on Federal grants to State and local governments and assistance provided through loans and tax expenditures. It shows Federal aid for past years and relates it to the finances of both the Federal Government and State and local governments. This analysis provides a profile of Federal grants by region, a description of the State and local government sector of the national income accounts, and other grant information sources.

Special Analysis I (Civilian Employment in the Executive Branch) deals with the levels of civilian employment in the executive branch. It also contains figures on total Federal personnel costs (including military personnel).

SPECIAL ANALYSIS C

FUNDS IN THE BUDGET

This analysis classifies budget information by the two major groups of funds, Federal and trust, that comprise the budget. It also presents information on the nature of receipts and outlays for the largest trust funds.

DISTRIBUTION OF TOTALS, BY FUND GROUPS

Table C-1 shows the distribution of total budget receipts and outlays between the Federal funds and the trust funds. The two groups together, after deducting for transactions that flow between them, make up the budget totals.

Table C-1. BUDGET RECEIPTS AND OUTLAYS, BY FUND GROUP

(In millions of dollars)

Description	1977 actual	1978 estimate	1979 estimate
RECEIPTS			
Federal funds:			
Total in fund accounts	250,490	279,013	302,254
Intrafund transactions	-1,530	-1,797	-2,116
Proprietary receipts from the public	-6,308	-6,611	-6,944
Receipts from off-budget Federal entities	-2,241	-2,716	-4,098
Receipts, Federal funds	240,412	267,889	289,095
Trust funds:			
Total in fund accounts	165,565	181,181	200,913
Intrafund transactions	-1,231	-1,687	-1,381
Proprietary receipts from the public	-10,386	-9,766	-10,300
Receipts from off-budget Federal entities	-1,186	-1,238	-1,242
Receipts, trust funds	152,763	168,490	187,991
Interfund transactions	-36,313	-35,992	-37,497
Total budget receipts	356,861	400,387	439,588
OUTLAYS			
Federal funds:			
Total in fund accounts	305,027	351,160	376,739
Intrafund transactions	-1,530	-1,797	-2,116
Proprietary receipts from the public	-6,308	-6,611	-6,944
Receipts from off-budget Federal entities	-2,241	-2,716	-4,098
Outlays, Federal funds	294,948	340,036	363,580
Trust funds:			
Total in fund accounts	156,069	170,881	187,015
Intrafund transactions	-1,231	-1,687	-1,381
Proprietary receipts from the public	-10,386	-9,766	-10,300
Receipts from off-budget Federal entities	-1,186	-1,238	-1,242
Outlays, trust funds	143,267	158,190	174,092
Interfund transactions	-36,313	-35,992	-37,497
Total budget outlays	401,902	462,234	500,174
Budget deficit	-45,040	-61,847	-60,586

FEDERAL FUNDS

Federal funds are derived mainly from taxes and borrowing, and are used for the general purposes of the Government. There are four types of Federal funds—the general fund, special funds, public enterprise (revolving) funds, and intragovernmental funds. Intragovernmental funds are further subdivided into revolving and management funds.

Table C-2. FEDERAL FUND RECEIPTS AND OUTLAYS (in millions of dollars)

Description	1977 actual	1978 estimate	1979 estimate
RECEIPTS BY SOURCE			
Individual income taxes.....	156,725	178,828	190,077
Corporation income taxes.....	54,892	58,949	62,487
Excise taxes.....	9,648	11,657	16,778
Estate and gift taxes.....	7,327	5,618	6,067
Customs duties.....	5,150	5,792	6,390
Miscellaneous receipts.....	6,670	7,045	7,296
Total receipts, Federal funds.....	240,412	267,889	289,095
OUTLAYS BY AGENCY			
Legislative branch.....	975	1,053	1,172
The Judiciary.....	418	456	487
Executive Office of the President.....	73	78	78
Funds appropriated to the President:			
Foreign assistance.....	3,227	3,969	4,035
Other.....	423	1,144	754
Agriculture.....	16,803	22,636	17,751
Commerce.....	2,605	4,522	4,386
Defense—Military ¹	95,711	105,295	115,190
Defense—Civil.....	2,263	2,521	2,532
Energy ²	5,219	8,152	10,087
Health, Education, and Welfare.....	48,776	53,974	57,314
Housing and Urban Development.....	5,838	8,411	9,529
Interior.....	3,208	4,008	4,093
Justice.....	2,350	2,527	2,533
Labor.....	11,710	12,537	13,529
State.....	1,107	1,285	1,392
Transportation.....	5,511	6,479	7,148
Treasury.....	49,636	56,879	62,755
Environmental Protection Agency.....	4,365	5,063	5,679
General Services Administration.....	—32	288	306
National Aeronautics and Space Administration.....	3,944	3,980	4,269
Veterans Administration.....	17,781	18,722	18,973
Other independent agencies.....	15,411	18,057	18,589
Allowances ³			2,800
Undistributed offsetting receipts: Rents and royalties on the Outer Continental Shelf.....	—2,374	—2,000	—1,800
Total outlays, Federal funds.....	294,948	340,036	363,580
Excess of outlays (—).....	—54,536	—72,147	—74,485

¹ Includes allowances for civilian and military pay raises for Department of Defense.

² This agency assumes the energy activities previously performed by the Energy Research and Development Administration, the Federal Energy Administration, and several other agencies.

³ Includes allowances for civilian agency pay raises and contingencies.

Budget receipts and outlays.—The receipts of the general and special funds in 1979 are estimated at \$289.1 billion. Outlays of all the Federal funds are estimated at \$363.6 billion. The distribution of receipts by source, and outlays by agency, is shown in table C-2. The proprietary receipts of the general fund and special funds, the Federal intrafund receipts and the collections credited to public enterprise and intra-governmental funds, have all been offset in arriving at the outlays for each agency.

Obligations.—The obligations (net) for Federal funds are estimated at \$420.0 billion for 1979, as set forth in table C-3. These transactions largely flow from budget authority for Federal funds of \$414.8 billion for the year, although in part the obligations were authorized by prior years' budget authority.

Table C-3. OBLIGATIONS INCURRED, NET, IN FEDERAL FUNDS

(In millions of dollars)

Department or other unit	1977 actual	1978 estimate	1979 estimate
Legislative branch.....	1,043	1,141	1,181
The Judiciary.....	419	461	489
Executive Office of the President.....	75	75	79
Funds appropriated to the President:			
International Security Assistance.....	2,275	2,905	2,392
International Development Assistance.....	1,744	2,577	3,446
Other.....	921	921	633
Agriculture.....	20,054	23,415	19,104
Commerce.....	8,119	2,508	2,969
Defense—Military ¹	108,671	114,390	125,083
Defense—Civil.....	2,418	2,841	2,563
Energy ²	6,682	11,272	10,305
Health, Education, and Welfare.....	50,296	57,878	61,894
Housing and Urban Development.....	32,559	41,086	38,723
Interior.....	3,584	4,714	4,374
Justice.....	2,196	2,547	2,465
Labor.....	15,344	10,197	13,056
State.....	1,149	1,478	1,412
Transportation.....	6,674	8,362	7,970
Treasury.....	49,638	56,888	69,754
Environmental Protection Agency.....	7,944	5,079	6,129
General Services Administration.....	47	384	280
National Aeronautics and Space Administration.....	3,841	4,374	4,377
Veterans Administration.....	17,942	18,948	19,056
Civil Service Commission.....	7,855	8,041	9,102
Export-Import Bank.....	-1,619	488	1,722
Federal Home Loan Bank Board.....	-1,925	-374	-465
U.S. Postal Service.....	2,266	1,787	1,830
Railroad Retirement Board.....	310	300	343
Other independent agencies.....	6,912	9,542	7,416
Allowances:			
Civilian agency pay raises.....			1,150
Contingencies for other requirements.....			3,000
Undistributed offsetting receipts: Rents and royalties on the Outer Continental Shelf.....	-2,374	-2,000	-1,800
Total.....	355,058	392,225	420,034

¹ Includes allowances for civilian and military pay raises for Department of Defense.² This agency assumes the energy activities previously performed by the Energy Research and Development Administration, the Federal Energy Administration, and several other agencies.

Balances of prior authority.—Table C-4 shows the balances of budget authority carried forward in Federal funds at the end of each fiscal year. To the extent that valid Government obligations have been incurred and remain unpaid, amounts sufficient to pay them may be carried over into the next year. Unobligated balances may be carried forward in accordance with specific provisions of law, usually in order to permit completion of major procurement or major construction programs that are fully funded, to provide funding for activities of a continuing nature (such as research and development), for financing loan programs, for standby emergency purposes (such as backup financing for insurance of the Federal Deposit Insurance Corporation), or for reserves for losses and debt redemption.

PUBLIC ENTERPRISE FUNDS

The public enterprise funds are a subgroup of Federal funds. They carry on a cycle of business-type operations, primarily with the public, on behalf of the Government. Some are incorporated enterprises; others are unincorporated. These funds are usually supplied with capital from the general fund, and in a few cases they may borrow from the public or from the Federal Financing Bank (FFB). These funds are also supplied with capital through asset sales to the FFB. Data on public enterprise funds are included on a net outlay basis in tables C-2 through C-4. Gross outlays and applicable receipts are shown in table C-5.

Offsetting collections and outlays.—Collections of public enterprise funds are estimated at \$33.5 billion in 1979, and gross outlays are planned to total \$42.9 billion, resulting in net outlays of \$9.4 billion.

TRUST FUNDS

The trust funds are collected and used for specific purposes. They include trust revolving funds, which, like the public enterprise funds, carry on a cycle of business-type operations and are normally stated net of collections by the funds.

Cash operations.—Trust fund receipts are estimated at \$188.0 billion in 1979, with outlays planned at \$174.1 billion, as shown in table C-6. The transactions of the Federal old-age and survivors and disability insurance funds are far larger than any other trust fund.

In fiscal periods 1977-79, this group of funds has excesses of receipts of the following amounts (in millions of dollars):

	1977 <i>actual</i>	1978 <i>estimate</i>	1979 <i>estimate</i>
Total receipts, trust funds.....	152.783	168.490	187.991
Total outlays, trust funds.....	143.267	158.190	174.092
Excess of receipts or outlays (-), trust funds.....	9.496	10.300	13.899

Budget receipts by funds.—Table C-7 presents information classifying the trust fund receipts by major fund, and by source for each such fund.

Budget outlays by funds.—Corresponding information on trust fund outlays, classifying the data for the larger funds, is found in table C-8.

Table C-4. FEDERAL FUND BALANCES OF BUDGET AUTHORITY (in millions of dollars)

Department or other unit	Start 1977		End 1977		End 1978		End 1979	
	Obligated	Unobligated	Obligated	Unobligated	Obligated	Unobligated	Obligated	Unobligated
Legislative branch.....	144	200	211	180	298	88	307	64
The Judiciary.....	39	12	41	10	46	12	49	7
Executive Office of the President.....	14	*	15	*	12		13	
Funds appropriated to the President:								
International security assistance.....	2,927	222	3,617	120	4,250	22	4,511	16
International development assistance.....	4,036	10,711	4,141	10,844	5,058	11,363	6,644	12,766
Other.....	928	316	1,393	293	1,133	28	967	25
Agriculture.....	5,814	12,086	9,058	6,904	9,821	637	11,182	1,536
Commerce.....	1,720	698	7,222	778	5,209	640	3,793	392
Defense—Military ¹	30,246	20,966	42,651	19,883	51,746	20,605	61,640	20,883
Defense—Civil.....	657	227	812	284	1,132	173	1,162	53
Energy ²	2,171	1,910	3,635	1,712	6,754	937	6,973	2,139
Health, Education, and Welfare.....	16,334	1,859	17,556	3,533	21,667	1,163	26,247	1,187
Housing and Urban Development.....	140,038	33,725	166,748	33,426	199,423	16,774	228,618	9,125
Interior.....	1,482	780	1,847	800	2,543	289	2,824	201
Justice.....	1,172	144	1,007	275	1,027	92	960	84
Labor.....	2,173	1,444	5,656	5,708	3,326	3	2,853	3
State.....	232	60	249	86	437	*	456	*
Transportation.....	3,055	12,360	4,198	10,388	6,080	7,346	6,901	7,365
Treasury.....	303	2,718	295	2,621	304	165	7,303	195
Environmental Protection Agency.....	9,500	6,857	13,077	1,673	13,094	2,097	13,544	1,596
General Services Administration.....	292	199	370	374	465	152	439	158
National Aeronautics and Space Administration.....	814	406	709	383	1,102	72	1,210	66
Veterans Administration.....	1,754	2,946	1,897	3,452	2,124	2,925	2,207	2,271
Civil Service Commission.....	11	2	19	5	20	5	24	6
Export-Import Bank.....	7,619		5,660	1,619	5,951	1,097	7,269	
Federal Deposit Insurance Corporation.....		3,000		3,000		3,000		3,000
Federal Home Loan Bank Board.....	26	7,492	13	9,417	-1	9,781	1	10,246
Railroad Retirement Board.....	*		*	5		5		
Other independent agencies.....	3,910	11,625	4,244	9,856	5,694	7,629	5,729	5,909
Allowances ³							1,350	
Total	237,412	132,964	296,341	127,630	348,714	87,101	405,176	79,291

* \$500 thousand or less.

¹ Includes balances of allowances for civilian and military pay raises for Department of Defense.² This agency assumes the energy activities previously performed by the Energy Research and Development Administration, the Federal Energy Administration, and several other agencies.³ Includes balances of allowances for civilian agency pay raises and contingencies.

Table C-5. PUBLIC ENTERPRISE FUND TRANSACTIONS

(In millions of dollars)

Description	Applicable collections			Gross outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Funds appropriated to the President:						
Foreign assistance.....	11	10	3	12	5	1
Other.....	100	83	89	244	85	89
Agriculture:						
Commodity Credit Corporation....	4,079	7,104	7,372	7,579	14,631	11,899
Farmers Home Administration.....	8,727	10,513	11,658	9,376	11,244	11,282
Federal Grain Inspection Service....	8	33	34	15	37	34
Federal Crop Insurance Corporation	92	103	110	171	213	124
Commerce.....	49	52	60	29	30	34
Defense:						
Military.....	3	3	5	4	7	12
Civil (Panama Canal Company)....	287	312	328	286	312	330
Department of Energy ¹	380	367	437	381	421	477
Health, Education, and Welfare.....	107	138	191	257	919	936
Housing and Urban Development:						
Government National Mortgage As- sociation.....	2,777	2,353	2,949	1,687	2,395	3,284
Urban renewal fund.....	344	152	32	1,194	752	382
Low-rent public housing fund.....	270	608	608	238	608	608
Federal Housing Administration....	1,143	1,267	1,300	1,635	1,674	1,521
Other.....	292	409	486	488	1,191	1,560
Interior:						
Bureau of Reclamation.....	58	65	58	161	213	190
Other.....	15	17	19	23	31	28
Transportation.....	44	42	43	61	177	194
Treasury.....	2,061	956	1	2,060	955	1
Environmental Protection Agency....	1	*	*	*	*	*
General Services Administration....	2	2	2	1	2	2
Veterans Administration.....	1,093	1,018	1,102	940	1,046	1,103
Other independent agencies:						
Emergency Loan Guarantee Board..	5	*	*	*	2	*
Export-Import Bank.....	2,113	2,098	2,100	2,453	2,294	2,504
Farm Credit Administration.....	9	10	11	8	10	11
Federal Home Loan Bank Board:						
Federal Savings and Loan Insur- ance Corporation.....	575	577	636	151	216	170
Revolving fund.....	1,600	49	52	110	50	52
National Credit Union Administration.	47	55	64	27	26	28
Pennsylvania Avenue Development Corporation.....	77	-----	*	-----	21	25
Small Business Administration.....	602	679	770	1,274	2,254	1,725
Tennessee Valley Authority.....	2,046	2,516	2,967	3,146	3,786	4,341
Total.....	28,978	31,635	33,546	34,018	45,614	42,949
Offsetting collections from the public..	(25,966)	(28,905)	(30,794)	-----	-----	-----
Offsetting collections from other ac- counts.....	(3,012)	(2,731)	(2,752)	-----	-----	-----

*\$500 thousand or less.

¹ This agency assumes the energy activities previously performed by the Energy Research and Development Administration, the Federal Energy Administration, and several other agencies.

Table C-6. OUTLAYS AND RECEIPTS OF TRUST FUNDS

(In millions of dollars)

Description	Outlays			Receipts		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Federal old-age, and survivors, and disability insurance trust funds.....	85,068	94,729	104,458	81,169	89,723	101,530
Railroad employees retirement funds.....	3,800	4,094	4,280	3,597	3,973	3,902
Veterans life insurance trust funds.....	769	764	819	950	1,010	1,000
Federal employees retirement funds.....	9,652	10,999	12,283	16,692	17,873	19,457
Unemployment trust fund.....	14,103	11,800	11,600	14,986	15,400	16,800
Health insurance trust funds.....	21,549	25,571	29,410	22,757	27,482	31,703
Highway trust funds.....	6,147	6,824	7,507	7,302	7,730	8,105
Airport and airway trust funds.....	853	1,094	1,143	1,384	1,496	1,327
State and local government fiscal assistance trust fund.....	6,760	6,827	6,852	6,655	6,855	6,855
Foreign military sales trust fund.....	8,210	8,500	9,500	9,369	8,700	9,200
Other trust funds (nonrevolving).....	609	673	668	703	939	1,034
Trust revolving funds.....	-1,450	-995	-1,507	-----	-----	-----
Subtotal.....	156,069	170,881	187,015	165,565	181,181	200,913
Intrafund transactions.....	-1,231	-1,687	-1,381	-1,231	-1,687	-1,381
Proprietary receipts from the public.....	-10,386	-9,766	-10,300	-10,386	-9,766	-10,300
Receipts from off-budget Federal entities.....	-1,186	-1,238	-1,242	-1,186	-1,238	-1,242
Total.....	143,267	158,190	174,092	152,763	168,490	187,991

Table C-7. TRUST FUND RECEIPTS (in millions of dollars)

[Amounts under proposed legislation are shown separately]

Description	1977 actual	1978 estimate	1979 estimate
Federal old-age, survivors, and disability insurance trust funds:			
Social insurance taxes and contributions.....	76,817	85,540	97,630
Interest on Federal securities.....	2,649	2,377	1,973
Federal payment as employer for employee retirement.....	977	1,065	1,151
Other (mainly receipts of special Federal payments).....	726	741	761
Proposed legislation.....	-----	-----	15
Subtotal Federal old-age, survivors, and disability insurance trust funds.....	81,169	89,723	101,530
Railroad employees retirement funds:			
Social insurance taxes and contributions.....	1,908	1,858	2,053
Interest on Federal securities.....	230	200	175
Receipts from other trust funds.....	1,208	1,681	1,377
Other (mainly receipts of special Federal payments).....	251	234	297
Subtotal railroad employees retirement funds.....	3,597	3,973	3,902
Veterans life insurance trust funds:			
Interest on Federal securities.....	464	503	531
Other receipts.....	486	507	469
Subtotal, veterans life insurance trust funds.....	950	1,010	1,000

Table C-7. TRUST FUND RECEIPT (in millions of dollars)—Continued

[Amounts under proposed legislation are shown separately]

Description	1977 actual	1978 estimate	1979 estimate
Federal employees retirement funds:			
Social insurance taxes and contributions.....	2,968	3,300	3,320
Interest on Federal securities.....	2,856	3,254	3,826
Federal payment as employer for employee retirement (including payment on prior year liabilities):			
Entities included in budget.....	9,668	9,638	11,070
Entities excluded from budget.....	1,186	1,238	1,242
Other receipts.....	14	*	*
Supplemental now requested.....	-----	443	-----
Subtotal Federal employees retirement funds.....	<u>16,692</u>	<u>17,873</u>	<u>19,457</u>
Unemployment trust fund:			
Social insurance taxes and contributions.....	11,312	14,420	16,922
Interest on Federal securities.....	232	380	478
Advances from general fund.....	3,442	600	-----
Proposed legislation.....	-----	-----	-600
Subtotal unemployment trust fund.....	<u>14,986</u>	<u>15,400</u>	<u>16,800</u>
Health insurance trust funds:			
Social insurance taxes and contributions.....	15,677	18,996	22,557
Interest on Federal securities.....	902	1,019	1,131
Federal payment as employer for employee retirement.....	175	207	235
Other (mainly receipts of special Federal payments).....	6,002	7,260	7,780
Subtotal health insurance trust funds.....	<u>22,757</u>	<u>27,482</u>	<u>31,703</u>
Highway trust funds:			
Excise taxes.....	6,709	7,099	7,427
Interest on Federal securities.....	593	644	687
Other receipts.....	*	-----	-----
Proposed legislation.....	-----	-13	-9
Subtotal, highway trust funds.....	<u>7,302</u>	<u>7,730</u>	<u>8,105</u>
Airport and airway trust funds:			
Excise taxes.....	1,191	1,287	1,412
Interest on Federal securities.....	194	209	249
Proposed legislation.....	-----	-----	-334
Subtotal, airport and airway trust funds.....	<u>1,384</u>	<u>1,496</u>	<u>1,327</u>
State and local government fiscal assistance trust fund: Deposits for general revenue sharing.....	<u>6,655</u>	<u>6,855</u>	<u>6,855</u>
Foreign military sales trust fund.....	<u>9,369</u>	<u>8,700</u>	<u>9,200</u>
Other trust funds (nonrevolving).....	<u>703</u>	<u>939</u>	<u>1,034</u>
Subtotal.....	<u>165,565</u>	<u>181,181</u>	<u>200,913</u>
Intrafund transactions.....	-1,231	-1,687	-1,381
Proprietary receipts from the public.....	-10,386	-9,766	-10,300
Receipts from off-budget Federal entities.....	-1,186	-1,238	-1,242
Total receipts.....	<u>152,763</u>	<u>168,490</u>	<u>187,991</u>

* \$500 thousand or less.

Balances of the trust funds.—The balances of the trust funds continue to increase, as shown in the following end-of-year figures (in millions of dollars):

	<i>TQ</i> <i>actual</i>	<i>1977</i> <i>actual</i>	<i>1978</i> <i>estimate</i>	<i>1979</i> <i>estimate</i>
Open book balances.....	7,000	8,178	8,499	8,470
Investments in U.S. securities:				
Public debt.....	134,697	143,140	153,319	167,247
Agency debt.....	1,340	1,215	1,015	1,015
Total.....	143,037	152,533	162,833	176,732

A summary of the balances by fund is presented in table C-9. The amounts include both open-book balances with Treasury and investments in U.S. securities. These balances include both obligated and unobligated balances. The balances on a budget authority basis exceed the cash balances because for a few accounts budget authority is not the same as receipts; these differences are listed in the note appended to the table.

Table C-8. TRUST FUND OUTLAYS (in millions of dollars)

[Amounts under proposed legislation are shown separately]

Description	1977 actual	1978 estimate	1979 estimate
Federal old-age, survivors, and disability insurance trust funds:			
Benefit payments.....	82,406	91,628	102,124
Payments to other trust funds.....	1,208	1,681	1,377
Administrative expenses and other.....	1,455	1,460	1,601
Proposed legislation.....		-40	-644
Subtotal Federal old-age, survivors, and disability insurance trust funds.....	85,068	94,729	104,458
Railroad employees retirement funds:			
Benefit payments and claims.....	3,768	4,060	4,246
Administrative expenses and other.....	31	34	34
Subtotal railroad employees retirement funds.....	3,800	4,094	4,280
Veterans life insurance trust funds.....	769	764	819
Federal employees retirement:			
Benefit payments and claims.....	9,360	10,630	11,851
Refunds to former employees.....	274	345	409
Administrative expenses and other.....	18	24	24
Subtotal Federal employees retirement.....	9,652	10,999	12,283
Unemployment trust fund:			
Withdrawals for benefit payments.....	12,519	10,199	9,843
Repayment of advances from general fund.....			400
Administrative expenses and other.....	1,584	1,601	1,757
Proposed legislation.....			-400
Subtotal, unemployment trust fund.....	14,103	11,800	11,600
Health insurance trust funds:			
Benefit payments.....	20,770	24,604	28,954
Administrative expenses and other.....	778	1,007	1,085
Proposed legislation.....		-40	-629
Subtotal, health insurance trust funds.....	21,549	25,571	29,410
Highway trust funds (mainly grants to States):			
Current.....	6,147	6,824	7,501
Proposed legislation.....			6
Subtotal, highway trust funds.....	6,147	6,824	7,507
Airport and airway trust funds.....	853	1,094	1,143
State and local government fiscal assistance trust fund: Payments for general revenue sharing.....	6,760	6,827	6,852
Foreign military sales trust fund.....	8,210	8,500	9,500
Other trust funds (nonrevolving).....	609	673	668
Trust revolving funds.....	-1,450	-995	-1,507
Subtotal.....	156,069	170,881	187,015
Intrafund transactions.....	-1,231	-1,687	-1,381
Proprietary receipts from the public.....	-10,386	-9,766	-10,300
Receipts from off-budget Federal entities.....	-1,186	-1,238	-1,242
Total outlays.....	143,267	158,190	174,092

Table C-9. TRUST FUND BALANCES (in millions of dollars)

Description	As of Sept. 30			
	TQ actual	1977 actual	1978 estimate	1979 estimate
Federal old-age, survivors, and disability insurance trust funds.....	43,528	39,629	34,622	31,694
Railroad retirement accounts.....	3,470	3,222	3,101	2,723
Veterans life insurance funds.....	7,844	8,026	8,272	8,453
Federal employees retirement funds.....	42,868	49,908	56,782	63,956
Unemployment trust fund.....	5,545	6,474	10,074	15,274
Health insurance trust funds.....	12,186	13,394	15,304	17,597
Highway trust funds.....	9,009	10,164	11,069	11,667
Airport and airway trust funds.....	2,736	3,268	3,670	3,854
State and local government fiscal assistance trust fund.....	1,862	1,757	1,785	1,788
Foreign military sales trust fund.....	3,407	4,566	4,766	4,466
Other trust funds (nonrevolving).....	788	882	1,149	1,515
Trust revolving funds.....	9,793	11,243	12,238	13,744
Total.....	143,037	152,533	162,833	176,732

Note.—The balances shown here cover the amounts on deposit with Treasury, and the U.S. securities held. In addition, certain funds have authority to obligate in advance of receiving moneys and to borrow from the public. The reconciliation is as follows:

	TQ	1977	1978	1979
Balance available on an authorization basis.....	171,172	166,578	178,179	194,988
Unfinanced contract authority:				
Airport and airway trust fund.....	-542	-689	-904	-929
Highway trust funds.....	-19,354	-16,002	-17,035	-17,526
Foreign military sales trust fund.....	-19,067	-9,220	-11,620	-14,720
Other.....	-1	-1		
Unappropriated receipts:				
Available as needed, on an indefinite basis.....	5	5	5	5
Available for appropriation by Congress:				
Soldiers' Home permanent fund.....	92	92	92	93
Airport and airway trust fund.....	1,976	2,491	3,082	3,098
Highway trust funds.....	8,749	9,269	10,906	11,476
Other.....	1	2	122	240
Retained as permanent endowment.....	6	6	6	6
Balance available on a cash basis.....	<u>143,037</u>	<u>152,533</u>	<u>162,833</u>	<u>176,732</u>

For 1979 the largest net investments are expected to be those of the trust funds established by the Social Security Act, as amended, and by the Federal employees retirement fund.

Trust revolving funds.—The activities of the trust revolving fund subgroup are shown in table C-10. The largest of these funds are those used by the Civil Service Commission to buy insurance for Government employees.

Table C-10. TRUST REVOLVING FUND TRANSACTIONS (in millions of dollars)

Description	Offsetting collections			Gross outlays		
	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.
Civil Service Commission (employees' life insurance and health benefits).....	3,599	4,108	4,580	3,134	3,547	4,052
Federal Deposit Insurance Corporation.....	1,132	995	1,045	280	616	100
All other trust revolving funds.....	419	387	404	285	332	371
Total trust revolving funds ¹	5,150	5,490	6,029	3,699	4,495	4,523
Receipts from the public.....	(3,004)	(3,085)	(3,334)			
Receipts from other accounts.....	(2,146)	(2,405)	(2,696)			

¹ Excludes right-of-way revolving fund which is a part of the highway trust fund.

SPECIAL ANALYSIS D

INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS

This analysis divides budget outlays between those of an investment or "capital" nature, and those devoted to operating or "current" purposes. Investment-type outlays are those that yield benefits over several years, either from the acquisition of physical or financial assets, or by other means. They include the purchase of physical assets, the promotion of education and research (human capital), and financial investments. Current outlays provide benefits primarily in the year they are made, such as retirement pensions or welfare payments; payments to agriculture, business, labor, or homeowners that are not for the purchase of physical assets; payments for the repair, maintenance, and operation of physical assets; regulatory activities; and the administrative expenses of Federal departments and agencies. The allowance for contingencies, proprietary receipts, and a few other items are not classified in either of these categories.

The Federal Government has never produced a capital budget, i.e., one in which capital or investment types of programs would be financed separately from current expenditures. One major reason is that a capital budget would be misleading as a measure of the Government's effect on the demand for economic resources. Another reason is that such a budget would tend to favor programs with intensive expenditures for physical assets relative to other programs for which future benefits could not be capitalized, such as education or research. Likewise, physical assets would be favored relative to current operations in any given program, since deficit financing for capital facilities would be easier to justify. Even if it were desirable, a capital budget would pose formidable accounting problems involving the measurement of depreciation on Government property, especially weapons systems.

There are inevitable classification difficulties even in preparing the more modest analysis described here. Grants to State and local governments, as well as to private individuals, are classified with regard to the recipient's expected use. However some grants, such as community development grants and general revenue sharing, can be used for both current and investment purposes. Outlays for these programs are classified in the category where most of the outlays are anticipated to occur. Another difficulty is that current expenses for special assistance to a particular sector, such as labor, business, or homeowners, can be misleading since they are incomplete indicators of Federal aid. For example, the category "aids to business" reflects current benefits such as reduced or nonexistent tolls for the use of federally operated waterways. It does not include subsidies for the production of private merchant ships, which are classified as additions to private assets.

A third difficulty is that several alternative classifications are possible, once the basic decision is made on whether the outlay is of a current or investment nature. For example, aid to education in the form of grants to construct education facilities could logically be placed in either physical assets or education. Since complete discussions and tables of the total amount of education outlays are available elsewhere in the budget, which is not true for Federal outlays for physical assets, outlays for physical assets are placed in that category. This principle is also observed in the treatment of the categories "research and development" and "other investment." It is applied in addition to all outlays for financial investments, so that a complete presentation of all Federal outlays for financial and physical assets is available.

Table D-1 is a summary table; details are shown in table D-2, at the end of the text. In 1979, investment-type outlays make up approximately one-third of total defense outlays, but only about one-fifth of total nondefense (or civil) outlays. The latter includes income transfers and net interest, for which the counterparts in the defense function are relatively small. (In this analysis defense refers to the national defense function as defined in the budget; all other outlays are classified as civil.) The predominant type of defense investment is the procurement of major equipment; physical assets account for almost half of civil investment, and education and training for another one-third.

Repair, maintenance, and operation account for about half of defense current outlays with almost all of the remainder devoted to military personnel, both active and retired. Retirement and other social insurance benefits make up over half of civil current outlays. The next largest category consists of current expenses for special assistance to such areas as agriculture, business, veterans, and health.

The remainder of the text discusses in greater detail the components and rationale for classifying the various types of budget outlays. For each type of outlay classified in the investment category the means is shown whereby that type yields benefits in the future, either in the form of physical or financial assets or other less tangible benefits. The remaining outlays, by definition, are classified as current.

Table D-1. SUMMARY OF INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS (in billions of dollars)

	1977 actual	1978 estimate	1979 estimate
National defense:			
Investment-type outlays:			
Public works.....	2,271	2,351	2,278
Major equipment.....	18,276	21,678	24,336
Research, development, testing, and evaluation.....	10,875	11,901	13,097
Other (mainly atomic energy defense activities).....	930	1,066	1,200
Subtotal, investment-type outlays.....	32,352	36,997	40,911
Current outlays:			
Repair, maintenance, and operation.....	31,640	34,696	37,807
Military personnel.....	25,304	26,391	26,415
Retired military personnel.....	8,216	9,211	10,122
Other.....	312	726	3,104
Subtotal, current outlays.....	65,472	71,024	77,448
Proprietary receipts from the public (-).....	-322	-395	-580
Total, national defense.....	97,501	107,626	117,779
Civil:			
Investment-type outlays:			
Net loans and financial investments.....	3,279	8,604	5,002
Physical assets.....	23,938	32,665	33,175
Education and training.....	19,650	24,486	27,285
Research and development.....	10,569	11,722	12,605
Other.....	317	562	589
Subtotal, investment-type outlays.....	57,753	78,039	78,655
Current outlays:			
Expenses for aids and special services to:			
Agriculture, business, labor, homeowners and tenants, veterans, foreign nations, and other.....	34,767	41,719	46,491
Health and welfare.....	39,546	42,793	43,292
Retirement and social insurance benefits.....	131,705	143,524	158,776
Miscellaneous operations and administration.....	21,065	24,171	23,566
Net interest.....	29,960	35,245	39,927
Subtotal, current outlays.....	257,043	287,452	312,052
Unclassified.....	-10,396	-10,883	-8,312
Total, civil.....	304,400	354,608	382,395
Total, outlays.....	401,902	462,234	500,174

Loans and financial investments.—A loan creates a financial asset equal to the outlay. For domestic loans within the United States, the assets held by the Government are matched with a liability held by the private sector. However, most Federal loans finance an increase in either physical or human capital. Loans to foreign borrowers are an increase in financial assets held by the United States. Most foreign loans are for economic development programs or the promotion of U.S. exports. Net loan outlays are expected to total \$4.1 billion in 1979. (A detailed discussion of lending is contained in Special Analysis F, "Federal Credit Programs.")

Investments in international financial institutions are designed to enhance economic and social development in many parts of the world, which is expected, in turn, to be beneficial to the United States both in the present and future. Outlays for investments in international institutions in 1979 are expected to be \$0.9 billion.

Physical assets.—Investments in major equipment, major commodity inventories, buildings, and land are of a long-term nature. Thus, purchases of these assets are treated as investment-type outlays regardless of whether the asset is owned by the Federal Government, or by State, local, or private entities. A large portion of Federal outlays for civil physical assets is, in fact, in the form of grants-in-aid to State and local governments. Total outlays for physical assets are estimated at \$60.9 billion; of this amount \$27.8 billion are in the national defense function and \$21.3 billion are in the form of grants to State and local governments. Most outlays in the national defense function for physical assets are for the procurement of military equipment. Highway and pollution control construction grants are the largest items in civil outlays for physical assets, accounting for \$7.4 billion and \$4.7 billion respectively, or 36% of total civil outlays for physical assets.

Education and training.—Education and training outlays add to the stock of human capital. As with physical capital, the benefits usually last over a considerable period of time. Current outlays for education and training (excluding buildings and major equipment) are estimated at \$27.3 billion in 1979. Employment and training programs of the Department of Labor amount to \$11.3 billion or 41% of education and training outlays. Outlays for higher and continuing education (including student assistance), \$3.1 billion, elementary and secondary education, \$3.0 billion, and veterans, \$2.9 billion, account for another 33%.

Research and development.—Outlays for research and development are intended to provide long-term benefits. Not all outlays lead to actual successes, but learning that a particular line of inquiry is not fruitful is also an addition to knowledge. Total outlays for the conduct of research and development are estimated at \$25.7 billion in 1979, of which \$13.1 billion is in the national defense function. The major civil outlays are by the Department of Health, Education, and Welfare (largely for biomedical research), \$2.3 billion, the Department of Energy, \$3.1 billion, and the National Aeronautics and Space Administration, \$4.1 billion. These three agencies account for 76% of total civil research and development outlays.

Other investment.—This category consists of outlays for engineering and natural resource surveys, which benefit both the present and future. Outlays of \$0.6 billion are proposed for 1979.

Current outlays.—Outlays for current operations are broken into several major categories. Current outlays for aids and special services consist of assistance to agriculture, business, labor, homeowners and tenants, veterans, and foreign nations. This category also encompasses health, welfare, and miscellaneous aids and services. Total outlays are estimated at \$89.9 billion in 1979.

Outlays for health and welfare benefits and services, the largest category of current outlays for aids and special services, are estimated at \$43.3 billion. Major programs included in this category are medicaid (\$12.0 billion), assistance payments (\$6.8 billion), supplemental security income (\$5.4 billion), food stamps (\$5.7 billion), and grants to States for social and child welfare services (\$4.2 billion). The next largest current expense for special assistance is aid to veterans, with outlays estimated at \$16.3 billion; 61% of veterans assistance is for compensation and pensions; another 30% is for medical care.

Retirement and social insurance benefits are estimated at \$158.8 billion in 1979. Proposed retirement, survivors, and disability payments total \$118.5 billion. Medicare payments are estimated at \$29.0 billion and unemployment benefits at \$10.8 billion.

Other current outlays are largely for current operations of the Federal Government. They include such activities as the repair, maintenance, and operation of physical assets, tax collection, regulatory activities, military personnel, and other administrative expenses.

Total other current outlays, except interest, are estimated at \$100.9 billion in 1979, of which \$77.3 billion are in the national defense function. Most of the outlays in the defense function are for operation and maintenance (\$37.8 billion), military personnel (\$26.4 billion), and retired military personnel (\$10.1 billion). Proposed civil outlays for the category total \$23.6 billion in 1979. The largest outlays are for general revenue sharing (\$6.9 billion) and for the operations of the Internal Revenue Service (\$2.0 billion).

Net interest payments are estimated at \$39.9 billion in 1979. These outlays include \$55.7 billion of interest payments offset by \$15.8 billion of interest collections.

Unclassified.—Those outlays that have not been placed in either the investment or the current category consist of the allowance for contingencies (\$1.7 billion), the allowance for future pay increases of Government workers (\$3.4 billion), the employer share of employee retirement (−\$5.2 billion), and certain proprietary receipts from the public (−\$6.5 billion).

Table D-2. INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS
(In millions of dollars)

Description	1977 actual	1978 estimate	1979 estimate
National defense investment-type outlays			
Public works—sites and direct construction:			
Military construction.....	1,767	1,781	1,837
Family housing.....	286	246	101
Atomic energy defense activities.....	218	324	340
Major equipment:			
Military procurement.....	18,178	21,552	24,208
Atomic energy defense activities.....	98	126	128
Other physical assets—acquisition and improvement: Atomic energy defense activities.....	862	1,000	1,142
Research and development, testing and evaluation:			
Defense—Military.....	10,210	11,161	12,319
Atomic energy defense activities.....	664	741	777
Other investments.....	69	66	59
Total national defense activities investment-type outlays.....	<u>32,352</u>	<u>36,997</u>	<u>40,911</u>
National defense current outlays			
Repair, maintenance, and operation of physical assets:			
Operation and maintenance.....	30,506	33,417	36,366
Family housing.....	1,040	1,163	1,292
Atomic energy defense activities.....	93	116	149
Other operation and administration:			
Military personnel.....	25,304	26,391	26,415
Retired military personnel.....	8,216	9,211	10,122
All other national defense current outlays.....	312	726	816
Defense—Military: Allowances:			
Civilian and military pay raises.....			2,218
Other legislation.....			70
Total national defense current outlays.....	<u>65,472</u>	<u>71,024</u>	<u>77,448</u>
Proprietary receipts from the public (—).....	—322	—395	—580
Total national defense budget outlays.....	<u>97,501</u>	<u>107,626</u>	<u>117,779</u>
Civil functions investment-type outlays			
ADDITIONS TO FEDERAL ASSETS			
Loans:			
To domestic private borrowers:			
Department of Agriculture:			
Commodity Credit Corporation price support and related programs.....	2,626	3,036	941
Farmers Home Administration (largely rural housing insurance).....	116	—51	—1,264
Department of Health, Education, and Welfare (largely student assistance).....	361	620	497
Department of Housing and Urban Development:			
Housing programs (largely housing for the elderly or handicapped).....	72	394	809
Government National Mortgage Association (largely special assistance functions).....	—1,452	—293	—147
Federal Home Loan Bank Board.....	—1,529	31	6
Small Business Administration (largely disaster loans).....	147	1,260	660
U.S. Railway Association purchase of ConRail securities.....	723	599	395
All other loan programs.....	—54	310	287
Total to domestic private borrowers.....	<u>1,010</u>	<u>5,906</u>	<u>2,184</u>

Table D-2. INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS
(In millions of dollars)—Continued

Description	1977 actual	1978 estimate	1979 estimate
Civil functions investment-type outlays—Continued			
ADDITIONS TO FEDERAL ASSETS—Continued			
To State and local governments (largely District of Columbia) ..	30	179	70
To foreign borrowers:			
International security assistance	319	836	830
Expenses, Public Law 480, foreign assistance programs	587	622	553
Export-Import Bank of the United States	446	335	581
Other agencies (largely international development assistance) ..	12	-112	-125
Total to foreign borrowers	1,364	1,681	1,839
Total loans	2,405	7,766	4,093
Other financial investments: International financial institutions ...	875	838	909
Public works—sites and direct construction:			
Department of Agriculture (largely Forest Service)	188	339	386
Corps of Engineers	1,442	1,500	1,467
Department of Energy (largely energy supply)	547	1,044	1,088
Department of Health, Education, and Welfare	140	252	250
Department of the Interior:			
Bureau of Reclamation	603	553	460
National Park Service	66	116	152
Bureau of Indian Affairs	125	141	154
Other Interior	30	69	94
Department of Transportation (largely Federal Aviation Agency)	274	285	252
National Aeronautics and Space Administration	105	132	154
Veterans Administration	234	314	396
Tennessee Valley Authority	1,204	1,498	1,434
Other agencies	201	303	232
Total public works—sites and direct construction	5,159	6,546	6,519
Major commodity inventories:			
Petroleum reserves	106	374	113
Department of Agriculture: Commodity Credit Corporation:			
Price support and related programs	378	1,192	322
Department of Energy (largely emergency energy preparedness) ..		1,790	3,250
Other agencies	-1	5	1
Total major commodity inventories	483	3,361	3,686
Major equipment:			
Department of Energy (largely energy supply)	139	194	187
Department of Transportation (largely Coast Guard)	74	133	198
Other agencies	39	88	88
Total major equipment	252	415	473

Table D-2. INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS
(In millions of dollars)—Continued

Description	1977 actual	1978 estimate	1979 estimate
Civil functions investment-type outlays—Continued			
ADDITIONS TO FEDERAL ASSETS—Continued			
Other physical assets—acquisition and improvement:			
Department of Agriculture (largely Forest Service)	146	193	146
Department of Housing and Urban Development: Housing programs	289	405	201
Department of the Interior:			
Bureau of Outdoor Recreation	181	276	266
Other Interior	54	62	81
Other agencies (largely energy supply)	70	36	-432
Total other physical assets—acquisition and improvement ..	740	972	262
Total additions to Federal assets	9,912	19,898	15,941
ADDITIONS TO STATE, LOCAL, AND PRIVATE ASSETS			
State and local assets:			
Appalachian regional development programs	213	254	264
Disaster relief	168	116	188
Department of Agriculture (largely rural development and con- servation operations)	259	424	377
Department of Commerce: (largely local public works pro- gram)	805	2,582	2,209
Department of Housing and Urban Development (largely com- munity development grants)	3,146	3,391	3,301
Department of the Interior (largely recreational resources) ..	281	348	457
Department of Transportation:			
Federal Aviation Administration grants-in-aid for airports ...	335	540	565
Federal Highway Administration (largely Federal-aid high- ways)	5,884	6,656	7,356
Urban Mass Transportation Administration	1,049	1,198	1,362
Environmental Protection Agency construction grants	3,530	4,135	4,660
Other agencies (largely energy conservation)	747	461	554
Total State and local assets	16,417	20,105	21,293
Private assets:			
Department of Agriculture (largely conservation and land management)	565	901	541
Department of Commerce ship construction	219	185	168
Other agencies (largely energy conservation)	104	180	233
Total private assets	888	1,266	942
Total additions to State, local, and private assets	17,305	21,372	22,236

Table D-2. INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS
(In millions of dollars)—Continued

Description	1977 actual	1978 estimate	1979 estimate
Civil functions investment-type outlays—Continued			
OTHER DEVELOPMENTAL EXPENDITURES			
Education and training:			
Department of Agriculture (largely Extension Service).....	288	340	319
Department of Health, Education, and Welfare:			
Health Resources Administration.....	306	306	282
Office of Education:			
Elementary and secondary education.....	2,352	2,574	3,031
School assistance in federally affected areas.....	750	791	756
Education for the handicapped.....	249	367	562
Occupational, vocational, and adult education.....	651	716	784
Student assistance.....		2,235	2,716
Higher and continuing education.....	2,640	302	336
Other Office of Education.....	603	1,218	1,324
Human Development Services.....	488	714	863
Other Health, Education, and Welfare.....	655	623	679
Department of Labor:			
Employment and training assistance.....	3,230	4,802	5,356
Temporary employment assistance.....	2,340	4,765	5,956
Other Labor Department.....	143	236	316
Veterans Administration (largely readjustment benefits).....	3,957	3,401	2,928
Other agencies.....	998	1,096	1,077
Total education and training.....	19,650	24,486	27,285
Research and development:			
Department of Agriculture.....	521	609	575
Department of Commerce.....	217	250	276
Department of Energy (largely energy supply).....	2,269	2,793	3,085
Department of Health, Education, and Welfare:			
National Institutes of Health.....	1,314	1,585	1,720
Other Health, Education, and Welfare.....	559	572	629
Department of the Interior.....	286	355	375
Department of Transportation.....	315	337	350
Environmental Protection Agency.....	255	285	298
National Aeronautics and Space Administration.....	3,842	3,851	4,116
National Science Foundation.....	668	724	752
Other research and development.....	323	361	428
Total research and development.....	10,569	11,722	12,605
Engineering and natural resources surveys (largely Geological Survey).....	317	562	589
Total other developmental expenditures.....	30,536	36,770	40,478
Total civil functions investment-type outlays.....	57,753	78,039	78,655

Table D-2. INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS
(In millions of dollars)—Continued

Description	1977 actual	1978 estimate	1979 estimate
Civil functions current outlays			
CURRENT EXPENSES FOR AIDS AND SPECIAL SERVICES			
Agriculture:			
Commodity Credit Corporation.....	441	3,227	3,291
Farmers Home Administration.....	443	520	598
Other Agriculture.....	468	572	492
Other agencies.....	10	14	16
Total agriculture.....	1,362	4,333	4,397
Business:			
Department of Commerce:			
Maritime Administration.....	337	313	317
Other Commerce.....	366	405	431
Corps of Engineers.....	402	452	440
Department of Transportation:			
Coast Guard.....	620	728	724
Federal Aviation Administration.....	1,613	1,756	1,858
Federal Railroad Administration.....	847	954	1,169
Small Business Administration.....	574	505	456
Other agencies.....	120	138	144
Total business.....	4,879	5,251	5,539
Labor:			
Department of Labor:			
Employment and Training Administration (largely unemployment trust fund).....	1,693	1,694	1,812
Other Labor.....	370	476	594
Other agencies (largely human development work incentives) ..	490	438	389
Total labor.....	2,553	2,608	2,795
Homeowners and tenants:			
Department of Agriculture: Farmers Home Administration.....	267	472	523
Department of Housing and Urban Development:			
Subsidized housing programs.....	2,422	3,022	3,556
Payments for operation of low-income-housing projects.....	506	612	686
Government National Mortgage Association.....	370	332	479
Other Housing and Urban Development (largely insurance).....	213	101	179
Federal Home Loan Bank Board.....	-370	-401	-476
Other agencies.....	1	11	14
Total homeowners and tenants.....	3,409	4,149	4,961
Veterans:			
Compensation and pensions.....	9,000	9,564	9,981
Medical care.....	4,065	4,652	4,869
General operating expenses.....	510	582	621
National service life insurance and U.S. Government life insurance.....	767	766	820
Other benefits to veterans.....	-3	18	38
Total veterans.....	14,339	15,582	16,329

Table D-2. INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS
(In millions of dollars)—Continued

Description	1977 actual	1978 estimate	1979 estimate
Civil functions current outlays—Continued			
CURRENT EXPENSES FOR AIDS AND SPECIAL SERVICES—Continued			
International aids:			
International security assistance.....	189	1,337	1,700
International development assistance.....	886	1,017	1,192
Expenses, Public Law 480 (Food for Peace).....	583	301	253
Other international aids.....	97	68	38
Total international aids.....	1,755	2,723	3,183
Health and welfare aids:			
Department of Agriculture:			
Food stamp program.....	5,399	5,655	5,748
Child nutrition programs.....	2,635	2,639	2,608
Special supplemental food program (WIC).....	245	360	526
Other Agriculture.....	304	611	422
Department of Health, Education, and Welfare:			
Health services.....	1,338	1,525	1,653
National Institutes of Health.....	772	811	846
Alcohol, drug abuse, and mental health.....	515	604	645
Health resources.....	468	314	248
Grants to States for medicaid.....		10,846	11,952
Public assistance.....	18,634		
Special benefits for disabled coal miners.....	942	968	988
Supplemental security income program.....	5,250	5,874	5,433
Assistance payments program.....		6,711	6,846
Human development services, grants to States for social services and child welfare services.....	1,358	4,021	4,218
Other Health, Education, and Welfare.....	1,372	1,466	975
Other agencies.....	314	388	184
Total health and welfare aids.....	39,546	42,793	43,292
Other aids and special services:			
Department of Commerce.....	187	235	415
Department of Health, Education, and Welfare:			
Payment for vocational rehabilitation of social security beneficiaries.....	970	1,099	1,062
Other Health, Education, and Welfare.....	540	571	657
Department of the Interior (largely Bureau of Indian Affairs).....	565	571	641
Department of Transportation (largely urban mass transportation).....	919	1,138	1,325
Department of the Treasury fuel efficiency incentive and crude oil tax programs.....		317	1,833
ACTION.....	109	117	128
Community Services Administration.....	526	610	546
Postal Service.....	2,267	1,787	1,830
Other agencies.....	387	629	850
Total other aids and special services.....	6,470	7,074	9,287
Total current expenses for aids and special services.....	74,313	84,512	89,783

Table D-2. INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS
(In millions of dollars)—Continued

Description	1977 actual	1978 estimate	1979 estimate
Civil functions current outlays—Continued			
RETIREMENT AND SOCIAL INSURANCE BENEFITS			
General retirement benefits:			
Health care financing.....	20,770	24,604	28,954
Retirement and survivors benefit payments.....	71,271	78,898	87,137
Disability benefit payments.....	11,135	12,600	14,343
Railroad retirement benefit payments.....	3,769	4,058	4,245
Total general retirement benefits.....	106,944	120,160	134,679
Unemployment benefits:			
Federal unemployment benefits and allowances.....	833	1,200	950
Advances to the unemployment trust fund and other funds.....	896	-----	-----
Unemployment trust fund.....	12,523	10,200	9,844
Total unemployment benefits.....	14,252	11,400	10,794
Retirement and social insurance benefits for Federal employees:			
Government payment for annuitants, employees health benefits.....	437	507	606
Civil service retirement and disability.....	9,550	10,866	12,133
Other benefits.....	521	590	564
Total retirement and social insurance benefits for Federal employees.....	10,508	11,963	13,303
Total retirement and social insurance benefits.....	131,705	143,524	158,776
OTHER SERVICES AND CURRENT OPERATING EXPENSES			
Repair, maintenance, and operation of physical assets (excluding special services):			
Department of Agriculture: Forest Service.....	622	795	706
Corps of Engineers.....	250	307	342
Department of Energy (largely energy supply).....	365	467	524
Department of the Interior (largely Bureau of Land Management and National Park Service).....	720	792	829
Tennessee Valley Authority.....	-268	-459	-280
Other repair, maintenance and operation.....	192	198	228
Total repair, maintenance, and operation of physical assets.....	1,881	2,100	2,349
Regulation and control:			
The Judiciary.....	389	456	487
Department of Agriculture (largely Animal and Plant Health Inspection Service).....	446	544	545
Department of Health, Education, and Welfare (largely Food and Drug Administration).....	218	257	268

Table D-2. INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS
(In millions of dollars)—Continued

Description	1977 actual	1978 estimate	1979 estimate
Civil functions current outlays—Continued			
OTHER SERVICES AND CURRENT OPERATING EXPENSES—Continued			
Regulation and control—Continued			
Department of Justice:			
Federal Bureau of Investigation	519	548	554
Law Enforcement Assistance Administration	664	619	540
Other Justice Department (largely legal activities and Federal Prison System)	947	1,092	1,183
Department of Transportation (largely Coast Guard)	355	379	395
Department of the Treasury (largely Customs Service)	553	637	668
Environmental protection (largely abatement and control)	434	489	542
Federal Deposit Insurance Corporation	-852	-379	-945
Nuclear Regulatory Commission	231	275	307
Other regulatory agencies	565	656	688
Total regulation and control	4,469	5,573	5,232
Other operation and administration:			
International activities:			
Department of State:			
Administration of foreign affairs	554	610	656
International organizations and other	373	417	422
International Communication Agency	324	356	385
Other international activities	52	66	70
Total international activities	1,303	1,449	1,533
Federal financial activities:			
Department of the Treasury:			
Internal Revenue Service	1,737	1,926	2,008
Other Treasury Department	429	496	559
Other Federal financial activities	-141	79	111
Total Federal financial activities	2,025	2,501	2,678
Other direct Federal programs:			
Legislative branch	716	708	810
Department of Commerce (largely National Oceanic and Atmospheric Administration)	347	431	483
Department of the Treasury (largely claims, judgments, and relief acts)	160	207	148
General Services Administration	123	337	344
Civil Service Commission (largely employees' life insurance) ..	-365	-441	-407
Other programs	772	867	1,001
Total other direct Federal programs	1,753	2,109	2,379

Table D-2. INVESTMENT, OPERATING, AND OTHER BUDGET OUTLAYS
(In millions of dollars)—Continued

Description	1977 actual	1978 estimate	1979 estimate
Civil functions current outlays—Continued			
OTHER SERVICES AND CURRENT OPERATING EXPENSES—Continued			
Shared revenues and grants-in-aid:			
Department of the Interior.....	345	501	528
Department of the Treasury:			
Antirecession financial assistance.....	1,699	1,573	1,050
General revenue sharing.....	6,758	6,827	6,852
Claims, judgments, and relief acts.....		543	
Other Treasury Department.....	395	425	447
Federal payment to District of Columbia.....	276	276	317
Other shared revenues.....	162	294	201
Total shared revenues and grants-in-aid.....	9,635	10,439	9,395
Total other operations and administration.....	14,716	16,499	15,985
Interest:			
On the public debt.....	41,900	48,600	55,400
Other interest.....	326	331	336
Total interest.....	42,225	48,931	55,736
Intragovernmental interest transactions (—).....	-11,738	-12,974	-15,005
Proprietary receipts from the public (—).....	-527	-712	-804
Total net interest.....	29,960	35,245	39,927
Total other services and current operating expenses.....	51,026	59,416	63,493
Total civil functions current outlays.....	257,043	287,452	312,052
OTHER			
Allowances for:			
Civilian agency pay raises.....			1,100
Contingencies.....			1,700
Employer share, employee retirement (—):			
Interfund transactions (—).....	-3,362	-3,786	-3,915
Receipts from off-budget Federal entities (—).....	-1,186	-1,238	-1,242
All other proprietary receipts from the public (—).....	-5,848	-5,859	-5,955
Total civil functions budget outlays.....	304,400	354,608	382,395
Total budget outlays.....	401,902	462,234	500,174

SPECIAL ANALYSIS E

BORROWING, DEBT, AND INVESTMENT

The major fiscal operations of the Federal Government include not only taxation and expenditure but also:

- the borrowing of cash to meet current outlays not covered by receipts and to refinance maturing debt;
- the investment of balances that trust funds and other Government accounts do not currently need for outlays; and
- the provision of assistance, including guarantees, for certain private borrowing.

This analysis summarizes current developments in Federal borrowing. It also discusses the size and growth of the Federal debt and the interest on the Federal debt, agency borrowing, agency investment in U.S. Government securities, the statutory debt limit, borrowing by Government-sponsored enterprises, and Government-guaranteed borrowing. The analysis concludes with a brief discussion of the trend in Federal and federally assisted borrowing and the relationship of this trend to the total funds raised by the nonfinancial sector of the economy. Excluded from this analysis are other types of Federal liabilities, which include accounts payable, obligations for undelivered orders, long-term contracts, insurance commitments, and the obligation for such future payments as social security, employee retirement, and veterans compensation.¹

Special Analysis F examines the related subject of Federal credit programs, which include direct loans, guaranteed loans, and loans by Government-sponsored enterprises. The factors discussed in both Special Analyses E and F are significant in appraising the impact on financial markets of the programs contained in the 1979 Federal budget.

BORROWING AND REPAYING DEBT

The Federal Government borrows from two principal sources. First, it sells debt to the public, primarily in order to finance Federal deficits. Second, it sells debt to the Government agencies that accumulate surpluses in separate funds, primarily trust funds, required by law to be invested in Federal securities. Most Federal debt has been issued by the Treasury and is called "public debt," but a small portion has been issued by other Government agencies and is called "agency debt."²

Borrowing from the public includes borrowing from the Federal Reserve System as well as borrowing from commercial banks, foreign central banks, other financial institutions and businesses, and individuals. "Borrowing from the Federal Reserve System" does not ordinarily mean that the Treasury sells debt securities directly to the

¹ Information on many of these liabilities is contained in Department of the Treasury, Bureau of Government Financial Operations, "Statement of Liabilities and Other Financial Commitments of the United States Government."

² The term "agency debt" is defined more narrowly in the budget than in the securities market, where it may include not only the debt of the Government agencies listed in table E-5 but also the debt of the Government-sponsored enterprises listed in table E-9 and certain Government-guaranteed securities.

Federal Reserve. This occurs only in exceptional circumstances and then in amounts limited by statute. The Federal Reserve System instead buys debt securities in the open market.

Borrowing from the public—whether by the Treasury or by an agency—has a significant impact on financial markets and the rest of the economy, and it is consequently an important concern of Federal fiscal policy. For most purposes borrowing from the Federal Reserve System should be distinguished from borrowing from the rest of the public. Federal Reserve purchases of debt are undertaken to carry out monetary policy, not to earn income, and affect the economy by expanding bank reserves and the money stock. They thus have a markedly different motivation and effect on financial markets than do purchases by other sectors of the public. The debt held outside the Federal Reserve System enters into investment portfolios of businesses and individuals and by this means affects interest rates, other financial conditions, and the size and composition of private assets. Almost all interest received by the Federal Reserve System is returned to the Treasury as receipts, called deposits of earnings, so the net cost to the Government of Federal Reserve holdings of debt is very small. The estimates in this analysis for the current and future years do not divide the debt held by the public between the Federal Reserve System and the rest of the public, despite the significance of this division, because the Federal Reserve's open market operations depend on future economic developments and on policy decisions not yet made.

Table E-1 summarizes Federal borrowing from 1976 through 1979. In 1977 the total Federal borrowing (net of the refunding of securities)—that is, the rise in gross Federal debt—was \$62.8 billion. The borrowing from Government agencies was \$9.2 billion, and the borrowing from the public was \$53.5 billion. Of the increase in the debt held by the public, \$8.3 billion was purchased by the Federal Reserve System and \$45.2 billion by the rest of the public.

Borrowing from the public has fluctuated sharply. It rose steadily from \$3.0 billion in 1974 to \$82.9 billion in 1976 and then declined to \$53.5 billion in 1977. The exceptionally large borrowing in 1975 and 1976 occurred primarily because the recession automatically reduced tax receipts and raised unemployment benefits and because tax reductions and some expenditure programs were enacted to stimulate the economy. The decline in borrowing in 1977 resulted from economic recovery.

Borrowing from the public is estimated to rise to \$66.0 billion in 1978 and \$73.0 billion in 1979. This increased borrowing over the 1977 amount is due in large measure to further effects of the 1977 stimulus program and, in 1979, to the \$25 billion of tax reductions and reforms (excluding the energy program) proposed by the administration for that year. By the end of 1979 gross Federal debt is expected to be \$873.7 billion, with 79% held by the public (including the Federal Reserve System) and the remainder by the agencies. Almost all of the gross Federal debt will have been issued by the Treasury.

Table E-1. FEDERAL BORROWING (in millions of dollars)

Description	Borrowing or repayment (-) of debt				Debt outstanding end 1979 estimate
	1976 actual	1977 actual	1978 estimate	1979 estimate	
Gross Federal debt:					
Treasury debt.....	87,244	64,139	77,965	89,595	866,400
Agency debt ¹	19	-1,380	-1,520	-1,509	7,268
Gross Federal debt ¹	<u>87,263</u>	<u>62,759</u>	<u>76,445</u>	<u>88,086</u>	<u>873,668</u>
Less debt held by Government agencies:					
Treasury debt.....	4,328	9,385	10,776	15,116	181,382
Agency debt.....	13	-142	-331	-30	1,444
Debt held by Government agencies... ..	<u>4,341</u>	<u>9,243</u>	<u>10,445</u>	<u>15,086</u>	<u>182,826</u>
Total, debt held by the public ¹	<u>82,922</u>	<u>53,516</u>	<u>66,000</u>	<u>73,000</u>	<u>690,843</u>
Composed of:					
Debt held by the Federal Reserve System..	9,721	8,302	NA	NA	NA
Debt held by others.....	73,201	45,214	NA	NA	NA

NA=Not available.

¹ Agency borrowing, gross Federal borrowing, and borrowing from the public in 1976 exclude the retroactive reclassification as of July 1, 1977, of \$471 million of Export-Import Bank certificates of beneficial interest from loan assets to debt.

Until a few years ago the Federal debt was held almost entirely by individuals and institutions in the United States. After World War II the debt held in foreign balances and international accounts tended to grow gradually and by the end of 1969 amounted to \$10 billion.³ However, due to international monetary developments, the foreign and international holdings began to grow much faster in 1970, and by the end of 1977 they had risen to \$95 billion. Most of the Treasury debt held abroad is owned by foreign central banks. The annual borrowing from abroad since 1971 is shown below in comparison with the annual borrowing from the domestic public, exclusive of the Federal Reserve System (in billions of dollars):

	1970	1971	1972	1973	1974	1975	1976	1977
Foreign and international.....	3.8	17.8	17.3	10.3	-2.6	9.2	3.8	20.5
Domestic (excluding Federal Reserve System).....	-3.6	-6.2	-3.8	5.3	.1	37.3	69.5	24.7
Total borrowing from the public (excluding Federal Reserve System).....	<u>.2</u>	<u>11.6</u>	<u>13.5</u>	<u>15.5</u>	<u>-2.5</u>	<u>46.5</u>	<u>73.2</u>	<u>45.2</u>

Whereas before 1970 the total borrowing from the public was nearly the same as borrowing from the domestic public, this table shows that since that time they have sometimes been quite different. During 1970-73, \$49 billion was borrowed from abroad while \$8 billion of debt held by the domestic public (exclusive of the Federal Reserve

³ The estimates of Federal debt held in foreign balances and international accounts do not include agency debt, the holdings of which are believed to be small.

System) was repaid. In the next 3 years borrowing from abroad was relatively small, but in 1977, despite the large Federal deficit, borrowing from abroad was almost half of the total borrowing from the public (exclusive of the Federal Reserve System).

BORROWING AND GOVERNMENT DEFICITS

Table E-2 shows how borrowing from the public is related to the Federal deficit. Until a few years ago the budget deficit comprised practically the entire deficit of the Federal Government, but the deficit of the off-budget Federal entities has now become significant. These entities, such as the Federal Financing Bank and the Postal Service, are parts of the Federal Government that have been excluded from the budget under provisions of law.

The Government deficit is financed either by borrowing from the public or by several other means. These other means of financing the deficit may be either positive, in which case they finance part of the deficit; or negative, in which case they, like the deficit, must themselves be financed by borrowing from the public. In 1977 the total Government deficit was \$53.7 billion. Almost all of this amount, \$53.5 billion, was financed by borrowing from the public, and the remaining \$0.2 billion was financed by other means.

Table E-2. MEANS OF FINANCING THE FEDERAL DEFICIT

(In millions of dollars)

Description	1977 actual	1978 estimate	1979 estimate
Budget surplus or deficit (—)	–45,040	–61,847	–60,586
Deficit (—) of off-budget Federal entities ¹	–8,693	–11,514	–12,538
Total, surplus or deficit (—)	–53,733	–73,361	–73,124
Means of financing other than borrowing from the public:			
Decrease or increase (—) in cash and monetary assets	–2,209	7,104	—
Increase or decrease (—) in liabilities for:			
Checks outstanding, etc. ²	1,765	222	–142
Deposit fund balances	253	–518	–224
Seigniorage on coins	407	553	490
Total, means of financing other than borrowing from the public	217	7,361	124
Total, requirements for borrowing from the public	–53,516	–66,000	–73,000
Change in debt held by the public	53,516	66,000	73,000

¹ The off-budget Federal entities consist of the Rural electrification and telephone revolving fund, Rural telephone bank, Pension Benefit Guaranty Corporation, Exchange stabilization fund, Federal Financing Bank, Postal Service fund, and certain activities of the U.S. Railway Association.

² Besides checks outstanding, includes military payment certificates, accrued interest (less un-amortized discount) payable on Treasury debt, and, as an offsetting change in assets, certain collections in transit.

The means of financing a deficit other than borrowing from the public are:

- a decrease in cash or monetary assets;
- an increase in monetary liabilities for checks outstanding, etc.;

- an increase in deposit fund balances, which include amounts held by the Government as an agent for others (such as State income taxes withheld from Federal employees' salaries and not yet paid to the State) or amounts held in suspense temporarily before being refunded or paid into some other fund; and
- seigniorage, which is the face value of minted coins less the cost of their production.

Table E-2 explains an unusual relationship between the change in the budget deficit from 1978 to 1979 and the change in borrowing from the public. The budget deficit decreases by \$1.3 billion, whereas borrowing from the public increases by \$7.0 billion. To a small extent the rise in borrowing is due to a \$1.0 billion increase in the deficit of the off-budget Federal entities, but it is mostly caused by an estimated \$7.2 billion decrease in the means of financing other than borrowing from the public. In 1978 the other means of financing are unusually large because of a \$7.1 billion decrease in cash and monetary assets. A large amount of cash and monetary assets was held at the end of 1977, partly so that the Treasury could build up its operating funds before the expiration at the end of the year of the temporary increment to the statutory debt limit. In particular, the Treasury acquired \$2.5 billion of cash by issuing a special security directly to the Federal Reserve. The resources from the large cash balances at the end of 1977 are available to finance part of the 1978 deficit but have no counterpart in 1979.

Notwithstanding the effect that these other means of financing are estimated to have on the trend in borrowing from 1978 to 1979, even in 1978 these other means are small relative to borrowing from the public. The size of these other means of financing is limited by their own nature. Decreases in cash, for example, are necessarily limited by past accumulations, which themselves required financing when they were built up. Thus, the extent to which means other than borrowing can finance a deficit are limited in any year and tend to be still more limited over a longer period of time. The total Federal Government deficit is the principal determinant of borrowing from the public.

The sale of debt to Federal agencies largely depends on the surpluses of the trust funds, which own 92% of the Federal debt held by Government agencies. Agency investment in Federal securities and the total trust fund surplus during 1976-79 are compared in the table below (in billions of dollars):

	1976 actual	1977 actual	1978 estimate	1979 estimate
Agency investment in Federal debt.....	4.3	9.2	10.4	15.1
Total trust fund surplus or deficit (-).....	2.4	9.5	10.3	13.9

As the table shows, the agency investment in Federal securities is similar in size to the total trust fund surplus throughout the period. The differences are accounted for by two factors. Certain agencies other than trust funds buy and sell Federal debt, as shown in table E-6, and the trust funds may increase or decrease their open book balances.⁴

⁴ Open book balances comprise cash assets not currently invested. As shown in Special Analysis C, they are very small relative to trust fund holdings of Federal debt.

