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Volume Author/Editor: Solomon Fabricant, assisted by Robert E. Lipsey

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Chapter Author: Solomon Fabricant, Robert E. Lipsey

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CHAPTER 2

Resources Absorbed in Government Activity

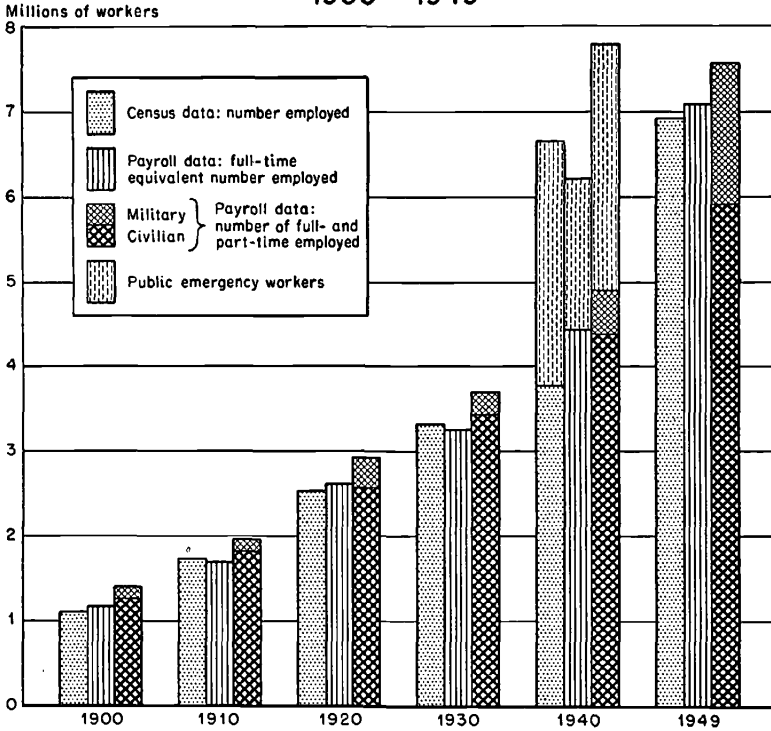
Measurement of the scope and trend of government activity must be approached through the drafts it makes upon the productive resources of the nation — its labor force and its capital. We shall give attention later to the output of government, but no thoughtful reader will doubt the difficulties in reaching even the broadest judgments on output. With inputs it is otherwise: the men and other resources required in government activity are not of a type different from those employed in private industry. We begin with the most important input, manpower.

Number of Government Workers

In 1900 our federal, state, and local governments employed somewhat more than one million persons. Each decade thereafter saw a substantial net increase: over a half-million in 1900-10, almost a million in 1910-20, three-quarters of a million in 1920-30, over a million in 1930-40, and close to three million in 1940-49. By 1949 the total reached around seven million. Today's huge government employment, then, is the latest figure in a series with a pronounced upward trend.

The impatient reader — refusing to wade through the detailed description in Appendix B — will want to know immediately how reliable this series is. He should look at Chart 1. Estimates based on two virtually independent sources show substantially the same expansion in government employment. Whether the estimates are derived from reports by government workers (census data) or from reports by governments (payroll data), each decade records a lengthening of government payrolls. Both estimates show total net increases, for the last five decades, of close to six million.

Chart 1
 Number of Employed Government Workers
 (including Military Personnel)
 1900 - 1949



The figures cited include all ordinary employees of all types of government unit — federal, state, local, including school and other “districts”, and government enterprises and corporations.¹ Among these employees are members of the armed forces as well as civilians, and unclassified and temporary employees as well as civil service appointees. Practically all part-time workers are covered

¹ All government corporations are considered within the scope of government as the term is used here. A question arises about corporations — Federal Land Banks are an example — of whose stock government holds only a part. But for our purpose these borderline cases are negligible since they account for only a very small fraction of government input. When attention is centered on credit and finance, however, these cases are more troublesome.

by the payroll data.² Exclusion of most part-time workers from the census data helps to explain some (but not all) of the differences in the chart.

The glance at Chart 1 will have disclosed, also, the large number of public emergency employees in 1940, an extraordinary class of government worker we ignored when describing the trend. Scarcely any appear in the record for 1930, and none at all for the other years covered by the chart. This fact and the special nature of emergency employment justify showing it separately.