SIZE AND GROWTH OF FEDERAL DEBT

Gross Federal debt has risen substantially over most of the past half century, from \$16 billion in 1929 to \$709.1 billion at the end of 1977. Table E-3 presents the detail of Federal debt since 1954 and shows that a sizable part of the increase is held in Federal Government accounts (primarily trust funds) rather than being owed to the public. From the end of 1954 to the end of 1977, gross Federal debt rose by 162% while debt held by the public rose by 146%. Federal debt held by the public apart from the Federal Reserve System rose still less, by 124%—an annual compound rate of growth of 3.5% over the

Table E-3. COMPARISON OF TRENDS IN FEDERAL DEBT AND GROSS NATIONAL PRODUCT (in billions of dollars)

Fiscal year	Debt outstanding, end of year					GNP	Debt held by public as percent of GNP
	Gross Federal debt	Held by					
		Federal Government accounts	The public				
			Total	Federal Reserve System	Other		
1954.....	270.8	46.3	224.5	25.0	199.5	363.6	61.7
1955.....	274.4	47.8	226.6	23.6	203.0	380.0	59.6
1956.....	272.8	50.5	222.2	23.8	198.5	411.0	54.1
1957.....	272.4	52.9	219.4	23.0	196.4	432.7	50.7
1958.....	279.7	53.3	226.4	25.4	200.9	442.1	51.2
1959.....	287.8	52.8	235.0	26.0	209.0	473.3	49.7
1960.....	290.9	53.7	237.2	26.5	210.7	497.3	47.7
1961.....	292.9	54.3	238.6	27.3	211.4	508.3	46.9
1962.....	303.3	54.9	248.4	29.7	218.7	546.9	45.4
1963.....	310.8	56.3	254.5	32.0	222.4	576.3	44.2
1964.....	316.8	59.2	257.6	34.8	222.8	616.2	41.8
1965.....	323.2	61.5	261.6	39.1	222.5	657.1	39.8
1966.....	329.5	64.8	264.7	42.2	222.5	721.1	36.7
1967.....	341.3	73.8	267.5	46.7	220.8	774.4	34.5
1968.....	369.8	79.1	290.6	52.2	238.4	829.9	35.0
1969 ¹	367.1	87.7	279.5	54.1	225.4	903.7	30.9
1970 ²	382.6	97.7	284.9	57.7	227.2	959.0	29.7
1971.....	409.5	105.1	304.3	65.5	238.8	1,019.3	29.9
1972.....	437.3	113.6	323.8	71.4	252.3	1,110.5	29.2
1973 ³	468.4	125.4	343.0	75.2	267.9	1,237.5	27.7
1974.....	486.2	140.2	346.1	80.6	265.4	1,359.2	25.5
1975.....	544.1	147.2	396.9	85.0	311.9	1,454.6	27.3
1976 ⁴	631.9	151.6	480.3	94.7	385.6	1,625.4	29.5
TQ.....	646.4	148.1	498.3	96.7	401.6	1,727.3	28.9
1977.....	709.1	157.3	551.8	105.0	446.8	1,838.0	30.0
1978 estimate.....	785.6	167.7	617.8	NA	NA	2,043.2	30.2
1979 estimate.....	873.7	182.8	690.8	NA	NA	2,274.6	30.4

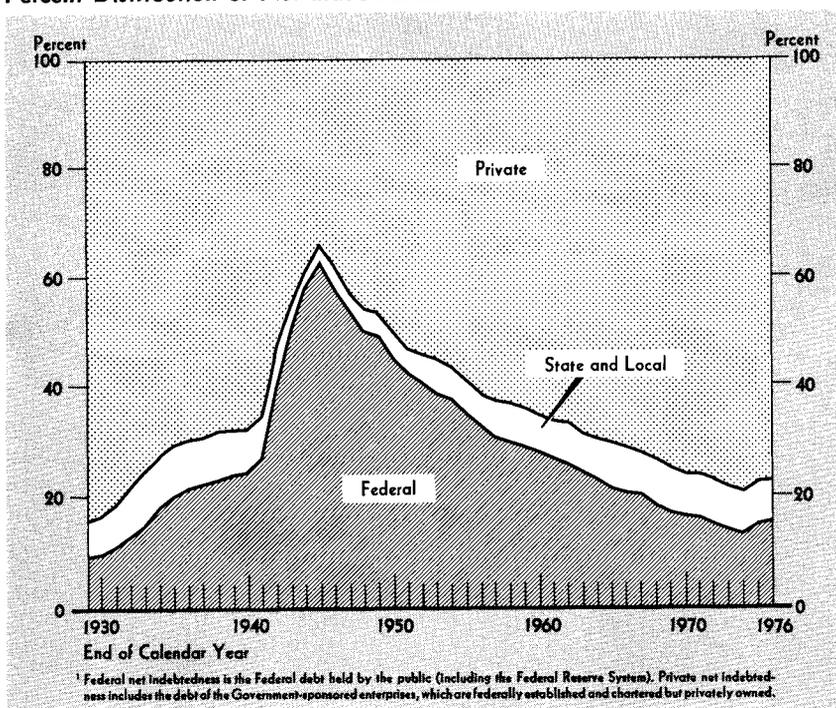
NA=Not available.

¹ During 1969, 3 Government-sponsored enterprises became completely privately owned, and their debt was removed from the totals for the Federal Government. At the dates of their conversion, gross Federal debt was reduced \$10.7 billion, debt held by Government accounts was reduced \$0.6 billion, and debt held by the public was reduced \$10.1 billion.

² Gross Federal debt and debt held by the public increased \$1.6 billion due to a reclassification of the Commodity Credit Corporation certificates of interest from loan assets to debt.

³ A procedural change in the recording of trust fund holdings of Treasury debt at the end of the month increased gross Federal debt and debt held in Government accounts by about \$4.5 billion.

⁴ Gross Federal debt and debt held by the public increased \$0.5 billion due to a retroactive reclassification of the Export-Import Bank certificates of beneficial interest from loan assets to debt.

Percent Distribution of Net Indebtedness¹

23 years—because during this period the Federal Reserve System bought a large quantity of Federal debt in the market, thereby expanding the reserves of the banking system and providing for growth in the Nation's money stock.

During the depression of the 1930's and during World War II, Federal debt held by the public increased greatly, not only in absolute amount but also, as shown in the above chart, as a proportion of total net indebtedness: Federal, State and local, and private. Whereas Federal debt held by the public was only 9% of total net debt at the end of calendar year 1929, it had risen to 62% by the end of calendar year 1945. Federal borrowing was large during these years, particularly to finance World War II, and borrowing by other sectors was restricted by low incomes and poor credit-worthiness during the depression and by controls and scarcities during the war.

From 1945 to 1974, however, private debt increased as a proportion of total debt in every year, and in every year the Federal debt held by the public decreased as a proportion of the total. This uninterrupted trend ended in calendar year 1975 because of the large Federal deficit caused by the recession. The large Federal deficit in 1976 caused Federal debt held by the public to rise as a percentage of total debt again in that year. As the chart shows, the recent rise in the proportion of Federal debt does not appreciably affect the comparison of trends over the last three decades. From the end of calendar year 1956 to the end of 1976, for example, Federal debt held by the public rose 130%,

whereas State and local government debt rose 431% and private debt rose 506%. By the end of calendar year 1976, Federal debt held by the public was 15% of total debt. As a result of these trends, Federal debt and borrowing, although still important, have become relatively much smaller influences in the financial market.

During the same period Federal debt has decreased relative to gross national product. As shown in table E-3, debt held by the public equaled 62% of gross national product at the end of 1954 but declined steadily to 25% by the end of 1974. In 1975, however, debt held by the public rose as a percentage of gross national product, and it has risen further since then. The percentage is estimated to rise slightly in 1978 and 1979.

The interest cost of the debt may be more significant than the amount of the debt for some types of comparison designed to measure the importance of Federal indebtedness. Interest on the debt held by the public has risen much faster than the debt itself, due to a strong upward trend since World War II in the interest rates paid on new borrowings and on refunded debt. Between 1954 and 1977 the Federal debt held by the public more than doubled, but, as shown in table E-4, the interest paid to the public increased by more than six times. For this period as a whole, interest payments to the public grew faster than gross national product. In the first 5 years, 1954-58, interest was equal to 1.4% of gross national product, whereas by the last 5 years, 1973-77, the proportion has risen moderately to 1.7%. On the other hand, the proportion of budget outlays devoted to paying interest on the debt held by the public did not show any trend over the period as a whole. It ranged between 7.0% and 8.7% with an average of 7.7%. Interest as a percentage of both gross national product and budget outlays—assuming the market interest rates that prevailed when the budget estimates were made—is estimated to rise in 1978 and again in 1979.

Since the end of World War II, the composition of the Federal debt has changed, with an increasingly large proportion of marketable securities having a relatively short maturity. One contributing factor is the statutory ceiling of 4¼% that has been maintained since 1918 on the interest rate that can be paid on Treasury bonds. Because long-term market rates exceeded 4¼% after 1965, the ceiling eventually prevented the Treasury from selling long-term obligations.

This restriction on Treasury borrowing has been relaxed in two ways. One method has been to increase the maximum maturity of notes, which are not subject to the interest rate ceiling. The maximum maturity was raised by law from 5 years to 7 years in 1967 and to 10 years in 1976. As of December 31, 1977, the amount of notes outstanding with a maturity over 5 years was \$110.1 billion, of which \$17.1 billion had a maturity over 7 years. The other method of relaxing the restriction has been to allow limited amounts of bonds to be sold at interest rates above the ceiling. In 1971, Treasury was allowed by law to issue up to \$10 billion of bonds at interest rates above 4¼%. In 1973, those bonds held by Government accounts and the Federal Reserve System were exempted from the interest rate limit, and during 1976 the amount of the exception was raised in two steps to \$17 billion. In October 1977 the exception was raised further to \$27 billion. As of December 31, 1977, \$30.1 billion of bonds outstanding had been sold since the change of law in 1971, including

bonds held by Government accounts and the Federal Reserve System. The effective interest rates have ranged from 6.1% to 8.4%.

Notwithstanding the initial relaxations of the interest rate ceiling, the average maturity of Treasury debt decreased from about 5 years at the end of 1965 to about 2½ years at the end of 1976. Since then, however, as the restriction has been relaxed further by both methods, the average maturity has lengthened to almost 3 years.

Table E-4. COMPARISON OF TRENDS IN INTEREST
ON FEDERAL DEBT (in billions of dollars)

Fiscal year	Interest on the gross Federal debt					Interest on debt held by the public as a percent of	
	Total	Federal Government accounts	Paid to			GNP	Budget outlays ²
			Total	Federal Reserve System ¹	Other		
1954.....	6.4	1.3	5.2	0.5	4.7	1.42	7.29
1955.....	6.4	1.2	5.2	.4	4.8	1.36	7.56
1956.....	6.8	1.3	5.6	.5	5.1	1.35	7.90
1957.....	7.3	1.4	5.9	.7	5.3	1.37	7.73
1958.....	7.8	1.4	6.3	.7	5.6	1.43	7.68
1959.....	7.8	1.4	6.4	.8	5.6	1.35	6.96
1960.....	9.5	1.5	8.1	1.0	7.1	1.62	8.73
1961.....	9.3	1.5	7.8	1.0	6.8	1.53	7.96
1962.....	9.5	1.6	7.9	1.0	6.9	1.45	7.40
1963.....	10.3	1.6	8.7	1.1	7.6	1.50	7.78
1964.....	11.0	1.8	9.2	1.2	8.0	1.50	7.80
1965.....	11.8	2.0	9.8	1.4	8.4	1.49	8.29
1966.....	12.6	2.1	10.4	1.7	8.7	1.45	7.75
1967.....	14.2	2.6	11.6	2.0	9.6	1.50	7.36
1968.....	15.6	3.0	12.6	2.4	10.2	1.52	7.07
1969.....	17.6	3.5	14.1	2.9	11.2	1.56	7.66
1970.....	20.0	4.4	15.6	3.5	12.2	1.63	7.95
1971.....	21.6	5.3	16.3	3.7	12.6	1.60	7.73
1972.....	22.5	5.8	16.6	3.7	12.9	1.50	7.16
1973.....	24.8	6.3	18.5	4.3	14.2	1.50	7.49
1974.....	30.0	7.7	22.4	5.5	16.9	1.64	8.29
1975.....	33.5	8.8	24.7	6.1	18.6	1.70	7.56
1976.....	37.7	9.0	28.7	6.3	22.5	1.77	7.86
TQ.....	8.3	.6	7.6	NA	NA	1.77	8.07
1977.....	42.6	9.6	33.0	6.3	26.7	1.80	8.21
1978 estimate.....	49.2	10.1	39.1	NA	NA	1.92	8.47
1979 estimate.....	55.9	10.7	45.2	NA	NA	1.99	9.04

NA = Not available.

¹ Estimated as the average of calendar year figures. The 1977 estimate is tentative.

² Budget outlays for 1954-79 are published in the Budget, Part 9, table 21.

BORROWING BY FEDERAL AGENCIES

A few Government agencies are authorized to sell their own debt instruments to the public and to other Government agencies and funds. This agency borrowing is part of the gross Federal debt. The authorization to borrow is budget authority, and the disbursement of such borrowed money is an outlay. Agency debt includes the borrowings of the off-budget Federal entities.

Agency borrowing was shown in total in table E-1 and is shown by agency in table E-5. In all three years, the repayment of agency

Table E-5. AGENCY BORROWING ¹ (in millions of dollars)

Description	Borrowing or repayment (-) of debt			Debt outstand- ing end 1979 estimate
	1977 actual	1978 estimate	1979 estimate	
Borrowing from the public:				
Agriculture: Farmers Home Administration ²	-86	-48		181
Defense.....	-103	-97	-104	691
Health, Education, and Welfare ²	-29	-5		95
Housing and Urban Development:				
College housing loans ^{2 3}	-69	-1		
Federal Housing Administration.....	-9	-11	35	494
Housing for elderly or handicapped ²	-15	-2		47
Government National Mortgage Association ²	-38	-90	-64	450
Revolving fund (liquidating programs) ^{2 3}	-20	-2		304
Transportation: Coast Guard.....	*	*	*	1
Veterans Administration ²	109	-122	-91	505
Export-Import Bank.....	-733	-799	-1,154	904
Postal Service.....				250
Small Business Administration ²	-94	-12		176
Tennessee Valley Authority.....	-150		-100	1,725
Total, borrowing from the public.....	-1,238	-1,189	-1,479	5,825
Borrowing from other funds:				
Agriculture: Farmers Home Administration ²	45	-84		137
Defense.....	-18	-19	-15	90
Health, Education, and Welfare ²	21	-9		80
Housing and Urban Development:				
College housing loans ^{2 3}	66	-1		
Federal Housing Administration.....	10	8	-9	108
Housing for elderly or handicapped ²	15	-3		45
Government National Mortgage Association ²	-127	-82	-3	291
Revolving fund (liquidating programs) ^{2 3}	15	-4		290
Veterans Administration ²	-162	-116	-4	267
Small Business Administration ²	-8	-20		134
Total, borrowing from other funds.....	-142	-331	-30	1,444
Total, agency borrowing included in gross Federal debt.....	-1,380	-1,520	-1,509	7,268
MEMORANDUM				
Borrowing from Federal Financing Bank:				
Export-Import Bank.....	1,155	996	1,559	8,479
Tennessee Valley Authority.....	1,145	1,165	1,460	6,505
Postal Service.....	-1,067	933	246	3,360
United States Railway Association.....	214	79		389
Total, agency borrowing from Federal Financ- ing Bank.....	1,447	3,173	3,265	18,733

* \$500 thousand or less.

¹ Excludes agency borrowing from Treasury.² Certificates of participation in loans issued by the Government National Mortgage Association on behalf of several agencies.³ The debt of the College housing fund (\$462 million) is scheduled to be transferred to the Revolving fund (liquidating programs) on Oct. 1, 1978.

debt exceeds new agency borrowing by about \$1.5 billion. The agency debt outstanding on September 30, 1979, is estimated to be \$7.3 billion, which is less than 1% of gross Federal debt.

As shown in the memorandum section of table E-5, the Federal Financing Bank (FFB) is having a profound effect on agency borrowing.⁵ The FFB was created in December 1973 under the Treasury Department as an off-budget Federal entity and began financial operations in May 1974. Its purposes were to assist and coordinate agency borrowing and guaranteed borrowing and to reduce the cost to the Government of some of its borrowing activities. It was given the authority to purchase agency debt and Government-guaranteed obligations and, in turn, to finance these transactions by borrowing from the Treasury. With the approval of the Secretary of the Treasury, the FFB is authorized to borrow from the Treasury without a statutory limitation on the amount.⁶ Since the FFB can borrow from the Treasury at lower interest rates than other agencies would have to pay in the market, this procedure reduces the cost of agency borrowing. The FFB thus serves as a conduit for agency borrowing, and Treasury securities replace the securities of other agencies in the market. Agency borrowing from the FFB is not included in gross Federal debt. It would be triple counting to add together the agency borrowing from the FFB, the FFB borrowing from Treasury, and the Treasury borrowing from the public that was necessary to provide the FFB with funds to lend to the agencies.

Four agencies that would otherwise borrow mostly in the market borrowed \$1.4 billion from the FFB in 1977 and are estimated to borrow \$3.2 billion in 1978 and \$3.3 billion in 1979. The only new borrowing in the market by these agencies has arisen from special arrangements made by the Export-Import Bank. Because borrowing from the FFB by these agencies has generally replaced borrowing from the public, almost no new agency borrowing in the market took place in the last 3 years or is scheduled to take place in the future. The change in agency debt outstanding is thus determined almost solely by the repayment of maturing debt and consequently is very small or negative throughout the period. If the FFB had not been created, the agency component of gross Federal debt would be substantially larger than it is now, though not by the exact amount that agencies have borrowed from the FFB. The Treasury component would be correspondingly smaller.

By the end of 1979, \$2.9 billion of agency debt, or two-fifths of the total, will be obligations of the four agencies listed in table E-5 that plan to borrow in the future almost exclusively from the FFB. A total of \$3.0 billion, or another two-fifths of all agency debt, will consist of certificates of participation in pools of loans issued by the Government

⁵ FFB purchases of guaranteed obligations are shown in table E-10.

⁶ The FFB also is authorized to have outstanding up to \$15 billion of publicly issued debt. Treasury classifies this as public debt rather than agency debt. The FFB borrowed \$1.5 billion in 8-month bills from the public in July 1974. All of its other borrowing has been from Treasury, because Treasury can borrow from the public at slightly lower interest rates than FFB would have to pay. No further borrowing from the public is planned.

National Mortgage Association as trustee on behalf of several agencies, which are identified in table E-5. These certificates have not been issued since 1968. A further \$0.8 billion of agency debt will be family housing mortgages assumed by the Defense Department under a program terminated more than a decade ago. The remaining agency debt, which is mostly for programs that will continue to borrow from the public, will constitute only 8% of the total—\$602 million of Federal Housing Administration debentures issued in payment of insurance claims for defaulted loans, and \$4 million of other obligations.

An adjustment within table E-5 arises from the transfer of all assets and liabilities of the College housing fund to the Revolving fund (liquidating programs) in the Department of Housing and Urban Development. Debt of \$462 million is scheduled to be transferred on October 1, 1978. This transfer does not constitute borrowing by the Revolving fund (liquidating programs) or repayment of debt by the College housing fund.

The Treasury provides capital to business-type Government enterprises both in the form of capital stock and in the form of debt. The provision of debt is shown as "borrowing from Treasury" on the statements of financial condition for enterprises in the Budget Appendix. However, the equity and the debt instruments are the same in substance; and it would be double counting to add together the agency borrowing from the Treasury and the Treasury borrowing from the public that was necessary to provide the agencies with this capital. Therefore, agency borrowing from Treasury is excluded from figures on agency borrowing and debt in all other parts of the budget documents.

AGENCY INVESTMENT IN FEDERAL SECURITIES

Trust funds and some public enterprise funds accumulate cash in excess of current requirements in order to meet future claims and demands. Such cash surpluses are invested mostly in Treasury debt and, to a very small extent, in agency debt. Purchases of these securities are not counted as budget outlays, and redemptions are not counted as budget receipts.

Net investment by trust funds and other Federal agencies fell from a peak of \$14.8 billion in 1974 to \$4.3 billion in 1976 and then rose to \$9.2 billion in 1977. As shown in table E-6, agency investment is expected to continue to rise, reaching \$10.4 billion in 1978 and \$15.1 billion in 1979.

The decrease in agency investment from 1974 to 1976 was primarily caused by two factors. The large rise in unemployment substantially increased the benefit payments of the unemployment insurance trust fund and to some lesser degree reduced the employment tax receipts of the unemployment and social security trust funds; and the social security trust funds had financial problems besides their reduced tax receipts. The rise in agency investment in 1977 was caused to a large extent by the continued economic recovery, which reduced unemployment benefits and raised trust fund tax receipts. A second important cause of the 1977 increase was the increased payments from the general fund to the Civil Service retirement and disability trust fund.

The further increase in agency investment estimated for 1978 and 1979 is caused in large measure by further declines in unemployment, by another large rise in the general fund payment to the Civil Service

Table E-6. AGENCY INVESTMENT IN FEDERAL SECURITIES

(In millions of dollars)

Description	Increase or decrease (-) in holdings			Holdings end of 1979 estimate
	1977 actual	1978 estimate	1979 estimate	
Investment in Treasury debt:				
Health, Education, and Welfare:				
Federal old-age and survivors insurance trust fund	-1,645	-4,706	-3,158	26,991
Federal disability insurance trust fund	-2,211	-349	229	4,123
Federal hospital insurance trust fund	-36	730	1,632	13,285
Federal supplementary medical insurance trust fund	988	1,344	661	4,237
Housing and Urban Development:				
Federal Housing Administration	161	139	149	1,960
Government National Mortgage Association	-95	-274	72	1,308
Other	44	17	20	253
Labor: Unemployment trust fund	1,073	3,600	5,200	14,787
Transportation:				
Highway trust fund	1,127	940	591	11,610
Airport and airway trust fund	534	407	183	3,836
Treasury:				
Exchange stabilization fund ¹	520	-----	-----	2,050
Federal Financing Bank	-86	107	98	243
Veterans Administration:				
National service life insurance trust fund	294	372	212	7,834
Other trust funds	12	29	4	1,089
Other	28	25	25	432
Civil Service Commission:				
Civil Service retirement and disability trust fund	6,931	6,861	7,078	63,161
Other trust funds	496	560	528	4,055
Federal Deposit Insurance Corp.: Trust fund	855	379	1,045	8,886
Federal Home Loan Bank Board: FSLIC	433	408	473	5,417
Postal Service	-160	129	230	1,630
Railroad Retirement Board: Trust fund	-121	-84	-378	2,720
Other Federal funds	81	45	109	754
Other trust funds	145	96	100	633
Other off-budget Federal entities	15	*	11	87
Total, investment in Treasury debt	9,385	10,776	15,116	181,382
Investment in agency debt:				
Agriculture: CCC	-6	-6	-6	17
Health, Education, and Welfare:				
Federal old-age and survivors insurance trust fund	-----	-----	-----	555
Federal hospital insurance trust fund	-----	-----	-----	50
Housing and Urban Development:				
Federal Housing Administration	*	-1	-4	186
Government National Mortgage Association	-1	-78	-14	145
Veterans Administration: National service life insurance trust fund				
	-75	-100	-----	135
Civil Service Commission: Civil Service retirement and disability trust fund				
	-----	-100	-----	275
Federal Home Loan Bank Board: FSLIC	-10	-46	-6	79
Railroad Retirement Board: Trust fund	-50	-----	-----	-----
Total, investment in agency debt	-142	-331	-30	1,444
Total, agency investment in Federal debt	9,243	10,445	15,086	182,826
MEMORANDUM				
Investment by Federal funds	636	229	818	10,553
Investment by trust funds	8,318	9,980	13,928	168,262
Investment by off-budget Federal entities	290	236	339	4,010

*\$500 thousand or less.

¹ The change in holdings is not estimated due to the uncertainties in foreign exchange, and the estimated 1979 year-end holdings are taken to be the actual holdings at the end of 1977.

retirement and disability trust fund, by increased deposits of State unemployment insurance taxes (which are included in Federal receipts), and by legislated Federal tax increases. Legislation enacted in 1976 is estimated to raise unemployment insurance trust fund receipts by \$1.5 billion in 1978 and \$3.1 billion in 1979, to be offset in 1979 by a \$0.6 billion tax-rate cut proposed by the administration. The recently enacted Social Security Amendments of 1977 are estimated to increase social security trust fund receipts by \$3.2 billion in 1979. Without these tax increases, total agency investment would not be estimated to change much in 1978 and 1979 from the 1977 level of \$9.2 billion.

Total agency holdings of Federal securities will reach an estimated \$182.8 billion by September 30, 1979. This will comprise 21% of the gross Federal debt. Two trust funds—the old age and survivors insurance trust fund and the Civil Service retirement and disability trust fund—will account for 50% of total agency holdings, and all the trust funds together will account for 92%. Almost all of the holdings will be Treasury debt, and the holdings of agency debt will continue to decline by small amounts each year.

LIMITATIONS ON FEDERAL DEBT

Statutory limitations have customarily been placed on Federal debt. Until World War I, the Congress ordinarily authorized a specific amount for each issue of debt. Beginning with the Second Liberty Bond Act in 1917, however, the limitation developed in several steps to become a ceiling on the total amount of most Federal debt outstanding. The latter type of limitation has been in effect since 1942. The limit currently applies to the total of:

- almost all public debt issued by the Treasury since September 1917, whether held by the public or by the Government;
- agency debt in the form of participation certificates issued during 1968 under the Participation Sales Act of 1966; and
- other debt issued by Federal agencies (and the District of Columbia Armory Board) that, according to explicit statute, is fully guaranteed as to principal and interest by the United States.

The debt subject to statutory limit⁷ includes virtually all Treasury debt. The small amount of Treasury debt not subject to limit is shown in table E-7. It consists almost entirely of currencies no longer being issued, such as silver certificates and national bank notes, which were generally reclassified as Treasury debt sometime after being discontinued.

The major part of agency debt is not subject to the general statutory limit. The only categories now included are the debentures issued by the Federal Housing Administration and the participation certificates sold in 1968. Together, these securities comprise less than one-quarter of all agency debt. However, most other agency debt is subject to special statutory limits. For example, the Postal Service is limited to \$2 billion of annual borrowing and \$10 billion of bonds outstanding.

⁷ The statutory debt limit is sometimes called the public debt limit. However, as explained in the text, the limit does not apply to all public debt and does apply to some debt other than public debt.

Table E-7. DEBT SUBJECT TO STATUTORY LIMIT (in millions of dollars)

Descriptions	End of year		
	1977 actual	1978 estimate	1979 estimate
Federal debt held by the public.....	551,843	617,843	690,843
Federal debt held by Government agencies.....	157,295	167,740	182,826
Total, gross Federal debt.....	709,138	785,583	873,668
Deduct:			
Treasury debt not subject to limit.....	611	611	611
Agency debt not subject to the general limit:			
Department of Defense.....	1,016	900	781
Export-Import Bank.....	2,858	2,059	904
Tennessee Valley Authority.....	1,825	1,825	1,725
Postal Service.....	250	250	250
Participation certificates ¹	2,633	2,031	1,869
Coast Guard.....	2	2	1
Total, Federal debt not subject to limit.....	9,195	7,677	6,142
Federal debt subject to statutory limit.....	699,943	777,906	867,527
District of Columbia Armory Board bonds.....	20	20	20
Total, debt subject to statutory limit.....	699,963	777,926	867,547

¹ Certificates of participation in loans issued by the Government National Mortgage Association on behalf of several agencies (excluding certificates issued during 1968).

The only other significant component of debt subject to limit is the small issue of stadium bonds sold by the District of Columbia Armory Board in 1960. Unlike the rest of the debt subject to limit discussed above, the stadium bonds are not part of the Federal debt.

Under legislation enacted earlier, the statutory limit on the Federal debt rose to \$682 billion on October 1, 1976, and to \$700 billion on April 1, 1977. This limit consisted of a permanent limit of \$400 billion, which has been in effect since 1971, and a temporary increment of \$300 billion. This temporary increment expired on September 30, 1977, without having been extended, so for a few days the Federal debt exceeded the statutory limit. During this period all sales of savings bonds and other new debt instruments were temporarily suspended. On October 4, 1977, new legislation temporarily raised the limit to \$752 billion. This increase expires on March 31, 1978, after which a further increase will be needed to permit the Federal Government to meet its obligations.

The outstanding debt subject to limit is shown in table E-7 and compared with the gross Federal debt and the Federal debt held by the public. The debt subject to limit was \$700.0 billion at the end of 1977 and is estimated to rise to \$867.5 billion by the end of 1979. These amounts are substantially more than the permanent limit of \$400 billion. As shown in table E-7, the debt subject to limit is much larger than the debt held by the public and is almost as large as the gross Federal debt. Almost all of the difference between gross Federal debt and debt subject to limit is accounted for by agency debt not subject to the general limitation.

FEDERAL FUNDS FINANCING AND THE CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT

The year-to-year change in debt subject to limit, unlike the change in debt held by the public, is not principally determined by the total Government deficit, that is, the sum of the budget deficit and the deficit of the off-budget Federal entities. The trust fund surplus or deficit, which makes up part of the budget surplus or deficit, has no essential effect. This is shown below in a discussion that is more technical than the rest of this special analysis.

The budget is divided into two major groups of funds: Federal funds and trust funds.⁸ The trust funds collect certain taxes and other receipts for specified purposes, such as the payment of social security and unemployment insurance benefits. The Federal funds comprise the rest of the budget. Their resources are derived mainly from taxes and borrowing and are used for the general purposes of the Government. The off-budget Federal entities make up a third group of fiscal operations, analogous to the Federal funds and trust funds groups. If the off-budget entities were included in the budget, almost all of them would be classified in the Federal funds group.

When the Federal funds have a deficit, that deficit must generally be financed by borrowing. This requirement is unaffected by whether or not trust funds have a surplus, since trust fund surpluses are mostly invested in Federal debt securities and this investment is a form of Federal funds borrowing. The Federal funds borrowing is almost exclusively done by the Treasury selling debt securities that are subject to the statutory limit. The deficits of the off-budget Federal entities are generally financed in the same way as the Federal funds deficit. Thus, the Federal funds deficit and the deficit of the off-budget Federal entities generally have to be financed by selling debt securities that are subject to the statutory limit.

Table E-8 shows in detail the relationship of the change in debt subject to limit to the Federal funds deficit and the deficit of the off-budget Federal entities. The sum of these deficits is an amount that has to be financed. Some relatively small portion may be financed by means other than borrowing, such as seigniorage and a decrease in those cash assets held by Federal funds and off-budget Federal entities (if the sum of these other means of financing is negative, then these other means must themselves be financed).⁹ Some small portion may be financed by decreasing investments in Federal debt. Another small portion may be financed by selling debt not subject to limit. The remainder of the amount to be financed, ordinarily comprising most of the total, must be financed by selling debt securities that are subject to the statutory limit. Thus, the deficits of the Federal funds and the off-budget Federal entities are shown to be the principal determinants of the change in debt subject to statutory limit.

The trust fund surplus does not have an explicit effect in table E-8. However, to the extent that trust fund surpluses are used to increase

⁸ Data for Federal funds and trust funds are presented in Special Analysis C, "Funds in the Budget."

⁹ The means of financing other than borrowing that are shown in table E-8 exclude amounts attributable to trust funds. It is not known how the trust fund open book balances are divided between cash and monetary assets and liabilities for checks outstanding, etc. In this table they are all assumed to be in liabilities for checks outstanding, etc.

Table E-8. FEDERAL FUNDS FINANCING AND CHANGE IN DEBT SUBJECT TO STATUTORY LIMIT (in billions of dollars)

Description	1977 actual	1978 estimate	1979 estimate
Federal funds surplus or deficit (—).....	-54,536	-72,147	-74,485
Deficit (—) of off-budget Federal entities.....	-8,693	-11,514	-12,538
Total, amount to be financed.....	<u>-63,229</u>	<u>-83,661</u>	<u>-87,023</u>
Means of financing other than borrowing:			
Decrease or increase (—) in cash and monetary assets.....	-2,209	7,104	.....
Increase or decrease (—) in liabilities for:			
Checks outstanding, etc.....	2,944	542	-171
Deposit fund balances.....	253	-518	-224
Seigniorage on coins.....	405	553	490
Total, means of financing other than borrowing.....	<u>1,395</u>	<u>7,681</u>	<u>95</u>
Decrease or increase (—) in Federal funds and off-budget entity investments in Federal debt.....	-925	-465	-1,158
Increase or decrease (—) in Federal funds and off-budget entity debt not subject to limit.....	-1,381	-1,518	-1,535
Total, requirements for borrowing subject to debt limit....	<u>-64,142</u>	<u>-77,962</u>	<u>-89,621</u>
Change in debt subject to limit.....	64,142	77,962	89,621

the trust fund holdings of open book balances instead of Federal debt securities, the debt subject to limit is reduced. The increase in open book balances is recorded as an increase in Federal funds liabilities for checks outstanding, etc., in table E-8. This increases the Federal funds means of financing other than borrowing, which in turn reduces the requirements for borrowing subject to the statutory limit. The trust fund open book balances do change from year to year, but they do not usually change a great deal. By law the trust fund surpluses must generally be invested in Federal debt, and during 1970-77 the increase in trust fund holdings of Federal debt equaled 93% of the cumulative trust fund surplus. Consequently, the effect of the trust fund surplus on debt subject to limit is minor.

Since the trust fund holdings of Federal debt are included almost entirely in debt subject to limit, but not in debt held by the public, the amount of debt held by the public is substantially less than the amount of debt subject to limit. Since the trust funds as a group usually have a surplus, the change in debt held by the public from one year to the next is usually less than the change in debt subject to limit. As can be calculated from table E-7, during 1978 and 1979 the debt subject to limit is estimated to increase by \$167.6 billion, whereas the debt held by the public is estimated to increase by \$139.0 billion.

The present analysis helps to show the difficulties in preventing the Federal debt from continuing to rise. Table E-2 showed that the Government would have to borrow from the public even if the budget were balanced, because it would have to finance the deficit of the off-budget Federal entities. Table E-8 shows that the debt subject to

statutory limit would continue to rise even if the budget had a surplus and that surplus was equal to the off-budget deficit. In order for the debt subject to limit not to rise, it would be necessary—as an approximation—for the Federal funds alone (apart from the trust funds) to have a surplus equal to the deficit of the off-budget Federal entities. The same approximate condition is necessary for the gross Federal debt not to rise.

FEDERALLY ASSISTED BORROWING

The effect of the Government on borrowing includes not only its own borrowing to finance Federal operations but also its assistance to certain borrowing by the public. Federally assisted borrowing is of two types: borrowing by Government-sponsored enterprises, and Government-guaranteed borrowing.

The Government-sponsored enterprises were established and chartered by the Federal Government to perform specialized credit functions, but they are now entirely privately owned. The rule governing the budget treatment of these enterprises was established in 1967 in accordance with a recommendation by the President's Commission on Budget Concepts. The Commission, whose report led to the adoption of the unified budget, recommended that the budget exclude those Government-sponsored enterprises that are entirely privately owned.¹⁰ Therefore the transactions of these enterprises are not included within the Federal budget, and their debt is not part of gross Federal debt.

The seven Government-sponsored credit enterprises are essentially financial intermediaries, borrowing in the securities market and lending their borrowed funds for specifically authorized purposes either directly or by purchasing loans originated by the private group that they were established to assist. The borrowing programs of these enterprises are subject to Federal supervision. In addition, they all consult the Treasury Department, either by law or by custom, in planning their market offerings. The Federal National Mortgage Association and the Federal home loan banks are required to obtain Treasury approval of the terms and timing of specific offerings. The Student Loan Marketing Association borrows exclusively from the Federal Financing Bank.¹¹ Besides their Federal sponsorship, all of the enterprises have a history of successful financial performance. Hence, despite the absence of Federal guarantees, the obligations of these enterprises are sold at interest rates only moderately higher than the rates on comparable Treasury issues.

As shown in table E-9, borrowing by the Government-sponsored enterprises was \$7.0 billion in 1977 and is estimated to be \$17.2 billion in 1978 and \$13.9 billion in 1979. In order to show the borrowing by this sector as a whole from the rest of the market, these figures are calculated net of the borrowing by one Government-sponsored enterprise from another. Most of this adjustment during 1977-79 is ac-

¹⁰ Report of the President's Commission on Budget Concepts (Washington: U.S. Government Printing Office, 1967), pp. 29-30.

¹¹ The Student Loan Marketing Association is the only Government-sponsored enterprise whose securities are guaranteed by the Federal Government and can therefore be bought by the FFB.

Table E-9. BORROWING BY GOVERNMENT-SPONSORED ENTERPRISES

(In millions of dollars)

Description	Borrowing or repayment (-)			Debt out- standing end 1979 estimate
	1977 actual	1978 estimate	1979 estimate	
Health, Education, and Welfare: Student Loan Marketing Association.....	105	95	130	735
Housing and Urban Development: Federal National Mortgage Association.....	807	2,095	372	33,959
Farm Credit Administration:				
Banks for cooperatives.....	864	726	583	6,288
Federal intermediate credit banks.....	1,589	1,825	2,082	16,562
Federal land banks.....	2,682	2,562	2,961	25,058
Federal Home Loan Bank Board:				
Federal home loan banks.....	-1,409	4,534	3,464	25,157
Federal Home Loan Mortgage Corporation.....	1,045	4,971	4,276	17,867
Total.....	5,683	16,807	13,868	125,627
Less increase in holdings of debt issued by Government-sponsored enterprises.....	-1,365	-413	-67	2,189
Total, borrowing by Government-sponsored enterprises.....	7,048	17,221	13,935	123,438

counted for by the Federal Home Loan Mortgage Corporation (FHLMC) repaying its debt to the Federal home loan banks.

During these years, as in most periods, borrowing by Government-sponsored enterprises will fluctuate. These fluctuations are dominated by the three enterprises that support the housing market. The year-to-year changes in borrowing by the Federal National Mortgage Association and FHLMC are largely accounted for by changes in their mortgage purchases. The fluctuation in borrowing by the Federal home loan banks is mostly due to fluctuations in its net advances (new advances less repayments) to its member savings institutions and to the FHLMC. The notable rise in borrowing by the Federal home loan banks in 1978 is estimated to occur because of sharp decreases in the repayment of past advances to savings institutions and to the FHLMC together with some increases in new advances to members and in its holdings of short-term securities. These three Government-sponsored enterprises together will have issued three-fifths of the debt outstanding at the end of 1979. Special Analysis F discusses lending by the Government-sponsored enterprises.

The other type of federally assisted borrowing, Government-guaranteed borrowing, consists of loans for which the Federal Government guarantees the payment of the principal and/or interest in whole or in part. Guaranteed (or insured) loans have diverse characteristics. The loans may be made to individuals, businesses, State and local governments, or foreign governments. The guaranteed obligation may be a loan made by a bank or other institutional lender, it may be a security sold in the capital market, or it may be a security sold to the

Federal Financing Bank. Government-guaranteed borrowing is the same as Government-guaranteed lending.

Guaranteed loans include most loan assets sold by Federal agencies. Loan asset sales occur when an agency makes a direct loan and then sells it. A guarantee by the selling agency is usually attached. In some cases the agency sells the direct loans themselves, and in other cases the agency sells securities (sometimes called participation certificates or certificates of beneficial ownership) that are backed by loans that the agency continues to hold and service. Loan asset sales are offsets to the outlays of the agency that sells them, so if the selling agency is in the budget they reduce the amount by which the direct loans of Federal agencies add to budget outlays. The certificates of beneficial ownership sold by the Farmers Home Administration and Rural electrification and telephone revolving fund are a type of loan asset and would be classified as Federal debt instead of guaranteed loans according to the recommendations of the President's Commission on Budget Concepts.¹² However, according to statute the sale of these certificates is required to be treated as the sale of loan assets instead of Federal borrowing. These certificates of beneficial ownership are sold almost exclusively to the FFB. Sales to the FFB during 1977-79 are shown below (in millions of dollars):

	1977 actual	1978 estimate	1979 estimate
Farmers Home Administration.....	4,965	6,575	7,180
Rural electrification and telephone revolving fund.....	----	455	720

Loan guarantees are designed to allocate economic resources toward particular uses by providing credit at more favorable terms than would otherwise be available in the private market. The major use of guaranteed loans is to support housing, but in recent years guarantees have increasingly been used for other purposes. As shown in table E-10, guaranteed borrowing net of repayments (but before purchases by Federal agencies or Government-sponsored enterprises) was \$20.5 billion in 1977 and is estimated to be \$27.0 billion in 1978 and \$34.5 billion in 1979. Special Analysis F presents detailed data on guaranteed loans and loan asset sales.

TOTAL FEDERAL AND FEDERALLY ASSISTED BORROWING

Table E-10 summarizes Federal and federally assisted borrowing from the public. Federal borrowing from the public is presented in total. Borrowing by Government-sponsored enterprises and guaranteed borrowing are presented both in total and as net amounts, the latter having been adjusted in order to remove double counting in the derivation of total Federal and federally assisted borrowing from the public. Double counting would otherwise occur when a Federal agency or a Government-sponsored enterprise bought or sold a Federal or federally assisted debt security.

Federal and federally assisted borrowing from the public during 1977-79 is made up predominantly of Federal borrowing to finance the large budget deficits. Federal borrowing also finances the Federal Financing Bank's purchases of guaranteed obligations (net of repayments), which are two-fifths of the total increase in guaranteed

¹² *Ibid.*, pp. 8, 47-48, and 54-55.

Table E-10. NET BORROWING FROM THE PUBLIC BY GOVERNMENT, GOVERNMENT-SPONSORED ENTERPRISES, AND GOVERNMENT-GUARANTEED BORROWERS (in billions of dollars)

Description	Borrowing or repayment (-)			Debt outstanding end 1979 estimate
	1977 actual	1978 estimate	1979 estimate	
Federal borrowing from the public ¹	53.5	66.0	73.0	690.8
Borrowing by Government-sponsored enterprises ²	7.0	17.2	13.9	123.4
Less increase in holdings of Federal debt.....	-2.9	.2	.1	1.0
Less increase in Government-sponsored debt held by Federal agencies:				
Federal Home Loan Bank Board.....	-1.5			
Federal Financing Bank.....	.1	.1	.1	.7
Net Government-sponsored borrowing from the public.....	11.4	16.9	13.7	121.7
Government-guaranteed borrowing ³	20.5	27.0	34.5	302.0
Less increase in Government-guaranteed loans held by:				
Federal agencies:				
Federal Financing Bank.....	8.1	10.7	12.6	46.4
Government National Mortgage Corporation.....	-1.0	-.1	-.2	3.0
Government-sponsored enterprises:				
Student Loan Marketing Association.....	.1	.1	.1	.8
Federal National Mortgage Association.....	-.5	.1	-1.1	27.0
Federal Home Loan Banks.....	-*	*	-*	.1
Federal Home Loan Mortgage Corporation.....	-.2	-.2	-.2	1.2
Net Government-guaranteed borrowing from the public.....	14.1	16.5	23.2	223.6
Total, Federal and federally assisted borrowing from the public.....	78.9	99.4	109.9	1,036.1

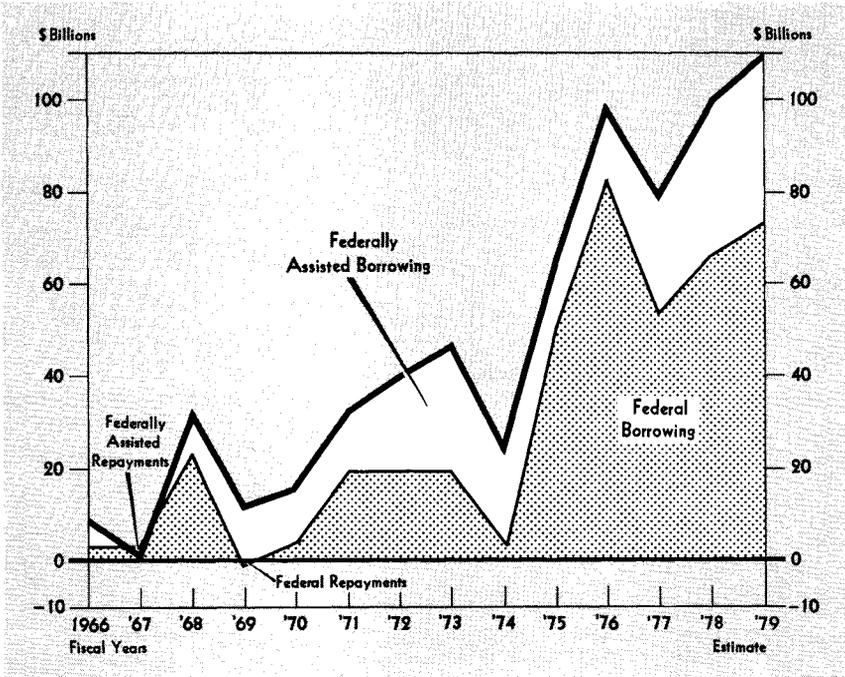
* \$50 million or less.

¹ See table E-1.² See table E-9.³ The same as Government-guaranteed lending. See table F-5.

obligations outstanding. Since the FFB finances these purchases by borrowing from the Treasury, which in turn borrows from the public, these transactions substitute Federal borrowing for guaranteed borrowing in the market. As shown in table F-5 of Special Analysis F, the FFB expects to buy a smaller share, about one-quarter, of the gross new loans guaranteed (before repayments) in these years.

The following chart depicts the trends in Federal and federally assisted borrowing from the public between 1966 and 1979. The series are volatile, and the recent and estimated fluctuations are dominated by the Federal deficit. Total Federal and federally assisted borrowing fell to \$24.1 billion in 1974 because of a sharp drop in the Federal deficit and then rose dramatically to \$97.9 billion in 1976 due to the large deficit in that year. The total fell to \$78.9 billion in 1977 but is estimated to rise considerably in 1978 and 1979 due to higher deficits than in 1977 and due to increases in both Government-sponsored borrowing and guaranteed borrowing from the public.

Federal and Federally Assisted Borrowing



As the chart shows, Federal and federally assisted borrowing is now substantially higher than a decade ago. Much of the increase parallels the growth in the economy and in the total funds raised by the non-financial sector through the sale of debt securities and other forms of borrowing and through the sale of corporate equities. However, although the existence of trends is difficult to discern because of the volatility of the series, to some extent the total Federal and federally assisted borrowing from the public seems to have increased as a proportion of the total funds raised. This proportion increased from 15% during 1960-67 to 21% during 1968-74 and to 33% in 1975-77. Thus, Government programs since 1968 have influenced the allocation of funds raised in financial markets more than they did in the immediately preceding years. During 1975-77 the Government impact was unusually large, and the estimated totals for Federal and federally assisted borrowing imply that it will remain large relative to most earlier years in 1978 and 1979.

SPECIAL ANALYSIS F
FEDERAL CREDIT PROGRAMS

Federal credit programs play a significant role in allocating our Nation's economic resources. These programs have a number of objectives. They may aim to encourage certain types of economic activity or they may merely aim to help certain borrowers participate in that activity; they may seek to provide liquidity for lenders and investors or provide cyclical stability for a particular industry. In nearly every case, they provide a subsidy to the selected constituency.

Credit programs frequently aim to fill credit "gaps" by making credit available to special classes of borrowers, or on special terms and conditions, or for special purposes. Often this credit assistance provides for longer maturities and higher loan-to-value ratios than are otherwise readily available. The interest costs to the borrower are lower than the rate available on private loans with comparable terms. In most cases, the benefits are achieved through the Government's assumption of risks that lenders are either unwilling to undertake or will accept only at a substantial premium in interest charges.

Federal credit assistance is provided to borrowers in a number of ways. Federal agencies make direct loans (sometimes off-budget) and also guarantee or insure the payment of principal and interest on loans supplied by private lenders. Direct loans are also made by Government-sponsored, privately owned credit enterprises that are federally franchised with special privileges in the capital markets. Because of the complex institutional arrangements that have evolved, several of these forms of credit assistance are sometimes combined in a single program; and sometimes a single activity is aided by two or more programs.

When a credit program is directly aimed at lowering interest rates to specific borrowers, the interest subsidy may be fairly visible, if not explicit, as in the case of direct loans where legislation provides for interest rates that are less than market rates; or it may be implicit, as in the case of guaranteed loans where the Government assumes most or all of the credit risk. The interest rate on guaranteed loans is sometimes further reduced by explicit interest rate subsidies. Also, Government assistance in the development of secondary markets can achieve lower interest rates by providing greater liquidity. For example, Government guarantees of some residential mortgages, combined with special borrowing privileges for federally sponsored enterprises such as the Federal National Mortgage Association (FNMA) and the Federal Home Loan Mortgage Corporation (FHLMC) have helped create well-organized special markets for residential mortgages. Another implicit (and substantial) interest rate subsidy results from the tax exemption of interest on securities issued by State and local governments.¹

¹ The credit subsidy effects of the tax-exempt status of State and local borrowing is not analyzed in this analysis. However, see Special Analysis G, "Tax Expenditures."

This analysis is a compilation of basic information on Government credit plans over the budget period, rather than an evaluation of programs and policies. The chapter highlights major trends in the credit activity of the Federal Government and Government-sponsored enterprises over the last 10 years, and presents the details of direct loans and loan guarantees by major program category from 1977 to 1979.

Questions of considerable analytical difficulty remain unanswered about the impact and the distribution of the benefits and costs of credit assistance. It is possible to surmise only in a general way the degree to which federally assisted credit substitutes for private credit transactions that would have taken place without Government assistance or the extent to which Government credit support for some borrowers may reduce the amount of credit available to the unassisted sectors of the economy. In addition, to the extent that credit is reallocated by these programs, it is not at all clear what effect this allocation has on important aggregate economic variables such as employment, production, and economic growth, or even on the supply of and demand for credit market resources.

The information on budget accounts and programs in this analysis is summarized by major agencies and program groupings. Some additional detail is available elsewhere. The Treasury Bulletin provides data on direct and guaranteed loans outstanding² in the most recently completed year or quarter—for both accounts and programs within accounts. Part 5 of the budget also supplies some detail, arranged by function; and individual direct loan program accounts are detailed in the Appendix volume of the budget.

TRENDS AND DIRECTIONS

The total amount of credit provided under Federal auspices has risen rapidly during the past decade, due to both the expansion of existing programs and the initiation of new ones. Table F-1 summarizes data on Federal participation in domestic credit markets over the last decade.

Overall, the total amount of credit provided under Federal auspices has risen rapidly during the past decade, due to the initiation of new programs as well as the expansion of existing ones. However, with the exception of 1970 and 1976 Federal and federally assisted advances have been within the narrow range of 13% to 16% of all funds advanced in U.S. credit markets. In 1975, the Federal participation rate increased to 14.9%. This was a result of reduced private credit demands and expanded Federal mortgage credit programs that were intended to increase housing production. As a result of recent declines in interest rates and increases in the flow of funds to depository institutions, the relative need for Federal credit assistance has decreased, and the proportion of credit advanced under Federal auspices has eased to 11½% of all credit. But on the demand side, Federal use of credit has climbed steeply—both in amount and in share of total flows—mainly reflecting the major expansion in budget deficits starting in 1975. Table F-1 summarizes data on Federal participation in domestic credit markets over the last decade.

² See table GA 11-2, Treasury Bulletin.

Table F-1. FEDERAL PARTICIPATION IN DOMESTIC CREDIT MARKETS (dollars in billions)

	Actual											Estimates	
	1968	1969	1970	1971	1972	1973	1974	1975	1976	TQ	1977	1978	1979
Total funds advanced in U.S. credit markets¹ (includes equities)	97.0	96.9	93.6	124.9	164.3	205.4	193.1	180.9	242.6	67.3	317.5	(³)	(³)
Advanced under Federal auspices²	14.9	15.0	17.4	16.5	22.8	26.7	26.6	26.9	26.9	26.6	36.6	51.8	55.4
Direct loans:													
On-budget.....	8.0	2.9	4.5	3.0	2.7	.3	2.2	4.3	4.2	1.1	2.6	7.9	4.3
Off-budget.....					.2	.7	2.2	8.5	6.7	2.6	9.0	11.1	13.0
Guaranteed loans.....	5.6	7.8	2.3	12.2	15.6	14.0	6.2	5.7	10.3	-.1	14.1	16.5	23.2
Sponsored agency loans.....	1.3	4.3	10.6	1.3	4.3	11.6	16.3	8.5	5.4	2.9	11.0	16.3	14.8
Federal participation rate (percent).....	15.4	15.5	18.6	13.2	13.9	13.0	13.8	14.9	11.0	9.7	11.5		
Total funds raised in U.S. credit markets¹	97.0	96.9	93.6	124.9	164.3	205.4	193.1	180.9	242.6	67.3	317.5	(³)	(³)
Raised under Federal auspices²	31.3	11.3	16.4	32.3	39.7	46.4	24.1	64.7	97.5	19.1	78.9	99.4	109.9
Federal borrowing from public.....	23.1	-1.0	3.8	19.4	19.4	19.3	3.0	50.9	82.9	18.0	53.5	66.0	73.0
Guaranteed borrowing.....	5.6	7.8	2.3	12.2	15.6	14.0	6.2	5.7	10.3	-.1	14.1	16.5	23.2
Sponsored agency borrowing.....	2.6	4.5	10.3	.6	4.7	13.2	14.8	8.2	4.3	1.2	11.4	16.9	13.7
Federal participation rate (percent).....	32.2	11.7	17.5	25.9	24.2	22.6	12.5	35.8	40.2	28.3	24.9		

¹ Nonfinancial sectors. Source: Federal Reserve Board Flow of Funds Accounts.

² Estimates from table E-10.

³ Not estimated.

Certain programs by their nature have highly volatile levels of activity. The Federal home loan banks, for example, have high loan levels during periods of tight money, but experience high repayment flows when money market conditions ease. These fluctuations have not always been successfully anticipated in agency budget plans; and shifts in a few large but volatile programs sometimes mask the trends in overall activity. Other similar patterns occur between the programs of the FNMA and the mortgage-backed security guarantee program of the Government National Mortgage Association (GNMA). These are alternative outlets for mortgage lenders, and are subject to a form of arbitrage as changing market conditions favor one over the other.

The Federal participation rate for borrowing has been higher and more variable than that for lending since 1968, fluctuating in a range of 12% to 41% of funds raised in U.S. credit markets. The difference between the Federal proportions of borrowing and lending is primarily due to the surplus or deficit in the Federal budget. The budget deficits in 1975 and 1976 increased Federal borrowing significantly as taxes were cut and expenditures increased in order to stimulate the economy. The 1978 and 1979 deficits, which are each expected to exceed \$60 billion, will result in a continued high level of Federal credit demands.

The credit component within the budget is not a useful indicator of Federal credit activities because a relatively small share of Federal credit assistance is in the form of on-budget direct loans. A large portion of Federal credit assistance is not included in the budget because of the utilization of loan guarantee programs instead of direct loan programs; sales of loan assets from Federal agency portfolios to the public or the Federal Financing Bank (FFB); the creation of enterprises that are Government sponsored but privately owned; and the legislated removal of some Government programs and agencies from the budget.

While most direct Federal outlays are subject to periodic review in both the executive branch and the congressional budget process, several direct lending programs and all loan guarantees are not included in the budget, except for payment of claims on defaults, certain repurchases, interest subsidies, or other installment payments. As a result, the budget understates the extent to which the Government is involved in redirecting the credit resources of the Nation. To deal more effectively and responsibly with this problem, the administration plans to forward a proposal for credit program review and control to the Congress this year. The proposal would subject credit programs to a review and control process similar to that applied to budget programs.

DIRECT LOANS

Direct loans are made by both on- and off-budget Federal entities, and are financed by Treasury or agency borrowing, loan repayments, and other fiscal resources such as taxes. The major Federal programs that provide direct loans are identified in table F-2.

Commitments to make direct loans tend to forecast future financial flows because commitments are often made well in advance of the time when funds are actually disbursed. This is particularly the case where construction activity is involved. Previous editions of the special analysis have reported only new commitments. Beginning this year, new data on commitments outstanding provide a more comprehensive set of measures.

Table F-2. DIRECT LOAN TRANSACTIONS OF FEDERAL AGENCIES (in millions of dollars)

Agency or program		Commitments			Loans made		
		1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Funds appropriated to the President:							
International security assistance.....	New transactions.....	1,079	1,316	1,095	541	1,084	1,091
	<i>Net loans</i>				277	816	832
	Outstandings	3,142	3,371	3,371	2,854	3,669	4,501
International development assistance.....	New transactions.....	365	436	471	404	385	352
	<i>Net loans</i>				128	115	56
	Outstandings	1,321	1,367	1,482	11,235	11,350	11,406
Agriculture:							
Farmers Home Administration.....	New transactions.....	8,051	8,853	8,684	7,121	8,741	8,421
	<i>Net loans</i>				116	-51	-1,264
	Outstandings	2,943	3,058	3,324	2,366	2,315	1,050
Commodity Credit Corporation.....	New transactions.....	4,376	7,935	6,018	4,376	7,935	6,018
	<i>Net loans</i>				2,626	2,972	797
	Outstandings				4,513	7,485	8,282
Public Law 480 long-term export credit.....	New transactions.....	738	728	863	738	728	863
	<i>Net loans</i>				587	622	738
	Outstandings				5,333	5,954	6,693
Commerce:							
Economic Development Administration.....	New transactions.....	165	52	103	77	147	103
	<i>Net loans</i>				51	117	65
	Outstandings	181	87	87	545	662	727
Coastal energy impact fund.....	New transactions.....	110	110			1	11
	<i>Net loans</i>					1	11
	Outstandings	110	219	208		1	12
Maritime Administration.....	New transactions.....	28	4	4	28	4	4
	<i>Net loans</i>				20	-2	-1
	Outstandings				55	61	61

Table F-2. DIRECT LOAN TRANSACTIONS OF FEDERAL AGENCIES (in millions of dollars)—Continued

Agency or program	Commitments			Loans made			
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate	
Health, Education, and Welfare:							
Health programs.....	New transactions.....	67	126	314	106	129	83
	Net loans.....				49	70	-13
	Outstandings.....	38	31	258	625	695	682
Claims on insured student loans.....	New transactions.....	181	306	250	161	302	246
	Net loans.....				141	280	216
	Outstandings.....	56	60	64	606	925	1,141
Other education programs.....	New transactions.....	310	348	310	187	335	321
	Net loans.....				173	319	305
	Outstandings.....	392	405	394	3,624	3,904	4,210
Housing and Urban Development:							
Low-rent public housing—interim financing.....	New transactions.....	232	343	290	238	600	600
	Net loans.....				-26		
	Outstandings.....	694	412	77	32	32	32
Federal Housing Administration—insurance claims ¹	New transactions.....				319	365	294
	Net loans.....				97	46	53
	Outstandings.....				3,259	3,306	3,359
Housing for the elderly or handicapped ²	New transactions.....	850	750	794	21	355	733
	Net loans.....				15	347	725
	Outstandings.....	1,561	1,956	2,017	523	870	1,595
Government National Mortgage Association:							
FHA/VA tandem plans.....	New transactions.....	2,091	2,300	2,300	528	1,660	2,450
	Net loans.....				-810	-15	-27
	Outstandings.....	4,268	4,793	4,243	896	881	854

Conventional tandem plan	New transactions				399		
	<i>Net loans</i>				-448	-150	
	Outstandings				150		
Other	New transactions	*			*		
	<i>Net loans</i>				-200	-132	-126
	Outstandings	*			2,452	2,320	2,194
Community development loans	New transactions	374	173	150	359	170	137
	<i>Net loans</i>				-2	-4	81
	Outstandings	885	199	45	390	386	467
New communities fund	New transactions	69	93	11	69	93	11
	<i>Net loans</i>				69	93	11
	Outstandings				106	198	209
Other credit	New transactions	13	137	134	16	101	127
	<i>Net loans</i>				-73	-11	26
	Outstandings	32	68	53	3,587	3,575	3,602
Interior	New transactions	38	75	75	41	74	76
	<i>Net loans</i>				35	66	67
	Outstandings	8	8	6	328	394	460
Justice: LEAA loans	New transactions	41	41	35	41	41	35
	<i>Net loans</i>				-11	-3	-12
	Outstandings				154	151	139
Transportation	New transactions	185	261	300	123	323	300
	<i>Net loans</i>				122	270	197
	Outstandings	64			472	742	939
Treasury:							
New York City seasonal financing	New transactions	2,050	950		2,050	950	
	<i>Net loans</i>						
	Outstandings						

See footnotes at end of table.

Table F-2. DIRECT LOAN TRANSACTIONS OF FEDERAL AGENCIES (in millions of dollars)—Continued

Agency or program	Commitments			Loans made		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Treasury—Continued						
Liquidating programs.....						
New transactions.....						
<i>Net loans</i>				-30	-124	-128
Outstandings				4,049	3,925	3,797
GSA: Property disposal credit sales.....						
New transactions.....	2			2		
<i>Net loans</i>				-8	-9	-8
Outstandings				49	40	31
Veterans Administration:						
Housing loans and guarantee claims.....						
New transactions.....	437	481	536	434	478	534
<i>Net loans</i>				-183	-82	-77
Outstandings	9	11	14	1,448	1,366	1,289
Insurance policy loans.....						
New transactions.....	134	118	115	134	118	115
<i>Net loans</i>				9	6	7
Outstandings				1,158	1,164	1,171
District of Columbia.....						
New transactions.....	122	113	131	121	135	121
<i>Net loans</i>				51	91	99
Outstandings	126	104	113	1,248	1,339	1,438
Export-Import Bank.....						
New transactions.....	1,221	3,413	4,300	1,787	1,627	1,788
<i>Net loans</i>				446	335	581
Outstandings	4,015	4,753	6,216	11,538	11,873	12,454
Federal Deposit Insurance Corporation.³						
Federal Home Loan Bank Board.....						
New transactions.....	28	38	26	4	38	26
<i>Net loans</i>				-1,529	31	6
Outstandings				43	74	80

Small Business Administration:							
Business and investment loans.....	New transactions.....	535	543	543	465	469	514
	<i>Net loans</i>				113	160	198
	Outstandings	172	203	202	1,832	1,741	1,939
Disaster loans.....	New transactions.....	357	1,770	310	222	1,290	715
	<i>Net loans</i>				34	1,100	462
	Outstandings	216	605	163	1,428	2,779	3,241
United States Railway Association ⁴	New transactions.....	723	599	396	723	599	396
	<i>Net loans</i>				723	599	396
	Outstandings				1,031	1,630	2,026
Other agencies and programs.....	New transactions.....	21	85	91	21	85	91
	<i>Net loans</i>				-10	52	55
	Outstandings	1			232	284	339
Total budget agencies.....	New transactions.....	<u>25,312</u>	<u>32,859</u>	<u>28,942</u>	<u>21,854</u>	<u>29,361</u>	<u>26,575</u>
	<i>Net loans</i>				<u>2,550</u>	<u>7,931</u>	<u>4,329</u>
	Outstandings	<u>20,235</u>	<u>21,709</u>	<u>22,336</u>	<u>68,160</u>	<u>76,091</u>	<u>80,420</u>
OFF-BUDGET DIRECT LOANS							
Rural electrification and telephone fund.....	New transactions.....	1,083	1,017	985	875	1,035	1,250
	<i>Net loans</i>				599	280	205
	Outstandings	1,694	1,676	1,411	8,817	9,097	9,302
Rural Telephone Bank.....	New transactions.....	160	185	230	81	110	140
	<i>Net loans</i>				77	99	126
	Outstandings	438	513	603	476	575	701
United States Railway Association.....	New transactions.....	223	100	27	223	100	27
	<i>Net loans</i>				220	100	27
	Outstandings				317	417	444

See footnotes at end of table.

Table F-2. DIRECT LOAN TRANSACTIONS OF FEDERAL AGENCIES (in millions of dollars)—Continued

Agency or program	Commitments			Loans made			
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate	
Exchange Stabilization Fund. ³							
Federal Financing Bank.....							
	New transactions.....	19,042	19,770	21,349	12,379	15,626	16,158
	Net loans.....				8,087	10,670	12,600
	Outstandings.....	15,829	19,972	25,163	23,123	33,793	46,392
Total off-budget agencies.....	New transactions.....	20,509	21,070	22,591	13,558	16,871	17,575
	Net loans.....				8,983	11,149	12,957
	Outstandings.....	17,965	22,161	27,177	32,733	43,882	56,839
Grand total.....	New transactions.....	45,821	53,931	51,533	35,412	46,232	44,151
	Net loans.....				11,533	19,079	17,288
	Outstandings.....	38,196	43,870	49,512	100,893	119,972	137,260
Memorandum:							
Foreign currency loans ⁵	New transactions.....	3	2	3	1	1	*
	Net loans.....				-156	-82	-83
	Outstandings.....	5	6	8	2,089	1,966	1,847

* Less than \$0.5 million.

¹ Claims paid under insurance and guarantee programs become classified as direct loans until acquired loans or collateral are paid off or liquidated. Proceeds of liquidations are classified as repayments and realized losses then become writeoffs.

² Returned to on-budget status by statute.

³ Agency did not report.

⁴ Includes both debentures and repayable preferred stock of ConRail.

⁵ Foreign currency transactions are in budget totals only upon conversions to or from dollars.

The table also shows both gross and net outlays of loan principal amounts for direct loan programs and outstanding loan levels for 1977-79. Net loan outlays of on-budget Federal agencies are counted in budget outlays, and thus are reflected in the budget surplus or deficit. Direct lending of off-budget Federal entities has economic effects that are identical to those of direct loan programs included in the budget. Therefore they are also presented in table F-2, under a separate heading.

Repayments of outstanding loans are not classified as budget receipts. Rather they are offset against new loan disbursements in the case of loan revolving accounts, and against agency outlays in the case of nonrevolving accounts. For this reason, net outlays for loans on table F-2 are net of repayments (and loan sales), and therefore often much less than the level of new lending. New loans provide a more comprehensive measure of program activity.³

Net loan outlays displayed in table F-2 are the difference between the volume of loans outstanding at the beginning of the year and the outstanding volume at the end of the year. This year-to-year net change in loan outlays is equal to the total of gross loan disbursements during the year (new loan disbursements, disbursements for guarantee claims and purchases of existing loans) less repayments and prepayments of loans, proceeds of collateral liquidation and sales of loan assets to the public (including Government-sponsored enterprises), and to the FFB.

LOAN ASSET SALES

Several agencies sell loan assets from their direct loan portfolios. Prior to the advent of the FFB, these were sold to the public. Now, however, the majority are sold to the FFB. Loan asset sales occur for several reasons. Three programs of the Farmers Home Administration (FmHA) were essentially designed with this intent. In substance, these are direct loan programs, and the sale of certificates of beneficial ownership (CBO's) would ordinarily be classified as a means of financing budget outlays (that is, borrowing, except for special provisions of law). Second, where loan guarantee or insurance programs are the primary delivery mechanism for credit assistance, direct loans may be acquired by the agency through backstop direct loan programs, payments on guarantee claims, or through sale of required collateral using purchase money mortgages. Refinancing of these direct loans under the agencies' primary guarantee programs is a fairly standard practice. A third and somewhat unique source of direct loans is the brokerage and subsidy operation under the GNMA "tandem" plan. Loan asset sales are of special interest to budget analysts because they are counted as a loan repayment, or negative outlay—thus reducing the expenditure totals.

³ Some guaranteed loans are ultimately supported by direct loans as a result of claims paid under guarantee programs when the Government receives either the original loan or the collateral.

Table F-3. LOAN ASSET SALES OF FEDERAL AGENCIES (with repayments and accounting adjustments)

[In millions of dollars]

Agency or program	Loan sales			Repayments and adjustments		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Agricultural (Farmers Home Administration):						
Agricultural credit insurance fund.....						
Public sales/repayments.....	180	155	130	879	1,001	1,208
FFB sales/adjustments.....	1,250	1,891	1,876	13	16	19
Rural housing insurance fund.....						
Public sales/repayments.....	254	150	40	626	815	1,019
FFB sales/adjustments.....	3,105	3,773	4,195	13	22	22
Rural development insurance fund.....						
Public sales/repayments.....	46	20	18	26	35	47
FFB sales/adjustments.....	610	912	1,108	-1	-1	-1
Health, Education, and Welfare:						
Health maintenance organization loans.....						
Public sales/repayments.....						
FFB sales/adjustments.....	29	36	91			
Medical facilities loans.....						
Public sales/repayments.....						
FFB sales/adjustments.....	22	19		*		
Treasury: New York City seasonal financing.....						
Public sales/repayments.....						
FFB sales/adjustments.....	2,050	950				
Veterans Administration:						
Direct loan revolving fund.....						
Public sales/repayments.....	105	52	57	91	85	81
FFB sales/adjustments.....				2	4	4
Loan guarantee revolving fund.....						
Public sales/repayments.....	288	268	307	93	87	89
FFB sales/adjustments.....				39	65	74
Other agencies and programs.....						
Public sales/repayments.....				6,912	8,762	8,915
FFB sales/adjustments.....	49			1	*	
Subtotal, budget agencies, excluding tandem plans.....						
Public sales/repayments.....	873	645	551	2,204	2,561	3,000
FFB sales/adjustments.....	7,116	7,580	7,271			

Housing and Urban Development (GNMA):							
Tandem plan sales—FHA/VA mortgages.....	Public sales/repayments.....	1,265	1,610	2,450	74	65	27
Tandem plan sales—conventional mortgages.....	Public sales/repayments.....	815	150	-----	33	*	-----
Subtotal, budget agencies (with tandem).....	Public sales/repayments.....	2,952	2,405	3,001	8,733	10,849	11,386
	FFB sales/adjustments.....	7,116	7,580	7,271			
Sales from off-budget accounts: Rural electrification and telephone fund.....							
	Public sales/repayments.....				276	300	325
	FFB sales/adjustments.....		455	720			
Total—all loan sales.....							
	Public ² sales/repayments.....	2,952	2,405	3,001			
	FFB ³ sales/adjustments.....	7,116	8,035	7,990			

		Repurchases/net sales		
		1977 actual	1978 estimate	1979 estimate
Repurchases and tandem plan purchases:				
Repurchases: Farmers Home Administration.....				
	Repurchases.....	1,578	1,768	1,897
	Net sales.....	3,866	5,132	5,471
Tandem plan purchases of FHA/VA loans by.....				
	Purchases.....	2,091	2,300	2,300
	Net sales.....	-826	-690	150
Tandem plan purchases, conventional loans.....				
	Purchases.....			
	Net sales.....	815	150	-----
Total—budget agencies.....				
	Repurchases.....	3,669	4,068	4,197
	Net sales.....	6,399	5,917	5,975

* Less than \$0.5 million.

¹ All loans sold, except conventional tandem plans, are guaranteed upon sale, and are reflected in guaranteed loan total in table F-5.

² See table F-4 for detail of FFB purchases.

³ "Public" includes sponsored agencies such as FNMA and FHLMC who are among principal purchasers of HUD and VA mortgages.

THE FEDERAL FINANCING BANK

The FFB, which began operating in May 1974, is a significant factor in the organization of Federal credit. The bank, an entity staffed within the U.S. Treasury, was created to provide more efficient financing for obligations issued, sold, or guaranteed by Federal agencies, thereby reducing costs to the Government and the assisted borrowers. With some exceptions, the Treasury may require Federal agencies authorized to borrow from the public to borrow from the FFB instead, and may also direct agency sales of loan assets to the FFB. The FFB is also authorized to originate loans under Federal agency guarantee programs. The FFB's authority to borrow from the Treasury at the Treasury's own borrowing rate enables it to charge lower interest rates than would be available to the program agency if that agency were to finance its program funding directly in private capital markets. Although this support involves no visible cost to the Government, the assisted borrowers may receive substantial implicit subsidies in the form of lower interest rates. Because the FFB is outside the budget by law, loan disbursements by the FFB are not counted as budget outlays. Transactions of the FFB are summarized in table F-4. As the table indicates, the FFB now holds a large volume of debt incurred by private individuals, Government-sponsored enterprises, and Federal agencies.