Because the numbers we report are so large, it is well to emphasize that certain groups that conceivably might be included are omitted. We exclude government contractors and their employees; volunteer firemen, members of school boards, and other citizens who occasionally lend a hand in various government activities at nominal or no compensation; farmers and others required as part of their civic duties to assist in road maintenance and similar work; and inmates of prisons and other institutions. The services of contractors' employees are covered by our estimates of government purchases from private industry, to be given below. Some of the groups omitted, volunteer firemen, for example, declined in relative importance as urbanization proceeded. But their exclusion does not appear to bias to any important degree the trend shown by our figures: the *full-time* employees required to replace them in the few functions in which they may have been of significance constitute only a fraction of all government workers today (see Table 12, below).

The expanding host of public pensioners and recipients of welfare, subsidy, and similar government payments are all, of course, excluded from our figures.

Government in Relation to Total Employment

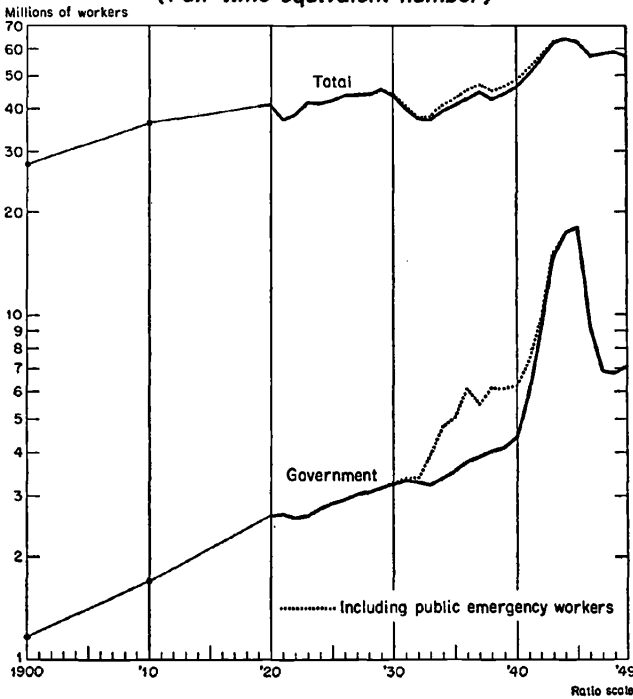
In a country where population is at a standstill or changing only slightly, the trend in the absolute number of government workers would be enough to give the picture. But our population — and

²In the calculation of "full-time equivalents", two half-time workers, for example, are counted as one full-time worker.

with it, total employment — has been growing rapidly. How does the growth of government compare with the growth of total employment?

It will be no surprise to find that the rate of growth in total employment, substantial though it has been, was far short of the very high rate of growth in government employment (Chart 2).

Chart 2
 Government and Total Employment, 1900-1949
 (Full-time equivalent number)



Total employment also rose each decade (on net balance), but the percentage increase was always less than in government employment. For 1900-49 as a whole, total employment increased about 120 percent, government employment 500 percent or more. The contrast is still more striking when the 500 percent increase

in government workers is compared with the 100 percent increase in privately employed workers.³

Another way to describe the growing importance of government workers in the total is to compare the present proportion with that of earlier years. In 1900 one out of 24 workers was on a government payroll, in 1920, one out of 15, and in 1940, one out of 11. The current ratio, as has been said, is one out of 8. The trend is sharp and clear (Table 1).

Table 1

EMPLOYED GOVERNMENT WORKERS (INCLUDING MILITARY PERSONNEL) AS A PERCENTAGE OF ALL EMPLOYED WORKERS, 1900-1949

	1900	1910	1920	1930	1940	1949
Census data ^a	4.1	4.9	6.3			
Payroll data, full-time equivalent number			6.5	7.4	9.5 (12.9 ^b)	12.4

^a Corresponding percentages for earlier years are: 1870, 2.7; 1880, 3.1; 1890, 3.5.

^b The figure in parentheses includes public emergency workers.

Sources of data in this and subsequent tables are given in Appendix A.

That this trend is a continuation of one already apparent in the nineteenth century is suggested by rough data that go back to 1870. Over the 80 years since 1870 the percentage of all workers on government payrolls quadrupled.