Table F-4. FFB ACQUISITIONS OF AGENCY OBLIGATIONS
(in millions of dollars)

Agency or program		1977 actual	1978 estimate	1979 estimate
Guaranteed loans—purchases of Federal agency loan assets:				
FAP: Overseas Private Investment Corp.	New acquisitions...	49	-----	-----
	<i>Net loans</i>	46	5	-5
	Outstandings	46	41	36
USDA:				
Farmers Home Administration.....	New acquisitions...	4,965	6,575	7,180
	<i>Net loans</i>	4,965	6,575	7,180
	Outstandings	14,615	21,190	28,370
Rural Electrification Administration...	New acquisitions...	-----	455	720
	<i>Net loans</i>	-----	455	720
	Outstandings	354	809	1,529
HEW:				
Medical facilities guarantees.....	New acquisitions...	22	19	-----
	<i>Net loans</i>	22	19	-----
	Outstandings	152	171	171
Health Maintenance Organizations....	New acquisitions...	29	36	91
	<i>Net loans</i>	29	36	91
	Outstandings	29	65	156
Treasury: NYC seasonal financing notes..	New acquisitions...	2,050	950	-----
	<i>Net loans</i>	82	-1,157	-----
	Outstandings	1,157	-----	-----
Small Business Administration.....	New acquisitions...	-----	-----	-----
	<i>Net loans</i>	-27	-12	-15
	Outstandings	133	121	106

Table F-4. FFB ACQUISITIONS OF AGENCY OBLIGATIONS—Continued
(In millions of dollars)

Agency or program		1977 actual	1978 estimate	1979 estimate
Guaranteed loans—Continued				
Total, purchases of agency loan assets	New acquisitions	7,116	8,035	7,990
	Net loans	5,117	5,911	7,971
	Outstandings	16,486	22,397	30,368
Guaranteed FFB originations:				
DOD (FAP): International security loans	New acquisitions	1,383	1,584	1,585
	Net loans	1,383	1,584	1,585
	Outstandings	2,156	4,100	5,685
USDA: Rural Electrification Administration	New acquisitions	1,222	2,500	2,500
	Net loans	1,222	2,500	2,500
	Outstandings	2,382	4,882	7,382
HEW: Guarantees of SLMA obligations	New acquisitions	105	95	130
	Net loans	105	95	130
	Outstandings	510	605	735
Interior: Territorial issues	New acquisitions	58	39	-----
	Net loans	58	-28	-21
	Outstandings	58	30	9
DOT: Rail programs	New acquisitions	347	255	228
	Net loans	-18	225	198
	Outstandings	578	803	1,001
WMATA bonds	New acquisitions	-----	-----	-----
	Net loans	-----	-----	-----
	Outstandings	177	177	177
GSA: Public building CBI's	New acquisitions	29	120	126
	Net loans	29	118	123
	Outstandings	142	260	383
NASA: Lease guarantees	New acquisitions	57	198	154
	Net loans	57	198	154
	Outstandings	57	255	409
SBA: SBIC debentures	New acquisitions	85	84	46
	Net loans	85	84	-17
	Outstandings	176	260	243
Other agencies and programs	New acquisitions	1,977	2,716	3,400
	Net loans	41	-17	-24
	Outstandings	41	24	-----
Total, guaranteed loan originations	New acquisitions	5,263	7,591	8,169
	Net loans	2,970	4,759	4,628
	Outstandings	6,637	11,396	16,024
Total, all guaranteed loans	New acquisitions	12,379	15,626	16,159
	Net loans	8,087	10,670	12,600
	Outstandings	23,123	33,793	46,392
Debt issues—off-budget agencies:				
U.S. Railway Association	Net loans	214	79	-----
	Outstandings	310	389	389
U.S. Postal Service	Net loans	-1,067	933	246
	Outstandings	2,181	3,114	3,360

Table F-4. FFB ACQUISITION OF AGENCY OBLIGATIONS—Continued
(In million of dollars)

Agency or program		1977 actual	1978 estimate	1979 estimate
Debt issues—budget agencies:				
Export-Import Bank.....	<i>New loans</i>	1,155	996	1,559
	Outstandings	5,923	6,920	8,479
Tennessee Valley Authority.....	<i>Net loans</i>	1,145	1,165	1,460
	Outstandings	3,880	5,045	6,505
Total debt issues.....	<i>Net loans</i>	1,447	3,173	3,265
	Outstandings	12,294	15,468	18,733
Total, all FFB holdings.....	<i>Net loans</i>	9,533	13,843	15,865
	Outstandings	35,417	49,261	65,125

GUARANTEED LOANS

Guaranteed loans⁴ are loans made by private lenders or investors, for which the Federal Government assumes responsibility for payment of all or a portion of principal and interest in the event that the borrower defaults on his obligation. Included are Government guarantees of marketable securities, as well as loans made and serviced by individual financial institutions. The nature of the guarantee differs widely among programs. In the case of fully guaranteed loans, the Government guarantees the repayment of all principal and interest if the borrower defaults. Guaranteed loans also include loans on which the Government pays a share of the interest, even though principal repayments are not assured. In other cases, the Government may guarantee a portion of the outstanding principal. Various contractual agreements including long-term Federal leases, guarantees of private leases, and contracts to make subsidy payments over extended periods are also used to guarantee credit—without being explicitly labeled as loan guarantee programs.

Loan guarantee data are shown in table F-5 for the major agencies and programs. The tables reflect the full principal amount of guaranteed loans, although in some cases the Government guarantees less than 100% of the principal. The presentation in table F-5 is comparable to table F-2 for direct loans. The aggregation of guaranteed loans with other forms of Federal credit assistance requires some adjustments to eliminate double counting. These adjustments are required when the same credit extension is guaranteed twice, as in the case of GNMA's guarantee of passthrough securities that are backed

⁴ As used here, guaranteed loans include those designated as "insured."

by FHA-insured and VA-guaranteed mortgages. Guaranteed loans that are converted to direct loans when purchased by a Federal agency must also be deducted because they have been already included in table F-2. Additional adjustments are made for double counting in table F-6 for credit activities of Government-sponsored enterprises. These adjustments are also reflected in the aggregate totals in Table F-7.

Table (F-5) summarizes the net changes in guaranteed loans and the total dollar value of guaranteed loans outstanding at the end of 1977-79 by agency and program. Guaranteed loans outstanding are expected to grow rapidly, up to almost \$300 billion in 1979. Before 1975, guaranteed loans and securities were typically held by private investors. However, the FFB has since become a major purchaser of guaranteed obligations, thereby converting them into direct but off-budget loans. After adjustment for double counting including FFB purchases, the total of outstanding guaranteed loans amounts to \$224 billion in 1979.

Guaranteed loans, like off-budget direct loans, are not reflected in the budget at the time credit is extended. Budget outlays from loan guarantee programs, excepting explicit subsidies and administrative costs, occur only when defaults require the Federal Government to pay lenders' claims. Losses for the older guaranteed loan programs have been relatively low, partly because most of the loans under these programs were protected with liens on marketable property. However, loans made under some newer housing subsidy programs have had very high default and loss rates in spite of the security of real property. Other recent programs have high risks because they require little or no collateral and, as a result, these programs are experiencing much higher losses.

Table F-5. GUARANTEED LOAN TRANSACTIONS OF FEDERAL AGENCIES (In millions of dollars)

Agency or program		Commitments			Loans guaranteed		
		1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Funds Appropriated to the President:							
International security assistance.....	New transactions.....	1,383	1,584	1,585	1,383	1,584	1,585
	Net loans.....				1,249	1,452	1,445
	Outstandings.....				4,036	5,487	6,932
International development assistance.....	New transactions.....	168	187	165	146	172	188
	Net loans.....				105	126	140
	Outstandings.....	213	228	206	788	914	1,054
Agriculture:							
Farmers Home Administration.....	New transactions.....	5,965	8,146	8,494	6,066	7,750	8,278
	Net loans.....				3,526	5,315	5,736
	Outstandings.....	691	1,086	1,307	21,940	17,255	32,991
Rural Electrification Administration.....	New transactions.....	3,986	4,555	4,820	1,222	3,055	3,320
	Net loans.....				1,222	3,055	3,320
	Outstandings.....	5,823	7,323	8,823	2,923	5,979	9,298
Commerce:							
Maritime Administration.....	New transactions.....	1,470	2,080	764	1,323	1,165	1,310
	Net loans.....				1,125	1,005	1,130
	Outstandings.....	1,055	1,900	1,354	4,717	5,722	6,852
NOAA Fishing vessel guarantees.....	New transactions.....	16	29	40	16	29	40
	Net loans.....				13	25	35
	Outstandings.....				25	50	85
Economic development assistance.....	New transactions.....	7	10	11	1	1	2
	Net loans.....				-23	-23	-23
	Outstandings.....				143	119	96
Defense: Tanker charters.....	New transactions.....		3	3		2	3
	Net loans.....						
	Outstandings.....		1	1	180	180	180

Energy:							
Geothermal resources development fund.....	New transactions.....	9	75	12	2	25	8
	<i>Net loans</i>				2	25	8
	Outstandings	7	57	62	2	27	35
Coal loan guarantees.....	New transactions.....		62	62		62	62
	<i>Net loans</i>					62	52
	Outstandings					62	114
Health, Education, and Welfare:							
Medical facilities guarantees.....	New transactions.....	22	19	15	271	69	
	<i>Net loans</i>				215	55	-13
	Outstandings	48		15	1,355	1,410	1,397
Health programs.....	New transactions.....	31	40	97	31	40	97
	<i>Net loans</i>				31	38	95
	Outstandings				106	144	239
Health professions graduate student loans.....	New transactions.....			120			120
	<i>Net loans</i>						118
	Outstandings						118
Student loan insurance fund.....	New transactions.....	1,470	1,586	1,773	1,470	1,586	1,773
	<i>Net loans</i>				517	364	489
	Outstandings				6,198	6,557	7,046
Guarantees of SLMA Obligations.....	New transactions.....				105	95	130
	<i>Net loans</i>				105	95	130
	Outstandings				510	605	735
College facilities: subsidized loans.....	New transactions.....				36		
	<i>Net loans</i>				17	-19	-21
	Outstandings				1,345	1,325	1,305

See footnotes at end of table.

Table F-5. GUARANTEED LOAN TRANSACTIONS OF FEDERAL AGENCIES (In millions of dollars)—Continued

Agency or program		Commitments			Loans guaranteed		
		1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Housing and Urban Development:							
Low-rent public housing.....	New transactions.....	11,003	12,932	14,110	9,118	10,653	12,381
	Net loans.....				477	1,353	2,281
	Outstandings.....	8,317	10,371	11,875	14,203	16,556	17,837
Federal Housing Administration.....	New transactions.....	19,776	20,262	24,709	12,929	13,384	18,231
	Net loans.....				4,864	4,732	7,479
	Outstandings.....	8,960	10,605	11,290	93,754	98,486	105,965
Community development loans.....	New transactions.....	26	15	16	26	15	16
	Net loans.....				-984	-600	-418
	Outstandings.....				1,221	621	202
New communities fund.....	New transactions.....		80	80	5	84	80
	Net loans.....				-47	20	80
	Outstandings.....	69	65	65	169	189	269
GNMA: Mortgage-backed securities.....	New transactions.....	17,019	16,000	15,500	17,019	16,000	15,500
	Net loans.....				14,238	12,068	9,900
	Outstandings.....				42,932	55,000	64,900
Other mortgage credit.....	New transactions.....						
	Net loans.....				-4		
	Outstandings.....				536	536	536
Interior:							
Indian programs.....	New transactions.....	35	72	1	35	72	1
	Net loans.....				34	61	-13
	Outstandings.....				49	109	96
Other.....	New transactions.....	58	39		58	39	
	Net loans.....				58	39	
	Outstandings.....				58	97	97

Transportation:							
Rail programs.....	New transactions.....	15	145	350	125	253	393
	<i>Net loans</i>				-18	206	374
	Outstandings	180	72	28	732	938	1,312
WMATA bonds.....	New transactions.....						
	<i>Net loans</i>						
	Outstandings				997	997	997
Aircraft loans.....	New transactions.....	102			91	41	
	<i>Net loans</i>				81	24	-20
	Outstandings	41			182	206	186
Treasury:							
Guarantee of NYC notes sold to FFB.....	New transactions.....	2,050	950		2,050	950	
	<i>Net loans</i>				75	-1,150	
	Outstandings				1,150		
General Services Admin: Public buildings.....	New transactions.....				29	120	126
	<i>Net loans</i>				-49	107	111
	Outstandings	444	324	197	864	971	1,082
NASA: Long term lease.....	New transactions.....	57	198	154	57	198	154
	<i>Net loans</i>				57	198	154
	Outstandings				57	254	408
Veterans Administration: Housing loans.....	New transactions.....	15,412	16,513	16,704	13,436	14,874	15,230
	<i>Net loans</i>				7,161	7,879	8,076
	Outstandings	2,894	3,209	3,294	71,923	79,803	87,878
Emergency Loan Guarantee Board.....	New transactions.....						
	<i>Net loans</i>				-80	-60	
	Outstandings				60		
Export-Import Bank.....	New transactions.....	7,254	10,704	13,791	4,379	6,145	7,846
	<i>Net loans</i>				397	1,564	2,579
	Outstandings	5,693	6,189	7,356	5,324	6,889	9,468
Federal Deposit Insurance Corporation. ¹							

See footnotes at end of table.

Table F-5. GUARANTEED LOAN TRANSACTIONS OF FEDERAL AGENCIES (in millions of dollars)—Continued

Agency or program		Commitments			Loans guaranteed		
		1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Small Business Administration:							
Loan guarantees	New transactions	2,724	3,170	3,530	2,076	2,530	2,913
	Net loans				684	1,076	1,245
	Outstandings	1,096	1,409	1,648	5,780	6,856	8,101
Other agencies and programs	New transactions	9	7	7	9	7	7
	Net loans				-2	1	-1
	Outstandings	1	1	1	36	37	36
Total (gross)	New transactions	90,172	99,557	107,044	73,514	80,997	89,788
	Net loans				35,091	39,196	44,518
	Outstandings	35,530	42,839	47,522	284,290	323,486	368,004
Less secondary guarantees: ²							
GNMA guarantees of FHA/VA pools	New transactions	17,019	16,000	15,500	17,019	16,000	15,500
	Net loans				14,238	12,068	9,900
	Outstandings				42,932	55,000	64,900
HEW guarantees of SLMA debt issues	New transactions	105	95	130	105	95	130
	Net loans				105	95	130
	Outstandings				510	605	735
DOT guarantees of USRA debt	New transactions	131	1		222	73	10
	Net loans				219	71	8
	Outstandings	83	10	*	316	388	396
Less guaranteed loans held as direct loans: By budget agency (GNMA)	New transactions	2,092	2,300	2,300	528	1,660	2,450
	Net loans				-1,010	-147	-152
	Outstandings	4,269	4,793	4,243	3,348	3,201	3,048

Total, primary guarantees (before summary table adjustments).	New transactions.....	77,826	81,161	89,114	55,640	63,169	71,698
	<i>Net loans</i>				21,545	27,109	34,632
	Outstandings	31,179	38,036	43,279	237,184	264,293	298,925
Less guaranteed loans held as direct loans:							
By off-budget federal agency (FFB).....	New transactions.....	19,042	19,770	21,349	12,379	15,626	16,158
	<i>Net loans</i>				8,087	10,670	12,600
	Outstandings	15,829	19,972	25,163	23,123	33,793	46,392
By federally sponsored enterprises:							
Student Loan Marketing Association.....	New transactions.....	225	205	196	225	205	196
	<i>Net loans</i>				117	97	137
	Outstandings				519	615	752
Federal National Mortgage Association.....	New transactions.....	5,362	5,265	4,427	2,203	2,668	1,987
	<i>Net loans</i>				-487	61	-1,128
	Outstandings	2,062	1,358	1,340	28,061	28,122	26,994
Federal Home Loan Banks.....	New transactions.....		1	2		1	2
	<i>Net loans</i>				-16	*	-5
	Outstandings				58	58	53
Federal Home Loan Mortgage Corporation.....	New transactions.....	56			39		
	<i>Net loans</i>				-189	-180	-158
	Outstandings				1,499	1,319	1,161
Total guaranteed loans (adjusted).....	New transactions.....	46,140	55,921	63,139	40,794	44,669	53,354
	<i>Net loans</i>				14,027	16,461	23,188
	Outstandings	13,288	16,706	16,776	183,924	200,385	223,573
Memorandum:							
FAP: International Financial Institutions: Callable capital subscriptions.	New transactions.....	737	822	1,376	737	822	1,376
	<i>Net loans</i>				737	182	1,376
	Outstandings				10,325	11,472	12,523

¹ Agency did not report.

² Secondary guarantees are defined in this table to cover securities representing loans assets which are also guaranteed. Secondary guarantees by Export-Import Bank of the debt of the Private Export Finance Corporation have not been estimated and are excluded from both sections of the table.

GOVERNMENT-SPONSORED ENTERPRISES

Several major Government-sponsored credit enterprises were created to facilitate the financing of selected kinds of economic activity. Although they are privately owned and managed, all are chartered by the Government, are subject to some form of Federal supervision, and consult the Treasury Department in planning the marketing of their debt obligations. The enterprises included in this category are the Federal Home Loan Bank System, the three components of the farm credit system, and the Student Loan Marketing Association.

These enterprises differ from other private institutions in that they have been given special preferences, including rights to assess their constituents, certain tax exemptions and preferences, and preferential eligibility for investment in their securities for federally regulated institutions and other fiduciaries. These advantages, together with the enterprises' Federal relationship, give their security obligations a preferred position in the securities market. This enables them to borrow at interest rates below the rates on the best grade corporate securities, and marginally above those of the Treasury.

All Government-sponsored credit enterprises are essentially financial intermediaries, channeling funds from one sector of the capital market to another. They borrow mainly in the "agency sector" of the bond market, and disburse these funds for specifically authorized purposes, either directly to lenders or by purchasing loans originated by them.⁵ Some of the agencies also serve as reserve facilities or provide secondary marketing functions, furnishing liquidity for constituent lenders by making temporary advances or buying portfolio loans for resale.

Funds lent by Government-sponsored credit enterprises are obtained mostly from borrowings in the capital markets. Sale of capital stock and retained earnings provide a small portion of resources used for lending. The timing of borrowing and lending varies from year to year. The lending of FNMA and FHLBS largely depends on conditions in the mortgage credit market and is thus highly volatile. Table F-6 shows both the lending and borrowing of these credit institutions. Totals have been adjusted to avoid double counting that would otherwise result from loans between agencies.

⁵ The program of the Government National Mortgage Association (a budget agency in HUD) to guarantee mortgage-backed securities achieves a very similar "intermediation" result. GNMA guarantees securities issued against privately held pools of federally guaranteed or insured mortgages. The FRB flow-of-funds data, for example, include this GNMA program within the definition of Government-sponsored credit enterprises. GNMA data appear in entries of table F-5, covering guaranteed loans.

Table F-6. CREDIT ADVANCED AND RAISED BY FEDERALLY SPONSORED CREDIT INTERMEDIARIES

(In millions of dollars)

	Net change			Outstanding		
	1977 actual	1978 estimate	1979 estimate	1976 actual	1978 estimate	1979 estimate
LENDING (Funds advanced)						
Student Loan Marketing Association.....	117	97	137	519	615	752
Federal National Mortgage Association ¹	1,001	2,285	455	33,018	35,303	35,758
Farm Credit System:						
Banks for cooperatives.....	768	824	689	5,235	6,060	6,749
Federal intermediate credit banks.....	1,703	1,918	2,201	13,286	15,204	17,405
Federal land banks.....	2,941	2,972	3,344	21,548	24,521	27,865
Federal Home Loan Bank System:						
Federal home loan banks.....	-541	4,173	3,895	19,575	23,748	27,643
Federal Home Loan Mortgage Corporation: ¹						
Corporation accounts.....	-744	-406	-169	3,381	2,975	2,806
Participation certificate pool ²	2,814	4,066	4,323	5,339	9,406	13,729
Total lending (unadjusted).....	8,131	15,930	14,875	101,902	117,832	132,707
Less loans between sponsored agencies: FHL banks to FHLMC.....	-1,517	-474	-100	2,464	1,990	1,890
Less loans from Federal agencies:						
FFB to SLMA.....	105	95	130	510	605	735
FHLBB to FHL banks.....	-1,491					
Total primary lending.....	11,033	16,309	14,845	98,928	115,237	130,082

See footnotes at end of table.

Table F-6. CREDIT ADVANCED AND RAISED BY FEDERALLY SPONSORED CREDIT INTERMEDIARIES—Continued

(In millions of dollars)

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THE BUDGET FOR FISCAL YEAR 1979

	Net change			Outstanding		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
BORROWING (Funds raised)						
Student Loan Marketing Association.....	105	95	130	510	605	735
Federal National Mortgage Association ¹	807	2,095	372	31,492	33,587	33,959
Farm Credit System:						
Banks for cooperatives.....	864	726	583	4,979	5,705	6,288
Federal intermediate credit banks.....	1,589	1,825	2,082	12,656	14,480	16,562
Federal land banks.....	2,682	2,562	2,961	19,535	22,097	25,058
Federal Home Loan Bank System:						
Federal home loan banks.....	-1,409	4,534	3,464	17,159	21,693	25,157
Federal Home Loan Mortgage Corporation:						
Corporation accounts.....	-1,769	905	-47	3,281	4,185	4,138
Participation certificates ²	2,814	4,066	4,323	5,339	9,406	13,729
Total borrowing (unadjusted).....	5,683	16,807	13,868	94,951	111,759	125,627
Less: Borrowing from other sponsored agencies:						
FHLB loans to FHLMC.....	-1,517	-474	-100	2,364	1,890	1,790
Other.....	152	60	133	305	365	399
Less: Borrowing from Federal agencies:						
FFB loans to SLMA.....	105	95	130	510	605	735
FHLBB loan to FHL banks.....	-1,491			1,491		
Less: Loans to Federal agencies:						
Investments in Federal securities.....	-2,919	184	103	748	931	1,034
Total borrowing (adjusted).....	11,353	16,942	13,702	91,025	107,967	121,669

¹ Loans purchased at discount are recorded at acquisition cost.² Participation certificates sold against mortgage pools are counted as sales of loan assets and are therefore not reflected on the Corporation's balance sheet.

FUNCTIONAL AREAS SUPPORTED BY FEDERAL CREDIT ASSISTANCE

The functional distribution of direct loans and federally guaranteed loans discussed in previous years in this analysis is now displayed more comprehensively in Part 5 of the main budget document. It is accordingly now omitted from the special analysis.

**SUMMARY OF FEDERAL AND FEDERALLY ASSISTED CREDIT
TRANSACTIONS**

Table F-7 summarizes the major components of Federal financial activity. Components within the aggregates vary widely from year to year for many reasons. Recent FFB purchases of large amounts of guaranteed loans returned them to off-budget direct loans; and recent legislation has shifted the Export-Import Bank from off-budget to on-budget status in 1977. FFB lending has similar effects on borrowing reducing the volume of guaranteed borrowing while increasing the volume of Federal borrowing from the public. In addition, Federal borrowing from the public varies from year to year largely reflecting the changing size of the unified budget deficit.

Table F-7. SUMMARY OF CREDIT ADVANCED AND CREDIT RAISED UNDER FEDERAL AUSPICES (in billions of dollars)

	Net change			Outstanding		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
LENDING (Credit advanced)						
Direct loans (from table E-2):						
On-budget agencies.....	2.6	7.9	4.3	68.2	76.1	80.4
Off-budget agencies.....	9.0	11.1	13.0	32.7	43.8	56.8
Guaranteed loans (primary, adjusted, from table E-5).....	14.1	16.5	23.2	183.9	200.4	223.6
Loans by federally sponsored credit intermediaries (from E-6).....	11.0	16.3	14.8	98.9	115.2	130.1
Total, credit advanced to the public under Federal auspices¹.....	36.6	51.8	55.4	383.7	435.5	490.9
Outside the budget.....	34.1	43.8	51.1	315.6	359.4	410.5
BORROWING (Credit raised)						
Federal borrowing from the public (from table C-1).....	53.5	66.0	73.0	551.8	617.8	690.8
Guaranteed borrowing (same as guaranteed loans, above).....	14.1	16.5	23.2	183.9	200.4	223.6
Borrowing by federally sponsored credit intermediaries (net, from table E-6).....	11.4	16.9	13.7	91.0	108.0	121.7
Total, credit raised from the public under Federal auspices¹.....	78.9	99.4	109.9	826.8	926.2	1,036.1
Net credit advanced.....	-42.3	-47.6	-54.5			

¹ Excludes Federal Reserve credit.

INTEREST SUBSIDIES

Most frequently, the favorable terms of Federal credit programs take the form of an interest rate that is lower than the rate charged by private lenders, although the maturity of the loan and the loan-to-value ratio are also more favorable. Other credit subsidies may result from fees or premiums inadequate to cover costs of administration and losses on credit guarantees and insurance programs, waivers of such fees or premiums, or forgiveness of part or all of the loan principal.

Although intended to be illustrative rather than definitive measurements, previous attempts to estimate subsidy values in this analysis have been questioned on a number of counts. While there has been general acceptance and increasing use of the present value method of valuation (as recommended by the 1967 President's Commission on Budget Concepts), there are significant differences of view on the selection of interest rate standards for both subsidy measurement and for capitalization. Also, past treatment has not included the interest subsidies provided through tax-exempt interest—a subsidy item that is substantially larger than all other credit subsidies combined. Accordingly, further publication of the detailed interest subsidy table in this analysis is being deferred pending broader analysis and resolution of these issues.

SPECIAL ANALYSIS G

TAX EXPENDITURES

The Congressional Budget Act of 1974 requires a listing of tax expenditures in the budget. Tax expenditures are defined by that act as "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability." Tax expenditures are one means by which the Federal Government pursues public policy objectives and, in most cases, can be viewed as alternatives to budget outlays, credit assistance, or other policy instruments.

Tax expenditures have varied objectives. Nearly all tax expenditures are meant either to encourage certain economic activities or to reduce income tax liabilities for taxpayers in special circumstances. Among the economic activities encouraged by tax expenditures are investment, housing, petroleum exploration and development, borrowing by State and local governments, and support of charitable institutions. The deductibility of medical expenses, casualty losses, and personal exemptions for the aged and blind are examples of adjustments of tax liabilities to meet special circumstances.

The benefits of tax expenditures designed to encourage certain types of economic activity typically do not rest fully or even mostly with the corporations or individuals whose taxes are initially affected. An initial reduction in taxes tends to attract more resources to the preferred activity, thereby competing away some or all of the shortrun advantage conferred to particular taxpayers by the tax expenditures. Thus benefits often accrue to others in the form of lower prices for particular goods or services, or in other ways become widely diffused. For example, the deductibility of charitable contributions does not merely lower individual or corporate liabilities; the institutions that receive the contributions also benefit as do the beneficiaries of those institutions.

This special analysis provides measures of the quantitative importance of various tax expenditures but does not attempt to evaluate their effectiveness. It should be emphasized that the listing of specific tax expenditure items does not imply either approval or disapproval of specific provisions of the tax system.

Major changes in tax expenditures resulting from the Tax Reduction and Simplification Act of 1977 are noted in the text. The analysis concludes with a discussion of changes in tax expenditures resulting from the tax proposals that are part of the 1979 budget. Some changes in tax expenditures are proposed as a part of the President's tax reform program specifically to improve the efficiency and equity of the tax system and to simplify it.

DEFINING TAX EXPENDITURES

Income tax provisions resulting in tax expenditures are further defined in the legislative history of the Congressional Budget Act as exceptions to the "normal structure" of the individual and corporation income taxes. They reduce tax liabilities for particular groups of taxpayers. Excluded from further discussion in this analysis are negative tax expenditures or tax penalties; that is, exceptions to the normal structure of income taxes that result in increased tax liabilities for certain groups of taxpayers. There are only a few such exceptions; one example is the nondeductibility of gambling losses in excess of gambling gains where gambling is engaged in for profit; another is limitations on the deductibility of capital losses. Two were added by the Tax Reform Act of 1976: deductibility of the costs associated with the demolition of certain historic buildings was disallowed; and certain normal tax treatment was denied for taxpayers who cooperate with or participate in an international boycott.

The "normal structure" is not defined in the tax code. The concept has evolved from various congressional and public reviews of the U.S. tax system focusing on the definition of the income tax base and the rates applied to that base. Conceptually, it would be more appealing to begin with a theoretically pure income tax base and use for this purpose "economic income," defined as receipts available to support consumption or additions to net wealth, the imputed value of in-kind consumption, and imputed changes in net wealth. Some tax expenditures, such as those resulting from exclusions of certain types of income or special deductions, could then be identified as the result of departures from a theoretically pure tax base. However, this is not possible. The concept of the normal structure recognizes that it is impractical to make the necessary imputations. Furthermore, the normal structure includes the separate taxation of individual and corporate incomes whereas a theoretically pure income tax structure would integrate these two taxes. Theoretically pure tax bases could also be specified for other types of taxes, such as a tax on consumption spending rather than on economic income.

Although a theoretically pure income tax base can be specified, there is no theoretical foundation upon which to support any particular degree of progressivity in the individual income tax rate structure or any particular corporate income tax rate. For purposes of identifying tax expenditures, such as those resulting from special tax rates or tax credits, the structure of progressive rates and provisions that exclude low-income persons from tax liability embodied in current law are deemed a part of the normal tax structure.

When the rate structure and threshold levels for tax liability are changed, for whatever reason, the new rates and threshold levels become part of the normal structure used in the analysis of tax expenditures. The Tax Reduction and Simplification Act of 1977 increased the standard deduction (now known as the "zero bracket amount") and eliminated the distinction between the low-income allowance (minimum standard deduction) and the percentage standard deduction, thus altering the normal tax structure. Those alterations reduced the estimated revenue losses associated with many tax expenditure items primarily because fewer taxpayers will itemize their deductions. The President's proposal to replace the deduction

for personal exemptions and the general tax credit with a credit and to reduce tax rates will have a similar impact on tax expenditures.

The existing rate structure for individuals, ranging from 14% to 70%, and the 48% corporate tax rate cannot be presumed to exist independently from current tax expenditures. If major tax expenditure items were deleted and budget outlays remained constant, tax rates would undoubtedly be set at lower levels so as to maintain an appropriate fiscal policy. For example, the reductions in tax rates proposed by the President are related to proposed reductions in tax expenditures.

Some of the more technical issues and ambiguities involved in distinguishing between the normal structure of the income tax system and tax expenditure provisions are discussed in the following paragraphs. In a few cases the conceptual ambiguities require that essentially arbitrary distinctions be made.

- *Threshold levels for tax liability.*—Tax code provisions that determine threshold levels of income below which no tax liability is imposed for the different types and sizes of taxpaying units are part of the normal structure. Personal exemptions and the low-income allowance have determined these thresholds in recent years. Legislation enacted during 1975, 1976, and 1977 temporarily added the general tax credit to these provisions. The Tax Reduction and Simplification Act of 1977 made a permanent change in the provisions that establish threshold levels for tax liability by repealing the low-income allowance and the percentage standard deduction and substituting flat standard deductions (zero bracket amounts) for different types of filing units. However, deductions or credits for additional personal exemptions for taxpayers over 65 and for the blind do result in tax expenditures because they depend upon more special circumstances. The percentage standard deduction, to the extent it exceeded the low-income allowance, also resulted in a tax expenditure because it substituted for itemized deductions that are mostly tax expenditure items.
- *The progressive rate schedules for the individual income tax.*—No tax expenditure results because some income is taxed at lower rates than other income when progressive rate schedules are applied to all taxable income. The income averaging provision of the code is a part of the normal structure since it limits the impact of progressive rates when income increases significantly. The maximum tax of 50% on personal service income is treated as a tax expenditure item because it fits the definitional term “preferential rate of tax.”
- *Separate rate schedules for single and married taxpayers, married taxpayers filing separately, and heads of households.*—Existing provisions regarding the definition of taxpaying units and separate rate schedules for different types of taxpayers are accepted as part of the normal tax structure.
- *Imputed income from owner-occupied housing and other sources.*—A theoretically pure income tax would include in its base an imputation for the income received in kind from the occupancy of a home owned by the taxpayer and imputations for in-kind income from the ownership of other durable assets. Because such imputations are difficult to make and are contrary to usual concepts of

income, they are not considered in the computation of tax expenditures even though such exclusions of imputed income affect the allocation of the economy's resources, particularly by stimulating owner-occupied housing. If income on owner-occupied housing were imputed, deductions for mortgage interest and property taxes would be an appropriate part of the normal structure in order to measure the amount of net income that should be included in the tax base. Without the imputation, those two deductions result in tax expenditures.

- *The value of Government benefits received in kind.*—The exclusion from gross income of direct cash payments to individuals by the Government, such as social security payments, does result in tax expenditures. Other Government programs extend benefits in kind to individuals. Examples are medicare and public education. Since these benefits are received in kind they cannot be used, like cash, for purposes fully consistent with the recipient's preferences. Moreover, their cash value is often difficult to identify with certainty. Thus the exclusion of in-kind benefits from income subject to tax is not considered to result in tax expenditures. The dividing line between nontaxable Government benefits that do result in tax expenditures and those that do not is essentially arbitrary. The most ambiguous case is food stamps. They are so nearly the equivalent of cash that their exclusion from income subject to tax might be considered to result in a tax expenditure, but this is not done in the analysis that follows.
- *Capital gains and losses.*—Although the base of a theoretically pure income tax would include net capital gains as they accrue, practical problems prevent identifying and taxing unrealized capital gains for many types of assets. Hence, the normal structure taxes such wealth accruals only when "realized." The exclusion from taxable income of one-half of realized capital gains, and the option of having up to \$50,000 of realized capital gains taxed at a 25% rate, clearly results in a tax expenditure. At death, an individual may hold assets that have appreciated in value. When, as under current law, these gains are not deemed to have been realized in the year of death, they have been completely excluded from income subject to tax during the lifetime of the decedent. The failure to deem unrealized capital gains as income in the year of death is considered, for purposes of this analysis, to result in a tax expenditure. Prior to the enactment of the Tax Reform Act of 1976, the estate, an heir, or other beneficiary would take the market value of the decedents' assets at the date the estate was valued as the basis against which to measure realized gain or loss. Thus gains which had accrued before death were never subject to tax. Under the 1976 act, the estate or beneficiaries are to carry over the decedent's basis and thus be subject to tax on gains which accrued during the lifetime of the decedent as well as gains which accrued subsequent to inheritance. As a means of phasing in this provision, a decedent's basis is generally deemed to be the assets' value on December 31, 1976, or, if acquired later, the acquisition date. The tax on such gains partially offsets the tax expenditure resulting from the failure to include capital gains in income subject to tax in the year of death.

- *Gifts and bequests.*—The tax system subjects gifts and bequests, which are usually made within a family, to taxes separate from the income tax. Therefore their exclusion from the recipient's taxable income under the individual income tax does not result in a tax expenditure. Another set of tax expenditures could be defined for departures from a "normal structure" for gift and estate taxes, but to do so would be beyond the scope of this analysis.
- *Forms of business organization.*—The tax law recognizes different forms of business organization including corporations, partnerships, small corporations treated in a manner similar to partnerships, cooperatives, mutual insurance companies, and individual proprietorships. The provisions of the tax law that accommodate different forms of business organization do not generally result in tax expenditures so long as income is subject to tax at either the business entity or individual level.
- *Treatment of individuals and corporations as separate taxpaying entities.*—A theoretically pure income tax would integrate the taxation of individual and corporate income to avoid multiple taxation of any particular type of income. Only individuals would be taxed; corporate income would be taxed to shareholders, whether or not it was distributed in the form of dividends. However, for practical reasons, separate taxation is accepted as part of the normal tax structure for purposes of this analysis.
- *Deduction of business expenses.*—The deduction of business expenses is necessary to determine taxable income. Tax expenditures do not ordinarily result from applying the definitions of business expenses prescribed by the Internal Revenue Code and Internal Revenue Service interpretative regulations. This rule is followed in tax expenditure analysis even when the deduction of certain expenses, such as those for entertainment and meals, can be challenged on normative grounds. Tax expenditures do occur when the tax code permits business or investment expenditures that are capital outlays in economic terms to be treated as current expenses. In the case of depreciation the Internal Revenue Code allows as a deduction "a reasonable allowance for the exhaustion, wear and tear (including a reasonable allowance for obsolescence)" on property used in a trade or business or for the production of income. To avoid judging every taxpayer's depreciation deductions against a standard of reasonableness, the code permits standard depreciation techniques and guideline lives to be used. In some cases, tax expenditures result because the permitted technique clearly results in excess depreciation being claimed. In other cases, tax expenditures result because the useful life is artificially short. With respect to machinery and equipment, the asset depreciation range (ADR) system, which became effective in 1971, defines a band within which estimates of useful life are deemed to be "reasonable". That band is determined by reference to guideline lives for broad classes of property and ranges 20% up and 20% down from the "asset guideline period." This analysis treats the ADR system as resulting in a tax expenditure when taxpayers who use the ADR system reduce the lives of depreciable assets below the guideline period.

- *Foreign tax credits.*—To avoid the double taxation of income earned abroad, and thus accommodate the U.S. tax system to international norms, the normal structure of income taxes includes tax credits for foreign income taxes paid.
- *Income of controlled foreign corporations.*—The income of foreign corporations controlled by U.S. corporations or citizens is generally not subject to U.S. tax until that income is repatriated. There are certain exceptions in order to avoid abuse in tax-haven countries. The deferral of income of controlled foreign corporations has been included as a tax expenditure item in this analysis, since it is an exception to the basic precept of our tax system that U.S. corporations and citizens are subject to tax on their worldwide income.

The above discussion does not exhaust the definitional complexities inherent in the tax expenditure concept nor does this analysis consider all special tax provisions. Some items have not been considered because the issues have not been fully studied or because there is insufficient information available on which to base a sound estimate. Some items are omitted because the revenue loss is relatively small (less than \$5 million).

The distinction between the normal tax structure and those exceptions leading to tax expenditures does not imply that the features of the normal tax system should be exempt from periodic analysis and review. Like tax expenditures, many features of the normal tax structure have major effects upon the level and composition of economic activity and the distribution of income; some features affect the everyday activities of corporations, trusts, and partnerships. Budget outlays, or other policy instruments, are alternative means to achieve the objectives of some features of the normal tax structures just as they are often a potential substitute for tax expenditures.

MEASURING TAX EXPENDITURES

The tax expenditure estimates reported below in table G-1 have been prepared by the Treasury Department and are based upon tax law as of December 31, 1977. The estimates show the loss of budget receipts resulting from each of these particular features of the tax system by fiscal years. For those tax expenditures resulting from the exclusion from taxable income of Federal Government payments to individuals, the underlying estimates of payments upon which the tax expenditure estimates are based are those shown elsewhere in the budget; hence they reflect any proposed changes in those programs.

Each estimate assumes that the tax provision in question had never been a part of the tax system but that all other features of the tax system, including the structure of rates, remain unchanged. In most cases, the hypothetical deletion of the special tax provision would increase taxable income for certain corporations or individuals; existing marginal tax rates are then applied to the estimated change in taxable income to compute the tax expenditures. For each itemized nonbusiness deduction for individuals, the estimated revenue loss is based upon the amount by which the standard deduction is exceeded. Tax expenditures resulting from credits are simply equal to the estimated credits claimed by all taxpayers. Economic conditions are

assumed to remain unchanged in response to the hypothetical change in the tax laws. No "second order" effect is included in the estimate because it is assumed that some offsetting fiscal or other action would be taken to keep economic aggregates on the same path that underlies all budget estimates.

Taxpayer behavior is assumed to remain unchanged in response to the hypothetical repeal of a tax expenditure provision even though, to the extent that tax expenditures intended to encourage certain economic activities have been successful, their elimination would presumably change taxpayer behavior. This change would alter the mix of economic activity within the assumed, constant economic aggregates. Any effect on receipts of a different mix of activity is not reflected in the estimates.

Whenever possible, sample data from tax returns have been used to estimate tax expenditures. These data are not, however, available for the years presented in this analysis, as these returns have not yet been filed or tabulated. Consequently, the estimates must be made by extrapolating sample tax return data from past years by means of other, more current information including the economic forecast used in estimating budget receipts and outlays. Many tax expenditures result from excluded income, not reported on tax returns. In these cases estimates must be based upon other data sources. Any changes scheduled by existing law, such as the phasing in or out of specific provisions, are accounted for in the estimates.

The estimates are reduced by any minimum tax liabilities associated with particular items. The minimum tax on tax preferences was introduced in 1969 in an attempt to assure that individuals and corporations receiving tax preferences do not escape bearing a share of the tax burden. Several tax expenditure items are included in the base of the minimum tax. The Tax Reform Act of 1976 increased the minimum tax rate from 10% to 15%. For individuals the exemption level was reduced from \$30,000 plus regular taxes paid to the greater of \$10,000 or one-half regular taxes paid. For corporations the exemption level was reduced from \$30,000 plus regular taxes paid to the greater of \$10,000 or regular taxes paid. The Tax Reduction and Simplification Act of 1977 removed the expensing of intangible drilling costs to the extent of related oil and gas income from the base of the minimum tax for calendar year 1977.

The Tax Reform Act of 1976 also introduced "at risk" rules that limit deductions attributable to an individual's investment to the amount of the investment plus the debts for which the taxpayer is personally liable. These limitations apply to certain types of investments: farming, exploring for or exploiting oil and gas resources, motion picture films and video tapes, and equipment leasing. Some of the deductions that are disallowed by these rules result in tax expenditures and some do not, hence there is no good way to reduce tax expenditure estimates for particular items by the revenue gained as a result of the at-risk rules.

Some tax expenditure items affect the timing of deductions or the receipt of taxable income. Examples are depreciation in excess of straight line for buildings and rental housing and the deferral of income by domestic international sales corporations (DISC's). These provisions create a permanent tax expenditure even though for a particu-

lar taxpayer, transaction, or asset the special provision may defer a tax rather than eliminate it. However, for a stable or growing business with an indefinite life, the deferral of taxes continues forever under most of these provisions. Furthermore, as the economy grows, these amounts increase over time. Estimates for these items show the difference between budget receipts under current law and budget receipts if a different law had always been in effect. These figures therefore generally show more than the revenue that could be obtained in the first years of a transition from one tax law to another. They are long-run estimates at the levels of economic activity assumed for the years in question.

Tax expenditure estimates cannot be simply added together to form totals for functional areas or a grand total. In some cases the revenue gain resulting from the deletion of two tax expenditure items would be greater than the sum of the individual estimates. For example, if interest income from State and local government securities were made taxable and capital gains were taxed at ordinary rates, many more individuals would be pushed into higher tax brackets than if just one of these sources of income became fully taxable; the combined effect on revenue would be greater than the sum of the two separate estimates. In other cases, the revenue gain from the deletion of two items would be smaller than the sum of the individual estimates. For example, if the deductibility of mortgage interest payments and homeowner property taxes were both repealed, and the standard deduction unchanged, many individuals who now itemize their deductions would opt for the standard deduction, thus limiting the revenue gain. In general, elimination of multiple items that are personal deductions would increase revenue by less than the simple sum of the revenue gains from eliminating each item measured separately, since many taxpayers would switch to using the standard deduction. Conversely, elimination of multiple items that are exclusions from adjusted gross income would increase revenue by more than the sum of the individual gains as taxpayers would be pushed into higher tax brackets.

To illustrate the aggregation problem, the revenue gain resulting from a hypothetical repeal of all itemized deductions that result in tax expenditures would be \$24.7 billion in 1979, whereas the simple sum of the tax expenditure for each separate item is \$32.9 billion. The estimate for the combined effect of all such deductions was derived from a model of the tax system that accounts for the interaction between tax expenditures provisions and the provisions of the normal structure. Because of this aggregation problem, the repeal of the tax expenditure items proposed in the President's tax reform program will not yield as much revenue as the sum of the tax expenditures affected. The aggregations of related tax expenditure items that are presented and discussed in the next section have been specially estimated so as to account for the interactions referred to above. Where tax expenditures for both individuals and corporations result from the same tax code provision, such as the investment tax credit, the two estimates may appropriately be added together.

TAX EXPENDITURES BY FUNCTION

Estimates of tax expenditures are grouped together by functional category and presented in table G-1. The estimates are shown sep-

arately for individuals and corporations. In prior years, three special categories were used to classify certain tax expenditure items—business investment, personal investment, and other tax expenditures. This practice has been discontinued this year in order to conform with the classifications used by the Congressional Budget Office and various congressional committees. In this analysis, all tax expenditures have been classified according to the functional categories used for budget outlays into which they most closely fit. A brief description of each of the special tax provisions for which a tax expenditure estimate is shown in table G-1 follows.

National defense.—The housing and meals provided military personnel, either in cash or in kind, are excluded from income subject to tax. Disability-related military pensions received by current retirees are largely excluded from taxable income. The Tax Reform Act of 1976 terminated the exclusion of noncombat related disability pensions for those who entered the armed services after September 24, 1975. However, most of those who would qualify for such retirement could choose to receive disability compensation from the Veterans Administration which remains free of taxes.

International affairs.—Prior to 1976, a U.S. citizen was generally able to exclude up to \$20,000 a year of foreign earnings if the taxpayer was a bona fide resident of a foreign country. After 3 years of foreign residence a taxpayer could exclude up to \$25,000 a tax year of foreign earnings. The Tax Reform Act of 1976 modified these provisions, limiting the exclusion to \$20,000 only for employees of U.S. charitable organizations and reducing it to \$15,000 for all others, denying tax credits for foreign taxes paid on excluded income, and taxing income beyond the amount eligible for exclusion at the higher bracket rates that would apply if the excluded income were also subject to tax. The effective date of the 1976 act provision was delayed by one year, until January 1, 1977, by the Tax Reduction and Simplification Act of 1977. The estimates also reflect the tax-exempt status of certain allowances received by Federal employees working abroad.

The profits of a domestic international sales corporation (DISC) are not taxed to the DISC but instead are taxed to the shareholders when distributed to them. This deferral is available for 50% of the export income of a DISC. Deferral is permitted to the extent that current export gross receipts exceed 67% of the DISC's average for a 4-year moving base period. DISC's with less than \$150,000 of taxable income are exempt from the incremental rule.

Taxes on the income of controlled foreign corporations are deferred until that income is repatriated to parent U.S. taxpayers. The estimate for the resulting tax expenditure is net of any foreign tax credits that would be claimed if the income of foreign subsidiaries were subject to U.S. tax on a current basis.

The Tax Reform Act of 1976 phased out the 14-percentage-point tax rate reduction provided under prior law for domestic corporations qualifying as Western Hemisphere trade corporations.

General science, space, and technology.—Research and development expenditures typically result in new products or processes, cost reductions, or other outcomes the benefits from which will, in nearly all

cases, continue into the future. For tax purposes businesses may deduct all research and development expenditures in the year during which they are incurred rather than amortizing them over a number of years. The tax expenditure is estimated as if such expenditures were amortized over a 10-year period.

Energy.—Certain capital costs necessary to bring a mineral deposit into production may be deducted as current expenses rather than spread over the useful life of the property. Included in this category are the intangible drilling costs of oil wells, such as the wages of drilling crews, and the cost of developing other mineral deposits, such as expenditures for mine shafts, tunnels and stripping. The Tax Reform Act of 1976 added to the base of the minimum tax for individuals intangible drilling costs in excess of the amount that would be deductible if capitalized and amortized over 10 years or if deducted pursuant to a cost depletion method. The Tax Reduction and Simplification Act of 1977 limited this element of the base of the minimum tax to amounts in excess of related income for calendar year 1977.

Extractive industries generally use percentage depletion rather than cost depletion. Under cost depletion, actual outlays, to the extent not immediately expensable, may be deducted over the productive life of the property, much as businesses may take deductions for the depreciation of other capital goods. Under percentage depletion, businesses in the extractive industries may deduct a prescribed percentage of gross income (at rates ranging from 22% for oil and gas to 5% for certain minerals, but not more than 50% of net income from the property or 65% of taxable income in the case of oil and gas). Percentage depletion is not limited to the cost of the investment as is cost depletion. The basis for "cost depletion" is reduced to the extent certain costs are recovered through expensing of exploration and discovery costs and intangible drilling costs. There is no comparable reduction in "percentage depletion" for costs which are allowed as expenses. The Tax Reduction Act of 1975 limited the application of percentage depletion to independent oil and gas producers and royalty owners and to specific quantities of output. The act phased the percentage depletion rate for oil and gas down from 22% through 1980 to 15% in 1984 and thereafter.

Royalties from coal deposits are treated as capital gains, rather than ordinary income.

Natural resources and environment.—The interest income on State and local government bonds issued to finance the pollution control facilities of private firms is exempt from Federal income tax. The volume of outstanding bonds issued for this purpose has been growing rapidly in recent years.

Table G-1. TAX EXPENDITURE ESTIMATES BY FUNCTION 1

(In millions of dollars)

Description	Corporations			Individuals		
	1977	1978	1979	1977	1978	1979
National defense:						
Exclusion of benefits and allowances to Armed Forces personnel.....	-----	-----	-----	1,095	1,260	1,370
Exclusion of military disability pensions.....	-----	-----	-----	105	115	120
International affairs:						
Exclusion of income earned abroad by U.S. citizens.....	-----	-----	-----	545	360	385
Deferral of income of domestic international sales corporations (DISC).....	945	1,135	1,335	-----	-----	-----
Deferral of income of controlled foreign corporations.....	570	615	665	-----	-----	-----
Special rate for Western Hemisphere trade corporations.....	35	25	15	-----	-----	-----
General science, space, and technology:						
Expensing of research and development expenditures.....	1,395	1,450	1,520	30	30	30
Energy:						
Expensing of exploration and development costs.....	820	885	965	210	300	300
Excess of percentage over cost depletion....	1,090	1,120	1,210	305	340	370
Capital gains treatment of royalties on coal.....	10	15	15	45	50	60
Natural resources and environment:						
Exclusion of interest on State and local government pollution control bonds.....	170	220	265	85	110	130
Exclusion of payments in aid of construction of water and sewage utilities.....	15	10	10	-----	-----	-----
5-yr amortization on pollution control facilities.....	-80	-130	-45	-----	-----	-----
Tax incentives for preservation of historic structures.....	-----	-----	5	-----	-----	5
Capital gains treatment of certain timber income.....	185	205	230	55	60	65
Capital gains treatment of iron ore.....	5	5	10	5	5	10
Agriculture:						
Expensing of certain capital outlays.....	80	70	75	375	445	460
Capital gains treatment of certain ordinary income.....	10	10	10	330	350	365
Deductibility of noncash patronage dividends and certain other items of cooperatives.....	455	490	525	-165	-175	-185
Commerce and housing credit:						
Dividend exclusion.....	-----	-----	-----	450	475	505
Exclusion of interest on State and local industrial development bonds.....	195	235	270	95	115	135
Exemption of credit union income.....	70	80	90	-----	-----	-----
Excess bad debt reserves of financial institutions.....	535	705	790	-----	-----	-----
Deductibility of mortgage interest on owner-occupied homes.....	-----	-----	-----	4,490	4,985	5,530
Deductibility of property tax on owner-occupied homes.....	-----	-----	-----	4,205	4,665	5,180
Deductibility of interest on consumer credit.....	-----	-----	-----	1,785	2,120	2,350
Expensing of construction period interest and taxes.....	475	500	525	150	140	90
Excess first-year depreciation.....	45	45	50	140	145	155
Depreciation on rental housing in excess of straightline.....	80	70	70	320	300	290

See footnote at end of table.

Table G-1. TAX EXPENDITURE ESTIMATES BY FUNCTION¹—Continued

(In millions of dollars)

Description	Corporations			Individuals		
	1977	1978	1979	1977	1978	1979
Commerce and housing credit—Continued						
Depreciation on buildings (other than rental housing) in excess of straight line.....	160	140	130	140	125	115
Asset depreciation range.....	1,955	2,245	2,640	100	115	135
Capital gains (other than farming, timber, iron ore, and coal).....	520	540	575	6,910	7,430	7,990
Deferral of capital gains on home sales.....	-----	-----	-----	890	935	980
Capital gains at death.....	-----	-----	-----	7,280	8,120	8,975
Corporate surtax exemption.....	3,875	3,885	3,540	-----	-----	-----
Investment credit.....	8,880	10,735	12,320	2,075	2,390	2,725
Credit for purchase of new homes.....	-----	-----	-----	100	-----	-----
Transportation:						
Deductibility of nonbusiness State gasoline taxes.....	-----	-----	-----	685	760	840
5-yr amortization on railroad rolling stock.....	-35	-40	-40	-----	-----	-----
Deferral of tax on shipping companies.....	130	105	85	-----	-----	-----
Community and regional development: 5-yr amortization for housing rehabilitation.....						
	10	5	5	15	10	5
Education, training, employment, and social services:						
Exclusion of scholarship and fellowship income.....	-----	-----	-----	245	295	330
Parental personal exemption for students age 19 or over.....	-----	-----	-----	750	770	790
Exclusion of employee meals and lodging (other than military).....	-----	-----	-----	280	300	325
Exclusion of contributions to prepaid legal services plans.....	-----	-----	-----	5	10	15
Investment credit for employee stock ownership plans (ESOPs).....	245	255	305	-----	-----	-----
Deductibility of charitable contributions (education).....	235	255	285	525	585	645
Deductibility of charitable contributions to other than education and health.....	290	315	350	3,935	4,370	4,855
Maximum tax on personal service income.....	-----	-----	-----	555	665	800
Credit for child and dependent care expenses.....	-----	-----	-----	475	525	575
Credit for employment of AFDC recipients and public assistance recipients under work-incentive programs.....	15	15	20	-----	-----	-----
Jobs credit.....	565	1,475	1,035	125	985	860
Health:						
Exclusion of employer contributions for medical insurance premiums and medical care.....	-----	-----	-----	5,560	6,340	7,225
Deductibility of medical expenses.....	-----	-----	-----	2,230	2,435	2,655
Expensing of removal of architectural and transportation barriers to the handicapped.....	5	10	10	-----	-----	-----
Deductibility of charitable contributions (health).....	145	160	175	790	875	970
Income security:						
Exclusion of social security benefits:						
Disability insurance benefits.....	-----	-----	-----	470	550	605
OASI benefits for retired workers.....	-----	-----	-----	3,790	4,210	4,700
Benefits for dependents and survivors.....	-----	-----	-----	860	950	1,040
Exclusion of railroad retirement system benefits.....	-----	-----	-----	250	265	280

See footnote at end of table.

Table G-1. TAX EXPENDITURE ESTIMATES BY FUNCTION¹—Continued

(In millions of dollars)

Description	Corporations			Individuals		
	1977	1978	1979	1977	1978	1979
Income security—Continued						
Exclusion of workmen's compensation benefits.....	-----	-----	-----	720	835	970
Exclusion of special benefits for disabled coal miners.....	-----	-----	-----	50	50	50
Exclusion of unemployment insurance benefits.....	-----	-----	-----	1,500	1,200	1,135
Exclusion of public assistance benefits.....	-----	-----	-----	330	345	360
Exclusion of sick pay.....	-----	-----	-----	110	75	60
Net exclusion of pension contributions and earnings:						
Employer plans.....	-----	-----	-----	8,715	9,940	11,335
Plans for self-employed and others.....	-----	-----	-----	1,390	1,650	1,920
Exclusion of other employee benefits:						
Premiums on group term life insurance....	-----	-----	-----	860	905	955
Premiums on accident and disability insurance.....	-----	-----	-----	70	75	80
Income of trusts to finance supplementary unemployment benefits.....	-----	-----	-----	10	10	10
Exclusion of interest on life insurance savings.....	-----	-----	-----	1,850	2,025	2,225
Exclusion of capital gains on home sales for persons age 65 and over.....	-----	-----	-----	40	70	70
Additional exemption for elderly.....	-----	-----	-----	1,140	1,155	1,215
Additional exemption for the blind.....	-----	-----	-----	20	20	20
Excess of percentage standard deduction over minimum standard deduction.....	-----	-----	-----	530	-----	-----
Deductibility of casualty losses.....	-----	-----	-----	320	360	395
Tax credit for the elderly.....	-----	-----	-----	230	250	255
Earned income credit:						
Nonrefundable portion.....	-----	-----	-----	365	285	265
Refundable portion.....	-----	-----	-----	900	945	900
Veterans benefits and services:						
Exclusion of veterans disability compensation.....	-----	-----	-----	745	840	830
Exclusion of veterans pensions.....	-----	-----	-----	35	40	40
Exclusion of GI bill benefits.....	-----	-----	-----	260	200	170
General government: Credits and deductions for political contributions.....						
-----	-----	-----	-----	85	60	75
General purpose fiscal assistance:						
Exclusion of interest on general purpose State and local debt.....	3,105	3,470	3,865	1,725	1,925	2,150
Deductibility of nonbusiness State and local taxes (other than on owner-occupied homes and gasoline).....	-----	-----	-----	7,660	8,505	9,440
Tax credit for corporations doing business in U.S. possessions.....	450	485	520	-----	-----	-----
Interest: Deferral of interest on savings bonds.....	-----	-----	-----	585	625	670
MEMORANDUM						
Combined effect of provisions disaggregated above:						
Capital gains.....	730	775	840	15,555	17,020	18,515
Exclusion of interest on State and local debt.....	3,470	3,925	4,400	1,905	2,150	2,415
Deductibility of State and local nonbusiness taxes.....	-----	-----	-----	11,105	12,325	13,680
Deductibility of charitable contributions....	670	730	810	5,250	5,830	6,470

¹ All estimates are based on the tax code as of Dec. 31, 1977.

Certain payments made by customers to water and sewage disposal utilities for the purpose of aiding the construction of new facilities are treated as contributions to capital rather than income.

From 1969 through 1975 a taxpayer could elect 5-year amortization of certified pollution control facilities installed in connection with a plant that was in operation before 1969. The taxes previously deferred under this provision are now being paid and as a result negative numbers appear in table G-1. In these years greater amounts of tax will be paid than if this provision had not been enacted. The Tax Reform Act of 1976 extended the 5-year amortization provision to pollution control facilities installed in connection with plants in operation before 1976. Under prior law, if taxpayers elected the 5-year amortization they could not claim the investment tax credit on the capital cost of the facility. The 1976 act provides that one-half of the investment tax credit can be claimed for such facilities. Revenue losses will result from these provisions in years after 1979.

Expenditures to preserve and restore certain historic structures are eligible for special accelerated depreciation. This provision does not apply to owner-occupied housing.

The gain on the cutting of timber and royalties from iron ore deposits are taxed at rates applicable to long-term capital gains, rather than at ordinary income rates.

Agriculture.—Farmers, other than certain corporations and partnerships engaged in agriculture, are allowed to deduct certain costs as current expenses even though these expenditures were for inventories on hand at the end of the year or for capital improvements that would not be expensed under normal accrual accounting. Capital gains treatment generally applies to the sale of livestock, orchards, vineyards, and comparable agricultural products.

Cooperatives may deduct cash and noncash patronage dividends based on net income earned on business done with patrons provided that 20% of the total dividend is paid in cash and the patron has agreed to include the entire dividend in income. Per-unit retains, that is, amounts retained from the value of products marketed for patrons, may be deducted by the cooperative if patrons agree to take the face amounts into current income. Agricultural cooperatives meeting certain requirements are permitted to deduct dividends on capital stock and payments to patrons from nonpatronage income. Rural electric and telephone cooperatives may deduct noncash patronage dividends, and patrons generally need not take such dividends into income. The tax expenditures result from the deductibility of noncash patronage dividends, retains, dividends on capital stock, and payments to patrons out of nonpatronage income. If non-cash patronage dividends and retains were not deductible by cooperatives, they would no longer be taken into current income by patrons and hence individual income taxes would be lower.

Commerce and housing credit.—Included here are a number of tax expenditure provisions that also affect economic activity in other functional categories. In general, provisions related to investment, such as some depreciation rules and the investment tax credit, also

affect economic activity in the natural resources and environment, energy, agriculture, and transportation categories. Some of the items in this category primarily affect individuals as investors, consumers, and holders of real and financial assets.

The first \$100 (\$100 per taxpayer on a joint return) of dividend income may be excluded from taxable income.

The interest on industrial development bonds issued by State and local governments is excluded from taxable income though the proceeds are used to finance private investment in manufacturing plants and other facilities. For that reason this item is classified here rather than under general purpose fiscal assistance.

Credit unions are exempt from Federal income taxes. Commercial banks, mutual savings banks, and savings and loan associations are permitted to deduct additions to bad debt reserves in excess of actual loss experience and reasonable expectations as to future losses. Commercial banks may maintain a reserve of 1.2% of uninsured loans. The ratio will phase down to 0.6% in calendar year 1982. Mutual savings banks and savings and loan associations may deduct 41% of income in calendar year 1978, provided they maintain stipulated fractions of their assets in "qualifying assets," primarily residential mortgages. Under current law their maximum deduction will decrease to 40% in 1979 and thereafter.

Owner-occupants of homes may deduct mortgage interest and property taxes (but not maintenance outlays or depreciation because the in-kind income from homeownership is not recognized) as itemized nonbusiness deductions. The tax expenditure from these two items combined is \$9.8 billion for 1979. This is less than the sum of the two separately because if both were deleted more taxpayers would save by using the standard deduction.

Interest paid on consumer credit for any purpose is allowed as an itemized nonbusiness deduction for individuals.

Prior to the Tax Reform Act of 1976 taxpayers could deduct on a current basis interest and property tax payments made during the period when a building was under construction rather than include these costs of construction, along with other costs, in the value of the completed structure, which would then be depreciated over its useful life. The 1976 act reduced this tax expenditure by providing that, for noncorporate taxpayers, construction period interest and taxes be capitalized and amortized over a 10-year period. The new provision is to be phased in over a 7-year period with more generous transition rules for Government-subsidized housing projects.

To the extent that allowable depreciation for tax purposes exceeds the rate at which assets actually depreciate, business tax liabilities are deferred. Businesses may employ a variety of depreciation schedules for tax purposes, some of which cause a much larger part of asset values to be written off in early years of the asset's useful life than do others. An extra first-year depreciation deduction of 20% may be claimed for \$10,000 of tangible personal property (\$20,000 on a joint return) having a useful life of at least 6 years. The revenue costs of allowing buildings and rental housing to be depreciated for tax purposes by methods that reduce asset value more rapidly than straight-line depreciation (the method typically used in financial statements) are shown. The asset depreciation range (ADR) system permits the

guideline lives of depreciable equipment to be reduced by 20%. The ADR system does not apply to property used abroad.

Half of net long-term gains from the sale of capital assets is excluded from income and up to \$25,000 of included gains may be taxed at a rate of 50%. The excluded half of net long-term capital gains is included in the base of the minimum tax. Capital losses may be deducted from gains but only a limited amount of net losses may be deducted in any 1 year from ordinary income. The Tax Reform Act of 1976 lengthened the holding period over which capital assets must be held to qualify as long-term gains and losses from 6 months to 9 months in 1977 and to 12 months in 1978 and thereafter. The act also increased the amount of ordinary income against which net capital losses may be offset in any 1 year from \$1,000 to \$2,000 in 1977 and to \$3,000 in 1978 and thereafter.

Corporations may elect a 30% alternative tax rate on capital gains. The tax expenditure is estimated on the assumption that these gains would otherwise be taxed at 48%.

Capital gains on the sale of a home are recognized only to the extent that the "adjusted sales price" exceeds the cost of a new home purchased and occupied within 18 months before or after the sale. If a new house is constructed it must be occupied within 2 years after the sale. The "adjusted sales price" is the amount realized (gross proceeds less selling expenses) minus qualified "fixing up" expenses. A loss on a sale of a home is not deductible. To the extent the gain on the sale of a home is not recognized, the basis of the home purchased is reduced thereby resulting in a deferral of the gain.

Capital gains on assets held at the owner's death are not subject to income tax. The estimate assumes that such gains would be treated as ordinary income in the year of death and is adjusted for any taxes paid by heirs on such gains under the carryover basis provisions of the Tax Reform Act of 1976. The estimate is not reduced by the reduction in estate taxes that would result if capital gains at death were taxed.

Under the permanent tax code, corporations pay income tax at the rate of 22% on all taxable income plus a surtax of 26% on taxable income in excess of \$25,000. Each corporation therefore receives a surtax exemption of \$25,000. This exemption is intended to encourage small or new business. For 1975 only, the Tax Reduction Act of 1975 provided that the tax rate on the first \$25,000 of taxable income be reduced to 20% and that the surtax exemption extend to the second \$25,000 of taxable income. This temporary provision has been extended through December 31, 1978.

The investment tax credit was temporarily increased from 7% to 10% (from 4% to 10% in the case of public utilities) by the Tax Reduction Act of 1975. The higher rate was extended through 1980 by the Tax Reform Act of 1976. The percentage is applied to the cost of qualifying property (generally, tangible personal property used in a trade or business) having a useful life of over 7 years. The investment tax credit cannot be claimed for investments in land or buildings or for property used abroad. Lower rates apply to property with useful lives of 3 to 7 years. The investment tax credit may be claimed as progress payments are made on property that takes 2 or more years to construct. The maximum credit that may be offset directly against

income tax liability in a taxable year is generally limited to \$25,000 plus one-half of the excess of tax liability over \$25,000. Excess credits may generally be carried back 3 taxable years and forward 7 taxable years, after which they expire if still unused.

The Tax Reduction Act of 1975 provided, for part of calendar year 1975 only and subject to certain conditions, a tax credit equal to 5% of the purchase price of a new home, up to a maximum credit of \$2,000. In a few cases taxpayers were not able to claim the credit until they filed their 1976 returns during fiscal year 1977.

Transportation.—Individuals who itemize their deductions may deduct State and local gasoline taxes. The deduction of excise taxes on gasoline used for ordinary business purposes does not result in a tax expenditure since they would in any case be deductible as a business expense.

Specified classes of railroad rolling stock are eligible for amortization over a 5-year period, whether owned by railroad companies or by lessors, rather than their longer, expected useful life. If 5-year amortization is elected the investment tax credit cannot be claimed. These provisions apply only to rolling stock placed in service before 1976. Greater amounts of tax are currently paid than if this provision had not been enacted because in most cases the 5-year amortization period has expired. Tax liabilities are now greater because no further depreciation can be claimed, hence the negative figures in table G-1.

Certain companies that operate U.S.-flag vessels on foreign trade routes receive an indefinite deferral of income taxes on that portion of their net income which is used for shipping purposes, primarily construction, modernization, and major repairs of ships. An investment credit of one-half the regular credit may be claimed on the tax-deferred amounts withdrawn from capital construction funds.

Community and regional development.—Taxpayers may, under certain conditions, elect to depreciate rehabilitation expenditures for low- and moderate-income rental housing over a 5-year period. Qualified rehabilitation expenditures may not exceed \$20,000 per dwelling unit and must exceed \$3,000. This provision expires on December 31, 1978.

Education, training, employment, and social service.—Recipients of scholarships and fellowships may exclude such amounts from taxable income, subject to certain limitations. The exclusion of educational benefits under the GI bill is included in the veterans benefits and services function.

Taxpayers may claim personal exemptions, and the related \$35 general tax credit, for dependent children 19 or over who receive income of \$750 or more per year only if the children are full-time students. The student may also claim an exemption on his or her own return, in effect providing a double exemption, one on the parents' return and one on the student's. The extra exemption for parents results in a tax expenditure.

Many employers provide employee benefits that are excluded from employee income. The employer's costs for these benefits are deductible business expenses. Included in the meals and lodging item is the exclusion of housing allowances and the rental value of parsonages

from the taxable income of ministers. Beginning in calendar year 1977, employer contributions to prepaid legal services plans and the value of legal services received under the plans are excluded from employee income. A corporation may claim an additional 1% investment tax credit if an equivalent amount of its common stock is set aside in an employee stock ownership plan (ESOP). A further one-half of 1% investment tax credit may be claimed if the resulting addition to an ESOP is matched by employee or employer contributions. Employees are generally prohibited from withdrawing their share of an ESOP for 7 years. The tax expenditures resulting from additional investment tax credits claimed under the ESOP provisions primarily benefit employees rather than the corporations which claim the tax credit. The exclusion of certain other benefits from employee income results in tax expenditures classified in the income security function.

Contributions to charitable, religious, and certain other nonprofit organizations are allowed as an itemized deduction for individuals, generally up to 50% of adjusted gross income. Taxpayers whose contributions to charitable or educational organizations are in the form of capital assets, usually securities, that have appreciated in value above their cost, obtain a deduction for the contribution at the appreciated value of the asset without taxation on the appreciation in value. Corporations may deduct charitable contributions up to 5% of their income. Tax expenditures resulting from the deductibility of contributions are shown separately here for contributions to educational institutions and to certain other institutions. Contributions to health institutions are reported under the health category.

The 50% maximum tax on personal service income applies to earned income and certain pensions, annuities, and deferred compensation. The amount to which the maximum tax applies is offset by preference items included in the base of the minimum tax.

A 20% tax credit may be claimed by married couples for child and dependent care expenses incurred to enable both spouses to work or when one spouse works part-time or is a student. The credit may also be claimed by a divorced or separated parent who has custody of a child. Expenditures up to a maximum of \$2,000 for one dependent and \$4,000 for two or more are eligible for the 20% credit.

A credit is allowed against income tax liability equal to 20% of first-year wages and salaries of employees who were placed in employment under the work incentive program or were previously AFDC recipients. The credit for a taxable year cannot exceed \$50,000 plus 50% of the excess over that amount.

The jobs credit was introduced by the Tax Reduction and Simplification Act of 1977. For calendar years 1977 and 1978 employers whose employment has increased by more than 2% over the previous year will generally be able to claim a tax credit of \$2,100 per additional employee. The aggregate credit is limited to \$100,000 per employer. An additional credit of \$420 may be claimed for each newly hired handicapped worker who has undergone a program of vocational rehabilitation. This additional credit may be claimed without regard to the \$100,000 limit. Wages offset by the credit may not be treated as deductible business expenses.

Health.—Payments by employers for health insurance premiums and other medical expenses are deducted as business expenses by

employers and excluded from income by employees. The exclusion from employees' income gives rise to the tax expenditure.

Medical expenses in excess of 3% of adjusted gross income, including expenditures for prescribed drugs and medicines in excess of 1% of adjusted gross income, may be deducted by individuals as itemized nonbusiness deductions. Individuals may also deduct half of the premiums they pay for medical care insurance up to a maximum deduction of \$150 per year, without regard to the 3% limitation.

Taxpayers may elect to deduct up to \$25,000 per year as a current expense expenditure that would otherwise be treated as a capital outlay for removing architectural and transportation barriers to the handicapped and elderly in any facility or public transportation vehicle used in a trade or business.

Contributions to nonprofit health institutions are allowed as a deduction for individuals and corporations. (See the discussion of other charitable contributions under education, training, employment, and public services.)

Income security.—Most forms of government transfer payments to individuals, such as social security and unemployment benefits, are excluded from taxable income. If the taxpayer had no other source of income, these payments, even if taxable, would not generally be sufficient to result in any tax liability, given personal exemptions and the standard deduction. Since some recipients have property income, receive earnings (in some instances for only part of a year), or may file jointly with working spouses, tax expenditures result from these exclusions.

Under prior law, certain payments, up to \$100 per week, financed by an employer in lieu of wages during periods of employee injury or sickness were excluded from the employee's taxable income. The Tax Reform Act of 1976 repealed the sick pay exclusion except for persons under the age of 65 who are permanently and totally disabled. For these individuals the exclusion is reduced dollar for dollar for adjusted gross income (including disability income) in excess of \$15,000. The Tax Reduction and Simplification Act of 1977 postponed the effective date of the 1976 act provisions until January 1, 1977 for taxpayers choosing to make such an election.

Certain contributions to pension plans paid by employers and amounts set aside by the self-employed and employees not covered by an employer's plan are excluded from the individual's gross income in the year of contribution. The investment income earned by pension funds is not taxable currently. The resulting tax expenditures are composed of two elements: lower effective tax rates after retirement, due to lower incomes and special tax provisions enjoyed by the aged; and the excess of aggregate current contributions and investment earnings over aggregate amounts paid out in benefits. Self-employed persons can make deductible contributions to their own retirement plans equal to 15% of their income up to a maximum of \$7,500 per year. Employees not covered by an employer's plan may deduct annual contributions of 15% of compensation, up to a maximum of \$1,500, or \$1,750 if the retirement account is owned jointly by a husband and wife.

The exclusion from employee income of certain other employer payments including payments for premiums on group life insurance and accident and disability insurance are categorized here because of their

relationship to income security. The exclusion of certain other fringe benefits are listed under education, training, employment, and social services.

Life insurance policies, other than term policies, generally have a saving element in them. Savings in the form of policyholder reserves are accumulated from premium payments, and interest is earned on the reserves. Such interest income is taxable neither as it accrues nor when received by beneficiaries.

A taxpayer 65 or older may exclude from gross income any capital gain allocated to the first \$35,000 of the adjusted sales price on a sale of a personal residence. A taxpayer may take advantage of this provision only once.

The Tax Reduction and Simplification Act of 1977 substituted flat standard deductions, \$2,200 for single taxpayers and \$3,200 for married couples filing jointly, for the option under prior law of a low-income allowance or the percentage standard deduction. The percentage standard deduction was a substitute for itemizing personal deductions; the estimates shown are for the amount by which the percentage standard deduction exceeded the low-income allowance or the itemized deductions that would have been taken in the absence of that provision, whichever was greater. The percentage standard deduction limited tax liability for many taxpayers, predominately in the middle-income range, and for that reason is classified under income security.

Additional personal exemptions of \$750 may be deducted by taxpayers who are over 65 or blind. These additional exemptions may not be claimed for a taxpayer's dependents.

The retirement income tax credit was substantially changed by the Tax Reform Act of 1976 and renamed the "credit for the elderly." Under prior law, individuals who were over age 65 could claim a tax credit of 15% of retirement income from all sources except social security, railroad retirement, and other tax-exempt benefits. The maximum amount of retirement income to which the 15% credit applied was \$1,524 for a single person and \$2,286 for a married couple where one spouse had worked prior to retirement and \$3,049 if both had worked. The provision was designed to provide taxpayers with taxable retirement income a tax benefit approximately comparable to that accorded recipients of social security and similar tax-exempt benefit payments. The 1976 act simplified eligibility rules and increased the maximum base for the credit to \$2,500 for a single person and to \$3,750 for a married couple. It also eliminated the parallel to social security by making the credit available for earned income as well as retirement income. Under the new act the base upon which the credit is calculated continues to be reduced by tax-exempt social security and retirement income and the credit is phased out at levels of adjusted gross income above \$7,500 for a single person and \$10,000 for a married couple. The Tax Reduction and Simplification Act of 1977 postponed the effective date of the 1976 act provision until January 1, 1977 for taxpayers choosing to make such an election.

The aggregate effect of excluding social security and railroad retirement benefits for retirees, the additional exemption for persons over 65, and the credit for the elderly is a revenue loss of \$5.7 billion in 1977, \$6.2 billion in 1978, and \$6.8 billion in 1979. These aggre-

gates are greater than the sum of the individual estimates because more elderly persons would be pushed to tax paying levels of income or into higher tax brackets if all of these items were deleted from the tax code.

Life insurance policies, other than term policies, generally have a saving element in them. Savings in the form of policyholder reserves are accumulated from premium payments, and interest is earned on the reserves. Such interest income is taxable neither as it accrues nor when received by beneficiaries.

Taxpayers generally may deduct as an itemized nonbusiness deduction the amount in excess of \$100 for each loss due to fire, theft, or other casualty to the extent not compensated by insurance or other payments.

The Tax Reduction Act of 1975 established, on a temporary basis, an earned income credit for low-income workers with dependents. The maximum credit is 10% of a worker's first \$4,000 of earned income and phases out at \$8,000 of earned income or adjusted gross income, whichever is greater. Credits in excess of tax liabilities otherwise owed are paid to individuals. The earned income credit has been extended through calendar year 1978.

Veteran benefits and services.—All compensation due to death or disability and pensions paid by the Veterans Administration are excluded from taxable income. GI bill benefits are also excluded.

General Government.—Political contributions up to a maximum of \$100 (\$200 in the case of joint returns) may be deducted, or tax credits may be taken up to one-half of contributions but limited to \$25 (\$50 on joint returns).

General purpose fiscal assistance.—The interest on State and local government debt is excluded from Federal taxation. Both corporations, mainly commercial banks, and individuals receive this tax-exempt income. As a result, these governments are able to sell debt obligations at a lower interest cost than would be possible if such interest were subject to tax. The exclusion of interest on State and local government securities issued to finance pollution control facilities and other industrial development bonds are classified elsewhere; only the effect of excluding interest on general purpose obligations and revenue bonds for public purposes such as toll roads is estimated for this function. The estimated revenue loss from all tax-exempt bonds is \$6.8 billion for 1979.

The deductibility of nonbusiness State and local taxes provides indirect assistance to these governments. The deductibility of property taxes on owner-occupied homes and excise taxes on gasoline are classified elsewhere. The estimates shown here are primarily for the deductibility of State and local income and sales taxes. The deductibility of all nonbusiness State and local taxes results in an estimated tax expenditure of \$13.7 billion in 1979.

U.S. corporations receiving income from sources in a U.S. possession can, under certain conditions, claim a special tax credit equal to the U.S. tax, but only on income from sources in a U.S. possession.

Interest.—Holders of U.S. savings bonds are not required to include the interest on these securities in their taxable income until the bonds are redeemed, thereby deferring tax liabilities.

PROPOSED CHANGES IN TAX EXPENDITURES

The tax reduction and reform proposals that are part of the 1979 budget will affect nearly every tax expenditure item, either directly by repealing or substantially modifying existing provisions or indirectly by altering the normal structure of the individual and corporation income tax. In addition, the proposed national energy plan would introduce new tax expenditure items. A complete listing of tax expenditures for 1979 based on all the tax proposals in the budget is given in table G-2.

Table G-2. TAX EXPENDITURE ESTIMATES FOR 1979 BY FUNCTION UNDER THE TAX PROPOSALS INCLUDED IN THE 1979 BUDGET

(In millions of dollars)

Description	Corporations	Individuals ¹
National defense:		
Exclusion of benefits and allowances to Armed Forces personnel.....	-----	1,165
Exclusion of military disability pensions.....	-----	100
International affairs:		
Exclusion of income earned abroad by United States citizens.....	-----	365
Deferral of income of domestic international sales corporations (DISC).....	870	-----
Deferral of income of controlled foreign corporations.....	495	-----
Special rate for Western Hemisphere trade corporations.....	15	-----
General science, space, and technology:		
Expensing of research and development expenditures.....	1,455	30
Energy:		
Expensing of exploration and development costs.....	935	330
Excess of percentage over cost depletion.....	1,140	350
Residential energy credits:		
Thermal efficiency.....	-----	705
Solar energy.....	-----	100
Business energy credits:		
Thermal efficiency.....	245	95
Cogeneration.....	60	-----
Alternative energy.....	10	-----
Capital gains treatment of royalties on coal.....	15	55
Natural resources and environment:		
Exclusion of interest on State and local government pollution control bonds.....	260	125
Exclusion of payments in aid of construction of water and sewage utilities.....	10	-----
5-yr amortization on pollution control facilities.....	135	-----
Tax incentives for preservation of historic structures.....	5	5
Capital gains treatment of certain timber income.....	190	60
Capital gains treatment of iron ore.....	5	5
Agriculture:		
Expensing of certain capital outlays.....	70	430
Capital gains treatment of certain ordinary income.....	10	330
Deductibility of noncash patronage dividends and certain other items of cooperatives.....	500	-165

See footnote at end of table.

Table G-2. TAX EXPENDITURE ESTIMATES FOR 1979 BY FUNCTION UNDER THE TAX PROPOSALS INCLUDED IN THE 1979 BUDGET—Con.

(In millions of dollars)

Description	Corporations	Individuals ¹
Commerce and housing credit:		
Dividend exclusion.....		460
Exclusion of interest on State and local industrial development bonds.....	260	135
Exemption of credit union income.....	75	
Excess bad debt reserves of financial institutions.....	460	
Deductibility of mortgage interest on owner-occupied homes.....		4,285
Deductibility of property tax on owner-occupied homes.....		4,095
Deductibility of interest on consumer credit.....		1,820
Expensing of construction period interest and taxes.....	500	90
Excess first-year depreciation.....	50	155
Depreciation on rental housing in excess of straightline.....	65	290
Depreciation on buildings (other than rental housing) in excess of straightline.....	100	105
Asset depreciation range.....	2,540	135
Capital gains (other than farming, timber, iron ore, and coal).....	500	7,245
Deferral of capital gains on home sales.....		890
Capital gains at death.....		8,140
Corporate surtax exemption.....	4,228	30
Investment credit.....	14,445	2,640
Transportation:		
5-yr amortization on railroad rolling stock.....	-40	
Deferral of tax on shipping companies.....	80	
Community and regional development:		
5-yr amortization for housing rehabilitation.....	5	5
Education, training, employment, and social services:		
Exclusion of scholarship and fellowship income.....		280
Parental personal exemption for students age 19 or over.....		720
Exclusion of employee meals and lodging (other than military).....		275
Exclusion of contributions to prepaid legal services plans.....		15
Investment credit for employee stock ownership plans.....	305	
Deductibility of charitable contributions (education).....	270	545
Deductibility of charitable contributions to other than education and health.....	335	4,505
Maximum tax on personal service income.....		755
Credit for child and dependent care expenses.....		555
Credit for employment of AFDC recipients and public assistance recipients under work incentive programs.....		
Jobs credit.....	1,035	860
Health:		
Exclusion of employer contributions for medical insurance premium and medical care.....		6,140
Deductibility of medical expenses and casualty losses.....		645
Expensing of removal of architectural and transportation barriers to the handicapped.....	10	
Deductibility of charitable contributions (health).....	165	820
Income security:		
Exclusion of social security benefits:		
Disability insurance benefits.....		495
OASI benefits for retired workers.....		3,840
Benefits for dependents and survivors.....		850
Exclusion of railroad retirement system benefits.....		230
Exclusion of workmen's compensation benefits.....		825
Exclusion of special benefits for disabled coal miners.....		45
Exclusion of unemployment insurance benefits.....		870
Exclusion of public assistance benefits.....		255
Exclusion of sick pay.....		50

See footnote at end of table.

Table G-2. TAX EXPENDITURE ESTIMATES FOR 1979 BY FUNCTION UNDER THE TAX PROPOSALS INCLUDED IN THE 1979 BUDGET—Con.

(In millions of dollars)

Description	Corporations	Individuals ¹
Income security—Continued		
Net exclusion of pension contributions and earnings:		
Employer plans.....		9,930
Plans for self-employed and others.....		1,830
Exclusion of other employee benefits:		
Premiums on group term life insurance.....		810
Premiums on accident and disability insurance.....		70
Income of trusts to finance supplementary unemployment benefits.....		10
Exclusion of interest on life insurance savings.....		2,035
Exclusion of capital gains on home sales for persons age 65 and over.....		65
Additional exemption for the elderly.....		1,390
Additional exemption for the blind.....		20
Tax credit for the elderly.....		205
Earned income credit:		
Nonrefundable portion.....		50
Refundable portion.....		1,115
Veterans benefits and services:		
Exclusion of veterans disability compensation.....		750
Exclusion of veterans pensions.....		35
Exclusion of GI bill benefits.....		155
General Government:		
Credit and deductions for political contributions.....		70
General purpose fiscal assistance:		
Exclusion of interest on general purpose State and local debt.....	3,695	2,125
Deductibility of nonbusiness State and local taxes (other than on owner-occupied homes).....		5,745
Tax credit for corporations doing business in U.S. possessions.....	500	
Interest:		
Deferral of interest on savings bonds.....		610

MEMORANDUM

Combined effect of provisions disaggregated above:		
Capital gains.....	720	16,790
Exclusion of interest on State and local debt.....	4,215	2,385
Deductibility of State and local nonbusiness taxes.....		9,015
Deductibility of charitable contributions.....	770	5,870

¹ Assumes tax rates and structure in effect Jan. 1, 1979.

The normal structure of the individual income tax will be altered by reducing rate schedules and substituting a personal credit of \$240 for the current \$750 deduction for personal exemptions and the general tax credit, effective in calendar year 1978. The personal credit will be augmented by \$15 in calendar year 1978 and \$30 in calendar year 1979 as a means of rebating the crude oil equalization tax proposed as part of the national energy plan. In addition to reducing tax receipts, these changes will reduce the revenue loss associated with many tax expenditure items, particularly for those items that exclude amounts from the income subject to tax of lower income taxpayers. The proposed personal credit will affect tax expenditures resulting from the extra exemptions for parents of students over 18, the elderly, and the blind. The proposed repeal of the deduction of one-half of regular taxes

paid from the base of the minimum tax for individuals will reduce further the revenue loss associated with the tax expenditure items that enter into the base of the minimum tax. The proposed expansion of the "at risk" rules of the Tax Reform Act of 1976 to apply to a wider range of tax shelter investments will have an indirect effect on some tax expenditure items that cannot be reflected in the estimates.

The normal structure of the corporation income tax would be altered by reducing the maximum corporate rate from 48% to 45% beginning October 1978 and to 44% in 1980 and thereafter. This rate reduction will reduce most tax expenditures associated with the corporation income tax.

The administration's tax proposals are also discussed in Parts 2 and 4 of the budget. Some of these proposals, such as energy-related excise taxes and limitations on allowable deductions for business entertainment, meals and travel, do not affect tax expenditures.

The following discussion highlights proposals to eliminate or directly modify existing tax expenditures or add new tax expenditure items. The discussion is organized by functional area.

International affairs.—The deferral of income currently allowed domestic international sales corporations will be phased out over a 3-year period beginning in calendar year 1979. The deferral of income of controlled foreign corporations will also be phased out over that same 3-year period. The effective date of the provision of the Tax Reform Act of 1976 regarding income earned by Americans abroad will be postponed until January 1, 1978.

Natural resources and environment.—The use of tax-exempt industrial development bond financing for private pollution control facilities will be terminated effective January 1, 1979. Pollution control facilities and equipment will be eligible for the full 10% investment tax credit even if the property is eligible for 5-year amortization. The effective date of this provision will be January 1, 1978.

Energy.—As a part of the national energy plan new tax expenditures will encourage energy conservation and the conversion from the use of oil and natural gas to other energy sources. Taxpayers will be able to claim a tax credit of 25% of the first \$800 and 15% of the second \$800 spent for insulation or certain other energy-saving improvements on the taxpayer's principal residence. The total amount of the credit allowed for any individual with respect to the same principal residence will be limited to \$410 over taxable years 1977 through 1984. Taxpayers will be able to claim a tax credit of 40% of the first \$1,000 and 25% of additional expenditures up to a maximum credit of \$2,000 during taxable years 1977 through 1979 for certain home solar energy equipment. The amounts of the credit will diminish for taxable years 1980 through 1984. Expenditures made after April 20, 1977, will be eligible for both credits.

An additional 10% investment tax credit will apply to four separate classes of energy related property—cogeneration property that allows electricity to be produced together with production of heat or steam for other purposes, alternative energy property that is associated with the use of coal or other fuels other than oil and gas, solar energy

equipment, and property that reduces the amount of energy consumed to heat or cool buildings or to carry on manufacturing or production processes. Expenditures for these classes of property may not be used as credits against the proposed oil and gas use tax. The proposal to set a 90% limit on investment tax credits that may be claimed as offsets to regular tax liabilities would also apply to these new, additional investment tax credits.

The temporary provision of the Tax Reduction and Simplification Act of 1977 that removed intangible drilling costs to the extent of related income from the base of the minimum tax will be made permanent. The expensing of intangible drilling costs would be extended to wells drilled for geothermal energy sources.

Agriculture.—All corporate farms with gross receipts of more than \$1 million and not taxed like partnerships will be required to use accrual accounting thus reducing the tax expenditures resulting from the expensing of certain items.

Commerce and housing credit.—Credit unions would be subject to tax but be allowed to claim bad debt deductions on the same basis as savings and loan associations and mutual savings banks. To phase in this provision, credit unions will be able to claim bad debt deductions equal to 86% of net income in calendar year 1979; that percentage will phase down to 30% in 1983. The percentage of net income that savings and loan associations and mutual savings banks may claim as a bad debt deduction will phase down from 41% in 1978 to 30% in 1983. The bad debt provision for commercial banks will be repealed effective January 1, 1979.

Bonds issued by State or local governments but used to finance private industrial parks and plants will generally be denied tax-exempt status. Tax exemption will be retained for plants built in economically distressed areas and the current law limit on the size of projects eligible for such financing will be doubled to \$10 million, but the limit on the size of any issue will be retained at \$1 million.

Taxpayers will generally be required to depreciate buildings under the straight-line method over the average lives presently in use. Accelerated depreciation will be permitted for multifamily housing (150% declining balance method) and low-income housing (200% declining balance method).

The alternative tax of 25% on up to \$50,000 of capital gains will be repealed effective January 1, 1979. The untaxed half of any gain on the sale of a principal residence would be removed from the base of the minimum tax.

The tax expenditure for the corporate surtax exemption will be expanded by permanently reducing the corporate tax rate from 20% to 18% on the first \$25,000 of corporate income and from 22% to 20% on the second \$25,000 of corporate income effective October 1, 1978.

The 10% investment tax credit will be extended to industrial and utility structures and a flat 90% limit on the portion of tax that may be offset with the investment tax credit will replace the current provisions, which generally allows 100% of the first \$25,000 of tax liability to be offset and 50% of any additional tax liability. The 10% rate will be made permanent.

Transportation.—The deductibility of nonbusiness State and local gasoline taxes will be repealed.

Community and regional development.—The provision allowing 5-year amortization for housing rehabilitation will be extended.

Health.—The exclusion of employer contributions for medical insurance premiums and medical care will continue to be permitted only if such plans meet new tests to assure that lower compensated employees are not discriminated against. The deductibility of medical expenses will be modified to allow a deduction for medical expenses and uninsured casualty losses only to the extent that they exceed 10% of adjusted gross income.

Income security.—Unemployment compensation will be subject to tax for single individuals with income in excess of \$20,000 and for married couples with income in excess of \$25,000. Unemployment compensation will be brought into income subject to tax at the rate of 50 cents for each dollar of income above these threshold levels. The exclusion of pension fund contributions and earnings from employee income for plans which integrate with social security benefits will continue only for plans that meet new rules regarding integration to assure that lower compensated employees are not discriminated against. Similar rules will be applied to plans providing life insurance or disability insurance. The exclusion of employer paid death benefits will be repealed. The earned income credit will be extended through calendar year 1981 and then expanded in 1982 as part of welfare reform. Interest will be taxed on a current basis on certain large annuity contracts (not life insurance policies).

General government.—The deduction for political contributions will be repealed; the credit will be retained.

General purpose fiscal assistance.—State and local governments will be provided a Federal interest subsidy if they elect to issue securities in a taxable rather than tax-exempt form. As this option is elected for new issues, the revenue loss associated with tax exemption will decline. An interest subsidy of 35% will be provided for bonds issued in calendar years 1979 and 1980, and 40% for bonds issued thereafter. All securities currently eligible for tax exemption will be eligible for tax exemption or this option except certain industrial development bonds: those issued for private pollution control facilities, those issued for industrial plants in areas that are not economically distressed, and those issued for new hospitals that have not been certified as needed by the State. The deductibility of State and local sales, personal property, and certain miscellaneous taxes will be repealed effective January 1, 1979.

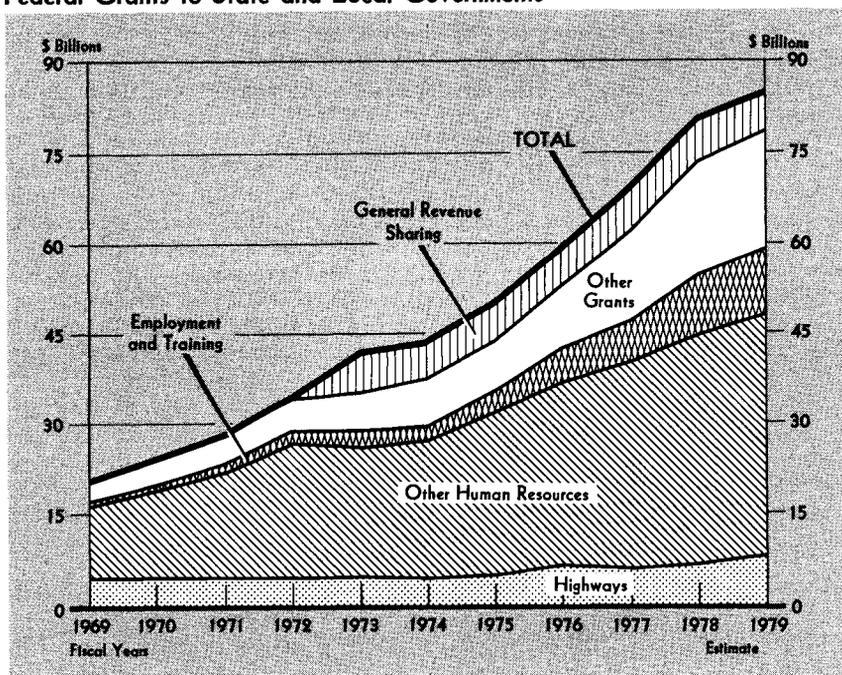
SPECIAL ANALYSIS H

FEDERAL AID¹ TO STATE AND LOCAL GOVERNMENTS

State and local governments play a vital role in meeting the Nation's needs. The Federal Government makes an important contribution to that role by providing grants-in-aid and loans to State and local governments.

Federal grant-in-aid outlays to State and local governments are expected to be \$85.0 billion in 1979, 6% higher than the estimated 1978 total of \$80.3 billion, and 24% more than the 1977 total of \$68.4 billion. The substantial increase in 1978 grants above 1977 is due primarily to the economic stimulus programs. As these programs phase out with economic recovery, the increase in grants diminishes. From 1967 to 1977, the average annual increase in grants was 16.2% while total Federal outlays grew by 9.8% per year, and gross national product by 9.0% per year.

Federal Grants to State and Local Governments



¹ Federal aid to State and local governments is defined as the provision of resources by the Federal Government to support a State or local program of governmental service to the public. The three primary forms of aid are grants-in-aid (including shared revenues), loans, and tax expenditures. Unless specifically indicated to the contrary, reference to "Federal aid" or "grants" in this analysis is confined to grants-in-aid, including shared revenues.

The 1979 grant programs are characterized by:

- The strong underlying growth referred to above. Grants will continue to account for one-sixth of total Federal spending and more than one-quarter of State and local spending.
- Continued rapid growth in grants for human resources programs, centering around:
 - a major initiative to reform the existing welfare programs and make them direct Federal programs;
 - special attention to training and employment programs; and
 - substantial increases for education, particularly for low income, low achievers.
- A sharp upturn in ground transportation grants, with proposed greater flexibility in allocating funds between highways and mass transit.
- A determined effort to simplify the administrative requirements related to grants. In this connection, extension of advance funding to additional programs was announced in December 1977, and significant progress has been made in reducing planning requirements.

HIGHLIGHTS OF THE FEDERAL AID PROGRAM

Grant programs.—The administration's major initiative affecting Federal aid is the *better jobs and income* proposal, designed to reform the present welfare programs. This proposal consists of three parts: reform of cash assistance; expansion of employment programs including, where appropriate, public service jobs; and expansion of the earned income tax credit. The first two include major Federal aid programs.

The *cash assistance* component of this proposal would begin in 1981 and consolidate food stamps, supplemental security income, and aid to families with dependent children (AFDC) into one cash payment financed primarily by the Federal Government. The food stamps and supplemental security income programs are now financed directly by the Federal Government and are not grants-in-aid. The AFDC program, currently a \$6 billion grant-in-aid requiring an almost equal amount of State and local matching funds, would become a direct Federal program, with States having the options of both supplementing the payments and providing staff to process client applications.

The *employment opportunities* component of the welfare reform proposal, which is title II of the proposed Better Jobs and Income Act, would begin in 1979, with an estimated \$35 million in outlays for States and localities to develop plans for the new program. The actual placement, training, and related services systems, including public service jobs, would begin in 1980. The proposed legislation authorizes up to 1.4 million subsidized public sector jobs for primary earners, in families with children, who are unable to find unsubsidized work. Outlays would increase to about \$11.1 billion in 1983.

Energy grants to States are estimated to increase significantly in keeping with the national energy plan. Outlays for energy conservation grants are expected to increase 188% from 1978. Major emphasis will be placed on the funding of energy conservation improvements for schools, hospitals, and the homes of low-income individuals. Grants for State planning of State and local energy conservation activities will continue under these budget proposals. The budget also includes funds for the expansion of the Energy Extension Service to a nationwide program. The Service is expected to provide energy conservation

and solar information to individuals, farmers, and small businesses. Legislation to improve the State grants programs will be proposed after completion in the spring of a study on the role of State governments in implementing energy policy.

Outlays for construction of *water sewage treatment plants* are expected to increase from an estimated \$4.1 billion in 1978 to \$4.7 billion in 1979. This program provides grants to both State and local governments for 75% of the cost of planning, designing, and constructing water sewage treatment plants. More than 11,000 projects are already underway, and nearly all of the authorized \$18 billion has been obligated. Legislation has been enacted to provide \$15.2 billion in estimated outlays for 1980-82 to continue this program.

The administration is proposing several important changes in existing *ground transportation* grants. Over a 4-year period the changes would provide substantially more flexibility to States and localities in the use of these grants by reducing the number of narrowly defined programs and by allowing more flexibility in allocating funds between highways and mass transit. In order to encourage completion of the interstate system, States would be required to have completed all environmental impact statements for this system by no later than 1982. If they choose, they may transfer interstate highway program funds to substitute mass transit for highway projects by 1982.

Outlays for the *Federal-aid for highways* portion of ground transportation grants (financed from the highway trust fund) are estimated to be \$7.1 billion in 1979, an increase of \$0.7 billion over 1978. All of these funds go directly to State governments, and approximately half are used to continue construction on incomplete segments of the interstate highway system.

Outlays for *urban mass transportation* continue to grow, and are estimated to be \$2.2 billion in 1979, a 13% increase over 1978 and a 34% increase over 1977. More than four-fifths of the grant funds go to the 25 metropolitan areas with a population of 1 million or more, a number of which have or are building rapid transit systems. The remainder is primarily for bus systems in smaller communities. In 1979 the administration is proposing to double the proportion of transit funds allocated by formula. This will be achieved by decreasing discretionary Federal allocations and will have the affect of increasing funding predictability at the local level.

The *community development block grant funds* will continue to provide assistance directly to local governments. Recipients have considerable freedom in selecting projects for this program, so long as they are within the general guidelines of community development. The reauthorization in 1978 changed the way funds are allocated to communities. The enacted legislation provides that entitlements may be calculated using the original formula (population, poverty, and housing overcrowding) or an alternative formula (poverty, relative loss of population, age of housing). Outlays for the program for 1979 are estimated to be \$2.8 billion, an increase of \$0.2 billion over 1978. The community development outlays include activities in the urban development action grant program. This program provides one-time grants to severely distressed cities and urban counties to supplement local government and private sector financing for major urban revitalization projects. For a discussion of other urban programs, see the community and regional development section of Part 5 of the Budget.

The *local public works* program was expanded as part of the administration's economic stimulus program to assist local governments with construction projects and to decrease unemployment. Outlays are expected to be \$2.3 billion in 1978, decreasing to \$2.0 billion in 1979.

For *education* grants, the 1979 budget includes \$5.9 billion in estimated outlays for elementary, secondary, and vocational education. Funds are provided to State and local education agencies in the form of formula and discretionary grants. The largest share of these funds will provide supplementary educational services to low-income, low-achieving students under the basic title I, elementary and secondary education program, with an estimated \$3.0 billion in 1979 outlays for disadvantaged students. Emphasis will be on improving basic skills—especially reading. Budget authority for handicapped programs is proposed to increase \$339 million in 1979 to \$804 million. This increase will assist States with the additional costs necessary for educating handicapped children.

The *impact aid* program compensates school districts for the extra burden of educating children of Federal employees, since property tax revenues of these districts have been reduced as the result of Federal ownership of local property. Legislation is being proposed to limit impact aid to those districts where an economic burden truly exists because of reduced tax revenue.

In addition, 1979 budget authority of \$680 million is requested for the *Head Start* program, a \$55 million increase over 1978, with estimated outlays of \$612 million. The program will be expanded to increase enrollments nationwide.

Appropriations authorized for the major portions of the Comprehensive Employment and Training Act (CETA), which includes most *employment and training* programs, expire at the end of 1978. The administration proposes the continuation of CETA, with more emphasis on programs that provide permanent, private sector employment and on targeting grants to individuals and areas of greater need.

Total grant outlays for employment and training programs are proposed to be \$11.1 billion in 1979, an increase of 11% over 1978 and 75% more than in 1977. These programs were increased substantially in 1977 and 1978 due to high unemployment, and although the economy continues to improve, unemployment remains unacceptably high and substantial aid is still needed. The administration sought and received funds to provide 725,000 public service jobs by mid-1978, and is requesting funds to continue at this level for 1979. Improvements in the economy may permit gradual declines in some employment and training programs after 1979, although a permanent program of public service jobs would be retained primarily for areas with high unemployment. In addition, standby authority will be sought for public service jobs so that if future economic downturns are severe, additional jobs could be funded.

Grants for *social services* also meet a critical national need. These programs assist the disadvantaged and disabled to be self-sufficient. Outlays for the public assistance portion of these programs in 1979 are estimated to be \$2.8 billion, 12% higher than the 1977 estimate. The 1978 estimate of \$3.2 billion is unusually high because of \$543 million of

retroactive payments for 1972. These payments result from claims brought by the States for obligations incurred under former regulations and not reimbursed by the Federal Government.

The *medicaid* program continues to be a large grant-in-aid with estimated outlays of \$12.0 billion in 1979. This program supports State efforts to provide health services to eligible residents. Several legislative initiatives will expand coverage under the program in 1979. The child health assessment program (CHAP) will extend medical screening and services to 1,700,000 low-income children and youth under the age of 21 not previously covered. An additional 100,000–125,000 low-income mothers and expectant mothers will become eligible for needed medical services under another administration proposal.

Outlays for *assistance payments* (aid to families with dependent children) are expected to be \$6.8 billion in 1979, about the same as 1978. Under the administration's welfare reform proposal, this grant program would be terminated in 1981 and become a direct Federal program.

Outlays for the public *housing* and State agency components of the Department of Housing and Urban Development's assisted housing programs are estimated to increase 20%, from \$2.5 billion in 1978 to \$3.0 billion in 1979. These increases reflect the additional number of low-income families receiving housing services from public housing and State agency housing projects and the increased costs of providing those services.

Outlays for *law enforcement assistance* grants are estimated to decrease \$93 million to \$537 million in 1979. Efforts are being made to create a more efficient and effective program and limit unnecessary administrative expenses.

General revenue sharing was first enacted in 1972 as an annual \$6 billion grant that gave virtually unlimited discretion for its use to recipient governments. It was reauthorized in 1976 for 3¾ years, through 1980, providing \$25.6 billion during this period. The enacted legislation will continue the program with outlays estimated at \$6.9 billion in 1979. One-third of these funds go to State governments and two-thirds to local governments. The legislation places increased emphasis on eliminating discrimination and requires grantees to have public hearings on the use of the funds. Units of government that receive \$25,000 or more in a year must have an independent audit of all transactions at least every 3 years. Grantees are no longer limited to spending the funds for activities formerly specified by the act, and funds may now be used as the non-Federal matching share for other Federal grants.

A temporary program designed to assist communities especially troubled by unemployment is the *antirecession fiscal assistance program*, reauthorized for the period through September 30, 1978. For each quarter, \$125 million is allocated, plus \$30 million per quarter for each one-tenth percentage point that the national unemployment rate, lagged two quarters, exceeds 6%. In addition, the unemployment rate must have been over 6% the last month of the quarter ending two quarters earlier. For example, for the quarter beginning July 1977, \$515 million was allocated because the national unemployment rate was 7.3% the first quarter of calendar year 1977.

Two-thirds of the grants are for localities that had an average

unemployment rate of more than 4.5% two quarters earlier (the rate for the last month of that quarter must also be over 4.5%). The other third of the grants is distributed to States under the same formula. The amount each State receives is determined by the excess unemployment rate over 4.5% and the size of its general revenue sharing payment. The funds may be used to match other Federal grants. Approximately 26,000 units of State and local governments are expected to benefit from this program.

The administration is proposing an extension of this program. Outlays are estimated to be \$1.0 billion in 1979, \$522 million less than in 1978.

Loans.—Another form of Federal aid to State and local governments is direct loans. Short- and long-term direct loan disbursements (excluding repayments) are expected to be \$1.7 billion in 1979. A major loan program now in effect is the *New York City seasonal financing fund*. Under this program, which expires June 30, 1978, the Treasury Department is authorized to lend New York City up to \$2.3 billion each year through June 1978. The city is charged an interest rate 1 percentage point above the Treasury borrowing rate and must repay all loans before June 30, the end of its fiscal year. Because the loans are purchased by the off-budget Federal financing bank, the outlays do not show in the budget totals. The administration is reviewing this program, and recommendations regarding its continuation will be made when the current review is complete.

Tax expenditures.—Federal aid is also provided through two major tax expenditures. (More information on tax expenditures is provided in Special Analysis G.) First, the deductibility of most State and local taxes permits a State or locality to raise a dollar of revenue with less than a dollar net cost to its taxpayers who itemize deductions on their Federal tax return. The receipts forgone by the Federal Government in 1979 on the basis of current law are estimated to be \$0.8 billion for gasoline taxes, \$5.2 billion for property taxes on owner-occupied homes, and \$9.4 billion for other nonbusiness State and local taxes—primarily income and sales taxes.

The President's tax proposals include repealing the deductibility of sales, gasoline, and certain miscellaneous taxes in order to simplify the tax system. The proposed reduction in tax rates would more than offset the increase on taxpayer liabilities. Deductibility would be retained for income taxes, to prevent high marginal tax rates, and for property taxes, to retain a tax incentive for home ownership.

Second, the exclusion of interest on State and local securities from Federal taxable income permits these jurisdictions to borrow at reduced interest rates. The tax expenditures for the exclusion of interest on State and local general purpose debt is estimated on the basis of current law to be \$6.0 billion in 1979. The benefit going to these governments in the form of reduced interest payments is about 70% of the Federal revenue loss, with the remaining benefits going to taxpayers who hold these securities. Interest on industrial development bonds—which are nominally governmental debt, but are backed only by revenues from private industry—is also excluded from income. Benefits from this tax-exempt borrowing go largely to private com-

panies. The exclusion on the debt to finance pollution control facilities will, on the basis of current law, reduce Federal receipts an estimated \$0.4 billion, and the exclusion on other industrial development borrowing an estimated \$0.4 billion.

The President is proposing a *taxable municipal bond option* in order to improve the efficiency of the municipal bond market and the equity of the tax system. State and local governments would have the option of issuing traditional tax exempt securities or taxable securities for which the Federal Government would provide an interest subsidy. The subsidy would be 35% for taxable securities sold in 1979 and 1980 and 40% thereafter. Outlays under this program would be considered a grant-in-aid and are estimated to be \$99 million in 1979. The outlays would be nearly offset by increased tax receipts. As a part of this proposal, industrial development bonds used by private firms to finance pollution control facilities would be denied tax-exempt status. Moreover, industrial development bonds used to finance private plant construction would be denied tax-exempt status unless the plants were constructed in economically distressed areas. The current limits on the size of eligible projects would be doubled, and tax exemption for bonds issued to finance industrial parks would be denied. Finally, bonds issued to finance hospital construction would be denied tax exempt status unless there is certification by the State that a new hospital is needed.

FEDERAL GRANTS-IN-AID BY FUNCTION, AGENCY, AND REGION

Pursuant to the Congressional Budget Act of 1974, the Congress reviews the budget and sets targets by function. Consequently, the functional classification of the budget has become important not only for analysis, but also as a control mechanism. Part 5 of the budget discusses the entire Federal budget by function, and the associated national needs met by these programs.

Table H-1 provides a functional distribution of Federal grant-in-aid outlays. The largest increase in 1979 outlays is for the education, training, employment, and social services function, which is estimated to increase \$1.6 billion over 1978.

Table H-1. FEDERAL GRANT-IN-AID OUTLAYS BY FUNCTION
(In millions of dollars)

Function	1977 actual	1978 estimate	1979 estimate
National defense.....	96	90	82
Energy.....	74	270	644
Natural resources and environment.....	4,189	4,895	5,578
Agriculture.....	371	391	383
Commerce and housing credit.....	18	34	45
Transportation.....	8,299	9,561	10,440
Community and regional development.....	4,496	6,700	6,279
Education, training, employment, and social services.....	15,753	20,812	22,380
Health.....	12,104	12,875	14,084
Income security.....	12,613	13,985	14,807
Veterans benefits and services.....	79	85	88
Administration of justice.....	713	649	567
General government.....	154	197	180
General purpose fiscal assistance.....	9,438	9,743	9,463
Total outlays.....	68,396	80,288	85,020

The functional composition of the grant program has changed significantly over the years, as shown in table H-2. The most dramatic growth has occurred in the health function, which has increased from 4% of Federal aid in 1957 to an estimated 17% in 1979, reflecting primarily increased spending for medicaid. Outlays for the education, training, employment, and social services function have also increased substantially from 8% to 26% over the same period. Other changes are the addition of general revenue sharing, increases in outlays for environmental protection, and the relative decline in grants for highways and income security. The latter is primarily due to the assumption by the Federal Government of the public assistance programs for the aged, blind, and disabled. The proposals for welfare reform would further shift financing of the remaining public assistance programs from joint Federal-State funding to a direct Federal program.

Table H-2. PERCENTAGE DISTRIBUTION OF FEDERAL GRANT OUTLAYS BY FUNCTION

Function	Actual						Estimate	
	1957	1962	1967	1972	1976	1977	1978	1979
Natural resources and environment.....	1	2	2	2	5	6	6	7
Agriculture.....	9	6	3	1	1	1	*	*
Transportation.....	24	36	27	15	14	12	12	12
Community and regional development.....	1	3	6	10	6	7	8	7
Education, training, employment, and social services.....	8	8	25	26	24	23	26	26
Health.....	4	5	10	17	18	18	16	17
Income security.....	49	38	25	26	18	18	17	17
General purpose fiscal assistance.....	3	2	2	1	12	14	12	11
Other.....	1	1	*	1	2	2	2	2
Total.....	100	100	100	100	100	100	100	100

*0.5% or less.

Table H-3 shows grant outlays by agency. The Department of Health, Education, and Welfare will provide 37% of total estimated grant-in-aid outlays in 1979, far more than any other agency.

Distribution of grants by region.—Table H-4 shows that Federal aid on a per capita basis varies widely among regions. The thinly populated Western States traditionally rank high because of highway construction grants and shared revenues from Federal land holdings. For example, the Rocky Mountain States have a low regional population density, extensive Federal land holdings and, until recently, the highest per capita aid.

This effect has diminished in recent years, however, as human resource programs have grown relative to physical resource programs. Further, the addition of general revenue sharing has tended to equalize per capita figures among the regions. Region VIII, which had per capita grants 37% above the national average in 1969, now has grants only 5% over the average, while region V has risen from 22% below the average to only 11% below. Regions II and III have experienced the most rapid growth during the period.

Table H-3. FEDERAL GRANT-IN-AID OUTLAYS BY AGENCY

(In millions of dollars)

Agency	1977 actual	1978 estimate	1979 estimate
Department of Agriculture.....	4,125	4,920	4,846
Department of Commerce.....	955	2,666	2,294
Department of Defense—Military.....	96	90	82
Department of Energy.....	136	190	548
Department of Health, Education, and Welfare.....	27,535	29,430	31,811
Department of Housing and Urban Development.....	4,962	5,860	6,273
Department of the Interior.....	644	889	1,038
Department of Justice.....	707	636	544
Department of Labor.....	6,881	10,563	11,766
Department of Transportation.....	8,007	9,358	10,380
Department of the Treasury.....	8,852	9,399	8,705
Environmental Protection Agency.....	3,724	4,379	4,911
Veterans Administration.....	79	85	88
Community Services Administration.....	610	634	526
District of Columbia.....	276	276	317
Washington Metropolitan Area Transit Authority.....	290	205	61
Other.....	517	709	829
Total outlays.....	68,396	80,288	85,020

Table H-4. DISTRIBUTION OF GRANT OUTLAYS BY REGION, SELECTED FISCAL YEARS

Federal region ¹	1977 ² total grants	Per capita		
		1969	1977	Percent change, 1969-77
I. Maine, Vermont, New Hampshire, Massachu- setts, Connecticut, Rhode Island.....	\$4.2	\$102	\$344	237
II. New York, New Jersey, Puerto Rico, Virgin Islands.....	10.9	103	375	264
III. Virginia, Pennsylvania, Delaware, Maryland, West Virginia, District of Columbia.....	8.3	94	341	263
IV. Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Florida.....	10.4	101	288	185
V. Illinois, Indiana, Michigan, Ohio, Wisconsin, Minnesota.....	12.7	77	277	260
VI. Arkansas, Louisiana, Oklahoma, New Mexico, Texas.....	6.0	111	262	136
VII. Iowa, Kansas, Missouri, Nebraska.....	2.8	88	238	170
VIII. Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming.....	2.1	136	328	141
IX. Arizona, California, Nevada, Hawaii, other ter- ritories.....	8.4	116	320	176
X. Idaho, Oregon, Washington, Alaska.....	2.6	117	359	207
United States.....	68.4	99	311	214

¹ These are not the same regions as those used for national income account computations.² In billions of dollars, preliminary data.

Note.—See "Federal Aid to States," Department of the Treasury, for additional information concerning State distribution of Federal grants.

HISTORICAL PERSPECTIVES

Although grants from the National Government predate the Constitution, they were very small until the end of the 19th century and did not become a truly significant factor in government expenditure until after World War II. In 1950 Federal grants to State and local governments totaled \$2 billion, and by 1965 they had risen to \$11 billion. In 1977 they were \$68.4 billion, an average annual increase of 16.2% since 1967. This compares to an average annual growth of 9.8% for total Federal outlays over the same period. In 1979 Federal grants are estimated to be 17.0% of total Federal outlays, and 22.7% of domestic Federal outlays.

Table H-5 shows the growth in grant outlays since 1950. Apart from a few one-time factors, such as a \$1 billion advance payment of public assistance funds in 1972 (with a corresponding decrease in 1973) and retroactive payments of general revenue sharing entitlements in 1973, the growth of Federal grant outlays has been relatively steady. The sharp increase in grants as a percent of total Federal outlays in 1977 and 1978 is due primarily to the administration's economic stimulus programs enacted in 1977.

Table H-5. HISTORICAL TREND OF FEDERAL GRANT-IN-AID OUTLAYS

(Fiscal years; dollar amounts in millions)

	Total grants	Composition of grants-in-aid		Federal grants as a percent of		
		Grants for payments to individuals	Other	Federal outlays		State and local expenditures ²
				Total	Domestic ¹	
1950.....	\$2,253	\$1,421	\$832	5.3	8.8	10.4
1955.....	3,207	1,770	1,437	4.7	12.1	10.1
1960.....	7,020	2,735	4,285	7.6	15.9	14.7
1965.....	10,904	3,954	6,950	9.2	16.6	15.3
1970.....	24,018	8,867	15,151	12.2	21.1	19.4
1971.....	28,109	10,789	17,320	13.3	21.4	19.9
1972.....	34,372	13,421	20,951	14.8	22.8	22.0
1973.....	41,832	13,104	28,728	16.9	24.8	24.3
1974.....	43,308	14,030	29,278	16.1	23.3	22.7
1975.....	49,723	16,106	33,618	15.2	21.3	23.2
1976.....	59,037	19,511	39,526	16.1	21.8	24.7
TQ.....	15,909	5,122	10,787	16.8	22.7	25.7
1977.....	68,396	23,002	45,394	17.0	22.8	26.4
1978 estimate.....	80,288	25,151	55,137	17.4	23.1	27.5
1979 estimate.....	85,020	27,190	57,830	17.0	22.7	26.2

¹ Excludes outlays for the national defense and international affairs functions.² As defined in the national income accounts.

Approximately one-third of estimated 1979 grants are to States or localities for payments to individuals. Among the larger of these programs are medicaid, public assistance payments, housing payments, and nutrition programs for children and the elderly. The public assistance program for the blind, disabled, and aged—known as supplemental security income—became a direct Federal program in January 1974. The figures for this program are therefore included as grants through 1973 but not since then.

Table H-5 also shows grants-in-aid as a percent of State and local expenditures. This percent has increased from 15% in 1965 to 26% in 1977, and for 1978 and 1979 is estimated to continue to be more than one-fourth of total State and local expenditures.

OTHER SOURCES OF FEDERAL AID INFORMATION

The budget grant-in-aid series is designed to provide a comprehensive picture of Federal grants-in-aid, focusing on programs that are financed but not directly administered by the Federal Government. The census series (published in *Governmental Finances*) and the national income accounts (NIA) series (published in Special Analysis B of this document and in the *Survey of Current Business*) are parts of a broader statistical concept encompassing the entire economy, and as a consequence they define Federal grants-in-aid somewhat differently from the budget series. They both omit the following items that the budget series includes:

- Federal aid to the Governments of Puerto Rico and U.S. territories;
- payments in-kind, primarily commodities purchased by the Department of Agriculture and donated to the school lunch and other nutrition programs; and
- payments to private, nonprofit entities (such as nonprofit hospitals and some manpower training programs) that operate under State auspices or within a State plan.

Table H-6. **THREE MEASURES OF FEDERAL GRANTS-IN-AID TO STATE AND LOCAL GOVERNMENTS, 1972-76** (in billions of dollars)

	1972	1973	1974	1975	1976
Budget (Special Analysis H)	34.4	41.8	43.3	49.7	59.0
Less principal exclusions:					
Agricultural commodities.....	-0.6	-0.5	-0.6	-0.5	-0.5
Geographical exclusions.....	-0.4	-0.6	-0.7	-0.9	-1.2
Plus payments for research.....	1.1	1.2	1.3	1.5	1.7
All other (net).....	-0.9	-0.2	-0.4	-0.2	-0.6
Federal payments (Census)	33.6	41.7	42.9	49.6	58.4
Less low-rent public housing.....	-0.7	-1.0	-1.1	-1.3	-1.5
All other (net).....	-0.3	-0.3	-0.2	.....	0.6
Grants-in-aid (national income accounts)	32.6	40.4	41.6	48.3	57.5

¹ Excludes \$10.6 billion for unemployment compensation that the census series included in its data.

One major group of payments excluded in the budget definition of grants but included in the census and NIA series is payments for research conducted by public universities. The budget series excludes these payments because they are considered to be a purchase of services for the Federal Government rather than aid for State or local programs. Since both census and the NIA series focus on cash payments to State and local governments, they count these as grants. One major kind of outlay included in the budget and census definitions but excluded from the NIA series is payments for low-rent public housing, which the NIA count as subsidies by the Federal Government rather than as grants. Table H-6 shows other minor differences among the

three series, but the differences are largely offsetting and, thus, these three series reflect similar patterns.

In addition to these data sources, *Federal Aid to States*, published by the Treasury Department, lists grant outlays by State using the budget definition of grants, for more than 90 programs. The *Catalog of Federal Domestic Assistance*, prepared by the Office of Management and Budget and available from the Government Printing Office, provides a detailed listing of grant-in-aid and other assistance programs, and information on eligibility criteria, application procedures, estimated obligations, and other information. This is a primary reference source for communities wishing to apply for grants-in-aid. The *Federal Register* is published daily by the Government Printing Office and provides current information on agencies that are accepting applications for specific programs. This source also provides information on eligibility criteria and application procedures.

Geographic Distribution of Federal Funds (formerly entitled *Federal Outlays*), published by the Community Services Administration, uses various proration techniques and financial concepts, primarily obligations, to estimate grant payments at the State, county, and large-city level. These grant estimates therefore differ from those in the budget. These estimates are cross-referenced where possible with the program identification number in the *Catalog of Federal Domestic Assistance*.

Under a *Budgetary Information System* Federal agencies provide, through Federal Regional Councils, data showing State-by-State breakouts of certain formula grants relatively quickly after the President submits the budget, after enactment of an agency's appropriation bill, and after any significant change in either program levels or geographic distribution.

The Office of Management and Budget has available upon request a document entitled "Administrative Policies and Information Sources Relating to Federal Domestic Assistance Programs". This guide is a brief overview to these policies and information sources, with particular emphasis on their interrelationships.

GRANTS ADMINISTRATION

The rapid growth of the grant system in the late 1960's and early 1970's was accompanied by increasingly complex administrative requirements. In earlier years, many grants were designated for specific categories by Federal legislation or regulation, and came to be known as categorical grants. They frequently required matching funds from the recipient governments, and gave little discretion in their use to State and local officials. In the early 1970's, many persons involved with grant administration at all levels of government looked for better alternatives. As a result, most major new programs since then have given considerably more discretion to State and local officials.

Table H-7 shows the increasing role of general-purpose and broad-based aid since 1972. General-purpose aid consists of grants with almost complete discretion for their use at the State and local level; broad-based aid gives State and local governments considerable discretion within a broadly defined program area, such as education or community development. In 1972 there was virtually no general-

purpose or broad-based aid. Since that time these programs have grown to be approximately one-fourth of total grants-in-aid. The slight decrease in 1979 results from the phase-out of some broad based stimulus grants and the increase of other aid, such as medicaid and more restrictive employment and training grants.

Table H-7. **OUTLAYS FOR GENERAL-PURPOSE, BROAD-BASED, AND OTHER GRANTS-IN-AID** (dollar amounts in millions)

	Actual				Estimate		
	1972	1975	1976	TQ	1977	1978	1979
General purpose aid:							
General revenue sharing.....		\$6,130	\$6,243	\$1,588	\$6,758	\$6,827	\$6,852
Other general purpose fiscal assistance and TVA ¹	516	878	907	434	2,748	2,996	2,707
Subtotal, general purpose aid.....	<u>516</u>	<u>7,008</u>	<u>7,150</u>	<u>2,022</u>	<u>9,506</u>	<u>9,823</u>	<u>9,559</u>
Broad based aid:							
Community development block grants.....		38	983	439	2,089	2,584	2,803
Comprehensive health grants.....	90	82	128	18	104	94	91
Employment and training ²		1,333	1,698	436	1,756	1,820	1,942
Social services.....	1,930	2,047	2,251	561	2,534 ³	3,246	2,842
Criminal justice assistance.....	281	577	519	137	580	500	449
School aid in federally affected areas.....	602	577	558	66	719	744	710
Local public works.....					577	2,286	2,001
Subtotal, broad based aid.....	<u>2,903</u>	<u>4,654</u>	<u>6,137</u>	<u>1,657</u>	<u>8,359</u>	<u>11,274</u>	<u>10,838</u>
Other aid	<u>30,953</u>	<u>38,061</u>	<u>45,750</u>	<u>12,230</u>	<u>50,531</u>	<u>59,191</u>	<u>64,623</u>
Total	<u><u>34,372</u></u>	<u><u>49,723</u></u>	<u><u>59,037</u></u>	<u><u>15,909</u></u>	<u><u>68,396</u></u>	<u><u>80,288</u></u>	<u><u>85,020</u></u>
Addendum: Percent of Total							
General purpose aid.....	1.5	14.1	12.1	12.7	13.9	12.2	11.2
Broad based aid.....	8.4	9.4	10.4	10.4	12.2	14.0	12.7
Other aid.....	90.1	76.5	77.5	76.9	73.9	73.7	76.0
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	<u>100.0</u>

¹ For detail, see grants in the general purpose fiscal assistance function, table 9 and shared revenues from the Tennessee Valley Authority, shown in the energy function.

² Comprehensive Employment and Training Act (CETA), Title I. An additional \$8.0 billion of CETA grant-in-aid outlays are estimated for 1979, but because there are some restrictions on allowable activities they are included in "other aid", not broad-based aid.

³ Includes \$543 million in 1978 only for retroactive social services claims appearing in the 1979 Budget in the claims judgments, and relief acts account, Department of the Treasury.

Most general purpose and broad-based grants significantly reduce or eliminate the requirement that recipients match Federal funds with their own. Despite the increase in these grants, matching requirements for all grants have not changed significantly. In 1972, State and local governments were estimated to provide approximately \$1 of matching funds for \$3 of Federal aid, and this ratio is virtually unchanged for 1977. The decrease in matching requirements for general-purpose and broad-based aid has been offset by the significant growth in programs such as medicaid, which requires substantial matching aid.

Although the specific-purpose grants constitute a smaller portion of the total than previously, there continue to be hundreds of grants

of this nature with different matching requirements, timing difficulties, application procedures, duplication of programs, and other administrative problems.

The numerous efforts undertaken to correct some of these problems include:

- Extension of advance funding to grants for vocational rehabilitation, maternal and child health care, and the aging. When fully operational, advance funding in these programs and in education programs, where it already exists, would amount to more than \$6 billion.
- Presidential initiation of Federal aid reform to simplify application and reporting requirements, restrict federally required paperwork, and streamline certain financial management practices (OMB Circular A-102) and audit procedures (OMB Circular 73-2).
- Completion of an interagency review of Federal planning requirements aimed at eliminating, simplifying, or consolidating as many Federal planning requirements as feasible. The review identified approximately 4,000 separate planning requirements. Individual agencies have already identified areas where simplification appears to be possible. The Department of Health, Education, and Welfare, for example, reports their review resulted in proposals to eliminate, consolidate, or simplify close to 60% of the 1,392 requirements identified. EPA proposed changes in 55% of 316 identified planning requirements.
- Strengthening of Federal compliance with the system of State and areawide clearinghouses to review and comment on proposals for Federal and federally assisted projects. Governors have designated clearinghouses for every State, and more than 545 sub-state clearinghouses cover 95% of the population in the contiguous United States. Approximately 300 grant programs are covered, encompassing developmental, social, and economic activities (OMB Circular A-95).
- Reconstituting the Federal regional council system, providing for councils of top Federal regional officials from major grantmaking agencies to improve Federal program coordination at the regional level and develop closer working relations with States and localities. As part of the Presidential reorganization project, a review of regional coordination issues and possible revisions in the council system or other regional coordinating devices is underway.
- Announcement of new procedure for improving Federal Government regulations, which will reform the present process for State and local government consultation on proposed regulations. State and local interest groups can assist agencies in identifying proposed regulations with special intergovernmental impact so that State and local consultation can follow. (Replaces OMB Circular A-85.)
- Completed assessment and began work with Federal Regional Councils and State and local governments to improve implementation of joint funding legislation allowing submission of only one application for projects requesting resources from several Federal agencies. (OMB Circular A-111.)

THE STATE AND LOCAL GOVERNMENT SECTOR OF THE NATIONAL
INCOME ACCOUNTS¹

The national income accounts (NIA) provide a comprehensive statistical description of the U.S. economy that includes State and local government receipts and expenditures. These State and local data provide a measure of the relationship between these governments as a sector of the economy and other sectors. The data are presented here to provide a context in which to compare the grant-in-aid data.

There are three major differences between NIA data and the budgetary accounting for a government's receipts and expenditures. First, financial transactions and the purchase and sale of land are excluded from NIA data but are generally included in budgetary data. Second, a large number of transactions in the NIA accounts are recorded on an accrual basis, while many governments show transactions on a cash basis. Third, NIA data aggregate total State and local transactions, whereas many governments separate general fund data from that of special funds. As a result of these differences, NIA totals are not the same as an aggregate of these governments' financial budgets. However, they do provide timely estimates of *total* State and local fiscal transactions not otherwise available, and with care, can be used as financial indicators.

NIA State and local sector.—Table H-8 provides an historical tabulation of these data with the surplus or deficit broken into two basic components, social insurance funds and the operating account.² The social insurance funds, primarily retirement programs, have been in surplus since 1950. The funds accumulate assets to pay for their future liabilities. Because surpluses of these insurance funds are not generally available to pay for deficits in operating accounts, the operating account is generally thought to be a better measure of State and local fiscal condition than the surplus or deficit for the sector as a whole. However, the accrued liability of many of these social insurance funds exceeds their assets, posing a potential threat to State and local financial health in future years.

Since the late 1940's the operating account has generally been in deficit. This is not unusual, since it includes capital expenditures, often financed through borrowing. Surpluses in 1972 and 1973 resulted from the first general revenue sharing distributions and new receipts generated by significant tax increases in 1971 and 1972.

In 1974, the operating account returned to a deficit situation. In part, this reflected a return to previous patterns, as State and local expenditure increases absorbed the new, higher income. It also reflected the worsening economic situation, with State and local governments opting to draw down on balances accumulated during 1972-73 rather than enact new tax increases. The fiscal position improved

¹ Special Analysis B of this volume provides general information on the national income accounts.

² The operating account is defined here as all activities except those of social insurance funds. The operating account includes expenditures for capital investment.

Table H-8. NATIONAL INCOME ACCOUNTS, STATE AND LOCAL SECTOR
(Calendar years; in billions of dollars)

	Receipts	Expenditures	Surplus or deficit (-)		
			Entire sector	Social insurance funds	Operating account
1950.....	21.3	22.5	-1.2	0.7	-1.9
1955.....	31.7	32.9	-1.3	1.3	-2.6
1960.....	49.9	49.8	0.1	2.3	-2.2
1965.....	75.1	75.1	*	3.4	-3.4
1970.....	134.9	132.2	2.8	6.8	-4.0
1971.....	152.6	148.9	3.7	7.5	-3.8
1972.....	177.4	163.7	13.7	8.1	5.6
1973.....	193.5	180.5	13.0	8.9	4.1
1974.....	210.4	202.8	7.6	10.5	-2.9
1975.....	235.7	229.8	5.9	12.1	-6.2
1976.....	264.7	246.2	18.4	14.5	3.9

SEASONALLY ADJUSTED, ANNUAL RATES

1975:					
I.....	223.7	220.0	3.7	11.3	-7.6
II.....	231.8	227.3	4.5	11.8	-7.2
III.....	240.8	234.2	6.6	12.3	-5.8
IV.....	246.4	237.5	8.9	13.1	-4.2
1976:					
I.....	253.8	240.5	13.3	13.7	-4.4
II.....	258.4	245.5	12.9	14.4	-1.5
III.....	269.0	247.9	12.1	14.8	6.2
IV.....	277.5	251.1	26.5	15.2	11.3
1977:					
I.....	281.0	253.7	27.3	15.4	11.9
II.....	288.1	262.6	25.4	15.5	10.0
III.....	300.3	269.9	30.5	15.5	14.9

* \$50 million or less.

substantially in 1976 compared to 1975, and this improvement continued into 1977. The operating account had a surplus in 1976 of \$3.9 billion, and the 1977 data show the surpluses averaging over \$12 billion at an annual rate for the first three-quarters. As a percent of expenditures, these are the highest surpluses since the middle 1940's.

DETAILED FEDERAL AID TABLES

The following two tables present detailed Federal aid data for the 3 budget years. Table H-9, "Federal Grants to State and Local Governments—Outlays and Budget Authority," provides detailed budget authority and outlay data for grants and shared revenues. Table H-10, "Federal Direct Loans to State and Local Governments," provides disbursement and net outlay data for loan programs. Disbursements do not include repayments, and net outlays are disbursements minus repayments.

Table H-9. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—OUTLAYS AND BUDGET AUTHORITY

(In millions of dollars)

1977 actual	1978 estimate	1979 estimate	Agency and program	Func- tional code ¹	1977 actual	1978 estimate	1979 estimate
OUTLAYS					BUDGET AUTHORITY		
			National defense:				
			Department of Defense—Military:				
40	37	33	Civil Preparedness Agency.....	051	42	37	41
56	53	49	National Guard centers construction.....	051	55	44	46
<u>96</u>	<u>90</u>	<u>82</u>	Total, national defense.....		<u>97</u>	<u>81</u>	<u>87</u>
			Energy:				
			Department of Energy:				
6	190	548	Energy.....	272	70	369	592
68	80	96	Tennessee Valley Authority (shared revenue).....	271			
<u>74</u>	<u>270</u>	<u>644</u>	Total, energy.....		<u>70</u>	<u>369</u>	<u>592</u>
			Natural resources and environment:				
			Department of Agriculture:				
115	101	96	Watershed planning and flood control.....	301	69	73	58
11	11	6	Resource conservation and development.....	302	10	12	4
40	34	52	Forest Service.....	302	45	38	50
			Department of Commerce:				
22	31	43	NOAA coastal zone management.....	302	38	51	57
19	21	21	NOAA—Operations research and facilities.....	306	21	23	23
			Department of the Interior:				
*	2		Bureau of Reclamation.....	301	*	2	0
156	187	280	Land and water conservation fund.....	303	168	333	370
90	91	109	Fish and Wildlife Service.....	303	123	110	121
9	10	4	Preservation of historic properties.....	303	10		
	14	29	Historic preservation fund.....	303		44	44
	10	23	Office of Surface Mining Reclamation and Enforcement.....	302		14	43

See footnotes at end of table.

Table H-9. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—OUTLAYS AND BUDGET AUTHORITY—Continued
(In millions of dollars)

1977 actual	1978 estimate	1979 estimate	Agency and program	Func- tional code ¹	1977 actual	1978 estimate	1979 estimate
OUTLAYS			Natural resources and environment—Continued		BUDGET AUTHORITY		
194	244	251	Environmental Protection Agency:				
3,530	4,135	4,660	Abatement and control.....	304	146	230	237
2	3	3	Sewage treatment plant construction.....	304	1,980	4,500	4,500
			Water Resources Council.....	301	3	3	3
4,189	4,895	5,578	Total, natural resources and environment.....		2,614	5,432	5,511
Agriculture:			Department of Agriculture:				
117	143	139	Cooperative State Research Service.....	352	124	138	152
198	223	221	Cooperative Agricultural Extension Work.....	352	199	227	220
56	23	23	Commodity Credit Corporation—Donations.....	351			
*	2		Agricultural Marketing Service—Cooperative projects in marketing.....	352	2	2	
371	391	383	Total, agriculture.....		325	366	372
Commerce and housing credit:			Department of Agriculture: FmHA: Housing.....				
10	21	29	Department of Commerce: EDA—Minority business development.....	371	16	16	54
8	13	16	Total, commerce and housing credit.....	376	8	8	18
18	34	45			24	24	72
Transportation:			Department of Housing and Urban Development: Urban transportation.....				
1	*		Department of Transportation:	401			
7	6	3	State boating safety assistance.....	403	6	6	3
335	540	565	Airport and airway trust fund.....	402	510	555	590
33	39	29	Highway beautification.....	401	27	18	
55	93	130	Off-systems road programs.....	401	275	162	

5,799	6,445	7,120	Federal aid highways (trust fund).....	401	3,225	6,682	7,608
42	133	127	Other highway aid ²	401	94	134	34
98	120	168	National Highway Safety Administration.....	401	15	152	175
22	69	74	Federal Railroad Administration.....	401	76	74	69
1,615	1,909	2,161	Urban Mass Transportation Administration.....	401	455	484	2,775
2	3	3	Research and special programs.....	407	2	2	3
290	205	61	Washington Metropolitan Area Transit Authority.....	401	128	67	19
8,299	9,561	10,440	Total, transportation.....		4,814	8,335	11,275
Community and regional development:							
Funds appropriated to the President:							
246	303	313	Appalachian regional development programs.....	452	116	310	340
-----	1	-----	Public works acceleration.....	452	-----	-----	-----
168	116	188	Disaster relief.....	453	170	97	129
Department of Agriculture:							
122	297	260	Rural development grant programs.....	451	285	265	275
4	4	1	Rural community fire protection grants.....	452	4	4	-----
Department of Commerce:							
165	180	148	Economic development assistance.....	452	217	208	244
577	2,286	2,001	Local public works.....	452	5,975	-----	-----
2	57	-----	Drought assistance program.....	452	65	-----	-----
64	64	65	Regional Action Planning Commissions.....	452	64	63	62
Department of Housing and Urban Development:							
2,089	2,584	2,803	Community development block grants.....	451	3,248	4,000	4,150
899	650	356	Urban renewal.....	451	-----	-----	-----
79	92	82	Other categorical programs replaced by block grants.....	451	-----	-----	-----
-----	-----	2	Urban extension program.....	451	-----	-----	10
76	62	56	Comprehensive planning grants.....	451	62	57	57
2	3	4	New Communities Administration.....	451	-----	-----	-----
1	*	-----	Joint grants management fund.....	451	-----	-----	-----
1	1	1	Joint Federal-State Land Use Planning Commission for Alaska.....	452	1	1	1
4,496	6,700	6,279	Total, community and regional development.....		10,207	5,004	5,268

See footnotes at end of table.

Table H-9. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—OUTLAYS AND BUDGET AUTHORITY—Continued
(In millions of dollars)

1977 actual	1978 estimate	1979 estimate	Agency and program	Func- tional code 1	1977 actual	1978 estimate	1979 estimate
OUTLAYS					BUDGET AUTHORITY		
98	13	-----	Education, training, employment, and social services:				
			Department of Commerce: Job opportunities program.....	504			
			Department of Health, Education, and Welfare:				
			Elementary and secondary education.....	501	2,709	3,173	3,778
2,340	2,556	3,015	Indian education.....	501	55	58	73
47	56	61	School assistance in federally affected areas.....	501	734	763	1,456
719	744	710	Emergency school assistance.....	501	290	308	330
241	280	302	Education for the handicapped.....	501	315	465	804
120	236	400	Occupational, vocational, and adult education.....	501	1,164	732	725
692	739	802	Higher and continuing education.....	502	15	8	-----
83	25	13	Library resources.....	503	226	236	233
160	192	218	Special projects and training.....	503	68	81	104
28	50	55	Educational development.....	503			
5	1	1	American Printing House for the Blind.....	501	3	3	4
3	3	4	Child development.....	501	509	659	718
473	570	647	Work incentives.....	504	357	352	352
348	352	352	Social services 2.....	506	2,713	3,062	2,863
2,534	3,246	2,842	Youth, aging, and vocational rehabilitation programs.....	506	1,348	1,483	2,850
1,347	1,403	1,534	Department of the Interior: Bureau of Indian Affairs, Indian education programs.....	501	5	6	6
5	6	6	Department of Labor:				
			Employment and training assistance.....	504	4,850	2,827	3,785
2,940	4,151	3,984	Community service employment for older Americans.....	504	30	44	46
3	30	40	Temporary employment assistance.....	504	6,847	-----	5,955
2,340	4,765	5,956	Employment opportunities program.....	504			50
		35	Grants for employment services.....	504	89	54	22
53	54	22	Unemployment trust fund: employment service.....	504	524	616	698
551	616	698	Community Services Administration.....	506	599	563	502
500	581	526	Corporation for Public Broadcasting.....	503	103	119	120
103	119	120	National Foundation on the Arts and Humanities.....	503	20	24	38
20	24	38					
15,753	20,812	22,380	Total, education, training, employment and social services.....		23,576	15,636	25,510

			Health:				
			Department of Agriculture:				
17			Animal and Plant Health Inspection Service—Meat and poultry	554	15		
10	29	29	Food Safety and Quality Service	554	10	29	29
			Department of Health, Education, and Welfare:				
740	812	902	Health Services Administration	551	805	892	1,414
71	75	89	Center for Disease Control	551	52	78	91
3	6	7	Center for Disease Control	552	4	7	7
471	564	603	Alcohol, Drug Abuse, and Mental Health Administration	551	562	614	628
421	233	163	Health Resources Administration	551	132	139	146
462	271	272	Health Resources Administration	553	272	259	169
		20	Adolescent health services and pregnancy prevention	551			60
9,876	10,846	11,952	Medicaid	551	10,229	10,694	11,952
2	3		Department of the Interior: Mining Enforcement and Safety Administration	554	4	3	
			Department of Labor:				
30	34	42	Occupational Safety and Health Administration	554	36	34	42
	1	4	Mine Safety and Health Administration	554		1	4
12,104	12,875	14,084	Total, health		12,122	12,751	14,543
			Income security:				
			Department of Agriculture:				
			Food Safety and Quality Service—Funds for strengthening markets, income and supply—donations	604	80	360	206
38	296	266	Food stamps—administration	604	315	330	316
271	296	292	Child nutrition and special milk programs	604	2,967	2,657	2,617
2,775	2,794	2,652	Special supplemental food program (WIC)	604	247	247	555
242	360	526	Food donations	604	27	31	13
27	31	13	Elderly nutrition program	604	21	30	
21	30	*	Department of Health, Education, and Welfare: Public assistance—maintenance	604	6,306	6,542	6,846
6,351	6,711	6,846	Department of Housing and Urban Development: Housing assistance	604	16,814	22,788	16,582
1,815	2,469	2,970	Department of Labor: Unemployment trust fund: administration of payments	603	888	913	986
964	913	986	Department of the Treasury: Crude oil tax rebate for AFDC	604		32	256
	32	256	Community Services Administration	604	163	200	
110	53		Total, income security		27,829	34,130	28,377
12,613	13,985	14,807					

See footnotes at end of table.