Stock of Government-Owned Capital Goods

Government is obviously a big employer when an eighth of the labor force is on a government payroll. But government is even bigger, compared to private industry, as a holder of capital goods. Of the vast stock of capital goods in existence in the United States today — movable equipment, rolling stock, and improvements to fixed property, but excluding roads and streets, the national arma-

³ There are also interesting differences between government and private employment with respect to the effect of war and changes in business conditions; but we shall be better prepared to take notice of these in the next chapter.

ment, and consumers' personal property, as well as business inventories — something like a fifth is publicly owned. What has been the trend in government's share of this important class of the nation's resources?

In 1902, the closest we can get to the opening of the century, government nonmilitary capital assets on which definite values can be put totaled somewhat under \$4 billion. By 1946, the most recent year for which data are available, these assets were valued at over \$50 billion. The increase reflects, of course, a low price level in 1902 compared with 1946, as well as growth in the "real" stock of capital goods. Expressed uniformly in 1929 prices, government-owned nonmilitary capital assets amounted to about \$8 billion in 1902 and over \$50 billion in 1946, a rise of \$40-odd billion.

Almost every year added something to the government's stock of capital goods. Indeed, with one exception during the 1930's, declines seem to have come only after the two great wars, when surplus federal property was sold or scrapped. In each period marked off by the years in Table 2, a substantial net increase occurred. Some \$6 billion were accumulated in 1902-12, about \$5

Table 2

GOVERNMENT-OWNED NONMILITARY CAPITAL ASSETS, 1902-1946
(billions of dollars)

	1902	1912	1922	1929	1939	1946	1922	1929	1939	1946
	<i>Excl. Roads and Streets</i>						<i>Incl. Roads and Streets</i>			
<i>Book values</i>										
Incl. defense corporations	3.8	7.3	15.4	21.1	30.9	51.4	20.5	31.9	47.8	68.8
Excl. defense corporations	3.8	7.3	13.0	21.0	30.7	36.1	18.1	31.8	47.6	53.6
<i>1929 prices^a</i>										
Incl. defense corporations	8.4	14.3	18.9	23.3	33.8	50.9				
Excl. defense corporations	8.4	14.3	15.9	23.2	33.6	35.8				

^a Conversion of book values to 1929 prices changes the 1929 book values because the assets of 1929 are valued on the books at the prices prevailing in the years when the assets were acquired.

billion in 1912-22, \$4 billion in 1922-29, around \$10 billion in 1929-39, and \$17 billion in 1939-46 (all in terms of 1929 prices).

We show only "nonmilitary" assets because lack of data compels us to exclude assets held by the military establishment. Included,

however, is a considerable amount of property acquired by the federal government to carry on the two world wars, notably war plants and shipping. On a somewhat narrower definition of "non-military" these might be excluded. This would reduce the 1922 and 1946 figures, and the net increase from 1902 to 1946 would amount to some \$27 billion in 1929 prices.

Inclusion of all military assets would, of course, raise the levels and changes shown in Table 2 substantially. The value of military assets at the end of 1946 has been estimated at \$58 billion in terms of depreciated original cost.⁴ Still other omissions are caused by lack of information. Most notable is the omission of roads and streets in the earlier years. Their importance is indicated by the difference between the two sets of figures in the table.⁵

Quality as well as quantity of government assets was heightened. More roads were surfaced, for example, one-room schoolhouses gave way to larger and better equipped buildings, and trucks and motorized fire apparatus displaced horse drawn equipment. Many improvements are reflected in the deflated figures cited. Some, however, are not, because the deflators used are in part derived from the prices of commodities of improving quality. On this account, too, growth in the capital stock held by government is understated.

Capital Goods Compared with Employment

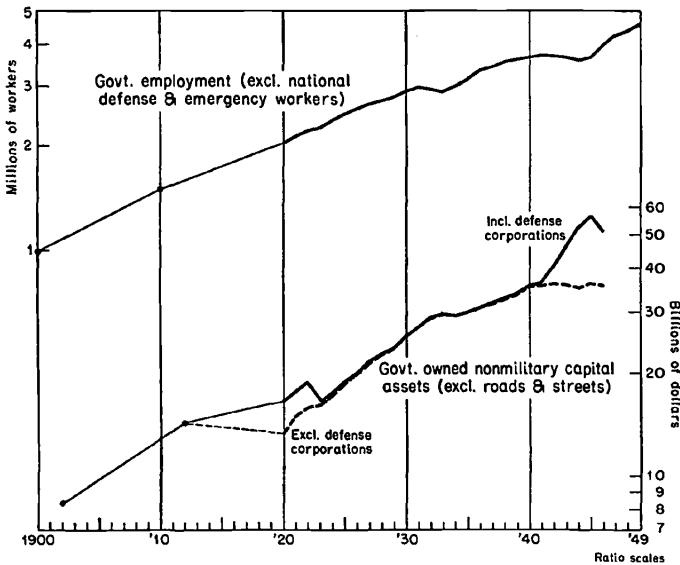
Some four million full-time equivalent workers were employed by government in 1946, excluding the military and civilians directly engaged in national defense. Government-owned nonmilitary assets amounted to \$36 billion, excluding defense plants, war surplus

⁴ In terms of depreciated replacement value, the estimate is \$80 billion. See J. E. Reeve, and others, "Government Component in the National Wealth", *Studies in Income and Wealth, Volume Twelve* (National Bureau of Economic Research, 1950), p. 502.

⁵ Sewage systems, nonschool assets of small municipalities and of certain townships and special districts, equipment of several federal agencies, and federal property outside the continental United States are excluded in all years. Although less important than highways, these items are not negligible. In 1939 the depreciated cost of the Panama Canal was half a billion dollars.

and other quasi-military assets held by federal corporations, and roads and streets. Capital assets per worker therefore reached \$9,000 in this year. Including roads and streets, they would be \$13,000 per worker.⁶ While labor is the biggest single resource used by government, government “property, plant, and equipment” is not of minor significance even in relation to labor.⁷

Chart 3
 Government Employment, 1900-1949
 and Capital Assets, 1902-1946
 (Employment on a full-time equivalent basis, assets in 1929 prices)



In 1902 corresponding capital assets (excluding roads and streets) per worker were surprisingly similar when figured in 1946 book values — perhaps about \$7,500 or \$8,000. Indeed, within

⁶ These are 1946 “book values”, which are based largely on prewar costs. In prices current in 1946 or today, the amount would be considerably greater.

⁷ This may be put also in terms of a comparison of net rental values and salaries. Government’s capital assets were worth some \$750 per year per worker (figuring net rent at a rather arbitrary rate of 4 percent of 1946 net replacement cost). The average government employee received some \$2,400 in 1946. The proportion is thus about 1 to 3.

the allowances that must be made for inevitable margins of error, the rise per worker may be insignificant. The rise in government employment has kept pace with the rise in government-owned capital assets (Chart 3). Inclusion of roads and streets and other missing nonmilitary assets, however, would not only raise the level, but probably also tilt up a bit the trend of assets per worker. Addition of all military items to both assets and employment would probably push up the rate of growth even more, as well as further raise the level of assets per worker.

This comparison of assets and workers leads to an important conclusion. The trend of government employment, rapidly upward though it has been, does not overstate the rate of increase in government input. But before we may accept this conclusion we must wait to learn something of the importance and trend of government purchases of materials and services from private industry.

Government's Share in the Nation's Stock of Capital Goods

Like government's current share in employment, government's share of the nation's capital goods is the latest in a series with an upward trend (Table 3). Indeed, there is great similarity in the average rate of change although not in the level of the two series, as one could infer from information already given.

Government owned one-fifteenth of the nation's capital goods in 1902; by 1946 its share was up to one-fifth. If roads, streets, and other important omitted items were included, government's share would be higher in both periods. If military property were included, government's share in 1946 would be still higher, and the rise to 1946 still sharper.