Table H-9. FEDERAL GRANTS TO STATE AND LOCAL GOVERNMENTS—OUTLAYS AND BUDGET AUTHORITY—Continued
(In millions of dollars)

1977 actual	1978 estimate	1979 estimate	Agency and program	Func- tional code ¹	1977 actual	1978 estimate	1979 estimate
OUTLAYS			BUDGET AUTHORITY				
40	34	36	Veterans benefits and services:				
			Veterans Administration:				
*	1	*	Medical care.....	703	40	34	36
8	14	13	Medical administrative expenses.....	703	*	1	*
31	36	39	Grants for construction of State nursing homes.....	703	10	15	5
			Health training.....	703	44	58	64
79	85	88	Total, veterans benefits and services.....		94	108	105
			Administration of justice:				
1	6	8	National Institute of Corrections.....	754	4	8	8
706	630	537	Department of Justice: Criminal justice assistance.....	754	569	491	492
6	13	22	Equal Employment Opportunity Commission.....	751	6	16	22
713	649	567	Total, administration of justice.....		578	514	522
			General government:				
			Department of the Interior:				
36	47	40	Administration of territories.....	806	57	20	46
84	108	97	Trust territory of the Pacific Islands.....	806	100	111	106
20	24	25	General Services Administration.....	804			
13	18	18	Civil Service Commission (intergovernmental personnel assistance).....	806	15	20	20
154	197	180	Total, general government.....		172	152	172

General purpose fiscal assistance:							
50	226	242	Department of Agriculture: Forest Service (shared revenue).....	852	50	226	242
-----	6	5	Department of Defense: Flood Control Act (shared revenue).....	852	5	6	5
Department of the Interior:							
100	100	105	Payments in lieu of taxes.....	852	100	100	105
137	287	322	Miscellaneous shared revenues.....	852	138	286	322
5	4	3	Fish and Wildlife Service (shared revenue).....	852	4	3	3
19	20	20	Internal revenue collections for the Virgin Islands (shared revenues).....	852	20	20	20
Department of the Treasury:							
-----	-----	99	Taxable municipal bond option.....	852	-----	-----	7,094
238	257	271	Customs receipts for Puerto Rico and the Virgin Islands (shared revenue).....	852	229	257	271
157	168	176	Internal revenue collections for Puerto Rico (shared revenues).....	852	163	168	176
6,758	6,827	6,852	General revenue sharing.....	851	6,655	6,855	6,855
1,699	1,573	1,050	Antirecession financial assistance fund.....	852	1,570	1,400	1,040
276	276	317	Federal payment to the District of Columbia.....	852	276	276	317
9,438	9,743	9,463	Total, general purpose fiscal assistance.....	9,209	9,597	16,450	
68,396	80,288	85,020	Total, grants-in-aid.....	91,730	92,501	108,858	

*\$500 thousand or less.

¹ For a description of the functions and their titles, see part 5 and table 13 in the 1979 Budget.

² A small amount of domestic highway programs is classified in the budget in the international function. For purposes of this special analysis the budget authority and outlays for these grants are in the Transportation function. The amounts are as follows (in millions):

	1977	1978	1979
Budget authority.....	*	1.0	1.0
Outlays.....	0.2	1.1	1.0

³ Includes \$543 million in budget authority and outlays in 1978 only for retroactive social services claims appearing in the claims, judgments, and relief acts account, Department of the Treasury.

Table H-10. FEDERAL DIRECT LOANS TO STATE AND LOCAL GOVERNMENTS

(In millions of dollars)

Agency and program by function	Disbursements			Net outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Natural resources and environment:						
Department of the Interior: Reclamation loans.....	24	27	21	21	23	17
Agriculture:						
Department of Agriculture: Agriculture credit insurance fund.....	15	19	16	14	*	-4
Commerce and housing credit:						
Department of Agriculture: Rural housing insurance fund.....	4	11	17	-2	1	-1
Transportation:						
Department of Transportation: Federal aid highways (trust fund).....	30			30	-53	-103
Right-of-way revolving fund.....	9	51	35	9	51	35
Urban Mass Transportation Administration.....	24			23	-*	-*
Total, transportation.....	63	51	35	62	-2	-68
Community and regional development:						
Department of Agriculture: Rural development insurance fund.....	526	669	815	52	-4	-2
Department of Commerce: Economic development assistance. Economic development revolving fund.....	5	2	2	5	2	2
Department of Housing and Urban Development: Urban renewal fund—loans and planning advances....	290	100	25	-48	-50	-6
District of Columbia: Loans for capital outlay.....	100	114	120	86	97	99
Advances to stadium sinking fund, armory board.....	1	1	1	-1	-1	-1
Total, community and regional development....	922	886	963	92	42	90
Education, training, employment, and social services:						
Department of Health, Education, and Welfare: Student loan insurance fund..		46	15		46	15

Table H-10. FEDERAL DIRECT LOANS TO STATE AND LOCAL GOVERNMENTS—Continued

(In millions of dollars)

Agency and program by function	Disbursements			Net outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Health:						
Department of Health, Education, and Welfare: Medical facilities.....	28	25	-----	5	7	-----
Income security:						
Department of Housing and Urban Development: Low-rent public housing.....	238	600	600	-26	-----	-----
General government:						
Department of the Interior: Administration of Territories..	1	2	2	*	1	*
General purpose fiscal assistance:						
Department of Treasury: New York City seasonal financing fund.....	2,050	950	-----	-----	-----	-----
District of Columbia: Repayable advances.....	20	20	-----	-35	-6	-----
Total, general purpose fiscal assistance.....	2,070	970	-----	-35	-6	-----
Total.....	3,365	2,637	1,669	131	112	49

* \$500 thousand or less.

SPECIAL ANALYSIS I
CIVILIAN EMPLOYMENT IN THE EXECUTIVE BRANCH

FULL-TIME PERMANENT CIVILIAN EMPLOYMENT

This analysis of Federal civilian employment identifies full-time permanent employment separately from total employment, which also includes part-time employees, intermittent employees and full-time temporary employees. Excluding Postal Service employment, which by law is not subject to Presidential control, and excluding other employment exempted from ceilings, full-time permanent employment in the executive branch, as of September 30, 1979, is expected to be 1,931,600. This is an increase of 1,500 above the level expected on September 30, 1978.

Full-time permanent employment as of September 30, 1977 was 1,908,988 or about 7,800 above the corresponding number for September 30, 1976.

The prior administration's 1978 budget recommended a full-time permanent employment level (excluding the Postal Service) as of September 30, 1977 of 1,953,300. Subsequently, a limited freeze was placed on executive branch hiring, while agency employment plans were reviewed. The hiring freeze was lifted in June 1977, and new agency employment ceilings were announced, aggregating to 1,934,200 full-time permanent positions—a reduction of 19,100 positions from the original level. Actual full-time permanent employment as of September 30, 1977, was nearly 44,300 positions below the level contemplated in the 1978 budget and about 25,200 below the ceilings for September 30, 1977.

The projected increase in full-time permanent employment in the executive branch (excluding the Postal Service and other ceiling-exempt employment) from September 30, 1977, to September 30, 1979, is about 22,600, of which 1,500 is planned for the second year.

As noted, actual employment for September 30, 1977 was about 25,200 below the ceiling announced in June 1977. Most of the difference occurred in the Department of Defense, where planned reductions were achieved earlier than anticipated. Much of the remainder was accounted for by the fact that a number of other agencies were behind schedule in achieving planned increases.

The other major reason for this lapse is not unique to 1977. Each year, normal personnel turnover and processing procedures prevent agencies from hiring up to their ceilings. This was true in 1977 and earlier years and is expected to continue to happen in later years. For this reason, table I-1 shows an expected lapse to take account of the fact that, on a Government-wide basis, end-of-year employment has ranged from 0.5% to 1.25% below the budget estimates. The estimates for 1978 and 1979 anticipate a difference of 0.75%.

In keeping with the administration's objective of constraining the size of the Federal civilian workforce to the lowest number consistent with efficient operation of the Government, increases in full-time permanent employment in the executive branch (excluding the Postal Service) have been held to a minimum. Projected increases from 1978 to 1979 in the Department of Housing and Urban Development, the Department of Justice, the Treasury Department, the Environmental Protection Agency, the Veterans' Administration, and the Tennessee Valley Authority are partially offset by estimated decreases in the Department of Agriculture and the Department of Defense.

Table I-1 shows full-time permanent employment in executive branch agencies as of September 30, 1977, as well as planned changes between September 30, 1978, and September 30, 1979. The Department of Energy, established as of October 1, 1977, is shown as though it had existed on September 30 to facilitate year-to-year comparisons. Adjustments to the September 30, 1977, employment of other agencies have been made to reflect the transfers of employees to this new department. Similar adjustments have been made to reflect the establishment of the International Communication Agency. The transfer of the Mining Enforcement and Safety Administration from the Interior Department to the Labor Department is also reflected.

Table I-1. SUMMARY OF FULL-TIME PERMANENT CIVILIAN EMPLOYMENT IN THE EXECUTIVE BRANCH¹

[Excluding the Postal Service]

Agency	Sept. 30			Change 1978-79
	1977 actual	1978 estimate	1979 estimate	
Agriculture.....	82,051	84,800	84,000	-800
Commerce ²	29,491	29,800	29,800	-----
Defense—military functions ²	911,637	912,100	904,900	-7,200
Defense—civil functions.....	28,912	28,700	28,600	-100
Energy ²	18,078	19,500	19,100	-400
Health, Education, and Welfare.....	140,389	144,300	145,100	800
Housing and Urban Development.....	15,261	16,000	17,400	1,400
Interior ²	53,291	55,700	56,000	300
Justice.....	50,986	53,400	55,100	1,700
Labor ²	18,948	20,800	20,800	-----
State ²	22,412	22,800	22,800	-----
Transportation.....	71,550	72,800	73,100	300
Treasury.....	107,150	109,700	112,500	2,800
Environmental Protection Agency.....	9,779	10,200	10,800	600
General Services Administration.....	34,040	35,900	36,000	100
National Aeronautics and Space Administration.....	23,569	23,200	23,200	-----
Veterans Administration.....	195,175	202,400	203,000	600
Other:				
Agency for International Development.....	5,712	5,900	5,900	-----
Civil Service Commission.....	6,875	7,000	7,200	200
International Communication Agency ²	8,519	8,600	8,600	-----
Nuclear Regulatory Commission.....	2,499	2,700	2,800	100
Panama Canal.....	12,914	13,500	13,500	-----
Small Business Administration.....	4,307	4,500	4,600	100
Tennessee Valley Authority.....	17,060	17,300	18,000	700
Miscellaneous ²	38,383	40,800	41,200	400
Subtotal.....	1,908,988	1,942,700	1,944,200	1,500
Contingencies ³	-----	2,000	2,000	-----
Subtotal.....	1,908,988	1,944,700	1,946,200	1,500
Expected lapse.....	-----	-14,600	-14,600	-----
Total.....	1,908,988	1,930,100	1,931,600	1,500

¹ Excludes developmental positions under the worker trainee opportunity program (WTOP), as well as certain statutory exemptions.

² Sept. 30, 1977, numbers have been adjusted to reflect the establishment of the Department of Energy and its absorption of the Energy Research and Development Administration, Federal Energy Administration, Federal Power Commission, and parts of other agencies. Similar adjustments have been made to reflect establishment of the International Communication Agency and the transfer of employees to it from the Department of State and the United States Information Agency. Transfer of the Mining Enforcement and Safety Administration from the Interior Department to the Labor Department is also reflected.

³ Subject to later distribution.

Reductions in full-time permanent employment between the end of 1978 and the end of 1979 are planned in the following agencies:

- *The Department of Agriculture.*—Employment will decline by about 800 in 1979 as a result of: (a) a greater use of temporary personnel in the installation of farm conservation measures, (b) the elimination of new planning and construction starts for the small watershed program, and (c) a shift from in-house to extramural research.
- *The Department of Defense (military functions).*—Civilian employment will decline by about 7,200 positions, primarily as a result of: (a) contracting out originally planned for 1978 for some services, but delayed, and (b) reductions in the training establishment and in aircraft depot maintenance activities.

The foregoing decreases are more than offset by necessary increases in other agencies, such as:

- *The Department of Health, Education, and Welfare.*—An increase of 800 is planned; primarily for new social security legislation, welfare reform planning, and workload increases in health programs and the Office of the Secretary.
- *The Department of Housing and Urban Development.*—An increase of 1,400 is estimated for such programs as subsidized housing; community development, and fair housing and equal opportunity.
- *The Department of Justice.*—A net increase of 1,700 positions is projected, most of which is in the Immigration and Naturalization Service for increased emphasis on controlling the entry of undocumented aliens into this country. Additional, though smaller increases will occur in the Washington-based legal divisions, the Drug Enforcement Administration, U.S. Attorneys and Marshals, and the Federal Prison system. These increases will be partially offset by decreases in the Federal Bureau of Investigation.
- *The Department of the Treasury.*—A major portion of the overall 2,800 position increase will occur in the Internal Revenue Service, reflecting increased workload stemming from the filing of more tax returns and an increased emphasis on collections and audits. Most of the remaining increase will be in the U.S. Customs Service for additional border enforcement activities and for a new export data verification program.
- *The Environmental Protection Agency.*—Employment for activities directed chiefly toward improving air quality, providing safe drinking water, and controlling toxic substances will increase by 600 positions. These increases are generally related to recently enacted statutory requirements.
- *The Veterans Administration.*—Additional staff for planned new medical programs and facilities will result in a net increase of 600 positions.
- *The Tennessee Valley Authority.*—An overall increase of about 700 positions is required for new construction and operating workload increases in TVA's power program.

TOTAL FEDERAL EMPLOYMENT

In 1979, full-time permanent employment will account for slightly more than 88% of all civilian employees in the executive branch (including the Postal Service). The remaining 12% is made up of part-time employees, intermittent employees (those employed on an irregular basis), and full-time temporary employees (those in positions occupied for less than one year).

To provide more jobs for people unable to work full-time, the President has directed executive branch agencies to establish programs that will expand employment opportunities for permanent part-time workers. As a further step, the Office of Management and Budget and the Civil Service Commission have been authorized to conduct an experiment with full-time equivalent employment controls in a few agencies. These agencies will measure employment by counting the number of hours worked and converting the hours into work-years. This experiment is designed to accomplish two objectives: (1) To break down artificial barriers that may have inhibited the employment of permanent part-time workers; and (2) to determine whether full-time equivalent employment controls can improve personnel management, overcome some of the criticisms directed at the existing end-of-year ceiling control system, and also limit the growth of the Federal work force to appropriate activities.

This experiment will require the development of a new Government-wide personnel accounting system that would measure Federal employment on a full-time equivalent basis. If successful, such a system may ultimately be used as the primary means of controlling the size and makeup of the Federal civilian work force.

Table I-2, "Total Federal Employment," is composed of civilian employees of the executive branch (including the Postal Service), employees of the legislative and judicial branches, and military personnel. A separate entry in the table covers those categories of employees specifically exempted from employment controls, for example, certain employees under the worker trainee opportunity program; disadvantaged and part-time workers under such Civil Service Commission programs as summer aides, stay-in-school, and junior fellowship; and certain statutory exemptions.

The Department of Defense's share of total executive branch employment (civilian and military) will have declined from 74% as of September 30, 1969, to 62% as of September 30, 1979. The Postal Service makes up 13% of the total work force, and the Veterans Administration accounts for 5%.

Table I-2. TOTAL FEDERAL EMPLOYMENT

Description	September 30		
	1977 actual	1978 estimate	1979 estimate
Civilian employment in the executive branch:			
Full-time permanent (including lapse)	1,908,988	1,930,100	1,931,600
Other than full-time permanent	198,750	200,200	210,300
Subtotal	<u>2,107,738</u>	<u>2,130,300</u>	<u>2,141,900</u>
Postal Service:			
Full-time permanent	527,078	524,600	523,800
Other than full-time permanent	130,835	128,200	116,800
Subtotal	<u>657,913</u>	<u>652,800</u>	<u>640,600</u>
Exempt from ceilings ¹	23,406	22,000	20,500
Subtotal, executive branch civilian employment ²	<u>2,789,057</u>	<u>2,805,100</u>	<u>2,803,000</u>
Military personnel on active duty: ³			
Department of Defense	2,073,580	2,068,800	2,049,000
Department of Transportation (Coast Guard)	38,158	38,400	38,400
Subtotal, military personnel	<u>2,111,738</u>	<u>2,107,200</u>	<u>2,087,400</u>
Total executive branch employment	4,900,795	4,912,300	4,890,400
Legislative and judicial personnel: ⁴			
Full-time permanent	31,503		
Other than full-time permanent	20,521		
Subtotal, legislative and judicial branches	<u>52,024</u>		
Grand total	4,952,819		

¹ Developmental positions under the worker-trainee opportunity program; disadvantaged summer and part-time workers under such Civil Service Commission programs as summer aides, stay-in-school, and junior fellowship; and certain statutory exemptions.

² Excludes foreign nationals working under master labor contracts overseas. Actual employment for 1977 was 83,395; employment for 1978 is estimated to be 85,400 and 78,000 for 1979.

³ Excludes reserve components.

⁴ 1978 and 1979 estimates are not available.

PERSONNEL COMPENSATION AND BENEFITS

Direct compensation of the Federal work force includes regular pay, premium pay for overtime, Sunday and holiday pay, differentials for night work and overseas duty, and flight and other hazardous duty pay. Related compensation in the form of personnel benefits consists primarily of the Government's share (as employer) of health insurance, term life insurance, and Federal retirement and old-age survivors' disability insurance. Retirement costs include the direct Treasury transfers to the civil service retirement trust fund to cover

the interest on the unfunded retirement liability (the excess of the present value of the anticipated benefits payable from the fund over the present value of fund assets and anticipated receipts) and payments to amortize increments of unfunded liability that result from pay or benefit increases.

Additional benefits include uniform allowances (when paid in cash), cost-of-living and overseas quarters allowances, and, in the case of uniformed military personnel, reenlistment bonuses.

Obligations for civilian personnel compensation and benefits in 1979 are projected to reach \$53.8 billion, excluding the Postal Service. The increase in obligations is due to pay adjustments, increased employment, and increased interest payments to the civil service retirement trust fund. The estimated costs for civilian and military pay increases for 1979 are covered by lump sum allowances in the 1979 budget.

Under the Federal Pay Comparability Act, salary rates for Federal employees under the "General Schedule" and most other statutory pay systems are adjusted periodically so as to relate to rates paid for the same work levels in the private sector. The bases for these adjustments are annual surveys conducted on a nationwide basis by the Bureau of Labor Statistics. Under the act, the President may propose an alternative pay plan if he considers the comparability pay adjustments inappropriate because of national emergency or economic conditions affecting the general welfare. As part of an overall effort to hold down inflationary trends, Federal agencies will be required to limit the additional funds requested to cover the pay increase to no more than six per cent. This is reflected in the estimates in the 1979 Budget and in table I-3.

A number of activities are presently underway that may have significant impact on future levels of compensation and benefits. These include:

(a) The Federal Personnel Management Project, which is concluding a comprehensive reorganization study of civilian personnel policies. Specific recommendations are presently being developed.

(b) The Civil Service Commission, in cooperation with the Bureau of Labor Statistics, is investigating the feasibility of setting Federal employees' pay and benefits on the basis of comparability with total compensation, rather than pay alone.

(c) The President's Commission on Military Compensation is considering significant unresolved issues concerning active duty compensation. At the same time, a special Defense Department group is reviewing related reserve compensation issues.

Table I-3. PERSONNEL COMPENSATION AND BENEFITS

(In millions of dollars)

Description	1977 actual	1978 estimate	1979 estimate
Civilian personnel costs:			
Executive branch: ¹			
Direct compensation.....	34,355	37,340	38,450
Personnel benefits.....	11,016	11,040	12,580
Retirement liability interest payment.....	(4,191)	(5,230)	(6,250)
Subtotal.....	<u>45,371</u>	<u>48,380</u>	<u>51,030</u>
Legislative and judiciary: ²			
Direct compensation.....	610	680	720
Personnel benefits.....	57	60	70
Subtotal.....	<u>667</u>	<u>740</u>	<u>790</u>
Allowance for civilian pay raise.....			1,940
Total, civilian personnel costs.....	<u>46,038</u>	<u>49,120</u>	<u>53,760</u>
Military personnel costs: ³			
Direct compensation.....	22,489	23,800	23,630
Personnel benefits ⁴	1,683	1,810	1,880
Subtotal.....	<u>24,172</u>	<u>25,610</u>	<u>25,510</u>
Allowance for military pay raise.....			1,380
Total, military pay costs.....	<u>24,172</u>	<u>25,610</u>	<u>26,890</u>
Grand total, personnel costs.....	<u>70,210</u>	<u>74,730</u>	<u>80,650</u>

¹ Excludes the Postal Service, reflecting conversion to independent status, consistent with the Postal Service Reorganization Act of 1970.

² Excludes Members and officers of Congress.

³ Excludes Reserve components.

⁴ Excludes payments to current military retirees which amounted to \$8,219 million in 1977 and are estimated to be \$9,240 million in 1978 and \$10,149 million in 1979.

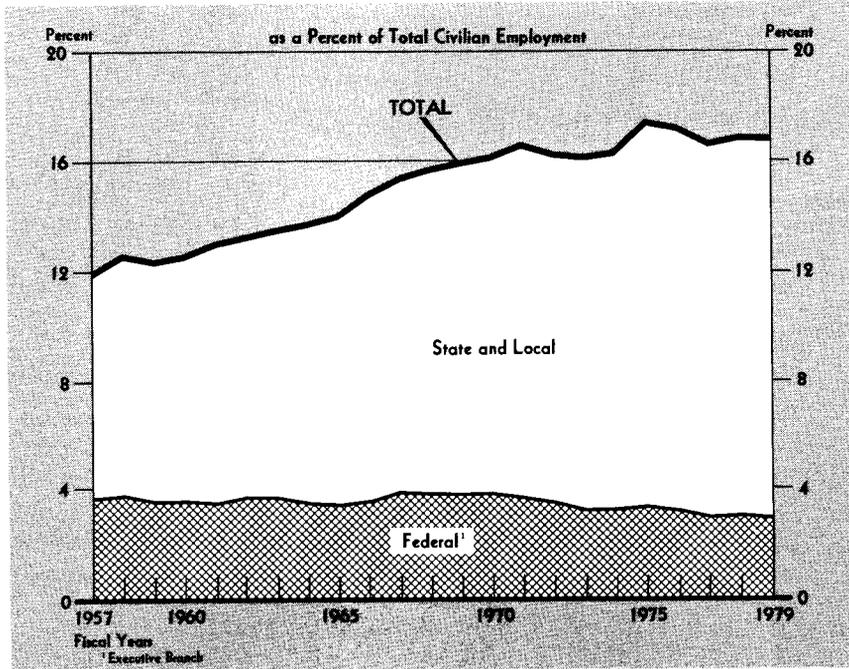
GOVERNMENT EMPLOYMENT AND LABOR FORCE COMPARISONS

As shown on the following chart, Government employment—Federal, State, and local—comprised about 16.8% of the total employed civilian labor force in 1979.

Within this segment, Federal civilian employment in the executive branch accounts for nearly 2.9% of the total employed civilian labor force, down from a high of about 3.8% in 1968.

The percentage of the total employed civilian labor force attributable to State and local government has grown steadily, from nearly 8.3% in 1957 to 13.9% in 1979.

Government Civilian Employment



GOVERNMENT EMPLOYMENT AND POPULATION COMPARISONS

As illustrated in the following chart and in table I-4, the Federal segment of all governmental employment has declined significantly over the last three decades, from nearly 35% in 1949 to an estimated 17.3% in 1979. Employment for all government has been steadily rising due to increases in State and local government employment.

The ratio of Federal civilian employment to the total U.S. population is expected to be 12.7 per thousand in 1979—which is equal to or lower than all of the 31 years displayed in table I-4.

Government Civilian Employment

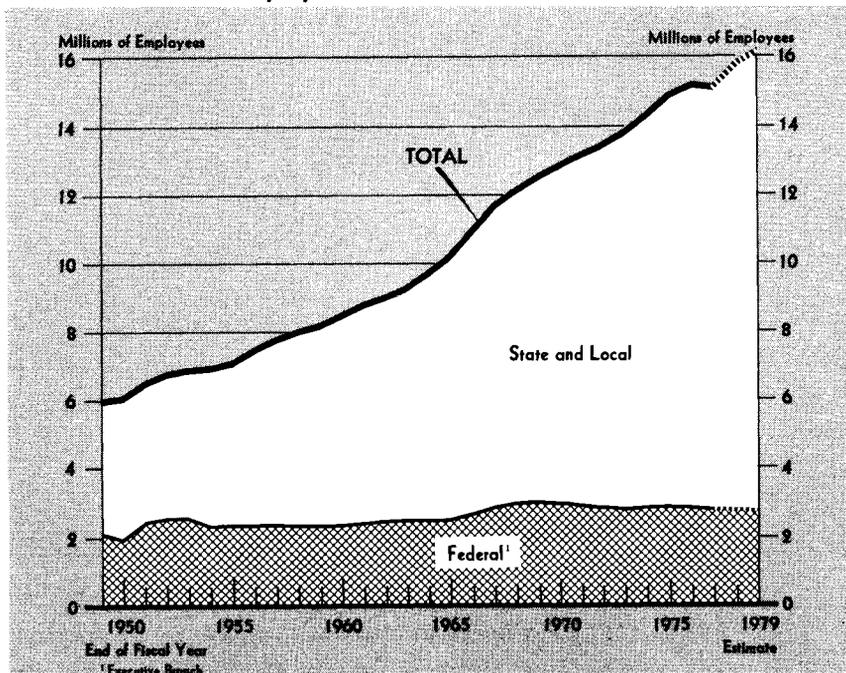


Table I-4. GOVERNMENT EMPLOYMENT AND POPULATION, 1949-79

Fiscal year	Government employment				Population	
	Federal executive branch ¹ (thousands)	State and local governments (thousands)	All governmental units (thousands)	Federal as percent of all governmental units	Total United States (thousands)	Federal employment per 1,000 population
1949.....	2,075	3,906	5,981	34.7	149,767	13.9
1950 ²	1,934	4,078	6,012	32.2	152,271	12.7
1951 ²	2,456	4,031	6,487	37.9	154,878	15.9
1952.....	2,574	4,134	6,708	38.4	157,553	16.3
1953.....	2,532	4,282	6,814	37.2	160,184	15.8
1954.....	2,382	4,552	6,934	34.4	163,026	14.6
1955.....	2,371	4,728	7,099	33.4	165,931	14.3
1956.....	2,372	5,064	7,436	31.9	168,903	14.0
1957.....	2,391	5,380	7,771	30.8	171,984	13.9
1958.....	2,355	5,630	7,985	29.5	174,882	13.5
1959.....	2,355	5,806	8,161	28.8	177,830	13.2
1960 ²	2,371	6,073	8,444	28.1	180,671	13.1
1961 ²	2,407	6,295	8,702	27.7	183,691	13.1
1962.....	2,485	6,533	9,018	27.6	186,538	13.3
1963 ³	2,490	6,834	9,324	26.7	189,242	13.2
1964 ³	2,469	7,236	9,705	25.4	191,889	12.9
1965.....	2,496	7,683	10,179	24.5	194,303	12.8
1966.....	2,664	8,259	10,923	24.4	196,560	13.6
1967.....	2,877	8,730	11,607	24.8	198,712	14.5
1968.....	2,951	9,141	12,092	24.4	200,706	14.7
1969 ⁴	2,980	9,496	12,476	23.9	202,677	14.7
1970 ²	2,944	9,869	12,813	23.0	204,878	14.4
1971 ²	2,883	10,257	13,140	21.9	207,053	13.9
1972.....	2,823	10,640	13,463	21.0	208,846	13.5
1973.....	2,775	11,065	13,840	20.0	210,410	13.2
1974.....	2,847	11,463	14,310	19.9	211,901	13.4
1975.....	2,848	12,025	14,873	19.1	213,540	13.3
1976.....	2,832	12,410	15,242	18.6	215,078	13.2
1977 (act.) ⁵	2,789	12,286	15,075	18.5	217,329	12.8
1978 (est.)	2,805	(⁶)	-----	17.8	219,068	12.8
1979 (est.)	2,803	(⁶)	-----	17.3	220,821	12.7

¹ Covers total end-of-year employment in full-time permanent, temporary, part-time, and intermittent employees in the executive branch, including the Postal Service, and, beginning in 1970, includes various disadvantaged youth and worker-trainee programs.

² Includes temporary employees for the decennial census.

³ Excludes 7,411 project employees in 1963 and 406 project employees in 1964 for the public works acceleration program.

⁴ On Jan. 1, 1969, 42,000 civilian technicians of the Army and Air Force National Guard converted by law from State to Federal employment status. They are included in the Federal employment figures in this table starting with 1969.

⁵ Data for 1949 through 1976 are as of June 30; for 1977 through 1979, as of Sept. 30.

⁶ The percentages shown for these years are consistent with reasonable estimates based on recent trends in State and local government.

PART 3

SELECTED FEDERAL PROGRAMS

INTRODUCTION

Part 3 furnishes Government-wide program and financial information in seven program areas—education, training and employment, health, income security, civil rights, environment, and research and development, designated J through P.

The figures used in these analyses differ from the data shown under somewhat similarly titled categories of the functional classification used in the Budget. In the functional classification, each activity is categorized according to its major purpose; thus, all the military spending of the Department of Defense falls into the functional category, *National defense*. In these special analyses, however, all spending for education, health, etc., is included, even if the activity has a different primary purpose. Therefore, the tabulations here are more comprehensive with regard to these particular types of programs.

Special Analysis J (Education) discusses education-related programs, including direct Federal activities, and programs that provide aid to States and localities, to institutions of higher education, and to individuals.

Special Analysis K (Training and Employment) identifies the Federal programs designed to increase the skills and employment opportunities of persons already in the work force and of persons who desire to join the work force but lack vocational preparation or face other employment barriers.

Special Analysis L (Health) summarizes Federal spending for health and health-related activities.

Special Analysis M (Income Security) discusses Federal benefits to maintain or supplement income of persons and families whose capacity for self-support is reduced by old age, disability, illness, unemployment, poverty, or death of the primary wage earner.

Special Analysis N (Civil Rights Activities) summarizes Federal spending for civil rights activities, concentrating on enforcement efforts.

Special Analysis O (Environment) identifies Federal funding for selected environmental activities, including pollution control and abatement, environmental protection and enhancement, and understanding, describing, and predicting the environment.

Special Analysis P (Research and Development) identifies Federal programs for the conduct of research and development, and for facilities related to such activities.

SPECIAL ANALYSIS J

EDUCATION

Federal support of education related programs are estimated to be \$22.7 billion in 1979. This support includes programs that provide aid to State and local education agencies, to institutions of higher education, to individuals, and direct Federal activities.

The expenditure estimate includes those programs that support student-teacher relationships for the communication of knowledge, or provide services to the community-at-large aimed at expanding individuals' opportunities for professional or career advancement. The analysis is further organized by level of education and type of support. As in previous years, all Federal programs directly supporting educational activities or involving the use of educational resources to achieve other purposes are included. Amounts for noneducational research conducted at academic institutions not falling within the above purposes are excluded. For comparability with the analyses that accompanied the 1973 and earlier budgets, these amounts are shown at the bottom of table J-1.

OVERVIEW: 1979

Total Federal education outlays are estimated at \$22.7 billion in 1979. The total is composed of three principal components:

- \$14.1 billion for programs whose primary purpose is education;
- \$8.2 billion for programs that are beneficial to the interests of education but are not primarily educational in purpose;
- \$0.4 billion for salary supplements in the form of educational allowances.

In addition, four tax expenditures ranging in size of \$155 million to \$815 million each will also support higher education in 1979.

Table J-1. FEDERAL OUTLAYS FOR EDUCATION

Purpose and program	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Office of Education:			
Educationally deprived children.....	1,930	2,129	2,580
Support-innovation consolidation.....	173	184	209
Other elementary and secondary programs.....	249	260	242
Federally affected areas.....	765	810	781
Emergency school aid.....	241	281	305
Education for the handicapped.....	249	367	562
Occupational, vocational, adult.....	693	740	803
Basic opportunity grants.....	1,387	1,529	1,936
Other higher education student support programs.....	1,170	1,038	1,090
Other higher education.....	320	305	339
Library and instructional resources consolidation.....	104	114	147
Student loan insurance and guaranteed loans.....	130	717	722
Salaries and expenses.....	118	131	126
Other Office of Education.....	162	225	245
National Institute of Education.....	64	80	90
Special institutions.....	154	166	185
Student grants, Social Security Administration.....	1,613	1,823	2,044
Human development services.....	501	589	629
Other HEW.....	253	294	324
Other.....	597	697	772
Subtotal, programs which are primarily educational.....	10,873	12,479	14,131
Federal outlays—education support for other basic purposes:			
Health professions training.....	658	505	470
Veterans readjustment.....	3,406	2,815	2,341
Defense.....	1,111	1,127	993
Child nutrition.....	2,792	2,811	2,699
Other.....	1,324	2,078	1,747
Subtotal, education support for other purposes.....	9,291	9,336	8,250
Federal outlays—salary supplements.....	274	296	365
Total, education outlays.....	20,438	22,111	22,746
Amounts previously carried for academic research not directed toward educational objectives.....	2,724	3,081	3,354

REFORM AND RENEWAL

The major responsibility for education rests with the States; the Federal role is limited but important. It is to help assure that every American has access to education, stimulate and encourage improvements in the educational process through reform and innovation, help build the capacity of States to fulfill their educational role, encourage educational research and support the development and dissemination of the arts and humanities. To carry out these missions, the following proposals are included in the 1979 Budget:

- Increased funding for education for the disadvantaged with increased emphasis on the basic skills—especially reading.
- Increased funding for States to fund the excess costs to educate handicapped children.
- Expansion of the Head Start program to include an additional 34,000 children.

- Reform of the impact aid program.
- Increased funding for school districts to assist them in complying with school desegregation requirements.
- Funding for higher education institutions to renovate and reconstruct facilities to remove architectural barriers for handicapped students.
- Full funding of the basic opportunity grant program with grants up to \$1,800 to help low and moderate income college students.
- Increased funding to increase the numbers of minorities and women in graduate education.
- Focusing educational research on problems of educational equity and student outcomes.
- Increased funding for the Arts and Humanities—especially to serve underserved populations.

Impact aid.—In 1979, reform of this program is proposed to provide funds for those districts that are adversely affected by the presence of Federal activities. Payments under the revised impact aid program would provide funds for construction of school facilities in districts heavily impacted by Federal activity or Federal bases, and payments to other Federal agencies for the education of Federal employees' dependents, and for major disasters.

Emergency school aid.—In 1979, funds will continue to be provided to school districts to aid them in their desegregation efforts. Increased support will also be provided for title IV of the Civil Rights Act of 1964, which provides advisory support and technical assistance to help educational agencies and institutions move toward achieving equality of educational opportunity. These funds will aid school districts in complying with school desegregation requirements.

Basic opportunity grants.—The \$2,177 million requested for basic grants will provide awards averaging \$970 for 2.2 million full- and part-time undergraduate students in academic year 1979–80. Grants will range from \$200 to the maximum of \$1,800. The size of the grant is determined on the basis of the expected family and student contribution, specified by the needs analysis requirements approved annually by Congress. The maximum grant which is an increase of \$200 above the current year's level and an increase in the asset reserve to \$25 thousand will allow for greater participation of middle income families.

Education for the handicapped.—Funds will be provided to help support State and local education agencies that educate handicapped children. Increased funds will be used to pay 12% of the extra costs required by States and local agencies to identify and educate these children.

National Institute of Education.—The Institute (NIE) will continue as a focal point for the conduct of educational research and development. New research during the fiscal year will increase studies in such areas as student achievement and testing, improved teaching, and urban education. Budget authority of \$100 million is requested in 1979.

OTHER PROGRAM DEVELOPMENTS

Health professions training support.—Federal support for health professions training will include: institutional grants designed to improve the specialty and geographic distribution of health professionals and student assistance programs which include service commitment scholarships and guaranteed loans. A new federally insured loan program with loan guarantee authority of up to \$500 million will enable students to borrow from private lenders to help pay for the cost of their medical education and training.

Veterans benefits.—In 1979, 1.3 million GI bill beneficiaries are expected to enroll in education courses covered by this special analysis at an average cost of \$2,104, up from \$1,977 in 1978.

Child nutrition.—The administration is proposing to moderate growth in Federal subsidies for children from families with incomes in excess of 195% of the income poverty guidelines.

PROGRAMS THAT ARE PRIMARILY EDUCATIONAL

Programs whose primary purpose is education are estimated to account for \$14.1 billion of educational expenditures in 1979. Elementary and secondary levels will receive \$6.8 billion of this amount. Higher education will receive an estimated \$6.1 billion and the remaining \$1.2 billion will be directed toward adult and continuing education, libraries, research, and cultural activities. Approximately 77% of Federal elementary and secondary school funds are administered by the U.S. Office of Education of the Department of Health Education, and Welfare. Other HEW programs account for another \$1.3 billion.

The Office of Human Development will provide \$680 million in budget authority in 1979 for the Head Start program.

Under the social security system (OASDI), survivors of insured workers between the ages of 18 and 22 who are still in school receive benefits, while those not in school do not. Legislation is proposed to limit the amount of benefits payable to eligible students to the maximum available under the Basic Educational Opportunity grants.

Table J-2. FEDERAL OUTLAYS FOR PROGRAMS WHICH ARE
PRIMARILY EDUCATIONAL BY LEVELS

Purpose and program	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Elementary and secondary:			
Office of Education:			
Educational deprived children.....	1,930	2,129	2,580
Support-innovation consolidation.....	173	184	209
Other elementary and secondary programs.....	225	225	202
Federally affected areas.....	765	810	781
Emergency school aid.....	241	281	305
Education for the handicapped.....	247	366	560
Occupational, vocational, and adult education.....	393	417	458
Library resources consolidation.....	113	121	148
Office of Child Development.....	458	536	566
Human services development.....	458	536	566
Student grants, Social Security Administration.....	314	351	390
Other HEW.....	246	309	344
Bureau of Indian Affairs, Interior.....	199	203	217
Other.....	25	35	34
Subtotal, elementary and secondary.....	5,329	5,967	6,794
Higher education:			
Office of Education:			
Basic opportunity grants.....	1,387	1,534	1,936
Work-study and supplementary grants, student incentive grants.....	620	686	762
Guaranteed student loans.....	247		
Direct student loans.....	245	347	329
Occupational, vocational, and adult education.....	166	176	193
Student loan insurance and guaranteed loans.....	97	559	558
Disadvantaged students and developing institutions.....	130	184	226
Other Office of Education.....	206	133	148
Special institutions.....	99	112	126
Student grants, Social Security Administration.....	1,181	1,338	1,505
Other HEW.....	133	157	175
National Science Foundation.....	56	56	55
Other.....	61	56	62
Subtotal, higher education.....	4,628	5,338	6,075
Adult and continuing education:			
Office of Education:			
Occupational vocational and adult education.....	134	147	152
Public libraries.....	42	64	62
Student grants, Social Security Administration.....	138	134	150
Library of Congress.....	88	86	107
Other.....	110	62	56
Subtotal, adult and continuing education.....	492	493	527
Other:			
Office of Education:			
Salaries and expenses.....	118	131	126
Student loan insurance and guaranteed loans.....	33	158	163
National Institute of Education.....	12	12	13
Special institutions.....	33	30	32
Smithsonian Institution.....	58	62	63
Corporation for Public Broadcasting.....	103	119	120
National Endowments for the Arts and the Humanities.....	16	14	22
Other.....	51	155	196
Subtotal, other.....	424	681	735
Total.....	10,873	12,479	14,131

The Federal Government aids or directly provides education for groups such as Indians, Cuban refugees, and residents of Pacific territories. The National Science Foundation and the National Endowments for the Arts and the Humanities also provide some support to elementary and secondary school levels.

An estimated \$6.1 billion will be spent in 1979 for higher education, an increase of \$737 million from the 1978 level. Expenditures for higher education are 43% of total Federal outlays for education.

The majority of the funds for educational purposes at the higher education level is for student support. In 1972, the year in which Congress enacted higher education amendments, \$933 million for Office of Education student support programs (work-study, supplementary grants, guaranteed student loan and direct student loans) constituted 43% of the total. In 1979, under administration proposals, Office of Education student aid expenditures will reach \$3.5 billion more than three times the 1972 level. Social security benefits to students at institutions of higher education will provide an additional \$1,505 million of student support in 1979, an increase of \$167 million above the 1978 level. The focus of higher education aid will continue to shift from institutional support to direct student support with the full funding of basic opportunity grants.

Adult, continuing and other related activities will be provided \$1,260 million in 1979, a 7% increase over 1978. The Library of Congress and the Smithsonian Institution are among the activities included in this category.

EDUCATIONAL SUPPORT FOR OTHER PURPOSES

Over one-third the expenditures for education is in programs directed toward multiple purposes.

One of the largest single programs in this category is veterans readjustment benefits (the GI bill). Veterans readjustment is designed primarily to compensate veterans for opportunities lost while they were in the service. Expenditures reflect estimated use of program benefits by veterans, active duty personnel and other beneficiaries. Outlays for those education activities covered by this analysis peaked in 1976 at \$5.5 billion. The 1979 expenditure of \$2.3 billion reflects a decreasing number of persons eligible to receive benefits. School lunch, breakfast, milk, and other feeding programs provide \$2.7 billion in benefits for nutrition in 1979, a decrease of \$100 million below 1978 levels.

The GI bill and child nutrition programs will comprise 61% of the educational outlays from noneducation programs in 1979. The largest training program is for defense personnel. The Department of Defense trains inservice personnel and educates future service personnel through the service academies and Reserve Officer Training Corps. Outlays for training will total \$149 million in 1979.

Table J-3. FEDERAL OUTLAYS FOR OTHER BASIC PURPOSES BY LEVEL

Level and program	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Elementary and secondary:			
Child nutrition.....	2,792	2,811	2,699
U.S. Forest Service, Agriculture.....	25	113	120
Military personnel.....	23	24	25
Veterans readjustment.....	92	76	66
Other.....	50	56	53
Subtotal, elementary and secondary.....	2,982	3,080	2,963
Higher education:			
Veterans readjustment.....	2,802	2,316	2,009
Military service academies.....	245	255	291
Reserve Officers Training Corps.....	183	200	218
Other defense.....	228	216	206
Health professions training.....	657	504	470
Research training, National Institutes of Health.....	125	155	172
Alcohol, Drug, and Mental Health Administration.....	69	82	81
Other.....	103	114	106
Subtotal, higher education.....	4,412	3,842	3,553
Adult and continuing education:			
Agriculture Extension Service.....	239	254	252
Veterans readjustment.....	512	423	267
Other.....	105	104	149
Subtotal, adult and continuing education.....	856	781	668
Training of Federal military employees:			
Defense.....	339	345	119
Coast Guard.....	25	28	30
Subtotal, training of Federal military employees.....	364	373	149
Other:			
Public service jobs.....	462	1,004	619
International development assistance.....	62	88	129
Other.....	153	168	169
Subtotal, other.....	677	1,260	917
Total.....	9,291	9,336	8,250

SALARY SUPPLEMENTS

Salary supplements in the form of educational allowances or direct provision of education for Federal employees or for their dependents will reach an estimated \$365 million in 1979, a 9% increase over 1978. These supplements consist almost entirely of Defense Department expenditures for overseas dependents education. This program accounts for \$351 million in 1979.

Table J-4. FEDERAL EDUCATION OUTLAYS FOR SALARY SUPPLEMENTS

Level and program	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Total, salary supplements.....	274	296	365
Elementary and secondary.....	271	292	361
Higher education.....	1	1	1
Adult education.....	1	1	1
Other.....	1	2	2
Defense: Overseas dependents education.....	261	282	351
Other.....	13	14	14

EDUCATIONAL PERSONNEL TRAINING AND RESEARCH

Educational personnel training and research is funded under many programs already identified as directed toward education goals. They account for \$929 million in 1979 or 4% of total educational expenditures. Training funds (\$261 million) increase in 1979 by \$21 million over 1978 levels. Educational research, estimated at \$668 million in 1979, will be \$191 million above the 1977 and \$88 million above the 1978 levels.

The largest contributors to these categories are the Office of Education (74% of training funds) and 70% of research funds.

Table J-5. FEDERAL OUTLAYS FOR PERSONNEL TRAINING AND RESEARCH IN EDUCATION

Program	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Education personnel training:			
Occupational, adult and vocational.....	27	32	24
Emergency school assistance.....	60	73	80
Education for the handicapped.....	38	39	48
Special projects and training.....	10	21	24
Elementary and secondary education.....	13	14	18
Human development services.....	30	38	39
National Science Foundation.....	6	9	11
Other.....	23	14	17
Subtotal, education personnel training.....	207	240	261
Education research:			
Elementary and secondary education.....	133	176	184
Education for the handicapped.....	61	75	105
Occupational, vocational, and adult education.....	98	105	114
Special projects and training.....	27	52	64
Assistant Secretary for Education.....	9	11	14
National Institute of Education.....	64	80	90
National Endowments for the Arts and Humanities.....	30	22	27
National Science Foundation.....	35	41	43
Other.....	20	18	27
Subtotal, educational research.....	477	580	668
Total	684	820	929

EDUCATIONAL SPENDING BY PURPOSE AND LEVEL

The table that follows (J-6) displays educational support funding by purpose and level.

Table J-6. FEDERAL OUTLAYS FOR EDUCATION BY PURPOSE AND LEVEL

	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Elementary and secondary:			
Education.....	5,329	5,967	6,794
Other basic purposes.....	2,982	3,080	2,963
Salary supplements.....	271	292	361
Total, elementary and secondary.....	8,582	9,339	10,118
Higher education:			
Education.....	4,628	5,338	6,075
Other basic purposes.....	4,412	3,842	3,553
Salary supplements.....	1	1	1
Total, higher education.....	9,040	9,181	9,629
Adult and continuing education:			
Education.....	492	493	527
Other basic purposes.....	856	781	668
Salary supplements.....	1	1	1
Total, adult and continuing education.....	1,349	1,275	1,196
Other:			
Education.....	424	681	735
Other basic purposes.....	1,041	1,633	1,066
Salary supplements.....	2	2	2
Total, other.....	1,466	2,316	1,803
Total, outlays for education.....	20,438	22,111	22,746

Elementary and secondary education support is provided primarily through grants to State and local educational agencies, while higher education support is not. Grants or loans are provided to an educational institution or to a student who then selects an institution to attend. Federal support for higher education continues to shift from institutional to student assistance. In 1979 an estimated \$7.9 billion or 82% of total higher education outlays will be direct grants or subsidies via loans to students. Another \$1.6 billion will go to institutions for current operations or facilities and equipment. This amount is essentially the same as the 1978 level.

Table J-7. FEDERAL OUTLAYS FOR ELEMENTARY AND SECONDARY EDUCATION BY SUBLEVEL AND TYPE OF SUPPORT

Sublevel and type of support	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Total, elementary and secondary.....	8,582	9,339	10,118
Early childhood.....	915	1,059	1,177
Elementary and secondary.....	7,309	7,825	8,409
Supporting services.....	358	455	532
Current operations.....	7,510	8,076	8,749
Facilities and equipment.....	158	184	187
Student support.....	414	440	466
Education personnel training.....	157	198	216
Educational research.....	343	441	500

The Federal Government also aids education through four tax benefits which are predominantly at the higher education level. The exclusion from taxable income of veterans readjustment benefits (the GI bill) is estimated to reduce Federal revenues by \$155 million in 1979. The similar exclusion for other scholarships and fellowships results in a revenue loss of \$280 million in 1979. Parents may claim a personal exemption for full-time students over 18, even if the students have incomes of their own. This tax expenditure of \$720 million in 1979 aids families with older children in school. Finally, the deductibility of contributions by both individuals and corporations to educational institutions is estimated to reduce Federal receipts by \$815 million in 1979.

Student support continues to be the predominant higher education expenditure. Outlays for 2- and 4-year institutions in 1979 increase by approximately 6% above the 1978 level.

Table J-8. FEDERAL OUTLAYS FOR HIGHER EDUCATION BY TYPE OF INSTITUTION AND TYPE OF SUPPORT

	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Total, higher education.....	9,040	9,181	9,629
2-year institutions.....	3,016	2,956	3,078
Other undergraduate.....	4,506	4,854	5,202
Graduate and professional.....	1,518	1,371	1,349
Current operations.....	1,200	1,301	1,412
Facilities and equipment.....	386	220	196
Student support.....	7,320	7,521	7,860
Education personnel training.....	40	33	42
Educational research.....	94	106	119

STUDENT SUPPORT

An estimated \$7.9 billion will be available for student support in 1979, 91% of which is for undergraduate student assistance. The GI bill will provide 20% of the total for all student assistance. The Office of Education will spend another 91% or about \$7.2 billion to support various grant and loan programs.

The Office of Education estimates that about 2.5 million student grants and loans will be made in 1979 under its programs. Students receiving aid under more than one program account for at least one-third of this total.

Table J-9. STUDENT SUPPORT BY AGENCY: FEDERAL OUTLAYS AND NUMBER OF STUDENTS

Agency	Outlays (millions)			Student (thousands) ¹		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Undergraduate:						
Health, Education, and Welfare:						
Office of Education.....	2,570	3,060	3,550	2,255	2,224	2,440
Social Security Administration.....	1,145	1,297	1,459	609	642	671
Health agencies.....	31	35	22	35	36	19
Veterans Administration.....	2,513	2,077	1,801	1,314	1,004	867
Defense.....	165	175	189	131	138	144
Justice.....	43	43	38	95	89	76
Bureau of Indian Affairs, Interior.....	36	35	35	21	24	25
Other.....	7	9	12	6	6	6
Subtotal, undergraduate.....	6,510	6,731	7,106			
Graduate:						
Health, Education, and Welfare:						
National Institutes of Health.....	86	105	118	11	11	11
Office of Education.....	114	124	115	80	80	87
Health Resources Administration.....	92	103	102	52	67	52
Other HEW.....	42	43	33	11	12	10
Veterans Administration.....	289	239	207	102	124	107
National Science Foundation.....	16	13	14	2	2	2
Defense.....	165	158	160	39	42	41
Other.....	7	6	5	3	3	3
Subtotal, graduate.....	811	791	754			
Total ².....	7,321	7,522	7,860			

¹ Fiscal year student totals correspond to relevant academic years such as 1977 reflects the 1976-77 school year.

² Student totals not shown because some students receive awards under more than one program.

OUTLAYS BY EDUCATIONAL SUBLEVEL

In order to provide data in a form comparable with earlier education special analyses, the following tables are provided which display program and agency outlays by education sublevels in 1977, 1978, and 1979.

Table J-10. FEDERAL OUTLAYS FOR ELEMENTARY AND SECONDARY EDUCATION BY AGENCY

Sublevel, agency and program	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Early childhood:			
Office of Education:			
Elementary and secondary.....	371	418	473
Education for the handicapped.....	52	68	98
Appalachian regional development.....	14	14	14
Human development services.....	458	536	566
Other.....	20	23	26
Subtotal, early childhood.....	915	1,059	1,177
Elementary and secondary:			
Child nutrition.....	2,792	2,811	2,699
Defense.....	271	291	359
Office of Education:			
Educationally deprived children.....	1,716	1,896	2,295
Other elementary and secondary programs.....	267	236	213
Federally affected areas.....	765	810	781
Emergency school aid.....	22	30	34
Education for the handicapped.....	111	213	357
Occupational, vocational, and adult education.....	393	417	458
Library resources and library consolidation.....	112	119	147
Other, Office of Education.....	47	56	60
Student grants, Social Security Administration.....	314	351	390
Other HEW.....	120	134	149
Bureau of Indian Affairs, Interior.....	193	197	211
U.S. Forest Service, Agriculture.....	25	113	120
Veterans readjustment.....	92	76	66
Other.....	69	75	70
Subtotal, elementary and secondary.....	7,309	7,825	8,409
Supporting services:			
Office of Education:			
Educationally deprived children.....	64	69	86
Other elementary and secondary programs.....	82	122	138
Support and innovation.....	48	52	59
Education for the handicapped.....	83	85	105
Special projects and training.....	20	48	54
National Institute of Education.....	43	54	62
National Science Foundation.....	3	9	11
Other.....	15	16	17
Subtotal.....	358	455	532
Total.....	8,582	9,339	10,118

Table J-11. FEDERAL OUTLAYS FOR HIGHER EDUCATION BY AGENCY

Sublevel, agency and program	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
2-year institutions:			
Office of Education:			
Basic opportunity grants.....	694	767	968
Other higher education.....	291	301	325
Occupational and vocational education.....	166	176	193
Student grants, Social Security Administration.....	282	319	359
Health Resources Administration.....	45	55	52
Veterans readjustment.....	1,451	1,200	1,041
Other.....	87	138	140
Subtotal, 2-year institutions.....	3,016	2,956	3,078
Other undergraduate:			
Military service academies.....	245	255	291
Reserve Officers Training Corps.....	183	200	218
Health Resources Administration.....	73	69	65
Office of Education:			
Basic opportunity grants.....	694	767	968
Work-study and supplementary grants.....	403	486	515
Guaranteed student loans.....	204		
Direct student loans.....	181	257	243
Disadvantaged students and developing institutions.....	103	148	183
Other higher education.....	242	527	553
Student grants, Social Security Administration.....	863	979	1,100
Special institutions.....	46	57	67
Office of the Secretary.....	68	79	86
Other Office of Education and HEW.....	24	33	36
Bureau of Indian Affairs, Interior.....	27	27	26
Veterans readjustment.....	1,062	878	761
National Science Foundation.....	24	24	22
Other.....	64	68	68
Subtotal, other undergraduate.....	4,506	4,854	5,202
Graduate and professional:			
Health Services Administration.....	27	25	24
Research training, National Institutes of Health.....	125	154	171
Alcohol, Drug, and Mental Health Administration.....	63	76	77
Health Resources Administration.....	539	381	354
Higher education (Office of Education).....	71	58	63
Student grants, Social Security Administration.....	36	41	46
Special institutions.....	53	55	59
Veterans readjustment.....	289	239	207
Department of Defense.....	208	199	191
National Science Foundation.....	25	23	23
Other.....	82	120	134
Subtotal, graduate and professional.....	1,518	1,371	1,349
Total.....	9,040	9,181	9,629

Table J-12. FEDERAL OUTLAYS FOR ADULT EDUCATION AND OTHER ACTIVITIES BY AGENCY

Sublevel, agency and program	Outlays (millions)		
	1977 actual	1978 estimate	1979 estimate
Adult basic and extension:			
Agriculture extension service.....	239	254	252
Occupational, vocational and adult education.....	129	142	147
Other Office of Education.....	77	29	17
Social Security Administration.....	118	134	150
Veterans readjustment.....	512	423	267
Department of Defense.....	87	86	132
Other.....	27	28	30
Subtotal, adult basic and extension.....	1,189	1,096	995
Public and national library services:			
Library of Congress.....	88	86	107
Library resources (Office of Education).....	42	64	62
Other.....	26	23	27
Subtotal, public and national library services.....	156	173	196
Training of Federal, State, and local civilian employees:			
Justice.....	13	16	17
Federal Aviation Administration.....	17	16	17
Commerce Department.....	11	13	16
Department of the Treasury.....	11	12	14
Other.....	11	12	13
Subtotal, training of public civilian employees.....	63	69	77
Training of Federal military employees:			
Defense.....	339	345	119
Coast Guard.....	25	28	30
Subtotal, training of Federal military employees.....	364	373	149
Foreign educational activities:			
International development assistance.....	60	85	125
Department of Defense.....	2	3	3
Subtotal, foreign educational activities.....	62	88	128
Other:			
Office of Education:			
Salaries and expenses.....	118	131	126
Educationally deprived children.....	56	190	206
Assistant Secretary for Education.....	22	28	36
Special institutions.....	33	30	32
Office of the Secretary, HEW.....	34	45	48
National Institutes of Health.....	21	25	27
Smithsonian Institution.....	58	62	63
Corporation for Public Broadcasting.....	103	119	120
National Endowments for the Arts and Humanities.....	16	14	22
Public service jobs, Labor.....	462	1,004	619
Housing and Urban Development.....	-44	37	52
International Communication Agency.....	34	40	46
Other.....	69	67	57
Subtotal, other.....	982	1,792	1,454
Total.....	2,816	3,591	2,999

Table J-13. FEDERAL AID FOR EDUCATION BY AGENCY

	Outlays (millions)			Budget authority (millions) 1979
	1977 actual	1978 est.	1979 est.	
Legislative branch:				
Library of Congress.....	88	86	107	102
Funds appropriated to the President:				
International Development Assistance.....	62	88	129	129
Appalachian Regional Commission.....	43	48	45	32
Agriculture.....	3,063	3,196	3,090	3,025
Commerce.....	16	18	21	21
Defense—Military.....	1,372	1,409	1,343	1,399
Defense—Civil.....	10	11	11	18
Health, Education, and Welfare:				
Office of Education.....	7,691	8,830	10,087	12,316
Other HEW.....	3,505	3,767	4,070	3,828
Housing and Urban Development.....	-38	42	54	36
Interior.....	257	264	281	282
Justice.....	61	67	62	52
Labor.....	462	1,004	619	666
State.....	9	10	11	11
Transportation.....	43	46	48	49
Treasury.....	11	12	14	15
Energy.....	3	4	3	3
Environmental Protection Agency.....	7	7	5	5
General Services Administration.....	17	16	16	16
National Aeronautics and Space Administration.....	5	5	5	5
Veterans Administration.....	3,406	2,815	2,341	1,810
Other independent agencies:				
ACTION.....	33	31	22	19
Corporation for Public Broadcasting.....	103	119	120	120
International Communication Agency.....	40	46	53	55
National Endowments for the Arts and Humanities.....	46	36	51	131
National Science Foundation.....	65	71	74	78
Smithsonian Institution.....	58	62	63	63
Other.....		1	1	1
Total.....	20,438	22,111	22,746	24,287

SPECIAL ANALYSIS K

TRAINING AND EMPLOYMENT

PURPOSE AND GENERAL DESCRIPTION OF PROGRAMS

The purpose of Federal training and employment programs is to increase the employment opportunities and work skills of persons already in the labor force and of persons who desire to join the labor force but lack vocational preparation or face other employment barriers. These programs include on-the-job and classroom skill training, vocational rehabilitation, transitional public sector employment experience, job placement assistance, equal employment opportunity enforcement, and related child care and support services.

These programs are distinguished from regular educational programs because they: (1) operate outside of the traditional educational process; (2) provide training for nonprofessional jobs; (3) usually provide services for less than 1 year; and (4) frequently target on the disadvantaged or unemployed. Specifically excluded from this analysis are programs of vocational and technical education and paraprofessional training such as those authorized by the Vocational Education Act, Adult Education Act, and Elementary and Secondary Education Act. These programs are covered in Special Analysis J (Education).

This analysis covers all programs classified as training and employment services in the functional classification of the budget. It also includes programs with similar objectives in other classifications such as income security or veterans benefits and services.

Overall training and employment outlays in 1979 are expected to be \$15.2 billion, about \$1.9 billion more than 1978. Virtually all of this increase (97%) occurs in Labor Department programs, primarily for the Comprehensive Employment and Training Act (CETA), including public service employment, youth programs, welfare reform demonstrations, and an initiative emphasizing private sector jobs.

TAX EXPENDITURES

Certain provisions of the personal and corporate income tax that are designed to achieve particular economic and social objectives give rise to revenue losses that are called tax expenditures. This concept is discussed more fully in Special Analysis G (Tax Expenditures). Three tax expenditures are specifically related to training and employment efforts. Since they do not result in obligation, workload, and outlay figures comparable to the other activities in this analysis, amounts for these tax expenditures are noted here, but are not included in tables in the body of the analysis.

Child and dependent care expenses.—A 20% tax credit for child and dependent care expenses incurred to permit a taxpayer and spouse (or a single worker with dependents) to work may be taken, up to a

maximum credit of \$400 for one child and \$800 for two or more. These provisions of the Tax Reform Act of 1976 replaced a deduction for child and dependent care expenses which phased out at high-income levels.

WIN/AFDC tax credit.—Employers may take a corporate income tax credit equal to 20% of the first-year wages and salaries of employees placed in employment under the Work Incentive Program (WIN). Beyond \$50,000 a year, the credit is allowable only at half this rate. The Tax Reduction Act of 1975 and Tax Reform Act of 1976 extended a similar credit to all AFDC recipients, and made the credit applicable to private employers of domestics. However, in the case of domestics, the maximum amount of wages on which credit may be taken is \$5,000.

Employment tax credit.—The Tax Reduction and Simplification Act of 1977 contains a jobs credit for calendar years 1977 and 1978. An employer may take an income tax credit equal to 50% of the amount by which the employer's annual wages subject to the Federal Unemployment Tax Act (\$4,200 per employee per year for this program) exceed 102% of such wages in the previous year. There is an additional 10% credit for hiring certain handicapped persons. The allowable credit is limited in several ways, notably to \$100,000 per year and to 50% of the amount by which total wages exceed 105% of the previous year's total wages. The employer's tax deduction of wages from gross income is reduced by the amount of the credit.

Estimates of the tax receipts lost due to these provisions are:

TAX EXPENDITURES

(In millions of dollars)

	1977 estimate	1978 estimate	1979 estimate
Child and dependent care.....	475	525	555
WIN/AFDC.....	15	15	20
Employment.....	690	2,460	1,895
Total.....	1,180	3,000	2,470

ECONOMIC STIMULUS PROGRAMS

Under the administration's economic stimulus policies, several programs have been initiated or expanded, providing substantial spending in 1978 and 1979 to assist the economic recovery and to enhance efforts to attack the problem of high unemployment. Programs which were expanded include Job Corps, grants for Indians and migrants, and temporary employment assistance (public service jobs). New funding was provided for programs of classroom, on-the-job, and apprentice training, and for outreach services for veterans.

The most important new activity is for youth training and employment. The Youth Employment and Demonstration Projects Act of 1977 (YEDPA) authorized four new programs:

(1) A year-round conservation corps (Young Adult Conservation Corps);

(2) a test, in a few communities, of the school attendance and completion effects of a job guarantee to all in-school poor youth (Youth Incentive Entitlement Pilot Projects);

(3) grants to States and localities for work producing lasting physical results, such as weatherization or public facility renovation (Youth Community Conservation and Improvement Projects); and

(4) general training and employment grants to States and localities (Youth Employment and Training Programs).

The act focuses primarily on testing and demonstration, so that future decisions on long-term policy direction can be made with better information on the nature of youth employment problems and on the effectiveness of various service approaches.

Detailed program data will not be available on most programs until 1979.

STIMULUS PROGRAMS¹

(Individuals in thousands, outlays in millions)

Program	Outlays			Individuals served					
				Years of service			New enrollees		
	1977 actual	1978 est.	1979 est.	1977 actual	1978 est.	1979 est.	1977 actual	1978 est.	1979 est.
Job Corps.....		72	173		7	20		20	37
Temporary employment assistance.....	2,836	5,735	6,203	337	680	725	886	1,458	1,397
Youth.....		620	1,186		92	166		342	256
Other.....	8	200	307		29	55		96	79
Total.....	2,844	6,627	7,869	337	808	966	886	1,916	1,769

¹ All programs shown in total budget figures except for Job Corps, which shows only the stimulus increment above the previous program level.

Not included in this special analysis is the employment impact of the \$6 billion stimulus program for local public works in the Commerce Department. It provided grants to States and localities for construction, renovation, repair, and demolition of public works facilities. It is estimated to create directly some 110,000 jobs in 1977 and 1978.

OTHER NEW PROGRAMS

Three other programs are new in this year's analysis in addition to the stimulus programs noted above. They are:

(1) *Federal summer employment.*—This analysis has in the past included the summer aide program of Federal hiring of disadvantaged in-school youth. Joining the summer aide program in this analysis is Federal summer employment, a companion program which hires primarily college and high school students with specific skills for identified projects during the summer vacation.

(2) *Employment opportunities.*—The administration's proposed Better Jobs and Income Act envisions a complete restructuring of the nation's welfare system, including a strong emphasis on work (the

Employment Opportunities Program) and a uniform minimum income level for persons in need. Full implementation requires several years after enactment because of the magnitude of institutional changes. However, the budget includes \$50 million for planning grants in 1979 for State and local prime sponsors to use with the Employment Service and community organizations to develop the administrative system. Also included is \$200 million for large-scale demonstration efforts run by the Departments of Labor and Health, Education, and Welfare to learn more about various elements of the program.

(3) *Private sector initiative.*—A major effort will be made to increase the orientation of training and employment programs toward preparation for, and placement in, private sector jobs. Working through States and localities, increased funding of \$400 million in budget authority will be provided in 1979 for training and employment designed with the aid of local businesses. This initiative will be aimed at serving the disadvantaged and unemployed, particularly young people. Planning and initial developmental work will start in 1978.

YOUTH PROGRAMS

Many programs provide training and employment services to young people, either in part (for example, CETA Title I grants) or in entirety (for example, Job Corps). In 1977, approximately 8.7 million youth (ages 14 to 22) were served, at a cost of \$2.9 billion (see table below). Of these, about 16% participated in programs specifically designed to assist young people.

Federal youth programs fall primarily into four broad categories: (1) training and skill development (for example, Job Corps); (2) summer work experience (for example, CETA summer employment, Youth Conservation Corps, Federal summer employment); (3) year-round work experience and public service employment (for example, high school work-study, stay-in-school, most activities in the four programs authorized by YEDPA); and (4) job placement assistance (for example, through the Employment Service).

Improving the understanding of youth labor force problems and possibilities is the principal focus of a range of research and demonstration efforts in several agencies. Notable among these efforts is the explicitly experimental set of programs authorized by YEDPA. In addition to a large-scale test in several communities of the impact on school attendance and completion rates of part-time job guarantees to all in-school poor youth, YEDPA research and development efforts will encompass a wide variety of projects, such as building better local ties among schools, businesses, nonprofit agencies, and CETA prime sponsors, evaluating costs and benefits of using different administrative agencies for youth programs, and testing private sector approaches such as direct employment, apprenticeship, and training cost subsidies.

YOUTH PROGRAMS IN FISCAL YEAR 1977

(Individuals in thousands, outlays in millions)

Program	New enrollees	Total participants	Outlays
Only for youth:			
CETA summer.....	1,000.0	1,000.0	575.0
Youth Conservation Corps.....	38.0	38.0	48.1
Job Corps-CETA Title IV.....	45.5	66.2	201.6
High school work-study.....	8.0	53.0	9.7
Federal summer aide.....	35.1	35.1	35.1
Stay-in-school.....	6.8	21.5	65.7
Federal summer employment.....	12.2	12.2	19.7
Subtotal.....	1,145.6	1,226.0	954.9
Serving youth and others ¹			
CETA-Title I.....	621.6	792.9	895.6
CETA-Title III (except summer).....	29.5	34.7	34.0
Temporary employment assistance.....	177.3	295.9	567.5
WIN.....	14.4	20.5	37.0
HUD-community development.....	1.3	1.5	7.5
Veterans Administration programs.....	3.7	8.6	15.7
Bureau of Indian Affairs programs.....	3.7	6.9	17.1
Justice Department programs.....	2.1	3.3	.1
HEW-vocational rehabilitation.....	105.2	288.1	137.6
HEW-institutional training.....	9.8	31.1	15.8
Employment Service (includes food stamp recipient services).....	4,754.1	5,997.1	188.0
Subtotal.....	5,722.7	7,480.6	1,915.9
Total.....	6,868.3	8,706.6	2,870.8

¹ Outlays for these programs are prorated based on the percentage of youth participants. All figures are for youth only. WIN data represent on-the-job training, institutional training, work experience, and public service employment program approaches only.

PROGRAM APPROACHES

Training and employment programs are classified into major approaches as follows:

- On-the-job training* provides training for private sector job vacancies by reimbursing employers for the added costs of hiring and training disadvantaged individuals. Employers are expected to retain the individual once reimbursement ends.
- Institutional training* provides instruction in vocational skills and job-related remedial education in a classroom setting.
- Vocational rehabilitation* helps individuals overcome physical and mental handicaps to employment through skill training, counseling, allowances, and supportive services.
- Work experience* provides temporary employment experience, generally part time, primarily for youth and older workers.
- Public service employment* provides employment in public sector jobs, intended to be transitional, for individuals who need to

acquire work discipline and skills to compete for nonsubsidized jobs, or who are temporarily unable to find regular employment because of slack labor markets.

—*Labor market services* encompasses services such as (a) job placement assistance, (b) collection and analysis of labor market information, (c) equal employment opportunity enforcement activities (excluding individual agency civil rights activities other than contract compliance—see Special Analysis N, Civil Rights Activities), and (d) other miscellaneous activities.

—*Federal program support* includes research, development and evaluation activities, as well as planning, technical assistance, and program direction.

Some programs can be classified entirely under one approach. Others, such as the Work Incentive Program (WIN) and Comprehensive Employment and Training Act (CETA) programs, offer a range of work and training services, and are divided among several approaches.

Estimates by approach for CETA State and local programs are based on the actual distribution by approach in the 1977 programs. Approaches actually used will be those which local sponsors determine are most appropriate to the individuals they serve and to the local labor market. The actual 1978 and 1979 uses may therefore vary considerably from the estimates.

PROGRAM MEASURES

The three principal measures used to summarize the level of program services are:

- Years of service*, which is average year-round enrollment;
- New enrollees*, which is the number of individuals beginning the activity during the year; and
- Outlays*, which is the amount of actual spending during the year.

Because 1978 was a buildup year for many stimulus programs, the new enrollments are correspondingly high. Small declines in new enrollments—but small increases in outlays and years of service—are expected in 1979 based on achievement of more even, steady-state operating levels.

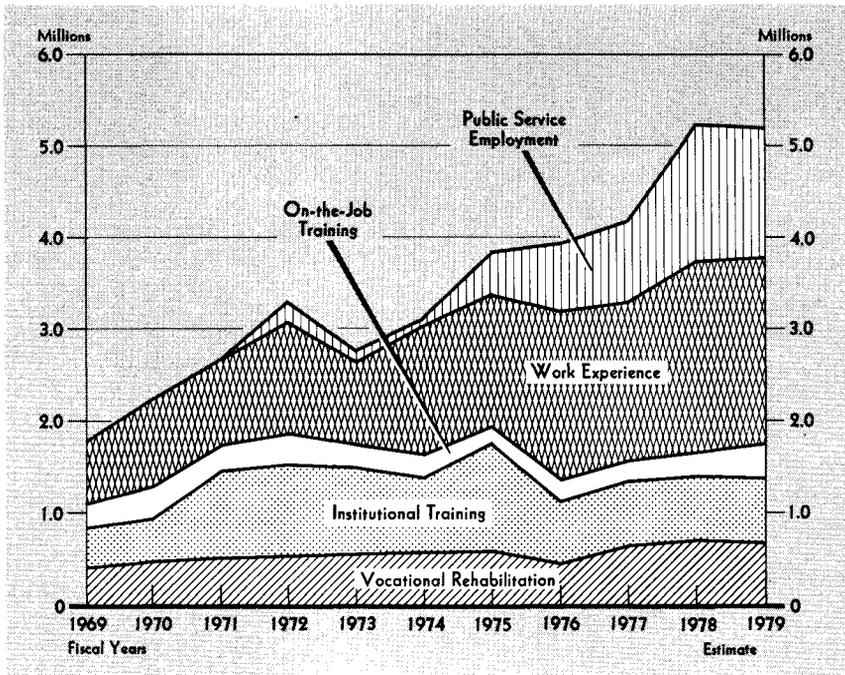
Table K-1. DISTRIBUTION OF SERVICES BY APPROACH (in percent)

Program	Outlays			Years of service			New enrollees		
	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.
Public service employment...	32	44	41	14	23	24	21	26	25
Work experience.....	20	20	23	24	24	25	41	42	41
On-the-job training.....	6	4	5	5	5	6	6	5	7
Institutional training.....	12	10	10	13	12	12	16	14	13
Vocational rehabilitation...	11	8	7	43	36	33	16	13	13
Labor market services.....	20	14	13	NA	NA	NA	NA	NA	NA

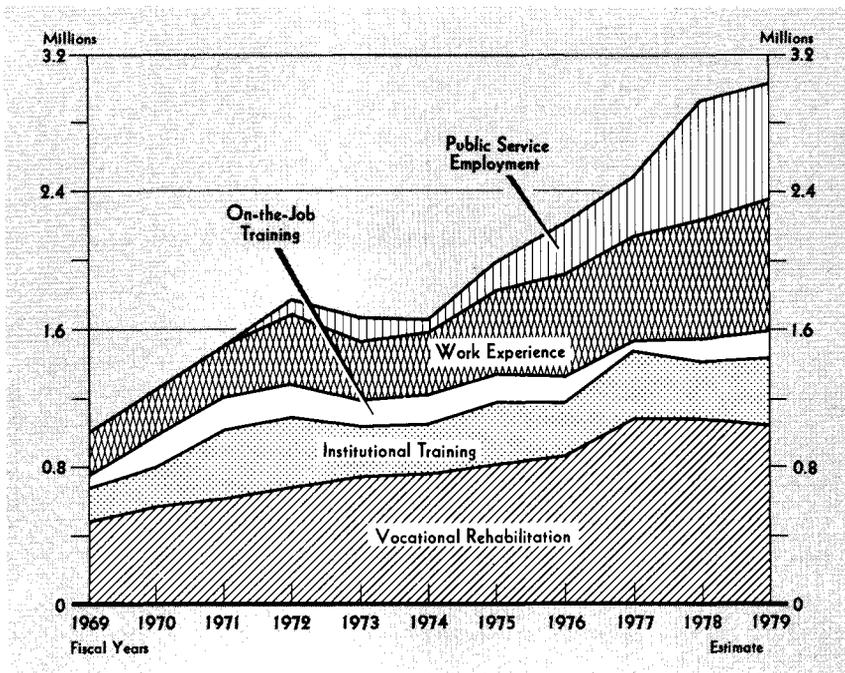
NA=Not applicable.

Historical trends in training and employment programs, summarized by service approach, are shown for each program measure in the following charts:

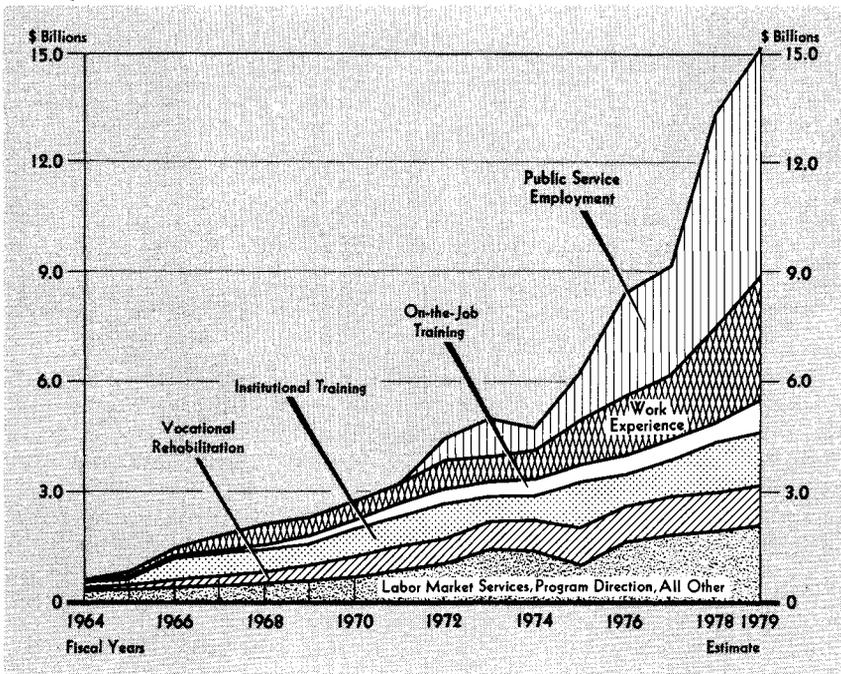
New Enrollees



Years of Service



Outlays



PROGRAMS BY APPROACH

The following tables show service levels of major programs by approach. Narratives with each table reference only significant changes and include brief program descriptions if necessary. More complete program descriptions may be found under the appropriate account title in the Budget Appendix.¹

On-the-job training (OJT).—The decline in outlays for veterans is a result of a large group of veterans reaching the end of their GI bill eligibility. The 1979 increase in ETA reflects the private sector initiative described above. For the purposes of this analysis, the entire amount is categorized as OJT; actual uses may well vary.

¹ The tables show CETA programs by the two appropriation accounts funding them: "Temporary employment assistance" (TEA) for titles II and VI; and "Employment and training assistance" (ETA) for the remainder. TEA will contain PSE formerly funded from titles II and VI starting in 1979, but for ease of comparison in this analysis TEA will refer to both titles in 1977 and 1978 as well.

Table K-2. ON-THE-JOB TRAINING (outlays in millions, individuals in thousands)

Program	Outlays			Individuals served					
				Years of service			New enrollees		
	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.
Employment and training assistance.....	233	297	574	50	64	120	170	205	340
WIN.....	106	100	100	11	12	12	27	28	28
On-the-job training for veterans.....	175	141	124	65	61	54	42	28	18
Other.....	4	5	6	1	1	1	1	1	1
Total.....	518	543	804	127	138	187	240	261	388

Institutional training.—Included in this approach under ETA is the Job Corps, a specialized program conducted in a residential setting for youth aged 16 to 22, for which an outlay of \$375.5 million is expected in 1979. ETA also reflects stimulus program increases and an increase in CETA Title I.

The entry for social services includes programs operated by State agencies for public assistance recipients but is exclusive of service to WIN participants.

Other institutional training includes programs for Indians and for prisoners preparing for employment after release.

Table K-3. INSTITUTIONAL TRAINING (outlays in millions, individuals in thousands)

Program	Outlays			Individuals served					
				Years of service			New enrollees		
	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.
Employment and training assistance.....	917	1,190	1,401	186	214	241	585	620	607
WIN.....	50	52	52	15	15	15	31	35	32
Social services training.....	79	79	81	114	108	105	49	36	39
Other.....	18	18	22	14	14	13	18	18	21
Total.....	1,063	1,338	1,555	330	350	374	683	709	699

Table K-4. VOCATIONAL REHABILITATION

(Outlays in millions, individuals in thousands)

Program	Outlays			Individuals served					
				Years of service			New enrollees		
	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.
HEW vocational rehabilitation.....	897	944	977	1,065	1,040	1,016	627	661	647
Veterans vocational rehabilitation.....	109	120	123	13	13	14	21	19	21
Total.....	1,006	1,064	1,100	1,078	1,053	1,030	648	680	668

Work experience.—Estimates for ETA include in-school, out-of-school, and summer youth activity, as well as nonyouth activity. The large increases in ETA in 1978 and 1979 are primarily due to the four new youth programs authorized by the Youth Employment and Demonstration Projects Act of 1977 and begun in 1978. Because most activity under this authority was not underway when this analysis was prepared, the programs were generally categorized as work experience.

Table K-5. WORK EXPERIENCE (outlays in millions, individuals in thousands)

Program	Outlays			Individuals served					
				Years of service			New enrollees		
	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.
Employment and training assistance.....	1,317	2,069	2,853	470	563	647	1,526	1,907	1,904
Temporary employment assistance.....	92	140	152	11	16	16	36	111	113
Older Americans.....	72	150	198	17	38	48	20	25	7
Federal agency youth programs.....	140	140	140	36	37	37	66	72	68
WIN.....	14	18	18	5	5	5	23	22	22
Other.....	159	98	61	60	38	8	47	44	45
Total.....	1,794	2,615	3,422	599	696	761	1,718	2,182	2,158

Public service employment (PSE).—The substantial increases in public service employment are the result of the stimulus appropriations in 1977 and the continuation of the program levels into 1979.

Table K-6. PUBLIC SERVICE EMPLOYMENT

(Outlays in millions, individuals in thousands)

Program	Outlays			Individuals served					
				Years of service			New enrollees		
	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.	1977 act.	1978 est.	1979 est.
Employment and training assistance.....	131	145	151	15	17	17	40	39	33
Temporary employment assistance.....	2,738	5,580	6,036	324	659	703	838	1,330	1,268
WIN.....	68	74	74	5	5	5	12	11	14
HUD-community development.....	5	6	8	-----	1	1	-----	-----	-----
Total.....	2,943	5,806	6,268	345	681	726	891	1,381	1,314

Labor market services.—*Job placement assistance.*—The Employment Service (ES) provides job placement assistance services to the general labor force, as well as to the disadvantaged. In cooperation with welfare agencies, ES also delivers training and placement services to WIN and food stamp recipients. Other specialized placement assistance is provided by the Veterans Administration, the Bureau of

Indian Affairs, and the Department of Housing and Urban Development.

Labor market information.—Activities are those of the Department of Labor's Employment and Training Administration and Bureau of Labor Statistics.

Equal employment opportunity.—Includes the Equal Employment Opportunity Commission, the Employment Standards Administration of the Department of Labor (including the Office of Federal Contract Compliance Programs (OFCCP) and the equal pay and age discrimination programs), and contract compliance activities within other agencies conducted under OFCCP aegis.

Table K-7. **JOB PLACEMENT ASSISTANCE, LABOR MARKET INFORMATION AND EQUAL EMPLOYMENT OPPORTUNITY** (in millions)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Job placement assistance:			
Employment service.....	584	647	695
Work incentive program.....	50	52	52
Food stamp recipient services.....	28	27	27
Other placement assistance.....	20	38	33
Labor market information.....	59	73	78
Equal employment opportunity.....	85	91	119
Total	827	927	1,004

Unit costs by approach.—Costs include the various labor market and supportive services usually provided to supplement the indicated training or work program, as well as administrative costs. Cost changes frequently reflect minimum wage increases and other general economic factors rather than substantive program change. Minimum wage increases in 1978 and 1979 will, for example, increase total program costs even if service levels remain stable.

Table K-8. **UNIT COSTS BY APPROACH, 1976 AND 1977**

	Average duration of enrollment (years)		Year of service unit cost (dollars)		Participant unit cost (dollars)	
	1976	1977	1976	1977	1976	1977
On-the-job training.....	0.63	0.57	3,464	4,004	2,173	2,282
Institutional training.....	.35	.38	4,321	4,591	1,520	1,764
Vocational rehabilitation.....	1.49	1.49	1,021	1,124	1,524	1,676
Work experience.....	.34	.32	3,510	2,899	1,197	939
Public service employment.....	.52	.53	8,456	8,575	4,421	4,524

People served.—Most Federal training and employment programs focus on low-income individuals and others with severe barriers to employment because they are least likely to be able to improve their

employment opportunities without assistance. Changes over time in characteristics of participants frequently result from programmatic or statutory changes rather than shifts within the general population served.

Table K-9. CHARACTERISTICS OF UNEMPLOYED WORKERS, ADULT POVERTY POPULATION, AND TRAINING AND EMPLOYMENT PROGRAM PARTICIPANTS¹

	Unemployed workers (age 14 and above)		Poverty population (age 14 and above) ²		Training and employment program participants ³	
	1976	1977	1976	1977	1976	1977
Average number (millions).....	7.3	6.9	17.3	17.0	2.2	2.5
Percent:						
Age 21 or less.....	34	35	27	26	40 (32)	33 (30)
Female.....	46	48	62	63	47 (43)	48 (46)
Less than high school education....	42	43	68	65	41 (40)	38 (35)
Poor.....	421	422	100	100	65 (36)	65 (34)
Public assistance recipient.....	INA	INA	INA	INA	23 (17)	23 (16)
Minority.....	20	22	28	30	43 (29)	36 (28)

¹ Unemployed workers and poverty population reported on a calendar year basis; training and employment program participants reported on a fiscal year basis.

² Data collected in March of year shown here; represents income of prior year.

³ Percentages are calculated on the basis of characteristics of new participants, but the average number figure refers to average enrollment or service years. Percentages not in parentheses reflect all programs except youth in-school, job placement assistance, and other labor market services. Percentages in parentheses do include job placement assistance and labor market services.

⁴ Represents individuals living in poverty areas.

INA=Information not available.

Table K-10. CHARACTERISTICS OF ENROLLEES IN SELECTED PROGRAMS, 1975, 1976, 1977 (in percent)

	Poor			21 or younger			Less than high school education		
	1975	1976	1977	1975	1976	1977	1975	1976	1977
CETA Title I.....	77	76	78	62	57	51	61	54	50
CETA Title II.....	48	75}	53	24	56}	20	28	54}	21
TEA.....	44	44}		21	22}		27	26}	
Job Corps.....	100	100	100	100	100	100	89	92	92
WIN.....	100	100	100	19	18	16	59	60	60
HEW vocational rehabilitation....	67	60	52	27	22	18	43	38	34
Veterans OJT.....	15	15	15	6	6	6	15	15	15
	Male			Minority race			Welfare recipient		
	1975	1976	1977	1975	1976	1977	1975	1976	1977
CETA Title I.....	54	54	52	45	45	43	27	26	25
CETA Title II.....	66	54}	62	43	56}	34	16	26}	15
TEA.....	70	65}		39	31}		14	13}	
Job Corps.....	75	72	72	71	73	73	35	41	41
WIN.....	25	27	27	46	45	53	100	100	100
HEW vocational rehabilitation....	57	49	40	24	21	18	19	17	14
Veterans OJT.....	99	99	99	8	8	8	INA	INA	INA

IMPACT OF TRAINING AND EMPLOYMENT PROGRAMS

The primary goal of this wide range of programs is to increase the long term earnings and employment opportunities of participants. Training programs in particular attempt to do so by improving the relative competitive position of these individuals in the labor market, which may also help reduce inflationary bottlenecks and increase total employment by increasing the number of skilled workers in the economy.

Determining the effectiveness of this effort requires measuring long term benefits to program participants. Determining the efficiency of this effort requires measuring (1) the degree of targeting of programs on those most in need, (2) the amount of useful work skills provided in the training or work experience, and (3) the amount of substitution of these expenditures for similar expenditures which would have otherwise occurred in the absence of the Federal program.

Evidence on benefits to participants is mixed, but generally suggests a modest positive impact on earnings. Evaluations of training programs indicate earnings gains over the first 4 or 5 years, tending to diminish thereafter. A major ongoing survey of CETA participants, started in 1975, is expected to produce information on longer term CETA program effects beginning in 1979.

Targeting varies considerably by program. Most programs focus on low-income individuals and others with chronic unemployment or severe barriers to employment. The amount or quality of skill development occurring in programs is virtually impossible to measure directly, and most evaluations regard postprogram earnings gains as a proxy for such skill improvement. There is no evidence available on substitution effects for training programs. Recent estimates for employment programs indicate fairly high rates of substitution. For public service employment not limited to project-type activities, these estimates suggest substitution approaching 90% within 2 years after a job is first funded.

FUNDS BY AGENCY

The following table shows obligations and outlays by administering agency and major program or account. Two agencies—the Departments of Labor, and Health, Education, and Welfare—will account for about 95% of all training and employment outlays in 1979.

Table K-11. FEDERAL FUNDS FOR TRAINING AND EMPLOYMENT PROGRAMS BY ADMINISTERING AGENCY

(In millions of dollars)

Agency and program	Obligations			Outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Department of Health, Education, and Welfare:						
Social services manpower.....	667	669	688	667	669	688
High school work-study.....	7	-----	¹ INA	10	9	¹ INA
Vocational rehabilitation.....	921	953	994	897	944	978
CETA support.....	2	2	2	2	2	2
National occupational information coordinating committee.....	-----	10	5	-----	5	5
Subtotal, HEW.....	1,597	1,634	1,688	1,575	1,628	1,672
Department of Labor:						
Employment and training assistance...	4,129	5,316	4,854	3,291	4,852	5,400
Temporary employment assistance....	5,006	1,861	5,955	2,340	4,765	5,956
Work incentive program (WIN).....	350	365	365	361	365	365
Employment Service.....	599	670	720	604	670	720
Older American community service employment.....	150	220	228	72	150	198
Food stamp recipient services.....	27	28	28	29	28	28
Labor market information.....	28	33	36	28	33	36
Equal employment opportunity.....	7	7	7	7	7	7
Program administration.....	97	113	115	98	112	111
Employment opportunities program....	-----	-----	50	-----	-----	35
Subtotal, Labor.....	10,393	8,613	12,359	6,829	10,982	12,856
Department of Agriculture: Youth Conservation Corps.....						
	52	71	60	48	72	56
Department of Commerce: Job opportunities program.....						
	-----	-----	-----	98	13	-----
Department of the Interior: Indian programs.....						
	49	52	54	49	52	54
Department of Justice: Prisoner training.....						
	5	6	7	1	2	4
Department of Housing and Urban Development: Community development.....						
	22	25	35	12	16	20
Veterans Administration:						
On-the-job training.....	175	141	123	175	141	124
Vocational rehabilitation.....	109	120	121	109	120	123
Assistance centers.....	9	8	10	9	8	10
Community Services Administration:						
Senior opportunities and services.....	1	1	1	1	1	1
Equal Employment Opportunity Commission: Equal employment opportunity enforcement.....						
	71	77	110	72	78	105
Other Federal agencies:						
Federal contract compliance.....	7	7	7	7	7	7
Summer youth programs.....	140	140	140	140	140	140
Subtotal, Other agencies.....	638	647	668	721	648	643
Total.....	12,628	10,894	14,715	9,125	13,258	15,171

¹ This program will be folded into a larger grant to States in 1979. HEW cannot predict what funding decisions on this program States will make.

SPECIAL ANALYSIS L

HEALTH

Overview.—Federal spending for health programs will total \$63.4 billion in 1979, an increase of \$6.5 billion or 11.4% over 1978. The share of the Federal budget spent on health will rise to 12.7% in 1979, as shown on Table L-1.

Table L-1. **FEDERAL HEALTH SPENDING COMPARED TO THE TOTAL FEDERAL BUDGET** (in billions of dollars)

	Actual				Estimated	
	1970	1972	1975	1977	1978	1979
Total Federal outlays	196.6	231.9	324.6	401.9	462.2	500.2
Federal health outlays.....	18.1	24.5	36.8	49.6	56.8	63.4
Health as percent of total outlays.....	9.2	10.6	11.3	12.4	12.3	12.7

Table L-2 summarizes Federal health spending by major category for 1977, 1978, and 1979. The largest category of expenditures is for health services, which will amount to \$55.2 billion in 1979.

Table L-2. **FEDERAL HEALTH SPENDING BY CATEGORY OF ACTIVITY**
(In millions of dollars)

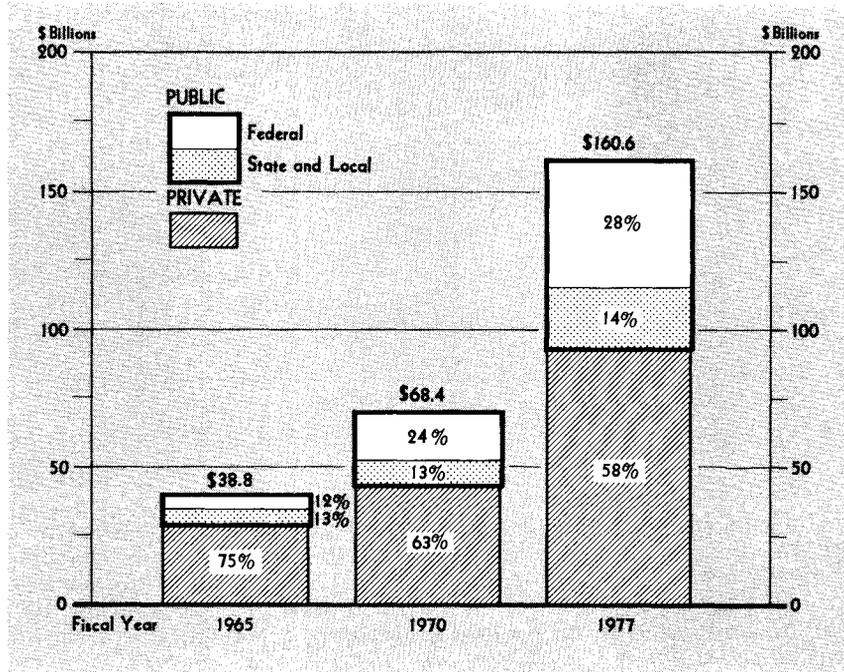
	Outlays		
	1977 actual	1978 estimate	1979 estimate
Health services, total.....	42,389	48,935	55,245
Direct Federal services.....	6,657	7,487	7,809
Indirect services.....	35,732	41,448	47,436
Health resources, total.....	6,321	6,810	6,949
Health research.....	3,147	3,517	3,750
Training and education.....	1,696	1,581	1,553
Construction.....	1,100	1,318	1,262
Health planning and statistics.....	378	393	384
Consumer and occupational health and safety, total.....	926	1,105	1,180
Total, health programs.....	49,636	56,850	63,374

Increased national spending.—Total national expenditures for health rose from \$12 billion in 1950 to \$160.6 billion in 1977. Per capita expenditures grew from \$78 to \$730 over the same period, nearly a ten-fold increase. The percentage of the gross national product (GNP) spent on health has almost doubled in the last quarter century, from 4.6% in 1950 to 8.8% in 1977. If the rate of increase in recent years continues, the proportion of the GNP devoted to health will increase to 9.6% in 1982.

A large proportion of the increase in health spending since 1965 resulted from health cost inflation. The rise of medical prices has outstripped that of most other prices in the economy during the past decade. From 1967 to 1977, for example, the Consumer Price Index rose by 85% while medical prices have risen by 108%.

Increased Federal spending.—Federal health spending has grown at a greater rate since 1965 than spending by State and local governments and the private sector. The following chart indicates that the Federal share of total health spending has more than doubled between 1965 and 1977, primarily due to the advent of medicare and medicaid. State and local government shares have increased slightly, while the private share of health spending has declined by 17%.

Public and Private Health Expenditures



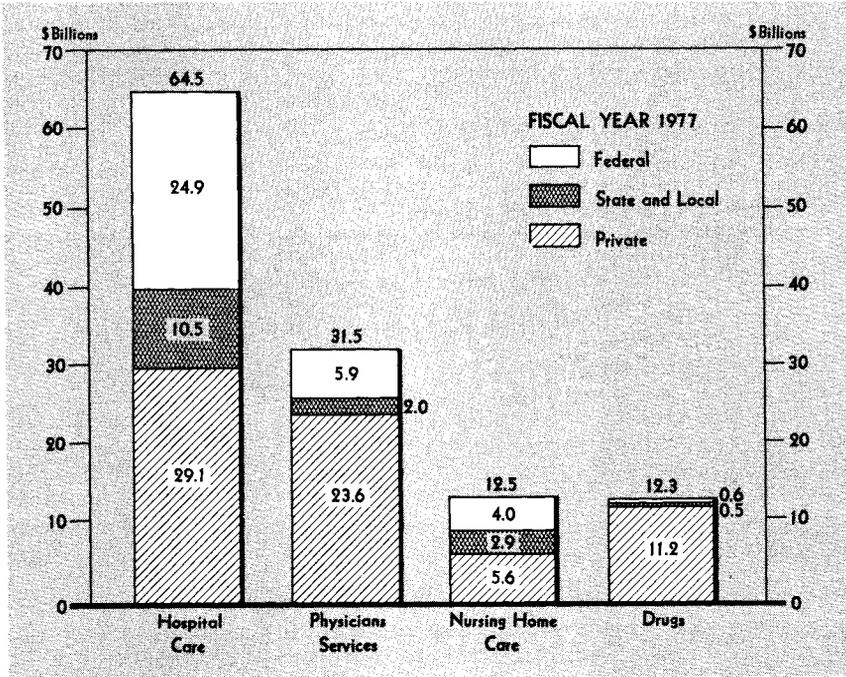
The Federal Government now spends almost one-third of all health expenditures in the country. Factors contributing to the growth in Federal spending—in addition to rapid inflation—are increases in the population eligible for Federal benefits and increases in the utilization of health services.

HEALTH SERVICES

The largest amount of Federal spending for health is for services for the poor, the aged, and the disabled. Through medicare and medicaid, the Federal Government has become a major source of financing for health services, particularly hospital and nursing home care. The Federal Government provides about 28% of the funds for health

services, including 39% of total hospital expenses, 32% of nursing home expenses, 19% of expenses for physicians' services, and 5% of drug expenses, as indicated in the following chart.

Sources of Expenditures for Health Services



The two largest Federal health activities, medicare and medicaid, will account for 66% of Federal health service outlays in 1979. Other health services programs administered by the Department of Defense, the Veterans Administration, and HEW represent most of the remaining Federal health services outlays. Total Federal expenditures for financing and providing health services, by category, are shown in Table L-3.

Table L-3. FEDERAL FINANCING AND PROVISION OF HEALTH SERVICES
(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Financing of hospital and medical services:			
General hospital inpatient services.....	21,881	25,479	29,258
Psychiatric hospital inpatient services.....	550	607	646
Long-term care inpatient services.....	3,968	4,912	5,332
Outpatient services.....	4,975	5,928	6,942
Outpatient mental health services.....	192	279	320
Other services.....	4,166	4,242	4,939
Subtotal, financing of services.....	35,732	41,448	47,436
Provision of direct hospital and medical services:			
General hospital inpatient services.....	3,520	3,924	4,111
Psychiatric hospital inpatient services.....	680	742	765
Long-term care inpatient services.....	220	257	283
Outpatient services.....	1,802	2,035	2,140
Outpatient mental health services.....	43	53	64
Other services.....	393	476	446
Subtotal, direct provision of services.....	6,657	7,487	7,809
Total, financing and provision of services.....	42,389	48,935	55,245

Medicare.—Medicare is a program to finance health care for the 26.6 million aged and disabled. It is financed and administered by the Federal Government through two trust funds—the Hospital Insurance (HI) and Supplementary Medical Insurance (SMI) trust funds. The HI trust fund, financed primarily by the Social Security payroll tax paid by employers and employees, covers inpatient hospital care and subsequent skilled nursing home care, as well as limited home health services. The SMI trust fund, financed by contributions from Federal general revenue funds and by enrollee premiums, covers physician fees, some other health services not covered by HI, and a variety of other outpatient medical services and supplies. Until 1973, SMI contributions were paid equally by the Federal Government and enrollees; since 1973, enrollee premiums have been allowed to rise only at the same rate as social security benefits. Beginning in July 1979, the Federal monthly contribution will equal \$21.30 per aged enrollee while enrollee premiums will be \$8.70 per month, 29% of the total.

After a deductible equal to the average cost of a hospital day of care (estimated at \$164 in 1979), medicare pays 100% of the reasonable costs of hospital care until the 61st day of hospitalization after which copayment requirements are imposed. Under the SMI program, after an annual deductible of \$60, medicare pays 80% of the “usual, customary, and reasonable” charges of a health care provider; the beneficiary is responsible for the other 20%. Reasonable charges are defined as a charge no greater than that levied in 75% of the bills for the same service in a particular area. In addition, since 1976, the Secretary of HEW has set a limit on the rate at which reasonable charges can rise. Tables L-4 and L-5 display basic data concerning medicare, assuming enactment of the administration’s legislative proposals.

Table L-4. SELECTED MEDICARE PROGRAM INDICATORS

(In millions)

Program indicators	1977 actual	1978 estimate	1979 estimate
Hospital Insurance (HI):			
Persons with protection	25	26	27
Beneficiaries receiving services	5.9	6.0	6.1
Benefit payments	\$14,906	\$17,483	\$19,907
Claims received	32	35	39
Supplementary Medical Insurance (SMI):			
Persons with protection	25	26	26
Beneficiaries receiving services	14	16	16
Benefit payments	\$5,865	\$7,075	\$8,418
Claims received	107	121	137
Monthly premiums (dollars)	7.20	7.70	8.70
Administrative expenses	\$620	\$694	\$797

Table L-5. DISTRIBUTION OF MEDICARE EXPENDITURES, 1975

Type of service	In millions of dollars	Percent
Inpatient hospital	9,854	69
Outpatient hospital	462	3
Physicians services	3,269	22
Skilled nursing facilities	245	3
Home health agencies	204	1
Other	308	2
Total	14,342	100

Medicaid.—Medicaid will finance the provision of medical services to an estimated 21 million low-income persons in fiscal year 1978. The program is funded by Federal matching of State expenditures according to a formula based on State per capita income, i.e., the lower a State's per capita income, the higher the Federal matching rate. Federal grants to States under Medicaid were \$9,713 million in 1977 and averaged \$449 per person receiving benefits. In 1979, Federal Medicaid grants under current law will amount to \$12,065 million, an average of \$564 per beneficiary. State and local spending is expected to amount to \$9,176 million in 1979. Tables L-6 and L-7 display basic data concerning Medicaid.

Table L-6. SELECTED MEDICAID PROGRAM INDICATORS

(In millions)

Program indicators	1977 actual	1978 estimate	1979 estimate
Persons receiving benefits	21.6	21.3	21.4
Benefit payments	\$16,257	\$18,145	\$20,171
Federal share	\$9,181	\$10,247	\$11,391
State share	\$7,076	\$7,898	\$8,780
Administrative expenses*	\$846	\$959	\$1,070
Federal share	\$533	\$604	\$674
State share	\$313	\$355	\$396

*Includes Federal grants and State administrative costs eligible for matching payments.

Table L-7. DISTRIBUTION OF MEDICAID EXPENDITURES, 1976

Payments, by type of service	In millions of dollars	Percent
Inpatient hospital.....	4,518	32
Physicians services.....	1,387	10
Skilled nursing facilities.....	2,599	18
Intermediate care facility.....	2,781	20
Drugs.....	960	7
Dental Care.....	387	3
Other.....	1,615	10
Total.....	14,245	100

All States except Arizona currently participate in medicaid. Participating States must cover all persons receiving aid to families with dependent children (AFDC) and most people receiving supplementary security income (SSI) benefits. States may, in addition, provide coverage for the "medically needy," defined as those who fit into one of the categorical programs of the Social Security Act (aged, blind, disabled, and families with dependent children) and have incomes above the AFDC income level but below 133 $\frac{1}{3}$ % of the AFDC payment level.

States are required to cover certain basic medical services but may limit their scope, for instance, the number of covered hospital days, or the extent of copayment requirements. They may, in addition, determine reimbursement levels for non-hospital services.

Federal payments per low-income individual vary widely from State to State, because of differences in eligibility standards, benefit packages and State reimbursement levels. In general, although the Federal matching rate is lower in high income States, Federal medicaid spending per capita and per low income person is typically higher in such States because of more liberal program benefits and eligibility.

Other health care services.—The Federal Government finances or provides medical and other health services for certain special categories of beneficiaries, specifically Armed Forces personnel, their dependents, and retirees; veterans; American Indians and Alaska natives; merchant seamen; and Federal employees.

Health care for active and retired military personnel and their dependents.—In 1979, DOD will operate 167 hospitals directly and will finance additional care from community facilities for its 9.1 million beneficiaries. Outlays for DOD health activities will be \$4.1 billion in 1979.

Health care for veterans.—The Veterans Administration (VA) will operate 172 hospitals, 108 long-term care facilities, and 228 outpatient clinics. VA will provide inpatient care for 1.4 million veterans and will fund more than 18.2 million outpatient medical and dental visits to VA and community facilities. Total VA outlays for health activities, including construction of health care facilities, will be \$5.7 billion in 1979, \$338 million more than in 1978.

Health care for Indians.—A total of \$559 million will be spent on Indian health services and facilities in 1979 to benefit approximately 647,000 American Indians and Alaska natives. These funds provide comprehensive health care, as well as the construction of hospitals, clinics, housing for Indian Health Service employees, and sanitation and potable water facilities, as shown in table L-8.

Table L-8. **FEDERAL FUNDS TO IMPROVE THE HEALTH OF AMERICAN INDIANS AND ALASKA NATIVES** (In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Hospital care and other medical services.....	305	392	438
Construction.....	70	115	96
(Hospitals and clinics).....	(23)	(37)	(43)
(Sanitation projects).....	(46)	(76)	(51)
(Indian Health Service employee housing).....	(1)	(2)	(2)
Training and education.....	11	18	16
Health planning activities.....	4	4	4
Medical and health-related research.....	5	5	5
Total	395	534	559

Public Health Service and Saint Elizabeths Hospitals.—The Federal Government also provides care for certain beneficiaries in nine Public Health Service (PHS) hospitals and 26 PHS clinics, for which outlays will be \$157 million in 1979. Outlays of \$75 million support care at Saint Elizabeths Hospital, a mental hospital serving primarily the District of Columbia.

Other HEW support for health services.—The Federal Government also assists in the provision of health services through a variety of grants and contracts programs. HEW, for example, supports 25 health services programs, in addition to medicare and medicaid, with estimated total 1979 outlays of \$2.8 billion, as shown in table L-9.

Table L—9. HEW HEALTH SERVICES PROGRAMS

(In millions of dollars)

HEW agency and program	Outlays		
	1977 actual	1978 estimate	1979 estimate
Health Services Administration:			
Community health centers.....	229	235	259
Home health services.....	3	6	6
Comprehensive grants to States.....	104	94	90
Hypertension.....	8	10	11
Maternal and child health.....	371	365	369
Genetic services.....	4	5	7
Family planning.....	102	119	132
Migrant health.....	30	33	32
Payment to Hawaii for treatment of Hansen's disease.....	1	1	1
Public health service hospital system.....	135	167	157
Emergency medical services.....	30	38	40
National health services corps.....	25	36	61
Indian health service.....	395	534	559
Health maintenance organizations.....	16	18	25
Center for Disease Control:			
Venereal diseases.....	27	32	32
Immunizations.....	13	24	33
Rat control.....	10	13	13
Lead paint poisoning.....	7	10	10
Alcohol, Drug Abuse, and Mental Health Administration:			
Community mental health services.....	162	243	281
Drug abuse services.....	200	211	213
Alcohol abuse services.....	139	142	142
Saint Elizabeths Hospital.....	65	72	75
Health Resources Administration:			
Health planning.....	176	167	148
Office of Human Development Services: Developmental disabilities.			
	58	59	64
Social Security Administration: Crippled children's services.			
	8	30	30
Total.....	2,303	2,640	2,790

Mental health and substance abuse.—The Federal Government supports activities related to mental health and mental retardation, as well as to drug and alcohol abuse. Outlays for these activities, funded through HEW, the Veterans Administration, the Department of Defense, and other agencies, but excluding medicare and medicaid spending related to these purposes, will total \$2.0 billion in 1978 and \$2.1 billion in 1979. In addition to funding services in these areas, support is also provided for research and training, as shown in table L-10.

Table L-10. FEDERAL OUTLAYS FOR MENTAL HEALTH, MENTAL RETARDATION, AND SUBSTANCE ABUSE TREATMENT ACTIVITIES

(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Mental health, total	1,080	1,244	1,331
Services.....	906	1,061	1,136
Training.....	89	94	92
Research.....	85	89	103
Mental retardation, total	78	81	83
Services.....	48	48	46
Training.....	3	3	3
Research.....	27	30	34
Alcohol abuse, total	288	298	313
Services.....	262	270	282
Training.....	10	10	10
Research.....	16	18	21
Drug abuse, total	357	368	370
Services.....	299	311	309
Training.....	14	15	15
Research.....	44	42	46
Mental health, mental retardation, and substance abuse, total	1,803	1,991	2,097

Utilization of health services.—During 1976, there were more than 1.4 billion physicians' visits, 34.4 million hospital stays, and 1.2 billion prescriptions filled in the United States. The average number of days Americans are hospitalized per year grew 4.2% between 1965 and 1976, or from 1,186 to 1,236 days per 1,000 population. The average number of doctor visits per person per year rose almost 8.9% from 1964 to 1976, from 4.5 to 4.9. Since the enactment of medicaid, substantial increases in utilization of health services have occurred among the poor, who now make 17% more physician visits than the nonpoor as shown in table L-11.

Table L-11. ANNUAL PHYSICIAN VISITS PER PERSON IN U.S., 1964 AND 1976

Age group	1964			1976		
	Poor	Non-poor	All persons	Poor	Non-poor	All persons
All ages.....	4.3	4.6	4.5	5.6	4.8	4.9
Under 17 years.....	2.3	2.6	3.7	3.8	4.2	4.0
17 to 44 years.....	4.1	4.7	4.6	5.2	4.6	4.7
45 to 64 years.....	5.1	5.1	5.0	6.8	5.6	5.7
65 years and over.....	6.0	7.3	6.7	7.1	6.6	6.9

Utilization of health services by the aged has also increased substantially since medicare was enacted. The average number of hospital days per year for persons over 65 rose more than 20% between 1965 and 1975.

The following chart shows that annual health expenses for the aged are almost three times higher than for other adults and more than six times higher than for children, and that the Federal Government pays a much larger share of the health expenses of persons over 65 than of other age groups. Despite the increase from 30% to 60% in the public share of health care costs for the aged between 1966 and 1975, and the decline from approximately 16% to 11% in the percent of average per capita income the elderly spend on health, actual per capita out-of-pocket payments by the elderly have increased from \$307 to \$551—an increase of about 6% a year. This is, however, less than the inflation rate in health costs.

Personal Health Care Expenditures Per Capita

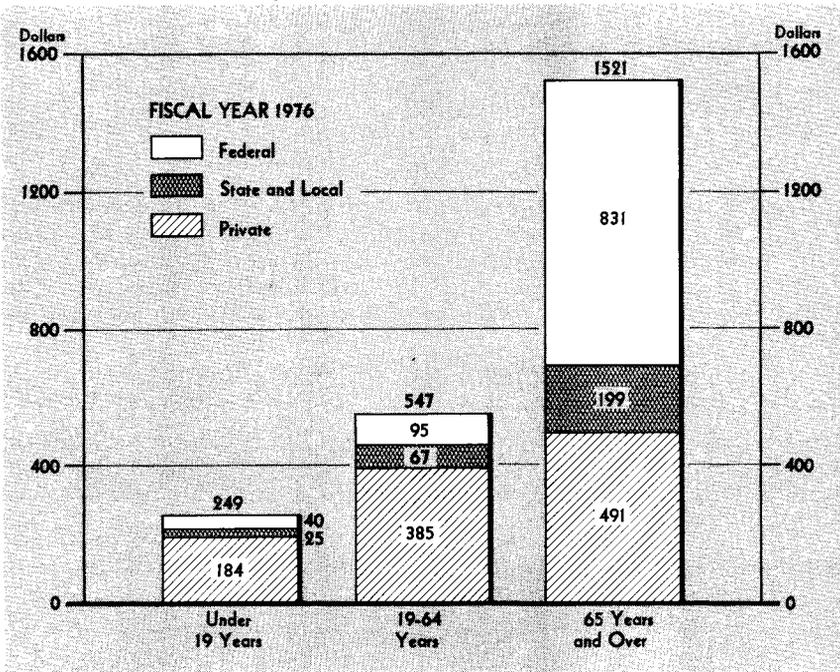


Table L-12 distributes Federal outlays for health services among three major age groups and between poor and nonpoor persons.

The table shows that most Federal health care spending is for nonpoor persons. When the figures are adjusted to exclude all expenditures for Federal employees, about 34% of Federal health care funds are spent on the poor.

Table L-12. FEDERAL HEALTH CARE OUTLAYS BY AGE AND INCOME GROUPS

(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Total, all recipients	42,389	48,935	55,245
Aged (65 and over).....	23,724	27,668	31,757
Other adults (21 to 64).....	14,524	16,660	18,272
Children and youth (0 to 20).....	4,141	4,607	5,216
Poor persons, total	13,918	15,876	17,610
Aged (65 and over).....	4,802	5,553	6,248
Other adults (21 to 64).....	6,981	7,949	8,581
Children and youth (0 to 20).....	2,134	2,374	2,780
Nonpoor persons, total	28,471	33,059	37,635
Aged (65 and over).....	18,921	22,114	25,509
Other adults (21 to 64).....	7,543	8,711	9,691
Children and youth (0 to 20).....	2,007	2,234	2,436

Health insurance for Federal employees.—Health benefits for 3.6 million Federal civilian employees and annuitants and their 6.9 million dependents are financed under the Federal employees health benefits programs managed by the Civil Service Commission. In 1979, Federal payments to finance these programs will amount to \$2.1 billion.

HEALTH RESOURCES

Federal programs for the development of health resources encompass support for health research, for training and education of health workers, for construction of health care facilities, for health planning, and for health statistics. The combined outlays for these programs, as shown in table L-13; will be \$6.9 billion in 1979.

Table L-13. FEDERAL OUTLAYS FOR THE DEVELOPMENT OF HEALTH RESOURCES

(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Health research.....	3,147	3,517	3,750
Training and education.....	1,696	1,581	1,553
Construction.....	1,100	1,318	1,262
Health planning and statistics.....	378	393	384
Total	6,321	6,809	6,949

The supply of health resources—which includes physicians and other health professionals, health researchers, hospitals, nursing homes, and other health facilities—has increased substantially in the last 25 years. The number of short-term non-Federal hospital beds in the country has grown from nearly a half million in 1950 to nearly 1 million in 1975, or from about 3.1 to 4.5 beds per 1,000 population. The number of active physicians has increased from 220,000 in 1950 to 362,900 in 1977, and the number of active registered nurses has grown from 401,000 in 1953 to 1,018,000 in 1977. Another estimated 350,000 qualified registered nurses are not active. Since the enactment of medicare and medicaid, the number of nursing home beds has more than doubled, from nearly a half million in 1965 to about 1.3 million in 1977.

Presently, more than 4.8 million persons are employed in health-related jobs—almost 6% of the civilian labor force. Based on Labor Department statistics, health sector employees are the second largest employee group—after local government employees—in the United States.

Health research.—The Federal Government currently funds more than 66% of all health research in this country. Federally supported biomedical and behavioral research programs attempt to provide new knowledge for the prevention, diagnosis, understanding, and treatment of disease. Federal outlays for health research will increase from \$3.5 billion in 1978 to \$3.8 billion in 1979. Federal support emphasizes research on degenerative illnesses, such as cancer, diabetes, and cardiovascular diseases, and also on environmental and mental health problems. Basic research being performed will be increased in 1979. Table L-14 indicates the allocation of Federal funds among research fields and includes funding for construction of research facilities.

HEW will administer 77% of the total Federal health research funds in 1979. Other Federal agencies support and conduct health research in support of program missions. For example, the Department of Energy, the Department of Defense, and the Veterans Administration together account for 12% of all Federal health research expenditures.

Table L-14. FEDERAL OUTLAYS FOR HEALTH RESEARCH

(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Cancer.....	767	796	830
Environmental health.....	444	493	507
Cardiovascular.....	306	355	382
Neurological and visual.....	196	238	263
Metabolic diseases and arthritis.....	186	226	246
Infectious diseases.....	190	211	222
Mental health.....	145	148	169
Child health.....	86	99	114
Health services research and development.....	83	66	88
Population and family planning.....	67	76	87
Pulmonary.....	63	72	77
Nutrition.....	50	58	66
Dental.....	49	57	63
Aging.....	42	54	59
Research facilities.....	26	22	16
Other research and development.....	471	568	578
Total.....	3, 173	3, 539	3, 766

Health training and education.—More than 37% of the revenues of the Nation's 114 medical schools is derived from Federal grants or contracts; this does not include medicare and medicaid funds received by such schools for patient care. Table L-15 shows the distribution of \$1.5 billion in 1979 Federal outlays provided to medical schools by selected agencies.

Table L-15. FEDERAL FUNDS TO MEDICAL SCHOOLS

(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Department of Health, Education, and Welfare			
Research and development.....	894	1, 046	1, 147
Education and training.....	299	197	236
Construction.....	177	97	55
Department of Defense			
Research and development.....	1	1	1
Education and training.....	15	20	23
Construction.....	22	21	7
Veterans Administration			
Education and training.....	24	38	40
National Aeronautics and Space Administration			
Research and development.....	4	4	4
Department of Energy			
Research and development.....	13	13	12
Other Agencies			
Research and development.....	11	12	13
Total.....	1, 461	1, 448	1, 538
Research and development.....	923	1, 077	1, 178
Education and training.....	339	254	299
Construction.....	200	118	61

The Federal Government will spend a total of \$1.3 billion in 1979 for training and education of health workers as table L-16 indicates. The principal programs of direct support for health professions schools, which are administered by HEW, include:

- institutional support grants designed to improve the specialty and geographic distribution of health professionals; and
- student assistance programs, which enable students to finance their education through guaranteed loans or through scholarships that require payback through service in an area with a shortage of health professionals.

Table L-16. FEDERAL OUTLAYS FOR HEALTH STUDENTS

(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Students in life sciences fields.....	112	135	152
Medical students.....	645	679	539
Dental students.....	124	56	65
Nursing students.....	148	140	161
Students in mental health fields.....	30	31	29
Other students in health fields.....	463	332	386
Total.....	1,522	1,373	1,332

The national health service corps scholarship program will be funded at a level of \$60 million in 1979 and will support approximately 6,000 medical, osteopathic, and dental students, plus other health professionals, in return for commitments to serve in shortage areas. This program helps to meet student financial needs as well as Federal requirements for health professionals to staff programs, such as the Indian Health Service. It also addresses the problem of geographic maldistribution of health personnel by placing physicians and dentists in areas with shortages of health professionals, either as members of the National Health Service Corps or as private practitioners. The National Health Service Corps will spend \$61 million in 1979 to place 1,875 health professionals in 849 medically underserved areas. This represents an increase of 450 professionals and 120 areas over 1978 levels.

Construction.—The United States is well supplied in the aggregate with hospitals, partially as a result of three decades of direct Federal assistance for hospital construction through the Hill-Burton program. Most of the new construction and modernization of hospitals and other health facilities is now supported through tax-exempt bonds, private long-term loans, and depreciation funds set up by health facilities. Medicare, medicaid, and private insurance reimbursements to hospitals and other facilities for patient care include amounts for depreciation and interest on loans. Medicare, for example, will pay more than \$1 billion in 1978 for depreciation and interest.

In 1979, Federal outlays spent directly for the construction of health care facilities, including environmental health facilities, are estimated at \$1.3 billion, as shown in table L-17. This figure does not include medicare and medicaid depreciation and interest payments. Federal assistance for the construction of health facilities will

continue to be provided through grants, direct loans, and loan guarantee programs of the Departments of Housing and Urban Development, Agriculture, and Commerce, as well as the Small Business Administration and the Appalachian Regional Commission.

Table L-17. HOSPITAL AND HEALTH FACILITY CONSTRUCTION

(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Federally supported construction:			
Hospitals, new.....	21	18	18
Hospitals, modernized and replaced.....	119	135	102
Long-term care facilities.....	18	31	27
Research facilities.....	26	22	16
Environmental health facilities.....	60	64	79
Ambulatory care facilities.....	36	37	33
Health professions educational facilities.....	168	90	49
Other facilities.....	18	105	51
Total, federally supported.....	466	501	375
Federal hospitals and health facilities:			
Hospitals, new.....	90	86	78
Hospitals, modernized and replaced.....	348	450	541
Long-term care facilities.....	9	17	32
Research facilities.....	45	88	55
Environmental health facilities.....	49	87	70
Ambulatory care facilities.....	60	60	89
Other facilities.....	34	30	23
Total, Federal facilities.....	635	817	888
Total, Federal funds for hospital and health facility construction.....	1, 101	1, 318	1, 263

Health planning and statistics.—HEW and other agencies will spend a total of \$272 million in 1979 on health planning activities, including statistical programs, as shown on Table L-18.

Table L-18 FEDERAL OUTLAYS FOR HEALTH PLANNING AND STATISTICS

(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Financing of health planning, total.....	236	229	215
State-wide health planning.....	22	26	30
Substate health planning.....	154	166	158
Other health planning.....	59	37	28
Health statistical activities, total.....	46	47	57
General purpose statistics.....	32	28	37
Federal program management statistics.....	14	18	20
Total, health planning and statistics activities.....	282	276	272

CONSUMER AND OCCUPATIONAL HEALTH AND SAFETY

A total of \$1.2 million will be spent on consumer and occupational health and safety in 1979, as shown in Table L-19.

Table L-19. FEDERAL OUTLAYS FOR CONSUMER AND OCCUPATIONAL HEALTH AND SAFETY

(In millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Occupational safety and health.....	314	375	412
Consumer safety.....	612	730	768
Total, consumer and occupational health.....	925	1,105	1,180

Consumer safety.—Federal outlays for consumer safety activities will be \$768 million in 1979, spent through the Food and Drug Administration in HEW, the Consumer Product Safety Commission, and the Department of Transportation.

Occupational safety.—Federal outlays for occupational safety and health activities of \$412 million in 1979 will be spent through the National Institute for Occupational Safety and Health in HEW and the Occupational Safety and Health Administration and the Mine Safety and Health Administration in the Department of Labor.

International health assistance.—In 1979, the United States will provide \$431 million for health activities in other countries and the U.S. territories, and for health assistance to foreign nationals in the United States. These funds will support the health activities of various agencies, including the Agency for International Development, the Peace Corps, and international agencies to which the United States contributes financially, such as the World Health Organization and the Pan American Health Organization. The funds are distributed across all categories of health activities, as illustrated in table L-20. Excluded from these figures are funds for health programs for U.S. employees abroad.

Table L-20. FOREIGN HEALTH ASSISTANCE (in millions of dollars)

	Outlays		
	1977 actual	1978 estimate	1979 estimate
Health research.....	68	82	82
Health training:			
Assistance to individuals.....	48	55	67
Assistance to institutions.....	5	5	3
Construction of health facilities.....	20	16	28
Health planning and statistics.....	17	21	23
Health services.....	89	106	123
Consumer and occupational health.....	38	87	106
Total.....	286	372	431

Expenditures for health activities by agency.—The following tables distribute the health-related outlays of Federal agencies by the categories used in this analysis. Health outlays of HEW, the Consumer Product Safety Commission, and parts of the Civil Service Commission, and the Departments of Agriculture, Housing and Urban Development, Interior, and Labor are included under the health function (550) in Part 5 of the budget document. Health-related outlays of all other agencies are assigned to other functions, reflecting the major mission of the programs of which they are a part. The following tables, therefore, indicate the predominant budget functional code for each agency. Other special analyses such as those on research and development, education, and training and employment also include some of the same outlays in their tabulations.

Table L-21. FEDERAL OUTLAYS FOR MEDICAL AND HEALTH-RELATED ACTIVITIES BY AGENCY, 1977

(In millions of dollars)

	Functional code	Indirect Federal hospital and medical services	Direct Federal hospital and medical services	Health research	Training and education	Construction	Health planning activities	Consumer and occupational health and safety	Total
Department of Health, Education, and Welfare (total).....	550	33,056	461	2,374	1,053	465	306	224	37,939
Health Services Administration.....	551	857	393	15	41	77	42	1	1,424
Health Resources Administration.....	550	7	-----	36	672	331	221	-----	1,267
Alcohol, Drug Abuse, and Mental Health Administration.....	550	486	62	167	107	11	21	-----	854
Center for Disease Control.....	553	195	-----	43	4	-----	-----	2	245
National Institutes of Health.....	550	-----	-----	2,062	150	41	-----	-----	2,253
Food and Drug Administration.....	553	-----	-----	24	-----	4	-----	217	246
Assistant Secretary for Health.....	550	4	6	5	-----	-2	18	3	35
Health Care Financing Administration.....	551	31,253	-----	9	-----	-----	-----	-----	31,262
Other HEW.....	550	253	-----	14	80	3	4	-----	353
Department of Defense.....	051	623	2,425	122	303	301	7	34	3,815
Veterans Administration.....	703	290	3,716	104	270	217	22	-----	4,621
Department of Housing and Urban Development.....	451	20	-----	-----	-----	51	3	18	92
Department of Agriculture.....	352	2	-----	83	-----	20	4	284	393
Environmental Protection Agency.....	304	-----	-----	67	-----	-----	-----	-----	67
National Aeronautics and Space Administration.....	250	-----	-----	52	-----	-----	-----	5	57
Department of Energy.....	270	-----	-----	184	-----	10	-----	-----	194
Department of Labor.....	550	-----	-----	4	21	-----	-----	196	221
Department of State.....	150	13	-----	2	6	-----	1	23	46
National Science Foundation.....	251	-----	-----	55	-----	-----	-----	-----	55
Department of the Interior.....	300	10	-----	40	-----	3	-----	2	56
Department of Transportation.....	400	-----	22	6	2	3	11	13	57
Department of Justice.....	750	3	31	2	-----	2	5	21	63
Other agencies.....	-----	62	2	102	41	28	20	105	361
Agency contributions to employee health funds.....	999	1,653	-----	-----	-----	-----	-----	1	1,654
Total outlays for health, 1977.....	-----	35,732	6,657	3,147	1,696	1,100	378	926	49,636

Table L-22. FEDERAL OUTLAYS FOR MEDICAL AND HEALTH-RELATED ACTIVITIES BY AGENCY, 1978

(In millions of dollars)

	Functional code	Indirect Federal hospital and medical services	Direct Federal hospital and medical services	Health research	Training and education	Construction	Health planning activities	Consumer and occupational health and safety	Total
Department of Health, Education, and Welfare (total).....	550	38,439	576	2,677	859	468	314	262	43,596
Health Services Administration.....	551	947	500	15	48	120	25	1	1,657
Health Resources Administration.....	550	-----	-----	2	424	208	199	-----	833
Alcohol, Drug Abuse, and Mental Health Administration.....	550	581	69	173	112	36	17	-----	989
Center for Disease Control.....	553	165	-----	53	8	-----	-----	3	229
National Institutes of Health.....	550	-----	-----	2,362	188	92	-----	-----	2,643
Food and Drug Administration.....	553	-----	-----	26	-----	2	-----	254	282
Assistant Secretary for Health.....	550	36	7	21	1	10	66	3	145
Health Care Financing Administration.....	551	36,448	-----	9	-----	-----	-----	-----	36,457
Other HEW.....	550	262	-----	14	79	1	6	-----	361
Department of Defense.....	051	648	2,596	124	321	267	8	42	4,001
Veterans Administration.....	703	330	4,257	112	315	288	25	-----	5,328
Department of Housing and Urban Development.....	451	26	-----	-----	-----	60	3	23	112
Department of Agriculture.....	352	2	-----	93	-----	32	5	336	468
Environmental Protection Agency.....	304	-----	-----	82	-----	-----	-----	-----	82
National Aeronautics and Space Administration.....	250	-----	-----	54	-----	-----	-----	5	60
Department of Energy.....	270	-----	-----	203	-----	10	-----	-----	213
Department of Labor.....	550	-----	-----	4	28	-----	-----	215	247
Department of State.....	150	20	-----	4	9	-----	2	36	72
National Science Foundation.....	251	-----	-----	58	-----	-----	-----	-----	58
Department of the Interior.....	300	10	-----	43	-----	4	-----	3	61
Department of Transportation.....	400	-----	25	6	3	8	11	13	65
Department of Justice.....	750	1	36	1	-----	3	5	19	64
Other agencies.....	-----	73	2	56	46	178	20	150	524
Agency contributions of employee health funds.....	999	1,899	-----	-----	-----	-----	-----	1	1,899
Total outlays for health, 1978.....	-----	41,448	7,487	3,517	1,581	1,318	393	1,105	56,850

Table L-23. FEDERAL OUTLAYS FOR MEDICAL AND HEALTH-RELATED ACTIVITIES BY AGENCY, 1979

(In millions of dollars)

	Functional code	Indirect Federal hospital and medical services	Direct Federal hospital and medical services	Health research	Training and education	Construction	Health planning activities	Consumer and occupational health and safety	Total
Department of Health, Education, and Welfare (total).....	550	44,108	606	2,895	785	397	303	276	49,370
Health Services Administration.....	551	1,070	527	15	45	109	18	1	1,785
Health Resources Administration.....	550	-----	-----	-----	337	166	179	-----	682
Alcohol, Drug Abuse, and Mental Health Administration.....	550	624	72	199	111	36	17	-----	1,058
Center for Disease Control.....	553	166	-----	58	8	-----	-----	4	235
National Institutes of Health.....	550	-----	-----	2,532	203	81	-----	-----	2,816
Food and Drug Administration.....	553	-----	-----	26	-----	5	-----	266	298
Assistant Secretary for Health.....	550	-----	8	32	1	1	82	5	130
Health Care Financing Administration.....	551	41,973	-----	18	-----	-----	-----	-----	41,991
Other HEW.....	550	273	-----	16	80	-----	7	-----	376
Department of Defense.....	051	670	2,697	132	337	258	8	50	4,152
Veterans Administration.....	703	362	4,436	113	334	394	28	-----	5,667
Department of Housing and Urban Development.....	451	33	-----	-----	-----	63	1	29	126
Department of Agriculture.....	352	2	-----	97	-----	24	5	349	477
Environmental Protection Agency.....	304	-----	-----	84	-----	-----	-----	-----	84
National Aeronautics and Space Administration.....	250	-----	-----	51	-----	2	-----	6	59
Department of Energy.....	270	-----	-----	199	-----	8	-----	-----	208
Department of Labor.....	550	-----	-----	4	27	-----	-----	233	265
Department of State.....	150	20	1	4	9	-----	2	36	72
National Science Foundation.....	251	-----	-----	63	-----	-----	-----	-----	63
Department of the Interior.....	300	11	-----	47	-----	5	-----	3	66
Department of Transportation.....	400	-----	28	6	3	16	9	14	78
Department of Justice.....	750	1	38	1	-----	2	5	15	62
Other agencies.....	-----	86	1	54	58	93	23	168	483
Agency contributions to employee health funds.....	999	2,145	-----	-----	-----	-----	-----	1	2,146
Total outlays for health, 1979.....	-----	47,436	7,809	3,750	1,553	1,262	384	1,180	63,374

SPECIAL ANALYSIS M

INCOME SECURITY

Federal income security programs provide essential income protection for millions of Americans. A major, although not exclusive, objective of these programs is to increase the income of people at the lower end of the income scale. The programs included in this analysis are divided into two broad categories:

- Cash benefits, such as social security and other income transfer programs.
- In-kind benefits, such as health care and food stamps, which effectively increase real income by providing necessary goods and services.

In addition, several major tax expenditures contribute to income security.

OVERVIEW

Total Federal income security benefits are estimated to equal \$215 billion in 1979. This represents a \$17 billion increase (or 8.6%) over the 1978 total of \$198 billion. Much of this change can be attributed to cost-of-living increases in benefits. By law, \$144 billion of the 1979 outlays are in programs whose benefits are tied to the cost of living.

The Social Security Amendments of 1977, enacted on December 20, 1977, made major changes in the financing of this cash benefit system. The principal changes were to increase the payroll taxes that fund the system and to stabilize future replacement ratios (the ratio of the initial benefit amount to recent earnings before retirement, death, or the onset of disability). The tax increases removed the risk that the system might have exhausted its reserves in the 1980's and insures the solvency of the system into the twenty-first century. Stabilization of the replacement ratio will prevent future benefits from rising faster than inflation. A number of smaller changes were made in the benefit structure to eliminate windfalls and improve equity among beneficiaries.

Table M-1. **FEDERAL INCOME SECURITY BENEFITS** (in millions of dollars)

	1977 actual	1978 estimate	1979 estimate
Federal outlays for cash benefits:			
Social security (OASDI)	82,406	91,588	101,490
Federal employee benefits	18,426	20,963	23,056
Veterans benefits	9,562	10,154	10,582
Public assistance	10,059	11,084	10,548
Unemployment insurance	12,928	10,739	10,133
Railroad retirement	3,768	4,038	4,222
Other programs	1,149	1,184	1,187
Proposed legislation included above		(-39)	(-334)
Subtotal, cash benefit outlays	138,299	149,750	161,218
Federal outlays for in-kind benefits:			
Food and nutrition	8,278	8,763	8,857
Health care	30,674	36,244	41,781
Housing	2,405	3,014	3,540
Proposed legislation included above		(18)	(-300)
Subtotal, in-kind benefits outlays	41,357	48,022	54,179
Total	179,656	197,771	215,397

TARGET GROUPS

Federal income security programs maintain or supplement the income of persons and families whose capacity for self-support is reduced by old age, disability, illness, unemployment, poverty or death of the primary wage earner.

In situations where only partial self-support is currently possible or where self-support may be achieved in the future, income security programs provide supplementary or temporary support. Where self-support is not possible, income security programs provide basic support.

The analysis below is organized by target group; that is, the programs are discussed as they provide support to people sharing similar problems and circumstances—the aged (annuitants and others), the unemployed, parents with small children and no breadwinner, and low-income persons with insufficient income to provide for their basic needs. Needs-tested benefits are included in this analysis by target group.

Table M-2. INCOME SECURITY BENEFITS BY TARGET GROUPS

(In millions of dollars)

	1977 actual	1978 estimate	1979 estimate	Change 1977-79	Percent change 1977-79
Annuitants.....	52,956	59,046	65,888	12,932	24.4
Other aged.....	52,339	59,144	65,022	12,683	24.2
Disabled.....	28,769	32,638	35,604	6,835	23.8
Mothers and children.....	8,869	9,666	10,230	1,361	15.3
Temporarily unemployed.....	13,352	11,399	10,793	-2,559	-19.2
Other transitional low income.....	9,453	10,428	11,242	1,789	19.4
Other.....	9,431	10,404	11,212	1,781	18.9
Total.....	179,656	197,773	215,396	35,740	19.9

THE AGED

Income security benefits for the elderly consist of (1) wage replacement for workers retired from full-time gainful employment, (2) benefits to persons who depended on their spouses' income as their main source of support, and (3) assistance to those who were needy before becoming aged.

In-kind program benefits received by the aged include medical care through medicare and medicaid, as well as food and shelter on an income-tested basis.

The Social Security Amendments of 1977 will result in increased benefits to certain groups of the aged by raising the amount of income beneficiaries aged 65 through 72 may earn without reducing their social security benefits. Beginning in 1982, those 70 or older will no longer be subject to any such earnings limitation. Also, the delayed retirement credit has been increased from 1% to 3% and made available to those 62 to 65.

Several provisions of the Federal personal income tax are designed to benefit the aged. The largest benefits result from the extra personal exemptions available to persons 65 or over and from the exclusion of all social security benefits (not just that portion representing a return of contributions) from their taxable income. These two tax expenditures are expected to result in a loss of receipts in 1979 of \$1.4 billion and \$3.8 billion, respectively. In addition, the tax credit for the elderly is estimated to be a tax expenditure of \$0.2 billion in 1979 while the exclusion from income tax of railroad retirement benefits is estimated at \$0.2 billion. The combined loss of tax receipts from the retired and elderly due to these four provisions is an estimated \$6.0 billion in 1979. This aggregate is greater than the sum of the individual estimates because more elderly persons would be pushed into taxpaying levels of income or into higher tax brackets if all of these items were deleted from the tax code.

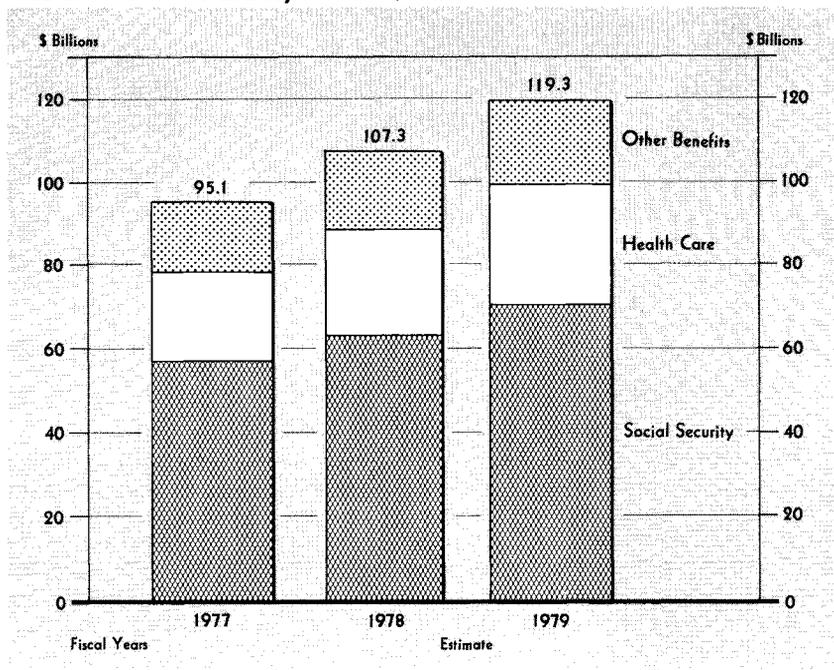
Other tax provisions are directed to the future security of aged persons by encouraging private provision for retirement years. The major benefits flow from the exclusion of employer contributions to and earnings of qualified pension funds from the employee's current taxable income. After allowing for deferred taxes collected from present retirees, the net loss in receipts from this tax expenditure is estimated to be \$9.9 billion in 1979. Similar tax provisions for employees not covered by any pension plan other than Social Security or for the self-employed will result in an estimated tax expenditure of \$1.8 billion in 1979. The tax credit on earned income up to \$8 thousand will provide a tax expenditure of \$1.2 billion in 1979 for low-income workers with dependents.

Table M-3. INCOME SECURITY BENEFITS FOR THE AGED

(in millions of dollars)

	1977 actual	1978 estimate	1979 estimate	Percent increase 1977-79
Covered employment:				
Social security (OASI) members.....	56,613	63,147	70,235	24.1
Federal civilian employees.....	4,444	5,039	5,612	26.3
Railroad employees.....	5,583	6,156	6,646	19.0
Uniformed services members.....	1,775	1,941	2,093	18.0
Coal miners' widows.....	257	288	323	25.8
Supplemental security income.....	1,734	1,864	1,526	-12.0
Income-tested veterans pension.....	1,761	1,845	1,882	6.9
Subtotal, cash benefit outlays.....	72,167	80,280	88,317	22.4
Medicare.....	18,281	21,474	25,112	37.4
Medicaid.....	3,296	3,898	4,181	26.9
Other-in-kind.....	1,364	1,641	1,725	26.5
Subtotal, in-kind benefit outlays.....	22,941	27,013	31,018	35.2
Total.....	95,108	107,293	119,335	25.5

Federal Aid to the Elderly—Benefit Payments



Annuitants.—In four major federally administered contributory retirement systems, the benefit calculations are based upon past earnings, with annual cost-of-living adjustments to social security and railroad retirement benefits and twice a year adjustments to civil service and foreign service benefits.

Under old-age and survivors insurance (OASI), 15.4 million retired workers receive pensions in 1979. Some recipients in 1979 are primary beneficiaries under the railroad retirement system, but 41% of these particular retirees are also beneficiaries under the social security system. A total of 870,000 persons are primary beneficiaries of either the civil service retirement system or of the foreign service retirement system in 1979. Approximately 44% of civil service retirees also receive social security benefits.

The estimated total number of primary beneficiaries of all these contributory retirement systems is 16.0 million persons in 1977 and 17.2 million in 1979.