As in the case of employment, there is some evidence that the rising trend in government's share in the nation's property goes back into the nineteenth century. In 1890 the share was smaller than in 1900; and in 1880, smaller than in 1890.⁸

The differences between growth in government and in total

⁸ For the earlier years we have figures only on tax-exempt real estate, largely but not entirely government property. Tax-exempt real estate, as a percentage of total national wealth, was 5.9 in 1880, 6.4 in 1890, and 7.3 in 1900. (*Studies in Income and Wealth, Volume Twelve, op. cit.*, p. 538.) This series probably

Table 3

GOVERNMENT-OWNED AND TOTAL CAPITAL ASSETS, 1902-1946
EXCLUDING MILITARY ASSETS, ROADS AND STREETS, AND LAND
(in 1929 prices)

<i>Billions of Dollars</i>	1902	1912	1922	1929	1939	1946
Government property	6.7	11.7	15.9 (13.4)	18.9	27.7	45.3 (31.9)
Total wealth (real estate improvements & equipment)	101	155	163 (160)	210	208	220 (207)
% , government of total	6.6	7.5	9.8 (8.4)	8.8	13.3	20.6 (15.4)
	1902-12	1912-22	1922-29	1929-39	1939-46	
<i>Percentage Changes</i>						
Government property	+75	+36 (+15)	+19 (+40)	+47	+64 (+16)	
Total wealth (real estate improvements & equipment)	+53	+5 (+3)	+29 (+31)	-1	+6 (0)	

The figures include the assets of defense corporations; only the 1922 and 1946 figures would be substantially affected by their exclusion, as is indicated by the figures in parentheses, which exclude defense corporation assets. Total wealth includes residential buildings but excludes consumers' equipment.

wealth are striking enough to warrant viewing them from another angle. Put in terms of absolute changes in property values (expressed in 1929 prices), and contrasting government with private (instead of total) investment, we have Table 4, on p. 20.

These net investment figures reveal how great a participant in the investment process government has been during the last half-century. In a good many years government was the major net investor. In the period that includes World War I, government net investment equaled private net investment; and if some addition be made for roads and streets, exceeded it. In two periods, one including the great depression and the other World War II, government investment was at an exceptionally high level while aggre-

overstates the level of government's share of property because it includes property held by private tax-exempt institutions; and probably understates the slope of the trend because it excludes government-owned equipment.

gate private net investment was negative. Annual figures available for 1919-43 show that government net investment in construction exceeded private net investment in plant and equipment combined in 1919, 1921, 1931-39, and 1942-43, inclusive, i.e., in 13 of the 25 years covered.⁹

Table 4

PUBLIC AND PRIVATE NET INVESTMENT IN CAPITAL ASSETS
1902-1946, EXCLUDING MILITARY ASSETS, ROADS AND
STREETS, AND LAND

(in 1929 prices)

	1902- 1912	1912- 1922	1922- 1929	1929- 1939	1939- 1946	1902- 1946
Change in government-owned capital assets, billion dollars	5	4	3	9	17	39
Change in private capital assets (real estate improvements & equipment), billion dollars	49	4	44	-11	-5	80
Change in total capital assets, billion dollars	54	8	47	-2	12	119
%, government of total	9	50	6	*	140	32

* Denominator is negative.

If defense-agency assets were excluded, the increments in government-owned assets would be changed to: 1912-22, \$2 billion; 1922-29, \$5 billion; 1939-46, \$4 billion; 1902-46, \$25 billion.

The government figures, it must be emphasized, exclude strictly military investments, as well as several other government investments for which data are not available. In another respect, however, they overstress government's role in durable goods investment. Because most depreciation charges and retirements are deducted, the figures in Table 4 relate largely to net investment, that is, to net capital formation rather than gross capital formation. Government's share in *gross* investment is smaller because its assets include more construction items and are therefore longer lived.

Beginning with 1946 private investment was maintained at a

⁹ Simon Kuznets, *National Product Since 1869* (National Bureau of Economic Research, 1946), Part I, Tables I6, I10, I16; 1929 prices.

high rate. It therefore seems likely — though figures comparable with those cited in Table 4 are lacking — that for the full period 1939-49 the story would be different from that for 1939-46 alone: private net investment would be positive and substantially greater than government net investment exclusive of investment in armament. But if armament were included, government net investment would still exceed private investment.

Government Purchases from Private Industry

In 1939, before the defense program got far underway, the government units of the United States paid out over \$5.5 billion for the services of persons regularly employed by them, and held nonmilitary capital goods the services of which were worth perhaps \$2 billion per year.¹⁰

These figures measure the value of the services of resources resident, so to speak, in the governmental sector of the economy. For some purposes their sum is the value of government's total input. It is this sum that, combined with corresponding inputs in other sectors, yields national input (or, its equivalent in money terms, national income);¹¹ and we might, therefore, conclude our review of government's input with this total. For other purposes, however — for example, to get at the total flow of resources through the governmental sector or to check on the displacement of one type of resource by another — it is desirable to go farther: to include also, before totaling the account, resources acquired by purchase from private industry. Among these are such items as new construction by private contractors, repairs, equipment, materials, supplies, transport, rents, and telephone services.¹²

¹⁰ This is the imputed net rent, calculated at the rate of 4 percent of \$48 billion, the 1939 book value of government capital assets including roads and streets.