Table M-4. ANNUITIES TO PRIMARY BENEFICIARIES IN CONTRIBUTORY RETIREMENT SYSTEMS: ANNUITY BENEFITS, BENEFICIARIES, AND AVERAGE PAYMENT BY SYSTEM

	Benefit outlays (millions)			Number of beneficiaries (thousands)			Average monthly payments		
	1977 actual	1978 est.	1979 est.	1977 actual	1978 est.	1979 est.	1977 actual	1978 est.	1979 est.
Old-age and survivors insurance.....	44,542	49,633	55,546	14,773	15,383	15,908	241	258	277
Civil Service Commission.....	6,362	7,228	8,055	799	834	865	664	723	776
Railroad Retirement Board.....	1,981	2,099	2,187	423	419	414	363	382	403
Foreign Service retirement.....	71	87	100	4	4	5	1,448	1,607	1,719
Total.....	52,956	59,046	65,888	-----	-----	-----	-----	-----	-----

Other aged.—This category includes income support to the aged in which the benefits are based upon criteria other than past earnings. Eligibility for benefits may, for example, be based on the work history of some person related to the beneficiary, and may not necessarily be based on any measure of need. Underlying the purpose of these programs is the presumption that persons past a certain age (usually 65) are generally not self-supporting through their own current earnings.

Surviving aged spouses.—Surviving aged spouses account for \$18.4 billion in benefit outlays in 1979, or 28% of all benefits to the aged outside of annuities to primary beneficiaries. The increase in benefit outlays to surviving aged spouses between 1977 and 1979 is due to increased benefit levels under the social security and the railroad retirement systems. Some 5 million surviving aged spouses will receive benefits from social security in 1979, while 1.6 million surviving aged spouses will be covered in other programs. A considerable proportion of the surviving aged spouses covered by social security also receives benefits from other programs. Tax expenditures again augment the value of these benefits. The exclusion from taxable income of social security benefits for dependents and survivors is estimated to result in a \$0.8 billion revenue loss in 1979.

Aged spouses of retirees.—The entitlement of wives under OASI and railroad retirement is independent of any contribution history of their own, and requires only that they exceed a particular age. A recent Supreme Court ruling requires that social security benefits be paid to husbands on this same basis, without a dependency test. However, beginning in 1982, social security benefits paid to a dependent will be reduced by the amount of any public (Federal, State, or local) pension he or she also receives. Where a spouse has dual entitlement under social security based upon his or her earnings history as well as that of his or her spouse, he or she receives only the larger benefit. About 801,000 spouses (almost all of whom are wives) have dual entitlement under social security in which the spouse's benefit exceeds the benefit based upon his or her own earnings.

Minimum benefits.—These are statutory minimum amounts paid to retired workers, to the dependents of such retired workers, and to certain noninsured beneficiaries age 72 and over. More than other social security benefits, these benefits are “weighted” in order to provide additional income support for persons with histories of low covered earnings. Under the Social Security Amendments of 1977, this weighting will be moderated by freezing the minimum benefit at about \$120 a month (indexed to price increases once a beneficiary is on the rolls). The “special” minimum benefit based on length of service will continue to be indexed to the increase in average wages.

Aged retirees of the uniformed services.—The retirement systems for the uniformed and military services are noncontributory, with benefits based on time in service and the rank held at retirement rather than the overall earnings history of the individual. Because military service is credited for social security coverage, there is substantial overlap of the military retirement systems beneficiaries and OASI beneficiaries.

Table M-5. **BENEFITS FOR THE AGED EXCEPT ANNUITIES TO PRIMARY BENEFICIARIES: BENEFITS, BENEFICIARIES, AND AVERAGE PAYMENT**

	Benefit outlays (millions)			Number of beneficiaries (thousands)			Average monthly payments		
	1977 actual	1978 esti- mate	1979 esti- mate	1977 actual	1978 esti- mate	1979 esti- mate	1977 actual	1978 esti- mate	1979 esti- mate
Civilian covered em- ployment:									
Social security.....	22,863	25,233	27,276	11,903	12,205	12,388	160	172	183
Federal civilian em- ployees.....	687	772	858	212	220	227	270	293	315
Railroad employ- ees.....	1,533	1,670	1,759	552	560	559	231	249	262
Coal miners' wid- ows.....	257	288	323	102	107	114	209	224	237
Medicare.....	18,281	21,474	25,112	18,300	19,300	20,100	83	93	104
Uniformed services:									
Aged widows.....	590	631	670	237	237	237	207	222	236
Aged retirees.....	780	877	967	98	102	106	663	717	763
Aged veterans and widows: income tested.....	1,761	1,845	1,882	1,829	1,842	1,836	80	83	85
Supplemental security income.....	1,734	1,864	1,526	1,791	1,756	1,687	81	88	75
In-kind benefits to needy aged:									
Medicaid.....	3,296	3,898	4,181	3,664	3,567	3,470	75	91	100
Food.....	558	591	468	1,490	1,544	2,494	31	32	16
Housing ¹	(806)	(1,051)	(1,257)	(2,484)	(2,706)	(2,993)	28	32	35
Total.....	52,339	59,144	65,022	.....	.....	.....	.....	.....	.....

¹ Housing benefits received by the elderly are included, although income, and not age, is the sole eligibility criterion for these benefits.

THE DISABLED

Disabled.—The disabled constitute the second target group for whom there is a presumption of permanent inability to achieve self-support. Eligibility for an income security benefit for a disabled individual may be based on membership in a contributory retirement system (OASDI or civil service), on military service, on occupation (coal miner), or on indigency (welfare).

Members of the social security system and the railroad retirement system and their dependents are eligible for retirement benefits based upon their earnings history to the date of permanent disability, and are also eligible for medicare benefits. Federal civilian employees receive a disability benefit based on total disability for their previous occupation and are paid a minimum benefit of 40% of the average of their highest 3 years of earnings.

Benefits to the disabled in the uniformed services are scaled to the degree of physical impairment rather than previous levels of earnings. Disability retirement from the military and veterans compensation and indemnities are provided for disabilities which are presumptively service connected. Veteran's pensions provide benefits for a non-service-connected but presumptively total disability to persons who have seen wartime military service and whose financial need can be demonstrated.

Under the Federal Mine Safety and Health Act, compensation is paid to black lung victims in amounts related to the workers' compensation law for Federal employees (the Federal Employee Compensation Act). Eligible persons began registering for benefits in 1970.

Beginning in 1974, 1.3 million needy disabled received assistance under the new Federal supplemental security income program enacted in 1972 to replace State administered programs of assistance to the blind and disabled. By 1979 that number will grow to almost 2.1 million needy blind and disabled.

In 1979, 5.1 million persons will receive benefits from the Disability insurance trust fund administered by the Department of Health, Education, and Welfare. Another 371,000 individuals will receive disability benefits through Federal civilian employee programs. There is a substantial overlap between these latter two groups and those who receive disability benefits because of prior military service or employment in coal mines.

It is estimated that in 1979 2.8 million adults and children will be supported by public assistance based on disability. Nearly all of these persons are eligible for medicaid benefits.

Disabled persons benefit from the exclusion from taxable income of (1) social security disability insurance benefits, (2) worker's compensation benefits, and in some cases, (3) payments such as sick pay and private disability payments. In toto, these exclusions are expected to reduce tax receipts in 1979 by \$1.4 billion. The exclusion from taxable income of veterans service-connected disability compensation is an additional tax expenditure of \$0.8 billion for the same period.

Table M-6. **BENEFIT OUTLAYS FOR THE DISABLED: BENEFITS, BENEFICIARIES, AND AVERAGE PAYMENT**

	Benefit outlays (millions)			Number of beneficiaries (thousands)			Average monthly payments		
	1977 actual	1978 esti- mate	1979 esti- mate	1977 actual	1978 esti- mate	1979 esti- mate	1977 actual	1978 esti- mate	1979 esti- mate
Civilian covered em- ployment:									
Disability insurance	11, 135	12, 600	14, 339	4, 693	4, 927	5, 174	198	213	231
Federal civilian em- ployees.....	1, 938	2, 186	2, 346	340	356	371	476	512	527
Railroad employees	218	233	240	43	43	42	422	452	476
Coal miners.....	585	579	577	331	310	291	147	155	165
Medicare.....	2, 490	3, 130	3, 842	2, 000	2, 200	2, 400	104	119	133
Uniformed services:									
Service-connected disability.....	5, 747	6, 181	6, 514	3, 204	3, 221	3, 221	149	160	169
Other: Income- tested.....	583	607	615	513	516	512	95	98	100
Public assistance to the disabled:									
AFDC (disabled male head of family).....	315	335	332	650	639	639	40	44	43
Supplemental security income..	2, 884	3, 441	3, 294	1, 995	2, 032	2, 112	120	141	130
In-kind benefits to needy disabled:									
Medicaid.....	2, 522	2, 975	3, 171	3, 121	3, 230	3, 346	67	77	79
Food.....	352	370	334	1, 094	1, 133	1, 062	27	27	26
Total.....	28, 769	32, 638	35, 604	-----	-----	-----	-----	-----	-----

Benefits for a parent with dependent children and no spouse.—Benefit eligibility varies considerably for this last target group for whom self-support is assumed to be not universally possible. This group is made up almost entirely of mothers with dependent children who have no spouse, although in some circumstances fathers are also eligible for benefits. Eligibility is determined by either the work history of a deceased spouse or a means test.

Table M-7. **BENEFITS FOR MOTHERS WITH DEPENDENT CHILDREN AND NO HUSBAND: BENEFITS, BENEFICIARIES, AND AVERAGE PAYMENT**

	Benefit outlays (millions)			Number of beneficiaries (thousands)			Average monthly payments		
	1977 actual	1978 esti- mate	1979 esti- mate	1977 actual	1978 esti- mate	1979 esti- mate	1977 actual	1978 esti- mate	1979 esti- mate
Benefits to widows of covered employees:									
Social security (OASI) members	3,866	4,122	4,329	1,851	1,813	1,766	174	189	204
Federal civilian employees	173	195	215	49	51	52	293	320	345
Railroad employees	36	36	36	11	10	10	273	300	300
Uniformed service members	489	535	583	568	575	584	72	77	83
Coal miners	39	42	36	24	24	21	136	146	143
Public assistance (AFDC) mothers with preschool children:									
Cash payments	2,555	2,714	2,690	5,265	5,177	5,180	40	44	43
Medicaid	1,711	2,021	2,341	7,532	7,405	7,411	19	23	26
Total	8,869	9,666	10,230						

Unemployment compensation.—The intent of income security outlays for able-bodied persons is to tide them over periods in which they cannot support themselves, until other measures correct the causes of such inability to provide self-support.

The major system of unemployment insurance, constituting 90% of unemployment benefits paid in 1979, is State-administered. It should be noted that the States vary in eligibility requirements, benefit levels, and duration of benefits.

Special unemployment benefit programs are provided for Federal employees and ex-servicemen, railroad employees, and unemployed workers in industries adversely affected by foreign trade. Although federally financed, they are, except for railroad retirement unemployment insurance, State administered.

The exclusion from taxable income of unemployment insurance benefits is a tax expenditure expected to decline from \$1.5 billion in 1977 to \$0.9 billion in 1979. These benefits would be subject to tax for upper income taxpayers under the administration's tax reform proposal.

A second set of programs providing income security benefits to able-bodied men and women are means-tested cash and in-kind programs.

A third set of benefits, not based on need, lack of employment, or age, are provided to uniformed services retirees under the age of 65 because of their length of service.

Table M-8. BENEFITS FOR TRANSITIONAL LOW INCOME AND OTHER: BENEFITS, BENEFICIARIES, AND AVERAGE PAYMENT

	Benefit outlays (millions)			Number of beneficiaries (thousands)			Average monthly payments		
	1977 actual	1978 esti- mate	1979 esti- mate	1977 actual	1978 esti- mate	1979 esti- mate	1977 actual	1978 esti- mate	1979 esti- mate
Temporary unem- ployment:									
Unemployment in- surance system.....	12,634	10,341	9,757	9,116	7,796	8,072	115	111	101
Other unemploy- ment benefits.....	718	1,058	1,036	660	842	795	91	105	109
Long-term unemploy- ment:									
Unemployed fa- thers.....	61	66	66	123	121	121	41	45	45
Mothers with all children in school.....	1,838	1,952	1,934	3,786	3,723	3,725	40	44	43
Other income- tested.....	1,387	1,253	1,458	2,171	2,167	2,170	53	48	56
In-kind benefits, low income:									
Food.....	6,575	7,004	7,358	35,530	37,425	34,387	15	16	18
Housing.....	2,405	3,014	3,540	7,087	7,612	8,513	28	33	35
Medicaid.....	1,652	1,951	2,259	7,268	7,146	7,151	19	23	26
Uniformed services retirees under 65....	6,489	7,292	8,038	898	933	967	602	651	693
Food for nonneedy children.....	771	775	667	25,046	23,677	15,870	3	3	4
Other.....	2,193	2,361	2,537	5,917	6,037	6,451			
Total.....	36,723	37,279	38,652						

NEEDS-TESTED BENEFITS

The foregoing tables have provided displays of benefits for various target groups. Within these target groups, benefits may or may not be based on a needs or means test. Public assistance, veterans and survivors pensions, medicaid, and food and housing programs are those which provide benefits to individuals based on a test of need. In addition to that test, eligibility for cash assistance may be based on such considerations as prior military service, age, disability, or absence of a breadwinner in a family. The following table arrays only those program benefits available to each target group on a needs-tested basis.

Table M-9. NEEDS-TESTED BENEFITS BY TARGET GROUP AND PROGRAM

(In millions of dollars)

	1977 actual	1978 estimate	1979 estimate
By target group:			
Benefits to the aged:			
Public assistance.....	1,734	1,864	1,526
Veterans and survivors pension.....	1,761	1,845	1,882
Medicaid.....	3,296	3,898	4,181
Other.....	558	591	468
Subtotal, benefits to the aged.....	7,348	8,198	8,057
Benefits to the disabled:			
Public assistance.....	3,199	3,776	3,626
Veterans and survivors pension.....	583	607	615
Medicaid.....	2,522	2,975	3,171
Other.....	352	370	334
Subtotal, benefits to the disabled.....	6,656	7,729	7,747
Benefits to mothers:			
Public assistance.....	2,555	2,714	2,690
Medicaid.....	1,711	2,021	2,341
Other.....	240	255	265
Subtotal, benefits to mothers.....	4,507	4,991	5,296
Benefits to unemployed and other low income:			
Public assistance.....	2,566	2,726	2,702
Medicaid.....	1,652	1,951	2,259
Food.....	6,575	7,004	7,358
Housing.....	2,405	3,014	3,540
Other.....	719	758	758
Subtotal, benefits to the unemployed.....	13,918	15,452	16,617
Total, needs-tested benefits.....	32,428	36,369	37,717
By program:			
Public assistance.....	10,244	11,275	10,718
Veterans and survivors pension.....	3,114	3,269	3,457
Medicaid.....	9,181	10,846	11,952
Food.....	7,485	7,965	8,161
Housing.....	2,405	3,037	3,542
Total, needs-tested benefits.....	32,428	36,392	37,829

Table M-10. **FEDERAL OUTLAYS FOR INCOME SECURITY BENEFITS, BY DEPARTMENT AND PROGRAM** (in millions of dollars)

Department, agency, and program	Benefit outlays		
	1977 actual	1978 estimate	1979 estimate
Department of Health, Education, and Welfare:			
Social security:			
Old-age and survivors insurance.....	71,271	78,988	87,151
Disability insurance.....	11,135	12,600	14,339
Hospital insurance.....	14,906	17,529	20,543
Supplementary medical insurance.....	5,865	7,075	8,411
Supplemental security income.....	4,618	5,305	4,820
Public assistance:			
Maintenance payments.....	5,442	5,779	5,728
Medicaid.....	9,181	10,846	11,952
Special benefits for disabled coal miners.....			
Assistance to refugees.....	944	968	988
Elderly feeding ¹	134	137	111
Public health service officers retirement.....	28	31	35
Medical care for retired commissioned officers.....	6	7	9
Proposed legislation included above.....		(-45)	(-850)
Total, Department of Health, Education, and Welfare.....	123,530	139,265	154,124
Veterans Administration:			
Disability dependency, indemnity compensation.....	5,722	6,122	6,459
Veterans and survivors pensions.....	3,113	3,269	3,346
Life insurance (net subsidy).....	535	545	561
Other veterans benefits.....	192	218	216
Proposed legislation included above.....		(1)	(396)
Total, Veterans Administration.....	9,562	10,154	10,582
Department of Labor:			
Unemployment insurance (State programs).....	12,339	9,991	9,657
Supplementary unemployment insurance.....	295	350	100
Railroad unemployment.....	180	208	186
Unemployment compensation for Federal employees and ex-servicemen.....	424	660	660
Trade adjustment activities.....	114	190	190
Employee compensation.....	277	295	231
Special benefits to disabled coal miners.....	20	24	29
Total, Labor.....	13,649	11,718	11,053
Department of Defense—Military:			
Military retirement.....	8,216	9,211	10,129
Medical care for retirees.....	715	787	866
Proposed legislation included above.....			(7)
Total, Defense.....	8,932	9,998	10,995
Department of Agriculture:			
Food stamps.....	5,028	5,289	5,391
Child nutrition.....	3,013	3,236	3,343
Special milk.....	163	155	45
Other food programs.....	73	84	41
Proposed legislation included above.....			(-188)
Total Agriculture.....	8,278	8,763	8,820

See footnote at end of table.

Table M-10. FEDERAL OUTLAYS FOR INCOME SECURITY BENEFITS, BY DEPARTMENT AND PROGRAM (In millions of dollars)—Continued

Department, agency, and program	Benefit outlays		
	1977 actual	1978 estimate	1979 estimate
Civil Service Commission: Civil service retirement.....	9,257	10,506	11,709
Railroad Retirement Board: Railroad retirement.....	3,768	4,038	4,222
Department of Housing and Urban Development:			
Public housing.....	1,271	1,805	2,246
Rent and mortgage interest supplements.....	1,134	1,209	1,294
Proposed legislation included above.....		(23)	(2)
Total Housing and Urban Development.....	2,405	3,014	3,540
Department of Transportation: Coast Guard retirement.....	140	158	174
Department of State: Foreign Service retirement.....	82	100	116
Department of the Interior: General assistance to Indians.....	50	54	58
Department of Commerce: NOAA officers retirement.....	2	3	3
Total Federal outlays.....	179,656	197,771	215,397

¹ Funded through USDA until 1979.

SPECIAL ANALYSIS N

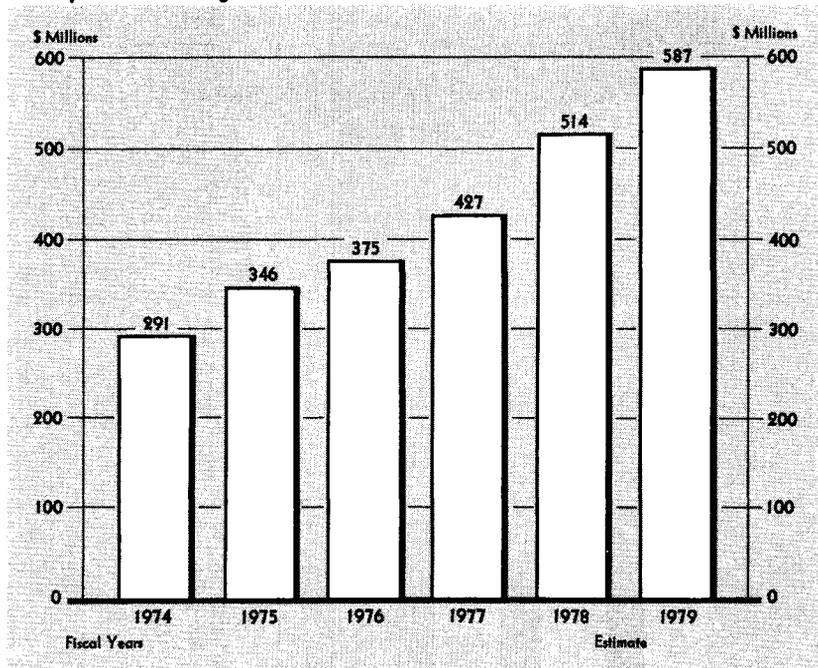
CIVIL RIGHTS ACTIVITIES

COVERAGE AND SCOPE OF THE ANALYSIS

This analysis of Federal civil rights activities comprises more than the traditional programs and policies related to civil rights enforcement. In addition to Federal activities regarding the protection of such rights as voting, public accommodations, fair housing, and equal employment opportunity in the public and private sectors, there are included Federal programs concerning civil rights research, information dissemination, and the conciliation and prevention of racial disputes. Outlays for these civil rights activities will increase by 37%—from \$427 million in 1977 to \$587 million in 1979.¹

Outlays for Civil Rights Enforcement

N-1



¹ Civil rights activities of the Postal Service, which by law is off-budget, are shown in the table as memorandum entries.

Programs relating to problems of the economically and socially disadvantaged, whether in employment and training, community development, or bilingual education, are not discussed in this analysis, even though they may benefit a substantial number of minorities. These programs are considered in other analyses in this document.

Federal service equal employment opportunities.—The head of each Federal executive department and agency is charged by Executive Order 11478 and the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972 (Public Law 92-261), with establishing and maintaining an affirmative program of equal opportunity within its own employment practices. Enforcement responsibility for the Government-wide program is assigned to the Civil Service Commission. Special procedures are available to Federal employees and applicants who believe they have been discriminated against in any aspect of Federal service. Under these procedures, 40,047 persons contacted equal employment opportunity counselors during 1977 for advice and assistance, and of this total, 7,018 filed formal discrimination complaints. If equal employment opportunity counseling, impartial investigation, and a third-party hearing do not resolve the matter to an individual's satisfaction, the complainant may appeal to the Commission's Appeals Review Board or may file a civil action in U.S. District Court.

Table N-1. CIVIL RIGHTS OUTLAYS BY PROGRAM CATEGORY

(In millions of dollars)

Program category	1977 actual	1978 estimate	1979 estimate
Civil rights enforcement: ¹			
Federal service equal employment opportunities	189.7	220.7	244.8
Military services equal opportunities ²	37.7	36.0	38.0
Private sector equal employment opportunities	111.4	128.7	156.6
Equal educational opportunity	27.7	54.2	64.2
Fair housing ³	12.5	14.8	17.4
Enforcement and investigation ⁴	32.7	41.6	48.6
Civil rights conciliation and prevention of disputes	4.4	5.3	5.6
Research and information dissemination	11.7	12.9	12.4
Total	427.8	514.2	587.6

¹ Civil rights enforcement programs guarantee and protect the basic civil rights as defined by law.

² Excludes outlays for contract compliance, fair housing and title VI activities reported elsewhere. Includes Coast Guard.

³ Excludes funds for contract compliance and departmental personnel who directly administer housing and urban development programs but concern themselves with the objectives of fair housing laws.

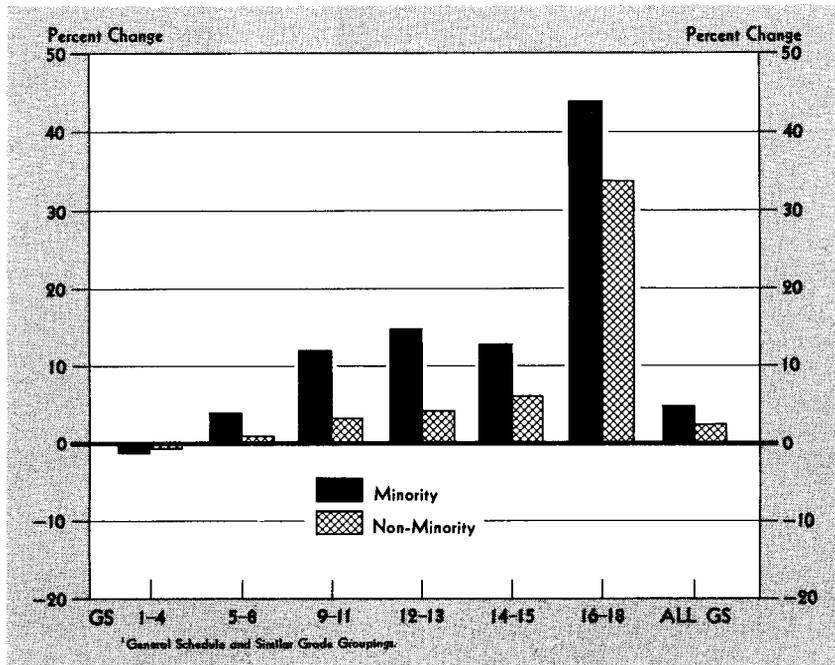
⁴ Includes all title VI efforts except HEW and HUD.

Government policy is clear that personnel actions shall be free from discrimination based on race, color, religion, sex, age, handicapped condition, or national origin, and that Federal agencies shall take affirmative action to assure equal employment opportunity. Agency equal employment opportunity programs are documented in written national and regional plans of action that include, where appropriate, agency established goals and timetables. These plans must be sub-

mitted to the Commission annually for review and approval. Each agency must carefully consider actions needed to assure that recruitment activities reach all sources of job candidates, that present employee skills are fully utilized, that opportunities for upward mobility are provided, and that managers are trained with regard to their equal employment responsibilities.

Changes in Minority and Non-Minority Employment¹ November 1975—November 1976

N-2

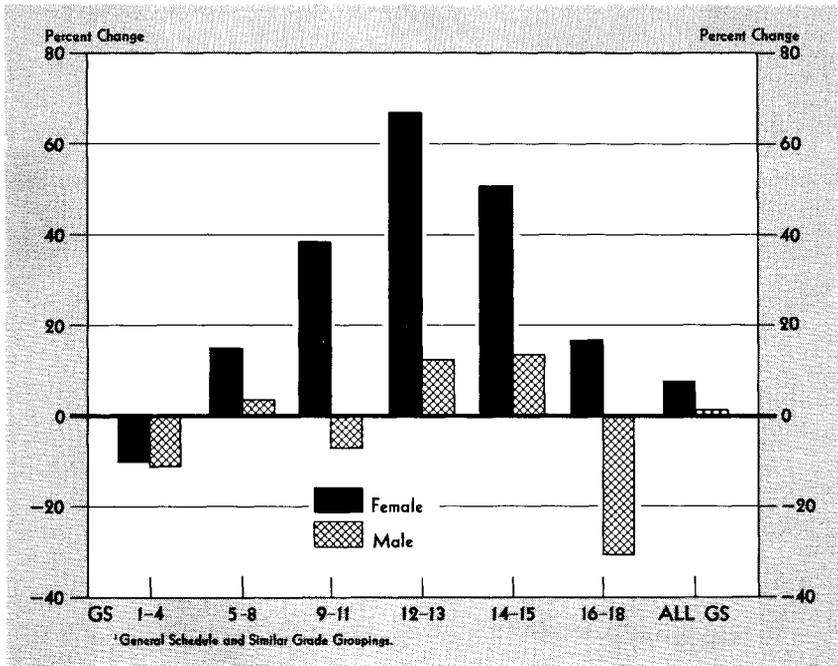


Outlays for Federal civil service equal employment opportunity programs (including upward mobility) will increase by 28.1% in the years 1977 to 1979, to \$244.8 million. Work-years in these programs will increase by 21% to 14,531.

In November 1976, members of minority groups accounted for 21.3% of all full-time Federal employees and 17.7% of white-collar (General Schedule and equivalent) employment, as compared with 21.0% and 17.3% in 1975. Women constituted 43% of the full-time Federal white-collar workforce (excluding the Postal Service). In 1976, women constituted 40% of all minority employees; the average grade for all women was 5.84 and for minority women, 5.53. A comparison of the participation of minorities in the Federal and private sectors shows that the Federal Government is well ahead in overall employment of minorities in professional, administrative, technical, and clerical jobs. The private sector, however, has higher percentages of women or specific minority groups in some of these employment categories.

Changes in Male and Female Employment¹ October 1969 — November 1976

N-3



Under the Intergovernmental Personnel Act of 1970 (IPA), the Civil Service Commission provides technical and financial assistance in personnel management and employee development to State and local governments, an effort to promote and support State and local equal employment opportunity. During 1977, the Commission:

- Awarded \$2.4 million in IPA grant funds to support projects that are exclusively designed to improve various aspects of State and local equal employment opportunity efforts.
- Provided technical assistance and advice related to equal employment opportunity in more than 750 visits to State and local governments.
- Developed and issued a variety of publications for State and local use, aimed wholly or partially at improving equal employment opportunity.

In 1978 and 1979, the Commission will continue to provide financial and technical assistance in this area.

Military services equal employment opportunities.—Each of the military services, including the U.S. Coast Guard, has placed equal opportunity officers at various levels within individual command structures. They guide, monitor, and evaluate all matters pertaining to the equal opportunity and treatment of military personnel and their dependents, and are responsible for and participate in race relations, councils, seminars, and training. In 1979, outlays for insuring equal

opportunities for members of the Armed Services will total \$38.0 million and will provide for more than 3,074 work-years.

Minority and women recruiting continues to receive increased emphasis. The enrollment of minorities at U.S. military academies has continued to increase. The Army has opened 92% of its enlisted occupational specialties to women while the Navy is accepting women in 87% of the enlisted career specialties. The Air Force officer training school program is expected to increase its recruitment goals in 1979, thereby producing more minority and women officers. The ROTC program remains the major source of minority and women officer recruitment. Minorities in the ROTC program have increased from 11,911 in 1975 to 18,605 in 1977. Nine women currently serve at the general or flag officer rank.

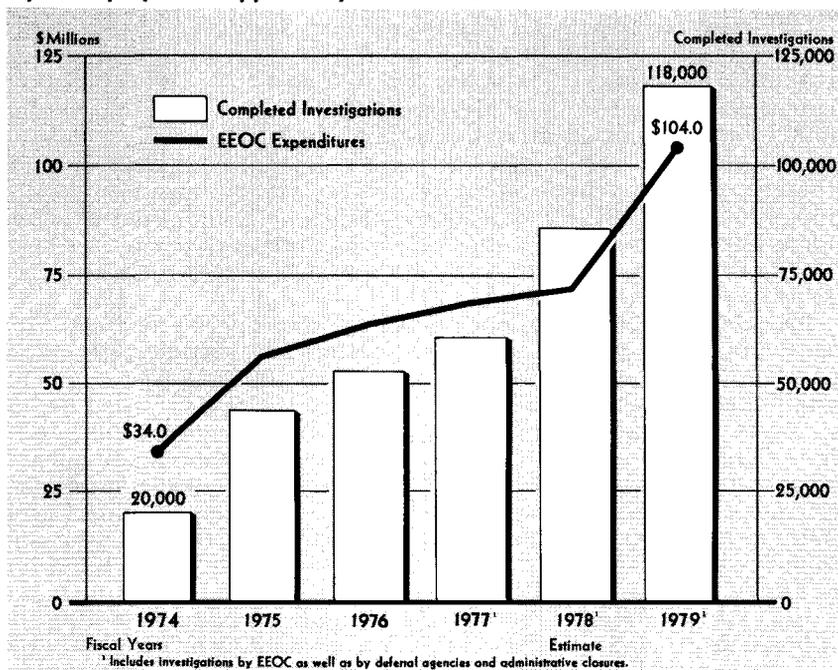
The Defense Race Relations Institute, Patrick Air Force Base, Fla., continues as the primary arm of the Defense Department education program in race and human relations. The institute was originally established to meet the need for giving members of the Armed Forces an appreciation and understanding of cultures other than their own. New direction given to the institute will now greatly increase emphasis on institutional discrimination. During 1978, the equal opportunity education program will be changed to strengthen equal opportunity training at key career phase points for all civilian and military personnel. The institute has graduated more than 5,000 instructors from all the services in the past 6 years.

Currently there are 29 minority general officers on active duty, as opposed to 18 in 1976. Prior to 1971 only four minorities had ever achieved general or flag rank in the entire history of the Armed Services. Minority personnel also continue to increase their proportion of the top enlisted ranks.

Private sector equal employment opportunities.—Title VII of the Civil Rights Act of 1964, as amended, prohibits discrimination on the basis of race, color, religion, sex, or national origin by employers, unions, or employment agencies. Executive Order 11246, as amended, requires Federal and federally assisted Government contractors or subcontractors to provide similar employment opportunities. Outlays for those agencies charged with administering the programs—the Equal Employment Opportunity Commission, the Justice Department, the Department of Labor, and 11 cooperating Federal agencies—will total \$156.6 million in 1979.

Equal Employment Opportunity Commission Activities

N-4

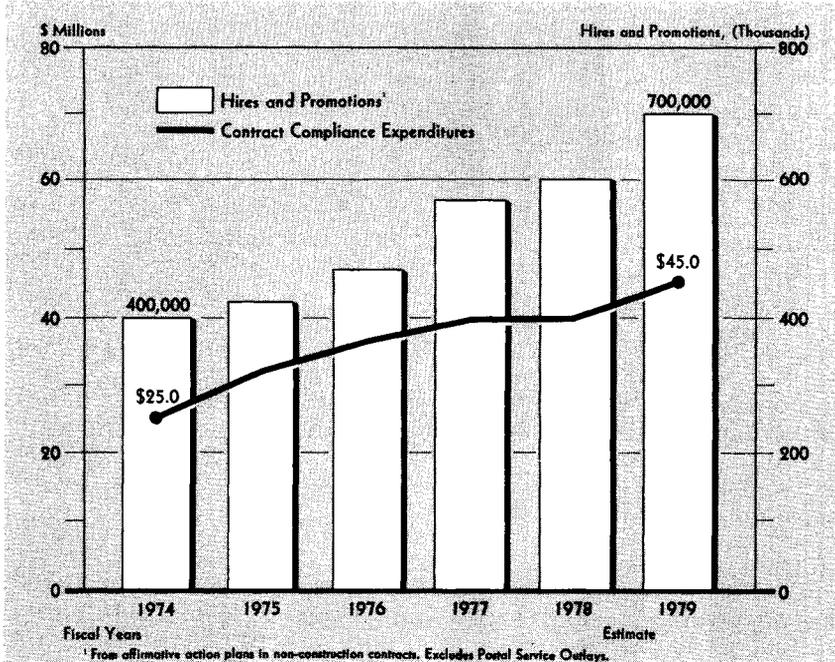


The Equal Employment Opportunity Commission will spend \$104.0 million in 1979 to carry out its responsibilities relating to nondiscrimination in employment in the private sector and in State and local governments. Greater emphasis will be placed on investigating patterns and practices of discrimination in employment. Systems for handling individual charges are being improved so that 118,000 charges are expected to be resolved in 1979 through the combined efforts of the Commission and the State and local agencies to which, under law, these charges are deferred. The Commission will increase the amount of its grants to \$16.4 million in 1979—more than 100% increase over the past year—to State and local agencies that administer fair employment practices statutes to expand the role of these agencies in the handling of employment discrimination charges.

Enforcement of Title VII, as amended, is also the responsibility of the Justice Department. Through conciliation and litigation, Justice seeks to secure compliance with the law where it finds patterns or practices of employment discrimination in State and local governments and their agencies. In addition, non-litigative activities involve the review of over 400 charges referred to the Department upon failure of conciliation and the issuance of over 2,850 right-to-sue letters in response to requests of charging parties. In 1979, the Justice Department plans to expend \$2.4 million to combat discrimination in employment.

Federal Contract Compliance Activities

N-5



Executive Order 11246, as amended, prohibits the practice of discrimination in Federal contracts or subcontracts and in federally assisted construction projects. The order covers both construction and industrial work forces, and requires affirmative action on the part of recipients of Federal contract funds to promote equal employment of minorities and women. In 1979 Federal agencies responsible for implementing this order will spend \$45 million. More than 25,000 compliance reviews of Federal contractors will be carried out in 1979, and an estimated 700,000 new hires and promotions will result from these actions. The Office of Contract Compliance Programs, within the Department of Labor, will monitor 38 voluntary plans and 8 imposed plans to assure affirmative action in the construction industry. The goal for 1979 is to insure that all areas with substantial minority population are covered under either a voluntary or imposed affirmative action plan. In addition, the agency has proposed new construction regulations that will establish affirmative action requirements for all Federal construction contractors or subcontractors.

In order to strengthen the contract compliance program and make it more responsive to the needs of minorities and women, enforcement responsibility was consolidated in 1977 resulting in a drop from 16 to 11 agencies with contract compliance responsibilities.

Other highlights include:

- The Federal Communications Commission will continue to investigate complaints of employment discrimination by broadcasters, cable television systems and common carriers, and review licensees' annual reports of employment patterns as part of its program to enforce the rules of the Commission relating to equal employment opportunity.
- The Department of Labor will spend \$4.3 million in administering the Equal Pay Act. As a result of illegal equal pay practices in 1977, the Employment Standards Administration found 19,382 workers employed in violation who were owed \$15.5 million. Back wages amounting to \$6.8 million were restored to 12,977 employees.

Equal educational opportunity.—Responsibility for insuring equality of educational opportunity rests primarily with the Department of Health, Education, and Welfare and the Justice Department. The primary objective is to eliminate officially imposed racial isolation and sex discrimination against students and to reduce discrimination against employees in public schools and colleges. This goal will be supported by \$64.2 million in 1979.

During 1979, the Justice Department will spend \$2.1 million to enforce Federal laws requiring equal educational opportunities for public school students. In 1977, the Department processed over 400 referrals involving public schools and colleges. Although substantial compliance has been achieved in recent years, the Department will devote an increased proportion of its resources to student desegregation cases in large metropolitan areas. It anticipates a significant increase in the number of student assignment cases for court action.

The Federal Government has taken affirmative steps to provide demonstration programs for non-English speaking students in support of full education equality. Title IX of the Higher Education Amendments of 1972 charged the Department of Health, Education, and Welfare with the responsibility of ensuring nondiscrimination on the basis of sex in institutions of higher learning. The Department secures assurances of compliance from all educational institutions receiving HEW funds, including approximately 2,870 post-secondary education institutions throughout the United States. It investigates complaints and excludes sex discrimination issues in its reviews of large urban school systems. The National Advisory Council on Women's Educational Programs, a Presidentially appointed body established by Congress under the Women's Educational Equity Act, makes recommendations concerning improvements in educational equity for women and girls. The Advisory Council is currently reviewing title IX enforcement activity by Federal agencies other than HEW, and expects to release a report in March 1978.

Fair housing.—Title VIII of the Civil Rights Act of 1968 prohibits discrimination (including blockbusting) on the basis of race, color, religion, sex, or national origin in the sale, rental, or financing of housing, and in the provision of real estate brokerage services.

The Department of Housing and Urban Development (HUD) is charged with the administration and enforcement of the act to promote fair housing practices throughout the country. All executive agencies and departments are required to cooperate with HUD—the lead agency in this area—in affirmatively furthering fair housing policies in the conduct of their programs. Further efforts to achieve title VIII objectives include the development and display of fair housing posters, issuance of guidelines to prevent the use of discriminatory advertising, development of an affirmative fair housing marketing plan for FHA developers and other applicants in the Department's housing programs, and fostering of affirmative action marketing agreements within the real estate industry. During 1977, HUD received 3,213 complaints and closed 2,774. In addition, 484 conciliation agreements were negotiated, generally including both specific relief for the complainant and actions to eliminate any discriminatory practices found as a result of the complaint. The Department and the General Services Administration (GSA) have signed a memorandum of understanding to assure availability of housing on a nondiscriminatory basis for low- and moderate-income employees in new and relocated Federal facilities. The Department of Defense has developed a comprehensive program to insure that all military and civilian personnel are assisted in obtaining off-base housing without discriminatory treatment.

Expenditures for the administration of fair housing programs in the Federal Government will total \$17.4 million in 1979.

Highlights of the Government's fair housing efforts include:

- HUD will spend \$7.8 million to strengthen its efforts under title VIII and to reduce the backlog of complaints.
- Justice will spend \$3.4 million in the development, litigation, and negotiation of cases to enforce title VIII.
- Defense will spend \$2.5 million to protect the rights of all military and civilian personnel in obtaining off-base housing.
- GSA will spend \$1.2 million to study proposed locations for federally constructed or leased space in order to assure that there is an adequate supply of low and moderate income housing available on a nondiscriminatory basis.

Title VIII requirements are an integral part of HUD regulations implementing title I of the Housing and Community Development Act of 1974, which authorizes community development block grants, and title II of that act, which establishes the new section 8 housing assistance program. To assure nondiscrimination under these programs, the Department will continue communitywide administrative meetings, expand compliance reviews, and increase cooperative efforts with other agencies, particularly the independent Federal financial regulatory agencies. Voluntary compliance agreements have been concluded with real estate boards of major cities. HUD's enforcement efforts are supplemented by the Department of Justice and by private civil suits that may be brought under title VIII.

The Justice Department enforces both the 1968 Fair Housing Act and the Equal Credit Opportunity Act of 1974. During 1977, the Justice Department filed legal actions in 17 States. Eighteen of these

were pattern and practice cases involving a total of 35 individual defendants. In 1978, the Department plans to explore the possibility of using "testers" as a followup to complaints of discrimination. A "tester" is a person who assumes all the characteristics of a victim of discrimination, except his race. The tester system is one form of effective investigation and has been approved by a number of courts, including the Supreme Court. The Department has also obtained supplemental relief in cases where defendants had failed to implement provisions of earlier orders.

Civil rights enforcement.—Primary responsibility for the enforcement of civil rights laws and constitutional guarantees is vested in the Justice Department. This includes the development, negotiation, conciliation, and litigation of complaints and cases. Justice, along with other agencies with enforcement responsibilities, will spend \$48.6 million to carry out its responsibilities in 1979. The Department will continue to focus on its coordination of Federal agencies enforcement efforts under title VI of the Civil Rights Act of 1964, which prohibits discrimination in programs receiving Federal funds, and under the general revenue sharing legislation. The Department will also carry on enforcement activities directed toward compliance with laws that prohibit the interference with basic civil rights, including the right to vote and to use public accommodations and facilities.

In 1979, the Justice Department will continue to investigate, litigate, and protect the civil rights of citizens who may have suffered violence or threats of violence, including special protections for migrant workers, prison inmates, and, with the Interior Department, American Indians. Attention will also be directed to civil litigation involving injustices and substandard conditions in correctional institutions, mental hospitals, and juvenile homes.

The voting rights program will expand its efforts to insure that all qualified citizens have the opportunity to register and vote without discrimination on account of race, color, or membership in a language minority group. In addition, section 5 of the Voting Rights Act requires that covered jurisdictions submit all changes in voting practices or procedures to either the U.S. District Court for the District of Columbia for judicial review or the Attorney General for administrative review. Changes that are not submitted are not legally enforceable. During 1977, 3,317 submissions involving a total of 3,122 voting-related changes were processed. Much of the Department's activity in 1979, as in past years, will be devoted to enforcing administrative decisions made under section 5 of the Voting Rights Act and to expand its investigative and litigative activities to discover and remedy methods of election that dilute the voting strength of minorities. In support of the voting rights program, the Civil Service Commission provides personnel to prepare and maintain lists of eligible voters and to observe election procedures in States or other political subdivisions designated by the Attorney General. The Commission receives complaints, hears and determines challenges, and assists in the defense of challenge cases filed in the U.S. circuit court of appeals. The Department plans to expand liaison activities to insure that all appropriate local groups are aware of the rights of individuals held

in penal institutions and to engage in litigation involving discrimination based on sex against female jail inmates.

Civil rights conciliation and prevention of disputes.—The Community Relations Service (CRS) of the Department of Justice was established by title X of the Civil Rights Act of 1964. Its purpose is to reduce and prevent racial tensions and to provide assistance to communities in resolving difficulties arising from discriminatory practices that disrupt peaceful relations among citizens.

In 1979 the CRS will spend \$5.6 million for crisis resolution activity. Assistance to communities seeking to desegregate their schools without turmoil will continue at the 1978 level, with special assistance to be provided to school security officers for preventing and containing violence in schools. The Service will help police departments deal with the problems of excessive use of deadly force—a major cause of animosity between minorities and the police. In response to the President's undocumented alien adjustment program, CRS will assist local officials in coping with the social impact of the adjustment in legal status of undocumented aliens.

Civil rights research and information dissemination.—Expenditures grouped in this category represent Federal research and information dissemination efforts. Outlays in this area will total \$12.4 million and include the following highlights:

- The Commission on Civil Rights will spend \$10.7 million to carry out its factfinding function relating to denials of equal protection under the law.
- The Women's Bureau, within the Department of Labor, will devote \$1.4 million to issues relating to the utilization of womanpower and the economic, legal, and civil status of women. The Bureau works with State, national, international, local, and union organizations and concerned individuals in achieving its goals, and provides support services to the Citizens Advisory Council on the Status of Women.
- The Women's action program, Department of Health, Education, and Welfare, will spend \$0.4 million to analyze the effects of HEW programs and policies on women, and to recommend changes identified by analysis.

Table N-2. FEDERAL CIVIL RIGHTS OUTLAYS BY TYPE OF ACTIVITY

(In millions of dollars)

Type of activity	1977 actual	1978 estimate	1979 estimate
Complaint conciliation.....	22.0	25.4	27.7
Complaint investigation.....	74.7	97.6	116.8
Compliance review and monitoring.....	73.7	107.0	128.4
Legal enforcement.....	30.2	30.0	34.8
Program direction and research.....	102.6	118.3	132.7
Technical assistance.....	6.1	7.5	8.8
Upward mobility.....	80.8	92.4	100.4
Military services equal opportunities.....	37.7	36.0	38.0
Total.....	427.8	514.2	587.6

Civil rights reorganization.—A Task Force on Civil Rights Reorganization has been established as part of the President's reorganization project in the Office of Management and Budget. The purpose of this unit is to develop recommendations to reorganize the various civil rights enforcement programs in order to promote better execution of the laws and to improve program management and efficiency.

Reorganization plans will be developed and submitted to the Congress incrementally. A plan for equal employment reorganization is expected to be submitted in calendar year 1978. The task force subsequently will study enforcement activities related to housing, federally assisted programs, and other areas of civil rights. The study approach includes a strong public awareness component to involve various interested groups and individuals in the identification of problems and the development of reorganization proposals.

Table N-3. CIVIL RIGHTS OUTLAYS BY DEPARTMENT AND AGENCY (in millions of dollars)

	1977 actual	1978 estimate	1979 estimate
Department of Agriculture.....	4.2	6.3	6.5
Department of Commerce.....	1.1	1.7	1.7
Department of Defense.....	48.9	48.0	55.3
Department of Health, Education, and Welfare.....	26.9	55.1	71.0
Department of Housing and Urban Development.....	12.8	15.5	18.8
Department of the Interior.....	2.0	2.0	2.0
Department of Justice.....	27.0	31.8	33.3
Department of Labor.....	14.6	15.4	15.8
Department of State.....	*	*	*
Department of Transportation.....	4.1	4.3	4.6
Department of the Treasury.....	2.3	2.6	2.6
Civil Service Commission ¹	189.7	220.7	244.8
Commission on Civil Rights.....	9.5	10.8	10.7
Department of Energy.....	3.4	4.0	5.0
Environmental Protection Agency.....	1.2	1.2	1.2
Equal Employment Opportunity Commission.....	71.1	85.0	104.0
Federal Communications Commission.....	.3	.3	.3
General Services Administration.....	5.8	6.2	6.3
Postal Service ²	(15.3)	(16.5)	(17.1)
Small Business Administration.....	1.0	1.1	1.1
Veterans Administration.....	1.3	1.3	1.4
Other Independent agencies.....	.6	.9	1.2
Total.....	427.8	514.2	587.6

* Less than \$10 thousand.

¹ All Federal service equal employment opportunity outlays, including upward mobility, are reported under the lead agency, Civil Service Commission.

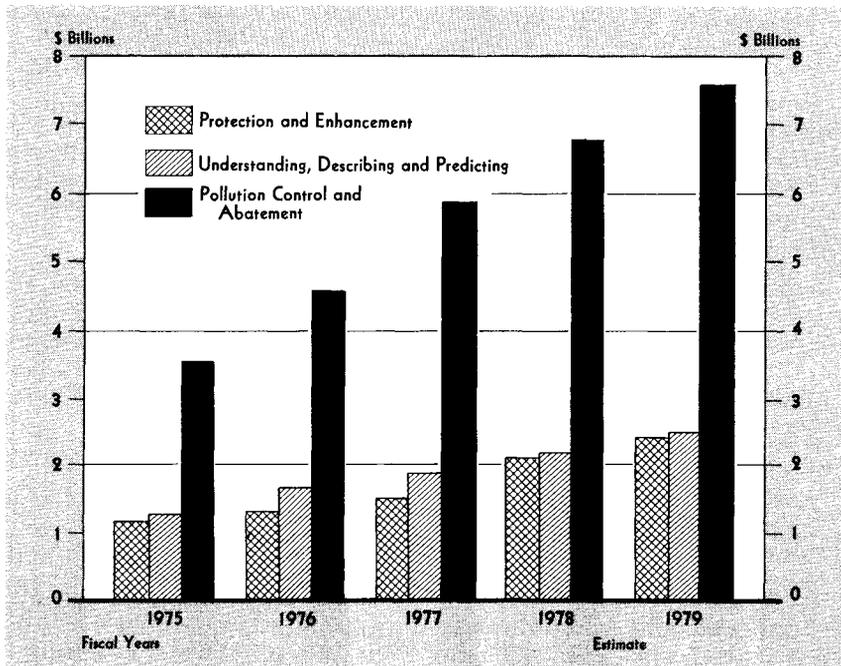
² Postal Service outlays appear in the Annexed Budget and are included here for memorandum purposes only.

SPECIAL ANALYSES O

ENVIRONMENT

In 1979, 19 Federal agencies and departments expect to have outlays of \$12.3 billion for environmental programs. This is an increase of 11% over 1978 Federal outlays of \$11.0 billion. Although covering a wide range of activities, Federal environmental programs are classified in three broad categories: Pollution control and abatement; understanding, describing, and predicting the environment; and environmental protection and enhancement activities. The trends in total Federal expenditures for each category from 1975 to 1979 are shown in the following chart.

Environmental Outlays, by Category, 1975-1979



As the chart indicates, total Federal outlays for environmental programs have increased by 107% since 1975. (Total Federal outlays for all Government programs have increased 54% during the same period.) Pollution control and abatement activities, including construction grants, rank first in size of programs while understanding, describing, and predicting, and protection and enhancement rank second and third respectively.

The relationship between budget authority and outlays in each category from 1977 to 1979 is shown in table O-1.

Table O-1. BUDGET AUTHORITY AND OUTLAYS—FEDERAL ENVIRONMENTAL PROGRAMS (in millions of dollars)

Activities	1977 actual	1978 estimate	1979 estimate
BUDGET AUTHORITY			
Pollution control and abatement.....	2,228.9	2,304.8	2,564.9
Construction grants.....	2,419.5	4,627.9	4,668.4
Understanding, describing, and predicting.....	1,904.4	2,293.8	2,582.1
Protection and enhancement.....	2,136.7	2,416.5	2,61.98
Total.....	8,689.5	11,643.0	12,435.2
OUTLAYS			
Pollution control and abatement.....	2,118.1	2,304.4	2,456.1
Construction grants.....	3,710.6	4,443.3	4,963.8
Understanding, describing, and predicting.....	1,885.0	2,169.8	2,461.2
Protection and enhancement.....	1,498.5	2,106.3	2,405.1
Total.....	9,212.2	11,023.8	12,286.2

Federal expenditures include both direct outlays (in-house activities) and transfers (grants) to State or local governments or to the private sector. In 1979, transfer payments will comprise 51% of environmental outlays. The distribution of 1979 Federal outlays for environmental programs according to direct or transfer spending is summarized below.

1979 FEDERAL OUTLAYS FOR ENVIRONMENTAL PROGRAMS

(In millions of dollars)

	Outlays	
	Direct	Transfer
Enhancement.....	1,573.1	832.0
Understanding, describing, and predicting.....	2,461.2	(¹)
Pollution abatement (excluding construction grants).....	2,030.6	425.5
Construction grants.....	(²)	4,963.8
Total.....	6,064.9	6,221.3

¹ Understanding, describing, and predicting transfers are not separately identifiable.

² Not applicable.

In addition to budget outlays, the Federal Government supports the environmental effort through tax expenditures. The majority of these expenditures result from provisions in the tax code that exempt the interest income from pollution control bonds. These bonds are issued by State and local governments to finance pollution control facilities used by private firms. In addition, certain pollution control facilities are eligible for 5-year amortization. Tax expenditures resulting from the exclusion of interest on pollution control bonds are estimated to be \$390 million in 1979, while tax expenditures resulting from the 5-year amortization for pollution control facilities should be \$45 million. Tax expenditures are not included in any tables of the Special Analysis, which cover only appropriated funds.

POLLUTION CONTROL AND ABATEMENT

In 1979, pollution control and abatement outlays represent 60% of total Federal outlays for environmental protection. These outlays consist of the sum of the outlays identified in table O-1 as pollution control and abatement and construction grants. In 1979, outlays are estimated to be \$7,419.9 million. Approximately two-thirds of these outlays are Environmental Protection Agency grants of \$4.7 billion for the construction of sewage treatment facilities.

There are three primary areas of direct Federal activity: Reducing pollution from Federal facilities, establishing and enforcing standards, and conducting research and development to identify the sources of pollution and to reduce pollution. These direct activities account for 26% of Federal outlays for pollution control. The remaining outlays are transfers to State and local governments for the establishment and operation of pollution control programs, grants for research and development, and funding for education and training activities. Budget authority and outlays for these activities are shown in table O-2.

Table O-2. POLLUTION CONTROL AND ABATEMENT ACTIVITIES—BY FUNCTION (in millions of dollars)

Activities	1977 actual	1978 estimate	1979 estimate
BUDGET AUTHORITY			
Financial aid to State, interstate, and local governments.....	2,598.4	4,896.9	4,934.3
Research and development.....	818.8	942.6	918.9
Standard setting and enforcement.....	449.6	511.2	651.4
Reduction of pollution from Federal facilities.....	520.1	411.3	515.9
Education and training.....	9.4	11.1	7.2
Other.....	252.1	159.6	205.6
Total.....	4,648.4	6,932.7	7,233.3
OUTLAYS			
Financial aid to State, interstate, and local governments.....	3,966.7	4,748.4	5,303.5
Research and development.....	786.3	885.3	898.2
Standard setting and enforcement.....	426.4	470.7	522.6
Reduction of pollution from Federal facilities.....	457.1	426.9	483.7
Education and training.....	12.5	14.1	12.4
Other.....	179.7	202.3	199.5
Total.....	5,828.7	6,747.7	7,419.9

Activities involved.—*Financial aid.*—In 1979, Federal aid to State and local governments is estimated to be \$5,303.5 million. Ninety-four percent of this will be used for construction of sewage treatment facilities, funded primarily through the Environmental Protection Agency (EPA). Most of these expenditures result from the \$18 billion authorized in the Federal Water Pollution Control Act Amendments of 1972. A 10-year funding plan of \$4.5 billion per year was included in the 1978 budget revisions. The plan links directly to the EPA long-term strategy of providing level funding over a period of years to meet the most critical sewage treatment needs as soon as practicable. The

\$4.5 billion level is based on a judgment regarding the optimum continuing construction program both feasible under Federal budgetary constraints and commensurate with the requirements of the Federal Water Pollution Control Act as well as with principles of good construction planning and management.

The Department of Commerce, through its economic development programs and the Department of Agriculture also fund treatment facilities. Additionally, HUD block grants are sometimes utilized for collector sewer construction.

The remainder of these grant funds are utilized in the funding of air and water pollution control agencies of State and local governments. These agencies are responsible for establishing and maintaining programs to monitor and enforce air and water quality standards.

Research, development, and demonstration.—Outlays for research, development, and demonstration are expected to be \$898.2 million in 1979. These outlays include research whose primary purpose is to abate pollution (\$689.9 million) and research conducted for other reasons but with the secondary effect of reducing pollution (\$208.3 million). Other environmental research is reported under understanding, describing, and predicting the environment. An example of secondary research is a program in the Department of Agriculture that promotes the effective use of pesticide control methods. This usually results in reducing the need for pesticides, thereby reducing pollution.

Thirty-five percent of environmental pollution control and abatement research and development outlays will be expended by EPA. Other agencies with spending in this category include the Department of Energy (DOE), National Aeronautics and Space Administration (NASA), and the Department of Interior. These agencies directly spend 93% of the research outlays either through contracts or in-house activities. The remainder is transferred to State and local governments and private institutions.

Environmental research and development for pollution control and abatement begins with identification of pollutants and their sources, then is an assessment of the pollutant's impact on public health and the environment in general. Next, technology is developed to control pollution either through retrofit devices or by changing production methods. The final stage of research and development involves efforts to develop methods and procedures for monitoring the emission of pollutants.

The amount shown as research in table O-2 is divided further into the various types of research detailed above. In 1979, 37% of the pollution control research and development outlays will be spent to develop control technology. Twenty-one percent will be spent on the health effects of pollution control and 21% on the sources and environmental effects of pollution. The remaining 21% will be used for monitoring research, grants, and administrative costs. Since 1975, pollution research outlays have increased 63%. During this same period, health effects research has shown the largest increase—more than 189%.

Examples of pollution abatement related research and development activities in 1979 include:

- Research related to the creation of practical means for implementing environmental quality objectives through the development

of incentive mechanisms and methods for carrying out integrated environmental management planning and analysis (EPA).

- Research and development to control pollution from Army ammunition plants and to assess the resultant health effects (Army).
- Research to insure that rapidly expanding energy technologies that are under development will have minimal impact on the environment (DOE, Interior, EPA).

Standard setting and enforcement.—As shown in table O-2, outlays for standard setting and enforcement are estimated to be \$522.6 million in 1979—an 11% increase from 1978. Standard setting and enforcement includes a wide range of activities related to the regulatory efforts of the Federal Government in the area of pollution abatement. This includes planning, monitoring, surveillance, standard setting, enforcement, technical support, and the costs of preparing environmental impact statements.

Monitoring and surveillance actions refer to direct Federal monitoring of discharged pollutants from point sources and testing of ambient levels of pollutants. Monitoring and surveillance data are instrumental in developing and reviewing standards and in the enforcement of these standards.

The agencies with the most spending in this area are EPA, the Occupational Safety and Health Administration (OSHA), DOE, and the Coast Guard. Examples of activities performed by these agencies are: (1) registration of pesticide products and setting of tolerances for pesticide residues in food and animal feed crops by EPA; (2) contract studies to assess the environmental impact of proposed OSHA standards; and (3) surveillance activities associated with site studies and storage operations for the DOE radioactive waste management program.

Pollution abatement from Federal facilities.—Federal agencies are actively involved in efforts to reduce pollution from their facilities in accordance with the Federal, State, or local regulations in force at that facility. It is estimated that Federal agencies with environmental programs will spend \$483.7 million for this purpose in 1979.¹ These expenditures include remedial actions to control pollution, the additional costs of switching to cleaner fuels, and operational and administrative costs of controlling pollution.

Outlays for these programs will increase 13% in 1979. Remedial actions such as the installation of electrostatic precipitators, dust collectors, and sewage systems will comprise 64% of these outlays.

Of the outlays reported in this category, \$348.8 million (72%) will be expended by the Department of Defense. This funding includes noise and air pollution control of Air Force aircraft, control of pollution at Army ammunition plants and bases, and improvement of Navy sewage systems.

Employment and training.—In 1979, Federal outlays of \$12.4 million will be used for various education and training programs that relate to improving the Nation's pollution abatement capabilities.

¹ Outlays are for facilities or properties which are either owned or leased by the Federal Government and reflect expenditures on both new and existing facilities.

Of these funds, 47% are for in-house training, with the remainder used for fellowships and training grants. Agencies involved in these programs are EPA, DOD, the National Science Foundation, and the Department of Transportation.

Other control and abatement activities.—Other outlays for pollution control and abatement will decrease by \$2.8 million in 1979 to \$199.5 million. Included in this category are the costs of constructing and equipping new facilities occupied and maintained by EPA. Other items are the construction of Indian sanitation facilities by HEW, technical assistance funds, and public information costs.

Pollution abatement by media.—Table O-3 presents Federal outlays and obligations for pollution control and abatement activities categorized by media. Outlays and obligations for water programs receive the largest share of Federal funds because of the large grant programs that fund the construction of sewage treatment facilities. It should also be noted that only funding for those activities that directly lead to pollution abatement are included in table O-3. Research programs that may ultimately lead to abatement and control of pollutants but that do not have abatement as their primary objective are excluded.

Table O-3. POLLUTION CONTROL AND ABATEMENT ACTIVITIES—BY MEDIA OR POLLUTANT (in millions of dollars)

	Outlays 1977 actual	Obligations		
		1977 actual	1978 estimate	1978 estimate
Media polluted:				
Water.....	4,476.7	8,693.4	5,044.2	6,133.9
Construction grants or loans.....	(3,760.1)	(8,006.4)	(4,193.6)	(5,247.5)
Other.....	(716.6)	(687.0)	(850.6)	(886.4)
Air.....	395.4	416.3	409.3	433.6
Land.....	123.9	94.2	114.5	123.1
Other and multimedia.....	667.6	825.2	863.8	934.1
Total.....	5,663.6	10,029.1	6,431.8	7,624.7
Selected pollutants:¹				
Solid wastes.....	101.9	108.3	143.3	161.2
Pesticides.....	78.0	75.3	88.0	103.2
Radiation.....	85.2	97.2	110.0	109.5
Noise.....	48.2	59.9	69.2	72.7
Toxics.....	29.7	37.5	58.1	92.3

¹ Funds for selected pollutants are included in "media" distribution above.

Table O-3 only shows amounts spent for each medium and pollutant; it gives no indication of how the money was spent. For example, outlays during 1977 for water pollution control (excluding construction grants) were made primarily for the reduction of pollution from Federal facilities (34%), and for standard setting and enforcement (19%). Expenditures for land pollution are concentrated in efforts to reduce pollution from Federal facilities (45%), and in research and development (35%), while expenditures for air pollution are primarily devoted to research and development (47%).

Table O-3 also shows selected pollutants for which pollution abatement expenditures are made. Of the pollutants shown, solid waste will receive the most funding in 1979. EPA will spend 36% of these funds for its solid waste management program. The program emphasizes land disposal, hazardous waste management, and State program development.

Pollution control and abatement by agency.—Federal budget authority and outlays for pollution control and abatement are presented by agency in table O-4.

Table O-4. POLLUTION CONTROL AND ABATEMENT ACTIVITIES—BY AGENCY (in millions of dollars)

Agency	1977 actual	1978 estimate	1979 estimate
BUDGET AUTHORITY			
Environmental Protection Agency.....	2,763.7	5,502.2	5,627.6
Defense—Military.....	494.8	378.2	461.7
Commerce.....	369.6	40.5	56.8
Department of Energy ¹	264.5	303.8	296.9
Agriculture.....	160.7	173.2	184.1
Transportation.....	129.3	151.4	174.3
Health, Education, and Welfare.....	126.3	22.5	50.2
Interior.....	114.1	121.1	106.0
National Aeronautics and Space Administration.....	75.9	81.1	71.4
Housing and Urban Development.....	51.9	57.6	76.0
Defense—Civil.....	38.2	37.6	63.5
Labor.....	26.9	29.1	35.5
Other agencies.....	32.5	34.4	29.3
Total.....	4,648.4	6,932.7	7,233.3
OUTLAYS			
Environmental Protection Agency.....	4,365.2	5,115.0	5,679.0
Defense—Military.....	443.9	386.9	420.1
Commerce.....	107.0	182.3	200.1
Department of Energy ¹	241.6	280.6	282.9
Agriculture.....	192.7	200.4	236.8
Transportation.....	120.4	140.8	145.2
Health, Education, and Welfare.....	44.2	72.1	55.1
Interior.....	87.2	115.6	113.6
National Aeronautics and Space Administration.....	78.9	78.8	78.8
Housing and Urban Development.....	63.0	74.9	79.2
Defense—Civil.....	38.2	37.6	63.5
Labor.....	26.4	28.5	34.8
Other agencies.....	20.0	34.2	30.8
Total.....	5,828.7	6,747.7	7,419.9

¹ Includes FEA and ERDA.

Main agency activities.—Outlays by the *Environmental Protection Agency* represent 77% (\$5,679 million) of the total expected outlays for pollution control and abatement in 1979. Of these outlays, \$4,660 million will be for sewage treatment facility grants. Abatement and control activities will account for 51% (\$522 million) of the estimated outlays for EPA's operating programs in 1979. (Construction grants are excluded from operating programs.) These funds support

a wide variety of programs, ranging from the establishment and enforcement of standards to the issuance of permits. EPA also offers technical assistance to State and local agencies to assist them in their pollution control efforts.

EPA's research and development programs are estimated to spend \$308.5 million in 1979. EPA supports both intramural and extramural research to determine the sources and effects of pollution and to develop and test pollution control technologies. The overall objective is to provide a strong scientific basis to develop standards and effective control strategies and to identify and evaluate long-range environmental problems.

The Department of Defense—Military is planning to spend \$420.1 million in 1979 for pollution abatement and control programs. Funds are expended by the three services and the Defense Logistics Agency primarily for pollution abatement at Federal facilities. Other expenditures are for research and development and abatement and control. Outlays are included for such activities as air and water pollution abatement projects in the Army's military construction program, altering Navy ships to minimize oil spills, and controlling noise and air pollution emitted from Air Force aircraft and facilities.

The Department of Commerce estimates \$200.1 million in outlays for pollution control and abatement in 1979. The Economic Development Administration (\$188.7 million) and the Regional Action Planning Commissions (\$4.1 million) provide grants and loans for the construction of water and waste treatment facilities and water and sewer lines where these items are needed to foster economic development. Technical assistance is also provided to identify and solve pollution control and abatement problems. The National Oceanic and Atmospheric Administration will construct pollution abatement facilities at its Columbia River fish hatcheries.

The Department of Energy (DOE) will spend \$282.9 million in 1979 on a variety of environmental programs. Activities include developing environmental policies, complying with the National Environmental Policy Act (NEPA), and evaluating the environmental implications of energy resource policies. DOE also conducts research to convert coal to oil or gas and will continue efforts to identify pollution sources, pollutant transport, and effects to assure that rapidly developing energy technologies have a minimal impact on the environment.

The Department of Agriculture conducts a variety of environmental programs. The Farmers Home Administration makes loans and grants to local community organizations in rural areas to provide for the collection and treatment of domestic sewage as well as the collection and disposal of solid waste such as human, animal, agricultural, and other waste. Recent progress made by the Agricultural Research Service includes the development of a new technique making possible practical and accurate predictions of potential erosion from lands in most of the 37 eastern States. Among the Forest Service's major accomplishments is the development of new logging systems that reduce environmental impacts during harvesting. The Cooperative State Research Service coordinates research and development to reduce pollution and to reduce costs of controlling pollution resulting from the production and processing of agricultural products.

The Economic Research Service performs such activities as identifying and evaluating means by which food, fiber, and recreational demands and rural community needs can be fulfilled with minimal negative impact on the environment.

The *Department of Transportation* conducts a wide variety of environmental programs designed to enhance compatibility between transportation systems and the environment, and to alleviate the adverse impacts of transportation facilities while promoting more efficient use of energy resources. Outlays of \$145.2 million are planned in 1979. The Coast Guard's activities include development of all-weather means of identifying and quantifying discharges of oil and hazardous substances, while the Urban Mass Transportation Administration is developing devices for buses to cut hydrocarbon emissions by 80% to 90%, and carbon monoxide emissions by 40% to 60%. The Federal Aviation Administration's planning grant program provides Federal financial assistance to airport sponsors to encourage them to undertake comprehensive noise abatement planning. The environmental programs of the Federal Highway Administration include investigation of the interrelationships of highway design and operation to erosion control, vegetation, and animal wildlife.

The *Department of the Interior* plans to spend \$113.6 million for pollution control and abatement programs in 1979. The Bureau of Land Management (BLM) will spend \$20.7 million on pollution control and abatement, mostly to conduct environmental baseline and special environmental studies of marine environments on the Outer Continental Shelf (OCS) in order to assess the environmental impacts of OCS development. BLM also prepares environmental impact statements for projects involving energy resources such as coal, oil, and gas. The Geological Survey will spend \$19.9 million for various studies including water resources research to determine the sources and effects of pollution. The Bureau of Mines will spend \$33.3 million in 1979 on environmental research including efforts conducted under the Metallurgy Research program to reduce or eliminate pollution generated by mineral processing operations. The remaining outlays will be made by the Bureau of Reclamation, the Fish and Wildlife Service, the National Park Service, the Bureau of Indian Affairs, and the Office of Territorial Affairs.

Most of the *National Aeronautics and Space Administration's* pollution control outlays are for environmental research and development. For example, NASA conducts a continuing research program to improve the technology for the reduction and control of aircraft noise and emission pollutants. With the Nimbus-G mission NASA is undertaking a major atmospheric pollution research program. In the abatement and control of air pollution NASA is completing a transportable air pollution detection system for identifying and locating pollution sources.

The *Army Corps of Engineers* will conduct a number of pollution control and abatement programs, including an environmental and water quality operational studies program to evaluate and reduce or eliminate environmental problems associated with Corps reservoir and waterway activities. The wastewater management research program is aimed at developing improved techniques for management of wastewater through land treatment.

The Health Services Administration in the *Department of Health, Education, and Welfare* will spend \$55.1 million in 1979 primarily on construction of sanitation facilities for Indian homes, communities, and lands. As a result of this direct Federal construction operation, approximately 23,050 homes were served in 1977. In 1978, an additional 5,500 homes will be served and in 1979, another 8,200 homes will be served.

Other agencies with outlays not listed separately in table O-4 are the Appalachian Regional Commission, Department of Justice, Department of State, Veterans Administration, Nuclear Regulatory Commission, National Science Foundation, TVA, and the Smithsonian Institution.

UNDERSTANDING, DESCRIBING, AND PREDICTING THE ENVIRONMENT

Eleven Federal departments and agencies will spend 99% of the \$2,461.2 million in outlays in 1979 to describe the physical characteristics of the environment, to increase understanding of the environment, and to predict environmental conditions. This is a 13% increase over estimated 1978 outlays of \$2,169.8 million. Although these activities may lead to the reduction of pollution, they are not specifically intended for that purpose. Instead their purpose is to gain a broad understanding of ecological systems and environmental interactions.

As indicated in table O-5, 36% of these outlays in 1979 will support efforts to locate and describe natural resources. These expenditures include such activities as soil mapping and snow and river basin surveys. Environmental observation and measurement efforts that help describe and predict weather, ocean conditions, and earthquakes will account for \$755.3 million in 1979 expenditures—an increase of 6% from 1978 levels.

Other expenditures will be for further ecological research, for physical environmental survey activities, and for aerial reconnaissance of tropical cyclone and winter storms. There are also expenditures for research on environmental factors which affect human health.

Table O-5. UNDERSTANDING, DESCRIBING, AND PREDICTING THE ENVIRONMENT—BY FUNCTION (in millions of dollars)

	1977 actual	1978 estimate	1979 estimate
BUDGET AUTHORITY			
Observe and predict weather, ocean conditions, and disturbances:			
Research and development.....	231.8	245.8	262.9
Operations.....	476.0	495.3	531.2
Locating and describing natural resources:			
Research and development.....	223.5	271.2	325.7
Operations.....	258.8	481.8	608.6
Physical environmental surveys:			
Research and development.....	22.9	31.7	30.3
Operations.....	182.5	186.3	204.3
Weather modification activities.....	20.2	17.2	14.3
Research on environmental impact on man.....	270.4	320.9	335.2
Ecological and other basic environmental research.....	218.3	243.6	269.6
Total.....	1,904.4	2,293.8	2,582.1
OUTLAYS			
Observe and predict weather, ocean conditions, and disturbances:			
Research and development.....	240.7	239.4	257.1
Operations.....	467.9	473.1	498.2
Locating and describing natural resources:			
Research and development.....	233.7	251.0	307.8
Operations.....	256.2	455.1	579.9
Physical environmental surveys:			
Research and development.....	20.8	28.7	30.3
Operations.....	178.2	180.1	195.3
Weather modification activities.....	19.9	17.2	14.2
Research on environmental impact on man.....	261.5	291.3	315.9
Ecological and other basic environmental research.....	206.1	233.9	262.5
Total.....	1,885.0	2,169.8	2,461.2

Table O-6 shows the distribution of total budget authority and outlays for the major agencies involved.

Table O-6. UNDERSTANDING, DESCRIBING, AND PREDICTING THE ENVIRONMENT—BY AGENCY (in millions of dollars)

Agency	1977 actual	1978 estimate	1979 estimate
BUDGET AUTHORITY			
Interior.....	351.9	592.4	651.2
Commerce.....	438.6	454.5	510.2
Department of Energy.....	121.6	162.7	195.5
National Aeronautics and Space Administration.....	178.3	194.3	243.6
Defense—Military.....	212.0	222.1	237.2
Agriculture.....	160.5	171.6	212.7
National Science Foundation.....	161.5	174.8	180.0
Health, Education, and Welfare.....	204.4	243.6	256.1
Transportation.....	15.4	14.2	14.8
Defense—Civil.....	12.1	14.0	15.1
Smithsonian Institution.....	12.0	12.4	12.7
Other.....	36.1	37.2	53.0
Total.....	1,904.4	2,293.8	2,582.1
OUTLAYS			
Interior.....	346.9	570.3	644.9
Commerce.....	429.7	427.4	469.4
Department of Energy.....	119.0	149.1	175.8
National Aeronautics and Space Administration.....	200.1	177.1	236.3
Defense—Military.....	205.2	212.8	224.2
Agriculture.....	159.0	171.1	203.7
National Science Foundation.....	150.9	165.0	175.8
Health, Education, and Welfare.....	195.7	218.5	241.4
Transportation.....	15.3	14.0	14.7
Defense—Civil.....	12.1	14.0	15.1
Smithsonian Institution.....	12.0	12.4	12.7
Other.....	39.1	38.1	47.2
Total.....	1,885.0	2,169.8	2,461.2

Agencies involved.—The Department of Interior plans to spend \$644.9 million in 1979 in its efforts to understand, describe, and predict the environment. Most of this money (80%) will be spent by the Geological Survey to continue programs to characterize and map mineral resources (principally in the National Petroleum Reserve in Alaska), geologic hazards, water resources, and land uses.

The Bureau of Land Management will spend \$74.9 million in 1979 for conducting inventories of public land resources to assist in the Bureau's multiple-use planning responsibilities within the category of understanding, describing, and predicting the environment. These inventories include range, forestry, watershed, recreation, wildlife, minerals, and the Outer Continental Shelf baseline studies.

The National Oceanic and Atmospheric Administration (NOAA) in the *Department of Commerce* conducts a wide range of environmental monitoring and prediction activities, weather modification research, surveys for mapping and charting, and data archiving and dissemination services. NOAA will spend \$469.0 million in 1979 for these activities. Continued emphasis will be given to improving weather monitoring, prediction and warning, and research to help reduce loss of life and property from natural disasters. NOAA will expand its climate

research efforts and marine environmental monitoring and assessment activities. The regional action planning commissions plan to provide \$0.4 million in research and development grants.

The *National Aeronautics and Space Administration* (NASA) plans to spend \$132.6 million in 1979 on research and development to enhance its ability to locate and describe natural phenomena related to the environment, the oceans, weather, and earthquakes. Various satellites are being used to inventory resource and environmental information worldwide. NASA will also spend \$73.5 million in 1979 on research and development in environmental observation and measurement. These activities include developing the capacity to make accurate 2-week weather predictions and improving atmospheric temperature sounding and wind measurements through the All-Weather Atmospheric Sounding Satellites (Nimbus 5 and 6).

The *National Science Foundation* plans to spend \$175.8 million in 1979 to fund a broad range of research activities that, among other things, will increase the Nation's base of knowledge of the environment. Foundation supported efforts include research projects in the atmospheric, earth, and ocean sciences and in environmental biology. Major programs include the global atmospheric research program, the international decade of ocean exploration, and the climate dynamics program. In 1979, particular emphasis will be given to research seeking to improve the knowledge base needed for more accurate and longer range forecasts of weather and climate and for accurate assessments of their impact upon human affairs; to efforts to increase the Nation's capability to understand and manage the threats to man and environment posed by the use of chemicals and the use and disposal of water and wastewaters; and to provide a scientific basis for reducing loss of life and property and the disruption of vital ecological and community relationships from earthquakes and other natural hazards.

In the *Department of Health, Education, and Welfare*, the National Institute of Environmental Health Sciences and the National Cancer Institute will spend \$241.4 million in 1979 to conduct environmental programs directed to the identification of chemical, physical, and biological environmental factors which affect human health, determination of the mode of action of such factors, and development of a scientific basis for control measures. The program areas of special emphasis are: (1) Prediction, detection, and assessment of environmentally caused diseases and disorders; (2) mechanisms of environmental diseases and disorders; and (3) environmental health research and education and training resources.

The *Corps of Engineers* plans expenditures of \$15.1 million on efforts to understand, describe, and predict the environment. Activities will include: (1) Coastal engineering research and development aimed at structural and nonstructural solutions to the control or mitigation of coastal erosion problems; (2) collection and study of hydrologic and coastal data as they affect planning, design, construction, and operation and maintenance of Corps of Engineers projects; and (3) research on the environmental impacts of Corps of Engineers projects.

The *Smithsonian Institution* will spend \$12.7 million in 1979 on various studies to determine the impact of the environment on man and to perform basic environmental research. Such projects include: (1) research on the effects of climatic changes on man; (2) support of anthropological and archeological research projects, focusing on interrelationships between cultural and environmental change; and (3) the scientific event alert network which provides immediate

scientific information on environmental events, including volcanic eruptions, meteorite falls, and marine mammal strandings.

ENVIRONMENTAL PROTECTION AND ENHANCEMENT

In 1979, nine Federal agencies are expected to spend \$2,405.1 million to protect and enhance the environment. This is a 14% increase over 1978 outlays of \$2,106.3 million. As table O-7 shows, 65% of 1979 outlays are direct Federal activities and the balance is for Federal grants to State and local governments.

Table O-7. ENVIRONMENTAL PROTECTION AND ENHANCEMENT
ACTIVITIES—BY FUNCTION (in millions of dollars)

Activities	1977 actual	1978 estimate	1979 estimate
BUDGET AUTHORITY			
Financial aid to State and local government: Purchase, development and operations:			
City recreation.....	398.8	307.8	392.4
Preserve unique areas.....	-----	0.1	0.1
Noncity general recreation.....	178.4	285.7	311.4
Sport fish and wildlife.....	7.4	7.3	6.0
Historic preservation and rehabilitation.....	62.8	88.9	101.4
Other State and local aid.....	152.0	200.0	106.6
Subtotal.....	799.4	889.8	917.9
Direct Federal activities: Purchase, development, and operations:			
City recreation.....	129.6	144.8	194.0
Preserve unique areas.....	485.7	393.5	439.2
Noncity general recreation.....	354.8	420.7	420.0
Sport fish and wildlife.....	156.2	247.4	320.8
Historic preservation and rehabilitation.....	98.2	97.1	121.1
Other direct activities.....	112.8	223.2	206.8
Subtotal.....	1,337.3	1,526.7	1,701.9
Total.....	2,136.7	2,416.5	2,619.8
OUTLAYS			
Financial aid to State and local government: Purchase, development, and operations:			
City recreation.....	204.9	305.9	359.6
Preserve unique areas.....	-----	0.1	0.1
Noncity general recreation.....	144.6	181.9	256.6
Sport fish and wildlife.....	7.3	7.6	5.9
Historic preservation and rehabilitation.....	47.2	75.3	73.9
Other State and local aid.....	21.9	79.4	135.9
Subtotal.....	425.9	650.2	832.0
Direct Federal activities: Purchase, development, and operations:			
City recreation.....	112.8	172.4	182.0
Preserve unique areas.....	303.4	416.9	413.6
Noncity general recreation.....	325.1	380.2	399.0
Sport fish and wildlife.....	163.4	219.0	259.5
Historic preservation and rehabilitation.....	73.4	102.0	111.8
Other direct activities.....	94.5	165.6	207.2
Subtotal.....	1,072.6	1,456.1	1,573.1
Total.....	1,498.5	2,106.3	2,405.1

The major activities in this category are:

- City recreation projects to develop parks and recreational facilities in urban areas.
- Preservation of unique natural areas, including national parks, monuments, scenic rivers, trails, wildernesses, seashores, and refuges for endangered species.
- General recreation projects outside of cities—including expenditures for national recreation areas, recreation programs in national forests, and recreation sites at Federal water projects.
- Management of sport fish and wildlife at national wildlife refuges and national fish hatcheries, grants to States for fish, wildlife, and endangered species management, and other similar projects.
- Historic preservation and rehabilitation, including national historic sites, military parks, and other federally assisted historic preservation and rehabilitation projects.

These protection and enhancement activities are categorized in table O-7 as direct Federal spending or as grants to State and local governments for these activities. Table O-8 lists the departments and agencies making these expenditures.

Table O-8. ENVIRONMENTAL PROTECTION AND ENHANCEMENT—BY AGENCY (in millions of dollars)

Agency	1977 actual	1978 estimate	1979 estimate
BUDGET AUTHORITY			
Interior.....	1,214.1	1,440.9	1,670.6
Housing and Urban Development.....	233.7	259.2	342.0
Defense—Civil.....	155.6	185.4	197.7
Commerce.....	372.8	211.2	138.5
Agriculture.....	145.0	171.2	165.2
Labor.....	-----	128.4	93.4
Other agencies.....	15.5	20.2	12.4
Total.....	2,136.7	2,416.5	2,619.8
OUTLAYS			
Interior.....	940.0	1,262.4	1,418.3
Housing and Urban Development.....	168.1	208.9	242.5
Defense—Civil.....	155.6	185.4	197.7
Commerce.....	82.6	189.4	235.6
Agriculture.....	136.3	161.4	156.1
Labor.....	-----	78.9	142.9
Other agencies.....	15.9	19.9	12.0
Total.....	1,498.5	2,106.3	2,405.1

Agencies involved.—The Department of the Interior through the National Park Service will spend \$564.8 million in 1979 for activities of the National Park System. These funds will be for operation, maintenance, general administration, planning, and construction of facilities within the National Park System.

The Bureau of Outdoor Recreation (BOR) promotes the coordination of outdoor recreation programs, and administers the land and water conservation fund which provides grants for planning, acquisition, and development of State and local recreation areas. The fund

also provides for Federal purchases of important recreation and conservation land. BOR will spend \$572.0 million in 1979 for these activities.

In addition, BOR will be renamed and restructured and given the additional responsibility of administering the national heritage program. This program will provide a systematic means of identifying and preserving the most important elements of the Nation's natural and cultural heritage: Areas of particular scenic, wilderness, ecologic, geologic, or historic significance. Important sites will receive protection against harmful Federal activities, and incentives will be provided to encourage their preservation.

The Fish and Wildlife Service administers 89 hatcheries, which help support fishery resources in coastal and inland waters and 379 units in the National Wildlife Refuge System containing 33.5 million acres. The Service provides assistance to State and local governments for fish and wildlife restoration, management, and research. Presently, 44 endangered and threatened species of fish and wildlife are protected on 139 of the national wildlife refuges. The Service manages 353 wildlife refuges with 9.8 million acres of migratory birds. Outlays for these activities are expected to be \$211.7 million in 1979.

The *Department of Housing and Urban Development* estimates outlays of \$242.5 million for financial aid to State and local governments for environmental protection and enhancement activities. One such program is the community development block grant program which will fund, at the grant recipient's discretion, the protection and improvement of properties having scenic, recreation, conservation and/or historic value. The primary objective of the program is the development of viable urban communities, including decent housing and a suitable living environment, and expanding economic opportunities.

The *Department of Commerce* plans to spend \$235.6 million in 1979 on environmental protection and enhancement activities. The National Oceanic and Atmospheric Administration (NOAA) is expanding efforts related to management and conservation of the Nation's coastal zone marine fishery resources, and endangered marine mammals. In 1979, NOAA will spend an estimated \$24.2 million directly and provide States and localities an estimated \$107.0 million in financial aid for the development of States' coastal zone management programs and new or improved infrastructure for the coastal impacts related to outer continental shelf energy development. The Economic Development Administration will spend \$103.4 million on environmental protection and enhancement through its public works and economic adjustment assistance programs.

The *Corps of Engineers* will spend \$197.7 million in 1979 to construct, operate, and maintain recreation facilities at water resource projects and to protect and enhance lands and shorelines. For example, in the lakeshore management program, the Corps policy is to manage

and protect the shorelines of all lakes under its jurisdiction; to establish and maintain acceptable fish and wildlife habitat, esthetic quality, and natural environmental conditions; and to promote the safe and healthful use of the lake shorelines for recreational purposes by all the American people.

The *Department of Agriculture* will spend \$156.1 million in 1979 to protect and enhance the environment primarily through the Forest Service and the Soil Conservation Service. Forest Service research develops and makes available the knowledge and technologies required to maintain and enhance the environment of the Nation's forest and related lands while meeting expanding demands for timber and various other goods and services from the lands. Examples of major accomplishments are improved methods of predicting and detecting insect and disease outbreaks and methods for successfully establishing trees on strip mine spoil banks. The Forest Service will spend \$126.6 million for research and other programs which enhance the environment. The Soil Conservation Service will spend \$25.1 million in 1979, primarily for technical assistance to soil and water conservation districts. Outlays are also made for recreation area improvement.

The *Tennessee Valley Authority* will spend \$7.6 million in 1979 on its Land Between the Lakes project in western Kentucky and Tennessee. The project is a demonstration of new ideas in public outdoor recreation and conservation education. The project includes a variety of facilities where an urbanizing population can use part of its increased leisure to renew its acquaintance with the land and gain new understandings of modern concepts of resource use and conservation.

The *Appalachian Regional Commission* provides a small amount of funding to supplement basic grants provided by the Bureau of Outdoor Recreation.

RESEARCH AND DEVELOPMENT

A description of funding for environmental research and development programs appears elsewhere in this analysis. However, because research and development expenditures occur in more than one category of activity, these expenditures are summarized in table O-9. Total Federal funding for research and development programs related to environmental improvement will reach an estimated \$2,086.0 million in 1979. This represents a 7% increase over 1978 outlays.

Federal funding for environmental research and development is distributed between pollution control and abatement activities and programs relating to understanding, describing, and predicting the environment. Research and development expenditures for environmental protection and enhancement programs, to the extent that they exist, are not included in table O-9 because these expenditures are not reported separately.

Table O-9. ENVIRONMENTAL RESEARCH AND DEVELOPMENT ACTIVITIES

(In millions of dollars)

Category	1977 actual	1978 estimate	1979 estimate
BUDGET AUTHORITY			
Pollution control and abatement ¹	818.8	942.6	918.9
Understanding, describing, and predicting.....	987.1	1,130.4	1,238.0
Total	1,805.9	2,073.0	2,156.9
OUTLAYS			
Pollution control and abatement.....	786.3	885.3	898.2
Understanding, describing, and predicting.....	982.7	1,061.5	1,187.8
Total	1,769.0	1,946.8	2,086.0

¹ Includes both primary and secondary research and development.

SPECIAL ANALYSIS P

RESEARCH AND DEVELOPMENT

This analysis summarizes the funding of research and development (R. & D.) in the budgets of 29 separate departments and agencies. It consists of two parts. The first presents a summary of R. & D. programs in the 1979 budget, with highlights and long-term trends. The second describes the R. & D. programs of the 12 agencies whose 1979 obligations for R. & D. are expected to surpass \$100 million.

R. & D. is not a separate activity within the Federal budget. Decisions on R. & D. funding are made primarily in the light of the potential contributions of science and technology to meeting particular national needs and specific agency missions.

Federal R. & D. covers a wide range of activities. In varying degrees, agency R. & D. programs include:

- Basic research (discovering fundamental new knowledge);
- Applied research (using new knowledge to meet recognized needs);
- Development (designing, engineering, and demonstrating new devices, systems, or methods).

The Federal Government focuses its investments in R. & D. to meet:

- Direct Federal needs—where the sole or primary user of the R. & D. results is the Government itself; for example, national defense, space technology, air traffic control, and environmental regulation.
- General economic and social needs—where the Federal Government assumes major responsibility because there are insufficient incentives for the private sector to invest adequately in the national interest; for example, research to increase fundamental scientific knowledge, and some types of medical and agricultural research.
- Specific national needs—where the Government seeks to accelerate and augment the R. & D. efforts of the private sector because of an overriding national interest or because of the need to assure or increase the technological options available to the Nation during a particular time period; for example, new energy technologies.

PART I. HIGHLIGHTS AND TRENDS

The budget reflects an increased emphasis on basic research. Obligations for the conduct of basic research are estimated to exceed \$3.6 billion in 1979, an increase of 10.9% above 1978. Proposed Federal obligations for the conduct of all research and development will grow less rapidly, chiefly because of reduced emphasis on demonstration projects. Obligations for the conduct of research and development are

expected to total \$27.9 billion in 1979, an increase of \$1.6 billion or 6.1% over 1978, as displayed in table P-1. Obligations for R. & D. facilities will decrease from \$1.7 billion in 1978 to \$1.3 billion in 1979 with the completion of several major projects, particularly in the Departments of Energy and Defense. Additional information about these estimates is provided in the sections that follow.

Table P-1. TOTAL FEDERAL FUNDING FOR CONDUCT OF R. & D. AND RELATED FACILITIES (in billions of dollars)

	Obligations			Outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Conduct of R. & D.	23.8	26.3	27.9	22.5	24.9	27.0
R. & D. facilities.....	1.3	1.7	1.3	.8	1.4	1.4
Total	25.2	27.9	29.2	23.2	26.2	28.4

CONDUCT OF RESEARCH AND DEVELOPMENT

Federal R. & D. programs have for several years been broadly classified in three major categories—defense, civilian, and space related. Changes in funding for the conduct of R. & D. under these categories are shown in table P-2.

Table P-2. CONDUCT OF R. & D. BY MAJOR PROGRAM CATEGORY
(In billions of dollars)

Program category	Obligations			Outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Conduct of R. & D.:						
Defense ¹	11.8	12.7	13.8	11.1	12.1	13.3
Civilian.....	9.0	10.4	10.7	8.3	9.6	10.3
Space ²	3.0	3.2	3.4	3.1	3.1	3.3
Total	23.8	26.3	27.9	22.5	24.9	27.0

¹ Includes military-related programs of the Departments of Defense and Energy.

² Includes NASA programs in planetary exploration and space shuttle development but excludes NASA programs in aeronautical research, pollution monitoring, Earth resources observations, and technology utilization, which are categorized as civilian-related R. & D.

A significant feature of all categories is growth in the funding of basic research. The overall level of basic research funding will be increased by 10.9% to provide continued growth in Federal support (about 5% above cost increases), chiefly through the programs of the Departments of Defense, Energy and Agriculture; the National Institutes of Health; and the National Science Foundation.

Highlights of each of the major program categories are presented below:

Defense.—This category includes the military-related programs of the Department of Defense and the nuclear weapons programs of the

Department of Energy. Obligations for conducting defense-related R. & D. will total \$13.8 billion in 1979, an increase of \$1.1 billion, or 8.4%, over 1978. Development of major strategic and tactical weapons will continue, while increased funding will be provided for research and technology related to longer range military needs. In 1979, the principal increases in this category will be in the Department of Defense, which will:

- increase basic research funding by 14%, to provide considerable real-dollar growth above anticipated cost increases;
- continue exploratory technology efforts in several areas of defense importance, including the development of high-energy laser technology; and,
- continue the development of several weapons systems, including the M-X intercontinental ballistic missile, the Trident submarine and missile, air-launched cruise missiles, and tank, helicopter, and tactical aircraft systems.

Civilian.—Energy R. & D. is the largest component of the civilian category, and health R. & D. the second largest. Other substantial programs include R. & D. related to environment, transportation, agriculture, natural resources and education. Civilian applications of space technology are also included in this category.

Obligations for the conduct of civilian-related R. & D. will total about \$10.7 billion in 1979, an increase of approximately \$255 million, or 2.4% above 1978. The slowdown in funding growth for “civilian” R. & D. reflects the net effect of many decisions on R. & D. funding by a large number of agencies concerning a wide variety of programs. This slowdown results from a number of considerations including, for example:

- the need to avoid overtaking activities that are more appropriately those of the private sector such as developing, producing, and marketing new products and processes, as in the case of solar heating where the need for additional Federal demonstrations is diminished by the rapid growth of private industry efforts and the incentive provided through tax credits for increased private investments;
- the need to avoid investing in technology where user demand or future economic viability and institutional acceptance is highly unlikely, as in the case of the Clinch River Liquid Metal Fast Breeder reactor demonstration (which is recommended for termination); and,
- the need to avoid overinvesting in multiple demonstrations of somewhat similar technologies, or technologies that promise only marginal improvements, as in the case of coal gasification demonstrations.

In short, the 1979 budget as it affects Federal investments in “civilian” R. & D., where the Government is not the ultimate user, reflects a growing realization that the appropriate role of the Government is to emphasize longer-term (relatively lower cost) research for the future and new technology options rather than major commercial scale (and relatively higher cost) demonstrations.

Among the R. & D. programs and activities proposed in the 1979 budget are two of particular note that involve more than one department or agency:

- *Climate research.*—Eight agencies will undertake a climate research initiative that includes expanded efforts in several areas: assessing the impacts of climate fluctuation on economically significant activities such as crop production and energy use; diagnosing and projecting climate variations; observing and monitoring changes in the oceans and the atmosphere; and studying the interactions of man and of various natural forces that change the climate. The National Oceanic and Atmospheric Administration of the Department of Commerce will take the lead in coordinating the national climate programs effort. Other agencies participating are NASA, NSF, EPA, and the Departments of Defense, Energy, Agriculture, and the Interior. Funding across the various agencies will be increased from \$75 million in 1978 to \$104 million in 1979 (a 39% increase). The 1979 program will feature (1) the development of satellite sensors for ozone and earth radiation monitoring; (2) a major field study in the Equatorial Pacific; and (3) basic research on the carbon dioxide levels in the atmosphere and oceans.
- *Earthquake research.*—Funding will be increased for the National Science Foundation principally for better engineering of structures to withstand earthquakes. The Geological Survey will continue prediction research and regional earthquake hazard assessments at the 1978 funding level (which was 167% higher than 1977).

In other civilian-related R. & D. programs:

- *the Department of Agriculture* will double the funding of its recently initiated extramural competitive grants program—from \$15 million to \$30 million. Grants will be awarded for basic research on crop production and human nutrition.
- *the Department of Energy* will continue to develop solar, geothermal, and fossil fuel technologies, with emphasis on using coal in an environmentally acceptable manner. The Department will also continue to develop advanced nuclear power generating systems that do not increase the risks of international proliferation of nuclear weapons. Overall funding for nuclear R. & D. will decrease, however, reflecting the Administration's decision to defer the development of the liquid metal fast breeder reactor. A reduced, but still strong, program of alternative breeder reactor technology development will be maintained.
- *the Environmental Protection Agency* will begin a program to improve the identification of potential environmental problems before they arise.
- *the National Aeronautics and Space Administration* will begin work on several civilian applications projects, including a satellite system to monitor the Earth's radiation (in connection with the multiagency climate initiative described earlier);

- *the National Institutes of Health* will undertake increased work in biomedical and behavioral studies of reproduction, developmental biology and nutrition, and potential environmental hazards to human health.
- *the National Science Foundation* will emphasize computer science and engineering, including fundamental work on computer pattern recognition; basic research on materials that could substitute for rare metals; and fundamental studies of submicron structures. Funding of neural science will be increased, with emphasis on brain function research, and efforts to improve the data base for social sciences will be undertaken.

Space.—This category includes those NASA programs oriented primarily toward shuttle development and space exploration, and excludes applications of space technology such as the remote sensing from space of Earth resources. Obligations for conducting space-related R. & D. will total \$3.4 billion in 1979, an increase of \$279 million or 8.8% over 1978. Within this overall increase (and in addition to increases for civilian applications noted above), emphasis will be given to space science programs. Funding is provided in 1979 to:

- Continue the development, flight testing and procurement of orbiters for the space shuttle program, with the goal of operating four orbiters from Florida and California by 1983;
- Continue work on several major science projects to be carried into orbit by the shuttle, including a European-developed space laboratory, an Earth-orbiting telescope and a Jupiter orbiter/probe;
- Begin development of two new science missions—the Solar Polar spacecraft, which will investigate the Sun's polar regions, and the Solar Mesospheric Explorer, which will study the effect of solar radiation on the Earth's ozone layer.

CONDUCT OF BASIC RESEARCH

The Federal Government supports about two-thirds of the Nation's basic research effort, that is, the search for new knowledge and understanding of fundamental natural phenomena and processes. Research in such fields as chemistry, physics, biology, astronomy, materials, oceanography, and earth sciences precedes and underlies the advancement of applied science and technology. Universities and colleges, other nonprofit organizations, and some private firms also support basic research. But from a national point of view, as a whole they tend to underinvest in such research either because their resources are limited (as in the case of universities or nonprofit organizations) or because the results do not lead in the near term to the development of patentable and marketable new processes and products (as in the case of private firms).

Table P-3. CONDUCT OF BASIC RESEARCH (in billions of dollars)

	Obligations			Outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Conduct of basic research, total.....	2.9	3.3	3.6	2.8	3.1	3.5

Obligations for the support of basic research (included in funds for the conduct of R. & D. cited above) will increase from less than \$3.3 billion to more than \$3.6 billion in 1979, an increase of 10.9%. This will provide a real-dollar increase of almost 5%.

The allocation of funds provided in the 1979 budget for basic research was made by the administration following a review of the research objectives of all departments and agencies. This review focused not only on the need to maintain a vigorous national research effort in all areas of scientific inquiry, but also on the need for increased research in areas of acute public concern and Government responsibility.

While the administration recognizes that the private sector underinvests in such research because of the long-term nature and uncertainty of payoffs, it believes that private investment in research is critical to the overall national effort and that industry, as well as the Federal Government, should seek to strengthen its level of support.

Major Federal agencies supporting basic research, as shown in table P-5, are the National Institutes of Health, the National Science Foundation, the Departments of Defense and Energy, and the National Aeronautics and Space Administration.

SUPPORT OF R. & D. AT COLLEGES AND UNIVERSITIES

Within the \$27.9 billion proposed for R. & D. in 1979, \$3.6 billion will be obligated by the Federal agencies to support the conduct of research and development in colleges and universities (including medical schools). This represents approximately two-thirds of the R. & D. financed in these institutions from all sources.

Researchers at colleges and universities continue to be the primary performers of basic research not only for the Federal Government, but also for the Nation as a whole. Academic researchers will benefit significantly from the continued growth in basic research provided in the 1979 budget. This growth is intended not only to encourage scientists to undertake innovative research, but also to assist in ameliorating some of the problems currently associated with the performance of research in colleges and universities, including the growing obsolescence of equipment and the lack of opportunities for young investigators.

Approximately half of the Federal R. & D. funds that colleges and universities receive goes to conduct basic research; approximately 40% to conduct applied research (primarily medical), and the remainder to undertake development activities. HEW and the National Science

Foundation are the major sponsors of R. & D. conducted at colleges and universities at estimated levels of \$1,571 million and \$608 million, respectively, in 1979.

The Departments of Defense, Energy and Agriculture, and the National Aeronautics and Space Administration will each provide more than \$100 million to colleges and universities in 1979.

FACILITIES

Amounts for scientific and engineering facilities are considered separately from funding for the conduct of R. & D. Obligations for the construction or renovation of facilities, and for the acquisition of major items of equipment used to conduct R. & D. will decrease by about \$327 million to about \$1.3 billion in 1979.

The majority of the funds for R. & D. facilities are for applied research and development projects and demonstrations. Included in the 1979 budget, for example, are funds for:

- facilities at the Department of Defense's Vandenberg Air Force Base in California, to permit space shuttle operations from the west coast;
- coal and gas demonstration plants funded by the Department of Energy; and
- upgrading and new construction of several National Aeronautics and Space Administration wind tunnels.

The 1979 budget also proposes funds for several basic research facilities that will upgrade the Nation's capability and capacity to seek new knowledge at the frontiers of science, for example:

- the intersecting storage accelerator (Isabelle) funded by the Department of Energy, that will be the most powerful physics research facility of its type in the world;
- a facility that will produce high-intensity uranium beams for nuclear physics research, funded by the Department of Energy; and,
- continuation of antenna construction for the very large array radiotelescope in New Mexico, supported by the National Science Foundation.

PART II: AGENCY R. & D. PROGRAMS

Funding of R. & D. by the 29 agencies reporting obligations and outlays for this purpose is shown in table P-4.

Table P-5 displays estimates for the conduct of basic research, by major funding agencies.

Table P-6 shows funds for support of R. & D. provided by Federal agencies directly to researchers at colleges and universities.

Table P-7 displays estimates for the construction and renovation of facilities used in the conduct of R. & D. and for the acquisition of major items of equipment.

Summaries follow of the R. & D. activities of the 12 agencies that support more than 98% of federally funded R. & D.

Table P-4. CONDUCT OF RESEARCH AND DEVELOPMENT BY MAJOR DEPARTMENTS AND AGENCIES (in millions of dollars)

Department or agency	Obligations			Outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Defense—military functions.....	10,889	11,709	12,740	10,176	11,137	12,315
Energy.....	3,575	4,231	4,245	3,181	3,881	4,188
National Aeronautics and Space Administration.....	3,677	3,877	4,193	3,763	3,824	4,090
Health, Education, and Welfare.....	2,781	3,137	3,258	2,591	2,890	3,141
National Science Foundation.....	697	754	829	650	715	764
Agriculture.....	548	626	632	516	604	582
Environmental Protection Agency.....	312	351	358	272	330	345
Transportation.....	321	364	342	311	342	335
Interior.....	298	366	340	293	335	342
Commerce.....	245	288	316	233	270	298
Nuclear Regulatory Commission.....	114	133	156	104	125	145
Veterans Administration.....	109	119	119	105	112	113
Agency for International Development.....	51	49	76	38	35	48
Housing and Urban Development.....	45	61	57	66	54	54
Tennessee Valley Authority.....	25	36	52	25	36	52
Justice.....	30	65	43	35	43	42
Labor.....	29	33	40	28	31	38
Smithsonian.....	31	31	33	30	31	33
All other ¹	50	60	61	48	60	60
Total conduct of R. & D.....	23,825	26,289	27,890	22,462	24,854	26,984
Total conduct of basic research, included above.....	2,900	3,288	3,647	2,776	3,143	3,462
Total conduct of applied research, included above.....	5,637	6,248	6,711	5,286	5,798	6,346
Total conduct of development, included above.....	15,288	16,753	17,532	14,400	15,913	17,175

¹ Includes the Departments of State and Treasury, the Corps of Engineers, the General Services Administration, the Arms Control and Disarmament Agency, the Consumer Products Safety Commission, the Civil Service Commission, the Federal Communications Commission, the Federal Trade Commission, the Library of Congress, and the Advisory Commission on Intergovernmental Relations.

Table P-5. CONDUCT OF BASIC RESEARCH BY MAJOR DEPARTMENTS AND AGENCIES (in millions of dollars)¹

Department or agency	Obligations			Outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Health, Education, and Welfare.....	753	863	992	707	819	946
(National Institutes of Health).....	(669)	(763)	(856)	(623)	(725)	(827)
National Science Foundation.....	625	688	755	582	653	696
National Aeronautics and Space Administration.....	414	468	520	437	474	516
Energy.....	389	433	468	373	417	458
Defense—military functions.....	294	321	364	274	293	338
Agriculture.....	201	245	262	188	228	228
Interior.....	129	158	164	125	156	161
Smithsonian.....	31	31	33	30	31	33
Commerce.....	23	27	31	23	27	31
Environmental Protection Agency.....	20	20	28	15	16	25
All other ²	21	35	31	21	28	30
Total.....	2,900	3,288	3,647	2,776	3,143	3,462

¹ Amounts reported in this table are included in totals for conduct of R. & D.

² Includes the Departments of Justice, Labor, and State; the Veterans Administration, the Civil Service Commission, the Corps of Engineers, the Federal Trade Commission, the Tennessee Valley Authority, and the Library of Congress.

Table P-6. RESEARCH AND DEVELOPMENT SUPPORT TO UNIVERSITIES AND COLLEGES (in millions of dollars) ¹

Department or agency	Obligations			Outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Health, Education, and Welfare..... (National Institutes of Health).....	1,493 (1,298)	1,715 (1,495)	1,806 (1,571)	1,352 (1,168)	1,561 (1,369)	1,739 (1,518)
National Science Foundation.....	511	560	608	476	533	556
Defense—military functions.....	337	345	384	318	331	362
Energy.....	182	206	230	175	200	225
Agriculture.....	140	178	197	134	168	170
National Aeronautics and Space Administration.....	121	128	128	109	115	115
Agency for International Development.....	25	25	53	18	15	25
Commerce.....	27	32	36	26	32	33
Interior.....	25	33	34	25	32	33
Environmental Protection Agency.....	29	30	33	30	31	32
Transportation.....	20	20	21	17	19	21
All other ²	25	29	31	23	26	29
Total.....	2,934	3,300	3,561	2,702	3,061	3,339

¹ Amounts reported in this table are included in totals for conduct of R. & D.

² Includes the Departments of Justice, Labor, State, Treasury and Housing and Urban Development; the Corps of Engineers, the Arms Control and Disarmament Agency, the Consumer Product Safety Commission, the Smithsonian Institution, and the Veterans Administration.

Table P-7. RESEARCH AND DEVELOPMENT FACILITIES BY MAJOR DEPARTMENTS AND AGENCIES (in millions of dollars)

Department or agency	Obligations			Outlays		
	1977 actual	1978 estimate	1979 estimate	1977 actual	1978 estimate	1979 estimate
Energy.....	557	938	785	427	592	652
Defense—military functions.....	446	301	215	126	399	362
National Aeronautics and Space Administration.....	118	162	153	105	133	154
Health, Education, and Welfare.....	133	89	53	42	93	83
National Science Foundation.....	27	37	39	25	35	36
Tennessee Valley Authority.....	4	30	32	1	31	33
Transportation.....	23	30	21	18	25	18
Agriculture.....	13	33	15	23	36	22
Veterans Administration.....	6	6	7	9	12	8
All other ¹	14	31	9	12	24	12
Total.....	1,340	1,656	1,329	787	1,378	1,380

¹ Includes the Departments of Commerce and Interior, the Environmental Protection Agency, the Consumer Product Safety Commission, and the Smithsonian Institution.

DEPARTMENT OF DEFENSE

The research and development budget of DOD is larger than that of any other Federal agency, and comprises about 45% of the total of R. & D. funding in the 1979 budget. The primary purpose of DOD R. & D. is to modernize forces and weapons systems so that potential enemies will continue to find themselves at a distinct technological disadvantage relative to the combat forces of the United States and its allies. To accomplish this mission, DOD R. & D. encompasses a wide variety of activities ranging from basic research in several fields of science to construction of full-scale preproduction hardware. Obligations for the conduct of R. & D. in 1979 will total \$12.7 billion, an increase of \$1 billion over 1978. Obligations for R. & D. facilities will

decrease from \$301 million in 1978 to \$215 million in 1979, reflecting completion of funding for an aircraft engine test complex.

Some of the major R. & D. efforts for 1979 are:

Technology base and Advanced technology development.—An increase in basic research funding over the 1978 level, and continued development of high-energy lasers.

Strategic systems.—Improvement in all three elements of the strategic triad—land, sea, and air systems. There will be continued development of the M-X intercontinental ballistic missile, of the Trident submarine and missile, and of competitive air-launched cruise missiles. Effort will also continue on ballistic-missile technology and on space-defense systems.

Tactical systems.—Development of systems to improve early combat capability for U.S. forces in the defense of Western Europe. This includes the development of new tanks, guns, ordnance, and tactical aircraft and air defense systems. Increased effort is also provided for naval forces including antisubmarine warfare systems. Cooperative R. & D. efforts with our NATO allies will receive increased emphasis.

Intelligence and communications, program management and support.—Improvements in defense intelligence systems, worldwide communications systems, and test and evaluation capabilities will be continued, and defense support for the NASA space shuttle program will be maintained.

Table P-8. DEPARTMENT OF DEFENSE—MILITARY RESEARCH AND DEVELOPMENT (in millions of dollars)

Type of activity	1977 actual	1978 estimate	1979 estimate
OBLIGATIONS			
Conduct of R. & D.:			
Research, development, test, and evaluation:			
Technology base.....	1,664	1,771	1,952
Advanced technology development.....	537	480	585
Strategic programs.....	2,333	2,497	2,194
Tactical programs.....	3,848	4,417	5,050
Intelligence and communications.....	830	827	1,102
Programwide management and support.....	1,264	1,258	1,405
Other appropriations.....	413	459	453
Total conduct of R. & D.....	10,889	11,709	12,740
Total conduct of basic research, included above.....	294	321	364
Total conduct of applied research, included above.....	1,476	1,541	1,883
Total conduct of development, included above.....	9,118	9,847	10,493
R. & D. facilities.....	446	301	215
Total obligations.....	11,334	12,010	12,955
OUTLAYS			
Conduct of R. & D.....	10,176	11,137	12,315
R. & D. facilities.....	126	399	362
Total outlays.....	10,302	11,536	12,677

DEPARTMENT OF ENERGY

The Department of Energy, established in 1977, is the major Federal agency for the planning, coordination, and conduct of energy R. & D. programs. DOE also funds a substantial program of R. & D. related to the development and testing of nuclear weapons.

Obligations for the conduct of all R. & D. by DOE will total \$4,245 million in 1979. Of this total, obligations for the conduct of nonmilitary R. & D. are estimated to be \$3,223 million in 1979, about the same level as 1978. Obligations for the conduct of R. & D. for military purposes will increase from \$987 million in 1978 to \$1,023 million in 1979. Obligations for construction and equipment will total \$785 million in 1979, a decrease of \$153 million below the 1978 level of \$938 million. Obligations for the conduct of basic research will grow from \$433 million in 1978 to \$468 million in 1979. In addition, several facilities will be funded that should significantly advance exploration at the frontiers of knowledge, including an intersecting storage ring accelerator (Isabelle) and a high intensity uranium beam for studies in nuclear physics. Taking into account the growth in facilities, the increase in support of basic research will approximate 10%.

Table P-9. DEPARTMENT OF ENERGY—RESEARCH AND DEVELOPMENT
(In millions of dollars)

Type of activity	1977 actual	1978 estimate	1979 estimate
OBLIGATIONS			
Energy:			
Conduct of R. & D.	2,373	2,945	2,916
Related R. & D. facilities	354	665	480
Subtotal	2,727	3,610	3,396
General sciences:			
Conduct of R. & D.	277	299	307
Related R. & D. facilities	69	103	120
Subtotal	346	402	427
National defense:			
Conduct of R. & D.	924	987	1,023
Related R. & D. facilities	134	170	185
Subtotal	1,058	1,157	1,208
Total conduct of R. & D.	3,575	4,231	4,245
Total conduct of basic research, included above	389	433	468
Total conduct of applied research, included above	498	576	601
Total conduct of development, included above	2,688	3,222	3,176
Total R. & D. facilities	557	938	785
Total obligations	4,131	5,169	5,030
OUTLAYS			
Conduct of R. & D.	3,181	3,881	4,188
R. & D. facilities	427	592	652
Total outlays	3,608	4,473	4,841

Energy.—The advanced nuclear fission R. & D. program is being redirected from its earlier emphasis on early commercial introduction of the liquid metal fast breeder reactor to systems that minimize the risks of international nuclear proliferation. As part of this effort, the cancellation of the breeder reactor demonstration plant at Clinch River, Tenn., is recommended, but funds will be included to accelerate investigations of alternative breeder concepts.

R. & D. on nonnuclear technology options will be accelerated to supplement, but not supplant, R. & D. being funded by the private sector. New or improved methods of generating electricity will be emphasized. Conservation and geothermal R. & D. will be increased and efforts in fossil energy programs will be accelerated.

Additional funds are proposed to develop technologies for increasing oil and gas production, burning coal more efficiently and extracting oil and gas from shale. In solar and geothermal programs, R. & D. funds will be used to further develop new technologies for providing electricity, thermal energy, and clean fuels in an economically sound and environmentally acceptable manner. Increases are also provided to further assist private sector efforts to develop, market, and use conservation methods and technologies.

An increase is provided for the magnetic fusion program to allow continued research on two mainline approaches for magnetic confinement, as well as various alternative concepts.

Programs for improving the assessment of domestic uranium enrichment techniques will be increased in order to provide a more accurate basis for determining when advanced nuclear technologies will be required. Efforts to control the spread of nuclear weapons capabilities will continue to be supported by DOE through the development of technologies that minimize the risks of international proliferation of nuclear weapons through nuclear power generating technology. At the same time, efforts will be directed toward deterring malevolent acts involving nuclear materials and facilities through threat characterization analysis.

The nuclear waste management programs for both commercial and defense-related nuclear wastes will be strengthened to assure that these long-lived hazards are isolated from the biosphere. Efforts to package wastes from commercial reprocessing plants are no longer necessary, given the indefinite deferral of commercial reprocessing. Terminal storage activities in the commercial nuclear waste program will be increased although overall funding for the conduct of nuclear R. & D. will be decreased.

In DOE's environmental R. & D. program, biomedical and environmental research studies will be expanded to support the development of nonnuclear energy technologies. The energy R. & D. budget includes funds for design of a solvent-refined coal demonstration plant and continued funding for a high Btu synthetic pipeline gas demonstration plant and low Btu gas demonstration plants. Also included are funds for continuation of the mirror fusion test facility and the Tokamak fusion test facility. Major construction in the nuclear R. & D. programs is centered around supporting the fast-flux test facility.

The basic energy sciences program will support an increased level of effort in the fields of nuclear science; materials sciences; and engineering, mathematics, and geo-sciences in support of long-range advancements in energy technologies.

General sciences.—In the general sciences, highest priority is assigned to providing new facilities for the advancement of knowledge in high energy and nuclear physics. The high-energy physics program supports studies of the fundamental properties and structure of energy and matter while the nuclear physics program is concerned with experimental and theoretical studies of the properties and dynamics of atomic nuclei and the characterization of the forces that govern their interaction.

The high-energy physics program includes funds for continuation of a positron-electron colliding beam facility begun in 1977, for continuation of the Isabelle accelerator begun in 1978, and for movement from the R. & D. stage to the construction stage of the energy saver project at Fermilab. The 1979 estimate also includes additional funding in the nuclear physics program for a high-intensity uranium beam project.

National defense.—Development will continue on improved naval nuclear propulsion plants and reactor cores. Increases in the weapons program provide for the development, design, and testing of new weapons types.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

The entire NASA budget is considered research and development. In 1979, NASA will continue to maintain a balanced program across all of its major activities—space shuttle development, space science and exploration, applications of space technology, and aeronautical R. & D. Obligations for the conduct of R. & D. will increase by \$316 million in 1979 to a total of \$4.2 billion, while obligations for construction of facilities will decrease by \$9 million to a total of \$153 million. These changes are related to the development and procurement of the space shuttle, the development of an Earth-orbiting space telescope, the development of an orbiter/probe to investigate Jupiter, and development of a fourth experimental Earth resources satellite (Landsat-D). Funding for two new solar science missions and a satellite to study the radiation budget of the Earth is also included. NASA's basic research obligations will increase to \$520 million, an increase of 11.1% over 1978.

Table P-10. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION—
RESEARCH AND DEVELOPMENT (in millions of dollars)

Program and type of activity	1977 actual	1978 estimate	1979 estimate
BUDGET PLAN			
Conduct of R. & D.:			
Space transportation systems.....	1,732	1,747	1,823
Space sciences.....	379	404	512
Space and terrestrial applications.....	206	243	283
Space research and technology.....	82	98	108
Aeronautical research and technology.....	190	227	263
Energy technology applications.....	6	8	3
Supporting activities.....	255	278	305
Research and program management.....	827	872	895
Total conduct of R. & D.....	3,677	3,877	4,193
Total conduct of basic research, included above.....	414	468	520
Total conduct of applied research, included above.....	791	890	932
Total conduct of development, included above.....	2,472	2,518	2,741
R. & D. facilities.....	118	162	153
Total budget plan.....	3,795	4,039	4,346
OUTLAYS			
Conduct of R. & D.....	3,763	3,824	4,090
R. & D. facilities.....	105	133	154
Total outlays.....	3,868	3,957	4,244

Shuttle development and testing, and procurement of a fleet of orbiters will continue in the space transportation systems program area. The shuttle will provide the capability for a wide variety of uses, with greater flexibility and cost savings than is possible with expendable launch vehicles. First approach and landing tests were performed in 1977, and the first manned orbital flight will take place in 1979. By 1983, NASA plans to achieve an operational capability consisting of four shuttles operating from two bases—the Kennedy Space Center in Florida and the Vandenberg Air Force Base in California.

Work is continuing on three significant NASA space science missions to be launched during 1981 to 1983 using the space shuttle: the earth-orbiting space telescope, capable of viewing objects as far away as 60 million light-years from an orbit well above the obscuring effects of the earth's atmosphere; a European-built laboratory for experiments in astronomy and life sciences; and an orbiter and probe of Jupiter.

Two new science missions are included in the 1979 budget: the Solar Polar mission, which will investigate the Sun's polar regions for the first time, and the Solar Mesospheric Explorer, which will study the effect of solar radiation on the Earth's ozone layer. These missions will also be launched by the shuttle.

An orbiter and probe will be sent to Venus in 1978 using expendable launch vehicles, and the operation of several missions launched in prior years will continue, including the mapping of Mars by Viking spacecraft, the exploration of the planets by Pioneer spacecraft, and

the exploration of Jupiter and Saturn by Mariner spacecraft. In addition, the useful life of many operating space science projects will be extended using funds provided in the 1979 budget (for example, orbiting solar observatories and high-energy astronomy observatories).

In space and terrestrial applications programs, the 1979 budget provides for the start of several weather and climate projects, including a satellite system to monitor the Earth's radiation, and instrumentation for monitoring ozone levels in the upper atmosphere. Both activities will contribute to the administration's initiative to develop a better understanding of climate changes.

The third earth resources survey satellite (Landsat-C) will be launched in 1978 to conduct further experiments in agricultural forecasting and geologic exploration by satellite. A fourth such spacecraft (Landsat-D) is being readied for launch in 1981. A heat-capacity spacecraft will be launched in 1978 to sense potential sources of geothermal energy, while the Nimbus-G spacecraft will be launched in 1978 to demonstrate the capability of monitoring worldwide pollution from space. Another environmentally related satellite, Seasat-A, will be launched in 1978 to monitor ocean conditions. NASA is also developing ways to use the Spacelab (to be flown in the shuttle) for materials processing, technology development, and other applications.

Aeronautical research and technology programs will continue to emphasize the reduction of aircraft noise and fuel consumption, particularly in commercial transports. Support for fundamental studies in aeronautics will also be emphasized.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Department of Health, Education, and Welfare (HEW) obligations in 1979 for the conduct of R. & D. will increase by \$121 million from the 1978 level, to \$3,258 million. Within this total, basic research will increase 14.9% to \$992 million. Obligations for R. & D. facilities will be \$53 million.

Approximately 80% of the Department's R. & D. funds are devoted to the National Institutes of Health (NIH), the primary source of support for basic and applied health research in the United States. NIH is expected to obligate about \$2.6 billion for R. & D. in 1979. Almost half of NIH's funds are devoted to two institutes—the National Cancer Institute and the National Heart, Lung, and Blood Institute. In 1979, both of these institutes show significant increases in their basic research programs. The disciplines of genetics, immunology, virology, and cell biology will continue to be emphasized by the General Medical Sciences and the Allergy and Infectious Diseases institutes. A major initiative involves increased biomedical and behavioral research on reproduction and family planning and in developmental biology and child development. These fields are supported by the National Institute on Child Health and Human Development, whose obligations will increase by 26% to \$197 million in 1979. This research emphasis complements administration efforts to prevent unwanted teenage pregnancies and to enhance the health of children. Research at the Institute of Environmental Health Sciences will also be expanded significantly.

Additional R. & D. funds are devoted to health related research supported by several agencies, including the Alcohol, Drug Abuse, and Mental Health Administration; the Center for Disease Control; and the Food and Drug Administration. These programs will emphasize such diverse areas as the biological and psychosocial aspects of mental illness, drug abuse, and alcohol abuse; preventive health services focusing on occupational health and communicable diseases; methodologies for the detection of animal drug residues in food; the bio-effects of various kinds of radiation; and toxicological reviews of food and color additives, cosmetics, and drugs. An increase of \$39 million in 1979 obligations for research in the areas of mental health, alcohol, and drug abuse reflects the recommendations of the President's Commission on Mental Health.

The National Institute for Education (NIE) is the focal point for educational R. & D. NIE supports research in the areas of equality of education; basic skills education; education and work; and school finance, productivity, organization, and management. In 1979, NIE programs will concentrate on the improvement of teaching, student achievement and testing, urban education, secondary schools and youth, and educational law and finance. R. & D. obligations by NIE will increase by \$10 million, from \$90 million in 1978 to \$100 million in 1979. In addition, the Office of Education supports R. & D. in such areas as in language training and area studies, increased educational opportunities for women, curriculum and materials development for handicapped children, and vocational education.

The total obligations for the conduct of R. & D. in human services and welfare programs will increase to \$154 million. The Office of Human Development will continue to fund R. & D. activities that support its role in providing services to the aged, the handicapped, Native Americans, and children. The Social Security Administration will support applied research on income security, the effects of social insurance benefits, and the economic situation of low-income persons not attached to the labor force.

Table P-11. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—
RESEARCH AND DEVELOPMENT (in millions of dollars)

Program areas and organizational units	1977 actual	1978 estimate	1979 estimate
OBLIGATIONS			
Conduct of R. & D.:			
Health:			
National Institutes of Health.....	2,240	2,515	2,603
Alcohol, Drug Abuse and Mental Health Administration.....	153	162	203
Food and Drug Administration.....	41	47	47
Center for Disease Control.....	54	58	59
Office of Assistant Secretary for Health.....	45	57	49
Health Services Administration.....	16	16	16
Subtotal, health.....	2,549	2,856	2,976
Education:			
Office of Assistant Secretary for Education.....	1	1	1
Office of Education.....	29	45	27
National Institute of Education.....	70	90	100
Subtotal, education.....	100	136	128
Welfare:			
Office of Human Development.....	68	76	80
Social Security Administration.....	12	13	15
Departmental Management.....	20	30	27
Health Care Financing Administration.....	32	27	32
Subtotal, welfare.....	132	146	154
Total conduct of R. & D.....	2,781	3,137	3,258
Total conduct of basic research, included above.....	753	863	992
Total conduct of applied research, included above.....	1,659	1,864	1,862
Total conduct of development, included above.....	369	410	404
R. & D. facilities.....	133	89	53
Total obligations.....	2,914	3,226	3,311
OUTLAYS			
Conduct of R. & D.....	2,591	2,890	3,141
R. & D. facilities.....	42	93	83
Total outlays.....	2,633	2,983	3,224

NATIONAL SCIENCE FOUNDATION

NSF supports long-term fundamental research in all fields of science and applied research on selected problems. The Foundation has a broad mandate to support the advancement of basic science in the United States, and, in the national interest, to balance Federal support across all scientific disciplines. Most NSF research funds are awarded on a competitive basis to researchers in colleges and universities, the primary source of much of this Nation's new knowledge in science.

NSF obligations for the conduct of R. & D. will increase from \$754 million in 1978 to \$829 million in 1979, an increase of \$75 million or 10% above 1978. In addition, \$39 million will be obligated for research facilities in 1979, an increase of \$2 million. Funding for basic research programs will increase from \$688 million to \$755 million, or about 10%, as part of the administration's effort to provide for real growth in basic research programs above cost increases.

In 1979, the Foundation expects to emphasize work in a number of areas, among which are materials research, engineering, and biosciences. Funding for earthquake-related basic research and engineering will be stepped up for the second year, as part of a coordinated program with the Geological Survey. As part of the Government-wide climate initiative described earlier, NSF will increase funding for research on climate change, particularly as it relates to the carbon dioxide cycle.

Funding will be increased for major national programs in astronomy, atmospheric, earth and ocean sciences and for the U.S. effort in Antarctica (which is managed by NSF). Increased funding will also be provided for a broad range of international science and technology efforts conducted through bilateral and multilateral arrangements, with emphasis in 1979 on an expanded program of activities with Western European nations. An applied research program with less developed countries will be initiated.

Construction and limited operation of the Very Large Array radio-telescope will continue, as will conversion of the Cornell synchrotron to a colliding beam facility for heavy ion research.

Support will also be provided for advanced instrumentation that is essential to the conduct of forefront research in several disciplines, and for biosafety facilities needed to deal with new opportunities in recombinant DNA techniques.

DEPARTMENT OF AGRICULTURE

Obligations of the Department of Agriculture for the conduct of research and development, excluding construction of facilities, will increase in 1979 from \$626 million in 1978 to \$632 million. In 1979, the Department's programs will reflect a shift from intramural and formula research to competitive extramural research.

Almost all of the R. & D. conducted by the Department of Agriculture falls under four units—the Agricultural Research Service, the Cooperative State Research Service, the Forest Service, and the Economics, Statistics and Cooperatives Service. The Agricultural Research Service, which obligates approximately half the Department's R. & D. funds, conducts the major portion of the Department's basic and applied research on the production of plants and animals and their protection from pests and diseases; on the use and improvement of soil, water, and air resources; on the processing, marketing, safety, and use of agricultural products; and on rural housing and consumer services.

Funds (\$158 million in 1979) administered by the Cooperative State Research Service provide for payments and grants to agricultural experiment stations, and nonprofit research institutions for similar research undertakings. In 1978, a competitive extramural grant program at a level of \$15 million was initiated for basic research on the

efficiency of food production (\$10 million) and for the improvement of human nutrition (\$5 million). It was initially administered by the Agricultural Research Service, but will be transferred in 1979 to the Cooperative State Research Service. In 1979, the amount for crop production research will be increased to \$19 million in order to expand the basic knowledge needed over the long-term to increase the efficiency of crop production, break yield barriers in certain crops, and reduce the energy requirement for production of crops. Areas of initial emphasis in this program are photosynthetic efficiency, biological nitrogen fixation, cellular and genetic engineering of plants, and plant protection studies focusing on stresses placed on plants by pests, and by drought, wind, and temperature. The funds available for human nutrition studies will increase from \$5 million in 1978 to \$11 million in 1979 and will emphasize human requirements for nutrients; nutrient composition of foods, and the effects of agricultural practices on processing, handling, and cooking.

Forest Service research and development, funded at a level of \$99 million in 1979, provides land managers with a scientifically sound basis for the management of timber, forage, wildlife, recreation, and watersheds. Research is conducted on genetics; wildlife and its habitats; protection of forest resources from fire and forest pests; surface environment and mining; and economics of forest commodity production, processing, and distribution. In 1979 the program will emphasize alternative sources of energy. It will accelerate research on development of energy and petrochemical substitutes from biomass, and the environmental effects of surface mining and reclamation of mined areas.

In 1979, the Economics, Statistics, and Cooperatives Service will obligate \$31 million for analyses of rural labor and credit; economic assessments of energy use, conservation, and development in agriculture; forecasts of agricultural production and trade for foreign countries; and assessments of the economic feasibility of biological and cultural pest control and integrated pest management programs.

On behalf of the United States, the Agricultural Research Service will administer a joint U.S.-Israel Binational Agriculture Research and Development Fund to be established in 1979 with funds appropriated to the President. Water and energy conservation research will be undertaken using the interest derived from an endowment established through contributions of \$40 million from each country. (Funds for the establishment of this endowment are not included in the amounts shown in this analysis.)

DEPARTMENT OF INTERIOR

Obligations for the Department of the Interior for the conduct of research and development will decrease from \$366 million in 1978 to \$340 million in 1979 principally as a result of terminating a Mined Land Demonstration Program due to the enactment of the Surface Mining Reclamation and Control Act of 1977. Related activities now fall within the responsibilities of the new Office of Surface Mining Reclamation and Enforcement.

Nearly 50% of the Department's R. & D. funds, \$163 million in 1979, are managed by the U.S. Geological Survey. Its research programs support accurate appraisals of the Nation's mineral resources;

new or improved methods for mineral exploration; basic data on geologic principles and processes on terrain and foundation conditions, and on causes of earthquakes; research on the basic principles of hydrology necessary for the appraisal and evaluation of the Nation's water resources; and methods of applying information acquired by remote sensing to earth sciences. In 1979, basic research programs will emphasize studies of the paleo-climate to identify long-term climate cycles, particularly drought frequency; movements of organics and other contaminants in water; and geomagnetism. Substantial funding will again be provided to attempt to develop a reliable capability to predict earthquakes and to assess regional earthquake hazards.

The Bureau of Mines and the Fish and Wildlife Service account for most of the Department's remaining R. & D. funds. The Bureau of Mines will obligate \$97 million in support of efforts directed toward solving problems affecting the availability of mineral commodities—the development of technology in mineral extraction and mineral and metal processing, the recovery of mineral values from secondary resources, the safety of mine workers, and the impact of mineral extraction operations upon the environment. The Bureau's obligations will be \$32 million lower than in 1978, principally due to the elimination of the Mined Land Demonstration program. The Department's Office of Surface Mining Reclamation and Enforcement proposes to sponsor a program of applied research on such subjects as the impact of water availability on mine reclamation practices.

The Fish and Wildlife Service carries out research for increased understanding and improved management of fish, wildlife and their habitat. Current emphases include management of nuisance birds and fish, research on migratory game birds, pollution-wildlife studies, and increased research on marine mammals.

The Department also supports research and development efforts by the Bureau of Reclamation, the Office of Water Research and Technology, and the National Park Service. The Bureau of Reclamation and the Office of Water Research and Technology support research on water conservation distribution and use; and the management of precipitation with weather modification techniques. The National Park Service conducts natural resources planning and archeological investigations and salvage operations in various areas threatened by Federal projects.

DEPARTMENT OF TRANSPORTATION

Obligations for the conduct of R. & D. by the Department of Transportation are estimated at \$364 million for 1978 and \$342 million for 1979. Increased budget authority is requested in 1979; the decrease in obligations results from a carryover in 1978.

The Federal Aviation Administration, which accounts for approximately one-third, or \$106 million, of the Department's R. & D. funds, will support programs directed toward the improvement of the Nation's air traffic control systems, the increased safety of aircraft and their operations, aviation medicine, and development activities directed toward protecting the environment from aircraft noise and pollution. In 1979, these programs will continue to emphasize engineering developments for the air traffic control equipment and systems needed to operate the air transportation networks of the 1980's.

The Federal Highway Administration conducts R. & D. programs in highway planning and safety, and in motor carrier safety, at a level of \$55 million in 1979. Major attention is focused on increasing highway, vehicle, driver, and pedestrian safety. Other areas of research and development include reduction of highway construction and maintenance costs, and the development of advanced traffic management systems to increase the capacity of the Nation's highway system.

The National Highway Traffic Safety Administration will obligate \$46 million for R. & D. programs concerning automotive fuel economy, traffic safety demonstrations, and consumer programs. In 1979, these programs will emphasize research on test vehicle fabrication, the development of a nationally representative accident data base, fuel economy research for informed rulemaking in the early 1980s, and data on crashworthiness and damageability of model year cars.

The Urban Mass Transportation Administration will obligate \$53 million in 1979 primarily for development of improved bus and paratransit vehicles, advanced urban rail systems, and automated guideway transit systems, including the downtown people mover development initiative. The program of demonstrations of improved transit service, methods, and management techniques, which encourages low cost service and management innovation to improve the use of current urban transportation systems, will be emphasized.

The Federal Railroad Administration will obligate \$40 million in applied research and development programs. In 1979, emphasis will continue on freight car management, improvement of freight services, safety of railroad operations, and improvement of railroad track structures.

The U.S. Coast Guard's R. & D. program (\$19 million) includes activities concerning improved safety and efficiency of marine navigation; the location and rescue of persons in peril; methodology and equipment to provide passage in ice and iceberg obstructed trade routes; and methods to detect, identify, and quantify discharges of oil as well as to deal with them in fast current and extreme cold environments.

ENVIRONMENTAL PROTECTION AGENCY

EPA supports research and development to determine the sources and effects of pollution. The overall objective is to provide a strong scientific basis to develop standards and effective control strategies, and to identify and evaluate long-range environmental problems. In 1979, obligations for the conduct of R. & D. will increase from \$351 million in 1978 to \$358 million in 1979.

Programs concerning air, land, and water use support studies to determine the relationships between pollution sources and the quality of air and water; to develop new methods and instruments for detecting, identifying, and characterizing pollutants; to dispose of hazardous and other waste materials; and to create and implement environmental quality objectives.

Energy, minerals, and industry programs are designed to determine the environmental implications and effects of the Nation's energy development efforts and to develop appropriate cost-effective control technologies for emerging energy systems. The program focuses on

developing and demonstrating new of improved cost-effective technologies for point source discharges into air and water. In addition, various industrial processes will be assessed to determine possible sources of toxic emissions.

The health and ecological effects program is designed to obtain the fundamental scientific data on which to develop adequately protective and economically feasible strategies for abating and controlling pollution. This program's most important objectives are to identify which pollutants or classes of pollutants may adversely affect human health and the biosphere, and to ascertain the environmental concentration and durations at which pollutants may be allowed to occur without exerting undue damage to public health and important ecosystems.

Monitoring and technical support programs provide improved monitoring methods and equipment to measure the concentration of pollutant discharges from point and nonpoint sources and the distribution of pollutants in the ambient environment. These programs also support the development of monitoring techniques to assure that the environmental monitoring data that are gathered by both government and nongovernmental laboratories are accurate, comparable, and legally defensible.

The agency's 1979 budget includes an anticipatory research program to identify potential environmental problems before they arise, and to develop new knowledge of fundamental environmental principles and concepts. This program is intended to provide the scientific foundation for future applied work to solve specific problems and to provide the scientific information necessary for future regulatory actions. Topical areas include determination of the relationship of environmental pollutant exposure to carcinogenesis and chronic diseases; development of exposure monitoring concepts and techniques; the migration, degradation, and environmental stresses of pollutants contained in the ecosystem; methods to serve as early warning of the presence of new pollutants and indicate trends related to the buildup of or degradation of present pollutants; the development of baseline monitoring techniques to serve as controls for future trends or impacts resulting from environmental stresses; and research on acid rain.

DEPARTMENT OF COMMERCE

Obligations for the conduct of R. & D. by the Department of Commerce, will increase by \$28 million to \$316 million in 1979.

The principal objectives of the research and development programs in the Department of Commerce are to continue to improve the Nation's environmental prediction and warning capabilities, to aid areas in economic distress, to encourage technological advancement through improved performance and measurements standards, and to develop technology to improve the competitive position of the U.S. maritime industry.

The National Oceanic and Atmospheric Administration (NOAA), which accounts for over half of the Department's R. & D. funding, will continue to support research in the detection and tracking of weather systems and violent storms, the extension of environmental

forecasting and data gathering programs, and the modification of severe storms and hurricanes. It will continue the development of systems and components in the areas of mapping, charting, and marine description. In 1979, NOAA will increase research aimed at the conservation, development, and management of fisheries resources and endangered species. NOAA's 1979 program, which will increase \$15 million to \$175 million, includes an increase for basic and applied research for the climate initiative, which is described in the "high-lights" portion of this analysis.

Research and development activities conducted by the Economic Development Administration (EDA) to study and assess the causes and consequences of economic distress, methods of alleviating such conditions, and to conduct feasibility studies of proposed development projects will increase to \$40 million in 1979. Areas of primary research interest will include problems of urban economic development planning and implementation; and the implications of population shifts and the influence of Federal, State, and local government activities on economic development.

The National Bureau of Standards (NBS) provides the United States with the basis for a complete, consistent, and accurate system of physical and engineering measurements and their application; and provides data, measurement methods, and standards to characterize materials. In 1979, NBS's programs will be increased by \$11 million to \$66 million. Principal increases will provide for an expanded effort to establish standards and guidelines to enhance Federal utilization of computers; and for the establishment of a fund to maintain NBS' basic science and engineering capability.

Research and development efforts of the Maritime Administration (MARAD), at a level of \$15 million in 1979, will be directed to improve the productivity in ship building and ship operating industries. Major projects include automation of ship building design and manufacture, improvements of ship propulsion machinery and engineroom equipment, and improved ship operating safety.

The Department also supports small R. & D. programs, in support of their respective missions, by the National Fire Prevention and Control Administration, the Bureau of the Census, the National Telecommunications and Information Administration, and the Office of Minority Business Enterprise.

THE NUCLEAR REGULATORY COMMISSION

Obligations of the Nuclear Regulatory Commission for the conduct of R. & D. will increase from \$133 million in 1978 to \$156 million in 1979.

The Commission's R. & D. program is directed toward the improvement of data needed on the safety, health effects, and environmental impact of nuclear power plants and other nuclear fuel cycle facilities. In 1979, increases are provided to allow the Commission to accept responsibility for the operation of the Loss of Fluid Test (LOFT) facility at the Idaho National Engineering Laboratory from the Department of Energy. This facility will support definitive quantification for safety margins of present generation nuclear reactors.

VETERANS ADMINISTRATION

Obligations for the Veterans Administration for the conduct of R. & D. will be \$119 million in 1979 and will be carried out in three program areas—medical research, health services, and rehabilitative engineering.

Biomedical research programs concerning problems that arise during patient care are conducted at VA health care facilities throughout the United States. In addition, cooperative clinical studies provide simultaneous and identical investigations in two or more VA hospitals. The VA supports studies to develop, test, and introduce better systems for the organization and the delivery of health care, to improve methods for evaluating both the quality of care and the management of the delivery system, and to assess new technologies and their application to health care delivery. Rehabilitative engineering studies provide knowledge, techniques, and devices to aid the ill and handicapped including R. & D. programs in appliances, implants, and restorative and sensory-aid devices.

OTHER AGENCY PROGRAMS

The remaining 17 agencies reporting R. & D. funds support a total of 2% of federally funded R. & D. Like the programs of the 12 agencies providing the majority of R. & D. support, the R. & D. programs of these remaining agencies are closely related to the accomplishment of their missions. The civil works R. & D. program of the Army Corps of Engineers (\$28 million) supports a variety of activities related to the development and management of water and related resources. At the Department of Justice, the R. & D. program of the Immigration and Naturalization Service will emphasize improved voice and digital communications and control of sensors and vehicles, as part of a program to detect and apprehend undocumented aliens at the border. At the Department of the Treasury, the Bureau of Engraving and Printing supports research in spectrography, spectrophotometry, microscopy, photography, and rheology incidental to improvement of equipment and materials.

A portion of the R. & D. budget of many agencies reporting such funds goes to economic and policy studies concerning agency activities. In some cases, such policy studies constitute agencies' entire R. & D. effort.

SUPPLEMENTARY INFORMATION

The following table provides additional information on the long-term trends in Federal R. & D. funding.

Table P-12. TRENDS IN CONDUCT OF R. & D. BY MAJOR PROGRAM AREA (obligations in billions of dollars)

Year	Defense	Civilian (other than space)	Space	Total
1953	2.8	.3		3.1
1954	2.5	.3		2.9
1955	2.2	.4		2.5
1956	2.5	.5		3.0
1957	3.3	.6		3.9
1958	3.8	.7	0.1	4.6
1959	5.6	.9	0.3	6.7
1960	6.1	1.1	0.4	7.6
1961	7.0	1.3	0.8	9.1
1962	7.2	1.6	1.4	10.3
1963	7.8	1.9	2.9	12.5
1964	7.8	2.1	4.3	14.2
1965	7.3	2.3	5.0	14.6
1966	7.5	2.7	5.1	15.3
1967	8.6	3.3	4.6	16.5
1968	8.3	3.5	4.2	15.9
1969	8.4	3.6	3.7	15.6
1970	8.0	3.9	3.5	15.3
1971	8.1	4.5	2.9	15.5
1972	8.9	4.9	2.7	16.5
1973	9.0	5.2	2.6	16.8
1974	9.0	6.0	2.5	17.4
1975	9.6	6.9	2.5	19.0
1976	10.3	7.5	2.9	20.8
1977	11.8	9.0	3.0	23.8
1978 (estimate)	12.7	10.4	3.2	26.3
1979 (estimate)	13.8	10.7	3.4	27.9