¹¹ More accurately this *should* yield the correct measure of national input. Current calculations of national input either make shift with interest on the public *debt* as the measure of the services of government capital, or ignore these services; see the text below.

Net profits on public enterprises are taken to be covered by the rental value of the capital assets.

¹² Included also are contributions to UNRRA and ECA grants, which tend to swell the federal figures in recent years.

Resources purchased by government from private industry also must be reckoned in large figures. In 1939 they amounted to \$5.5 billion (Table 5), to which might be added \$1 billion of purchases by government enterprises omitted from the figure. Most recently,

Table 5

TOTAL GOVERNMENT PURCHASES AND PAYROLLS, 1903-1949

	1903	1913	1929	1939	1949
<i>Millions of Dollars</i>					
Outlays on capital assets	324	680			
New construction			2,391	2,346	6,403
Other purchases	429	752	1,786	3,170	18,467
Payrolls	721	1,341	4,295	5,667	18,729
Total purchases & payrolls	1,473	2,773	8,472	11,183	43,599
<i>Percentage of Total</i>					
Outlays on capital assets	22.0	24.5			
New construction			28.2	21.0	14.7
Other purchases	29.1	27.1	21.1	28.3	42.4
Payrolls	48.9	48.4	50.7	50.7	43.0
Total purchases & payrolls	100.0	100.0	100.0	100.0	100.0

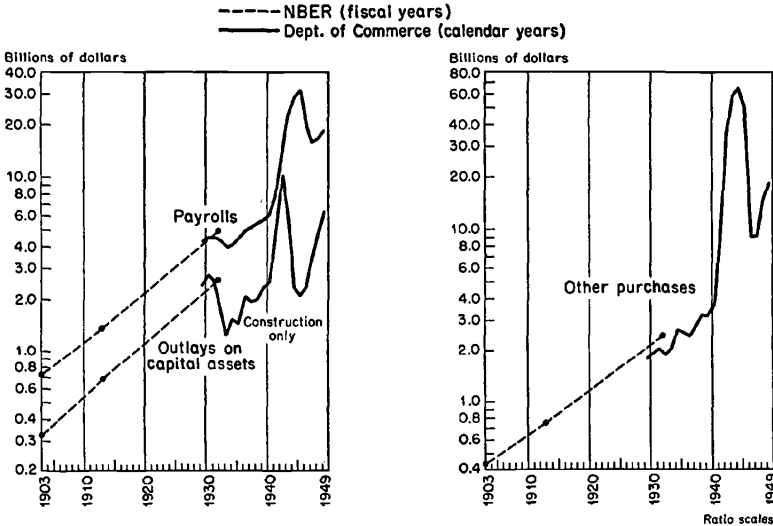
Compensation of public emergency workers, of importance in 1939, is excluded. Including such compensation in 1939 payrolls alters the percentages of that year to the following: new construction, 18.0; other purchases, 24.3; payrolls, 57.8.

The figures for 1903 and 1913 are National Bureau of Economic Research estimates for fiscal years. Those for 1929-49 are Department of Commerce estimates for calendar years. While conceptually somewhat different, the two sets of estimates are sufficiently comparable to indicate broad trends. The differences between them are described in Appendix D. The appendix also contains National Bureau estimates for 1932 and 1942 and DC estimates for each year between 1929 and 1949.

1949, they have been well over four times as much. About 1903 they were only a seventh of the 1939 level. In money terms, then, purchases currently run about 33 times what they were in 1903.

Perspective on the level and growth of these purchases is provided by the payroll figures in Table 5 and Chart 4. Except during war years, the cost of goods and services purchased from private business has been about as large as payrolls. That is, measured by dollar expenditure, resources purchased have grown over the last half-century at about the same rate as government payrolls. As we shall see below, this means that the physical volume of goods and

Chart 4
 Government Outlays on Capital Assets, Other Purchases, and Payrolls
 1903-1949



services acquired by purchase has grown *more* rapidly than the number of workers employed by government.

Another way to judge the relative importance of government purchases from private industry is to compare them with the total consolidated net sales of private industry as calculated by the Department of Commerce. This aggregate includes sales to consumers, to foreigners, and (of capital goods only) to business, as well as to government. In 1929, the first year for which we have the aggregate, the ratio of government purchases to it was 4.4 percent; in 1939, 6.7 percent; and in 1949, 8.7 percent.¹⁸ These twenty years saw a doubling of the fraction of the business sector's sales of goods and services going to government.

The unstable part of government purchases has of course been outlays on capital assets, among which construction is the largest item. This can be seen in the annual figures plotted in Chart 4. The trend in these outlays, however, has roughly paralleled that in

¹⁸ *Survey of Current Business*, National Income Supplement, 1951, p. 153. These government purchases exclude purchases from abroad; and the consolidated net sales are those of domestic business concerns only.

other purchases, at least before World War II. It is likely that the large construction programs of state and local governments would soon have brought outlays back to something approximating their prewar relation to other purchases had not trouble started in Korea.

To get some sense of the flow of *real* resources into government it is necessary to go behind the current dollar values of the goods and services purchased. The rough deflation we have been able to make (Table 6) suggests that the physical volume of goods and services purchased by government from private industry went up more than a thousand percent between 1903 and 1949. This increase is far above the corresponding rises in government employment and real capital assets held by government.

Total Resources Put into Government Activity

The combined input of all real resources into government operations may be measured, as indicated earlier, inclusive or exclusive of purchases from private industry (Table 6).

Table 6
GROWTH IN VOLUME OF RESOURCES USED BY GOVERNMENT
1900-1949

		<i>Percentage Change over Period Shown</i>	<i>Average Annual Percentage Rate of Change</i>
<i>All Functions</i>			
Number of workers	(1900-49)	509	3.8
Purchases, in constant prices	(1903-49)	1,156	5.6
<i>Excluding National Defense</i>			
Number of workers	(1900-49)	357	3.1
Purchases, in constant prices	(1903-49)	453	3.8
Capital assets, in constant prices ^a	(1902-46)	326	3.4
Total			3.4 ^b

^a Includes land, excludes roads, streets, and related assets, and assets of defense corporations.

^b This is an arithmetic mean, weights being payrolls, expenditures, and imputed net rent (at 4 percent of book value) on capital assets at the opening of the century. An harmonic mean, with weights based on values in 1946 or 1949, also yields an estimate of 3.4.

Including only labor and capital, and omitting input for national defense, the total rose a little more than 350 percent between 1900 and 1949.¹⁴ Including national defense, the rise was much greater, although lack of data on assets used by the military prevents its calculation. It was surely well over 500 percent. In contrast, national input somewhat more than doubled between 1900 and 1949: total employment went up from about 27 million in 1900 to 60 million in 1949 (Appendix B), and the nation's wealth (in 1929 prices) rose from \$101 billion in 1902 to \$220 billion in 1946 (Table 3). The rise in government input, therefore, was more than twice the rise in the nation's total input.¹⁵

When current resources acquired by purchase from private industry are also included, both rises are pushed up substantially. Total resources put into nondefense activity, so measured, rose over 400 percent between 1900 and 1949; and into all activities, probably over 700 percent.

At least one conclusion from these estimates is safe. The sixfold rise in government employment between 1900 and 1949, and the similar increase in capital assets, great as they are, understate the rise in the total volume of resources used in producing government services.¹⁶

¹⁴ Precise figures for this total, and the other cited later, cannot be given because our data on capital assets and purchases do not cover the full period. The figures given represent the aggregate changes implied by the average annual changes for the available periods (Table 6, last column).

¹⁵ Input of labor and capital in government (valued in terms of price prevailing either at the opening of the century or today — it matters little which "weight-base" is used) can be combined and expressed as a percentage of national input (in prices of the same period). The percentage was about 5 in 1900, is 14 today.

¹⁶ Some readers may be puzzled by the treatment of depreciation of government capital assets that is implied by our calculations of total input. Capital assets used up in producing government services may be taken into account in either of two ways. If capital consumption is treated as part of the input of capital assets, input will cover the net rental value of the assets *and* their depreciation. But capital consumption may also be treated as part of the goods and services acquired from private industry: some of the purchases from private industry are used to maintain the real capital used by government. We follow the second procedure. Total input of all resources, including purchases, is not affected by the choice. However, if total input is measured by the input of labor and capital alone, the first procedure will give more weight to capital

Government Expenditures

Our measure of input does not include, even at its broadest, all items of government expenditure. On the other hand, it includes one item not ordinarily included in estimates of government expenditures. As expenditures are frequently used to measure government's absorption of resources, it is worth digressing a moment to indicate what the differences are.

Government expenditures ordinarily cover (1) payrolls (and pension payments); (2) purchases of goods and services from private industry;¹⁷ (3) interest on the public debt; and (4) transfer items of various sorts, such as relief payments and subsidies. Sometimes they are defined to include also (5) transfers to other governments, such as grants-in-aid and shares of taxes; (6) loans; and even (7) other debt transactions, particularly repayments of the public debt. Our measure of input includes only the first two items plus (8) an imputed rental on government-owned capital goods. Item (8) is, in a sense, a substitute for the interest item.

It is clear, then, that our estimate of input [(1) + (2) + (8)] will fall short of the usual estimate of expenditures [(1) + (2) + (3) + (4)] by the amount of transfers (4) and by the difference between interest and imputed rent [(8) - (3)].

Before World War I the estimate of imputed rent (at 4 percent) somewhat exceeded interest payments, and transfers to the public were quite small (Table 7). The war brought a big rise in interest

assets, and the result will be somewhat different from the one in the text. The difference will not be much, because real capital assets rose only slightly more than employment; giving the former more or less weight will therefore not affect the combination very much. (The difference in procedures involves only a difference in weights because we lack an adequate measure of depreciation on government capital. In effect, we measure the depreciation by taking a constant percentage of real capital assets. The weight of capital assets in the calculation of total input is then taken at 6.5 percent of the value of those assets - 4 percent for net rent, 2.5 percent for depreciation - rather than at 4 percent for net rent only. For the basis of the 2.5 percent see Solomon Fabricant, *Capital Consumption and Adjustment*, National Bureau of Economic Research, 1938, Ch. 7.)

¹⁷ Ordinarily, purchases by public service enterprises are omitted entirely (we include them); instead, subsidies to public enterprises are included (we exclude them).

Table 7
TOTAL GOVERNMENT EXPENDITURES, 1903-1949

	1903	1913	1929	1939	1949
	<i>Millions of Dollars</i>				
Purchases & payrolls ^a	1,473	2,773	8,472	11,183	43,599
Transfer payments to the public ^a	155	183	912	4,397	11,610
Net interest paid	87	167	983	1,205	4,610
Total expenditures	1,715	3,123	10,367	16,785	59,819
	<i>Percentage of Total</i>				
Purchases & payrolls	86	89	82	67	73
Transfer payments to the public	9	6	9	26	19
Net interest paid	5	5	9	7	8
Total expenditures	100	100	100	100	100

^a Purchases and payrolls inclusive of work relief, and transfer payments exclusive of work relief (Department of Commerce estimates), are as follows for 1939: purchases and payrolls, \$13,068 million; transfer payments, \$2,512 million.

The figures for 1903 and 1913 are National Bureau of Economic Research estimates for fiscal years, those for 1929-49 are Department of Commerce estimates for calendar years; cf. note to Table 5.

payments, however. Then the great depression and the legislation to which it led expanded transfer payments to the public, first in the form of relief, then in the form of social security and subsidy payments. World War II pushed interest payments up again. In 1903 expenditures exceeded input as we measure it by some 5 percent. In 1949 the excess was about 31 percent. Government expenditures rose more rapidly than our measure of input.¹⁸

Government expenditures, including interest and transfers, will therefore overstate the level and rate of growth of government's absorption of real resources. But even our measure of input is at a very high level today, and shows a very high average rate of growth, over the last half century, in government's use of resources.

¹⁸ As mentioned earlier, 4 percent is a rather arbitrary figure. A lower imputed rental rate would reduce the level of input, as we measure it, in both 1903 and 1949, and thus increase both ratios of expenditures to input. If we assumed a declining secular trend in the appropriate imputed rental rate, the 1949 ratio would be increased more than the 1903 ratio.