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Government-owned Nonmilitary Capital Assets
since 1900

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STATISTICS ON GOVERNMENT CAPITAL ARE INCOMPLETE IN COV-
erage, not always as accurate as they should be, and often
inadequately annotated as to derivation and meaning. Yet, if
handled cautiously, they can be turned to good use. They alone
indicate the magnitude of government investment and of the
existing stock of capital goods under the direct control of
government. Compared with corresponding figures on total
capital formation and total national wealth, they tell us
whether the relative scope of government's direct control over
investment and wealth is changing significantly. In combina-
tion with statistics on labor and other resources employed by
government they measure, more accurately than the usual data
on government expenditures, what is going into the produc-
tion of government services. For these reasons, compilation in
organized and summary form of even the crude data on gov-
ernment-owned assets is worth time and effort.

This survey is confined to the nonmilitary capital assets
(excluding most inventories) held by the more important
classes of governmental units in the United States since about
1900. The paper consists mainly of a summary and supporting
tables, to which are appended notes on sources and methods of
derivation. Discussion is concentrated on the character and
scope of the data and on comparisons with total national
wealth. The significance of the trends is to be considered in
another report.[1]

A COVERAGE

Table 1 combines and summarizes, for selected years, informa-
tion on nonmilitary capital assets in Tables 2-5 plus the little
that is known about the capital assets of county governments.

Military assets held by the War and Navy Departments are
not covered because of lack of information. River, harbor, and
other waterway improvements under the jurisdiction of the

[1] This survey is part of a study of government employment and related trends
in progress at the National Bureau of Economic Research with the aid of a
grant from The Maurice and Laura Falk Foundation of Pittsburgh.

Army Corps of Engineers are included, however, as are war
plants, cargo ships, and other property in the possession of
government corporations and credit agencies. A narrower
definition of 'nonmilitary' than we use could be met by exclud-
ing most or all of the property of these corporations and agen-
cies.

Completely omitted from these tables, in addition to mili-
tary capital assets, are: (1) Roads, streets and sewage systems.
These are discussed below, and some statistics are assembled
in Table 6. (2) Nonschool capital assets of incorporated places
with fewer than 2,500 inhabitants, townships, and special dis-
tricts not covered by the figures for cities of 2,500 and over.
Employment figures are a rough clue to the relative size of the
assets held by this group of governmental units. In April 1945,
113,000 permanent full-time nonschool workers were em-
ployed by small incorporated places, townships, and special
districts; 1,390,000 permanent full-time nonschool workers
were on the payrolls of all state and local governments. (3)
Equipment of federal agencies, except equipment held by the
Corps of Engineers, the Reclamation Service, and federal gov-
ernment corporations and credit agencies. The value of the
omitted equipment is of the order of $200 million.[2] (4) Fed-
eral property outside the continental United States. At the
opening of the century its value must have been very small.
By 1939 it constituted a substantial fraction of all federal
property. For example, the Panama Canal—the biggest item
of federal property outside the continental United States—
was valued in 1939 at a depreciated cost of $500 million.

Major gaps appear in two series available for at least some
of the benchmark years in Table 1: the value of state property
in 1902 and of county property after 1912. To make consistent
grand totals, we filled these gaps with our best guesses (in
parentheses). For no year shown in Table 1 would even very

[2] The value of equipment seems to be about 10 percent of the value of federal
real property: Solomon Fabricant, *Capital Consumption and Adjustment*
(NBER, 1938), p. 133; for a general discussion of the kind of information avail-
able on governmental capital, see Chapter 7.

wide margins of error around these guesses lead to wide margins of error around the grand totals.[3]

Inventories held by federal corporations and credit agencies in 1933 and later years could not be completely separated from capital assets held by these units, except in 1945 and 1946. Inventory values are therefore included in our aggregates for all years beginning with 1933. The sums involved are $2.5 billion in 1945 and $1.5 billion in 1946. Before World War II, however, the inventories included were far smaller.

B   BASIC DATA

The kinds of data we utilized are, first, reports on the value of assets actually held; and second, annual outlays or expenditures on assets added to governmental holdings.

For all classes of assets (except federal waterway improvements and reclamation projects), and for all years possible, the estimates were based directly on the reported values of assets. For other years, estimates were obtained by interpolation or extrapolation of the asset values by means of cumulated outlays. The series for waterways and reclamation projects are estimates of depreciated cost made by applying depreciation rates to actual or estimated annual outlays.

It is well to emphasize the roughness of the data. Comparison of the consecutive reports of a given governmental unit (as reported, for example, in *Financial Statistics of Cities*), usually raises questions concerning comparability and coverage.[4] The delay in completing the 1937 federal real estate inventory, originally requested for 1936, is also suggestive of the state of governmental records. Nevertheless, the data do stand up to the checks we were able to apply. Whenever both assets and outlay data were available, we compared them, in most cases

[3] The guesses account for the following percentages of the grand totals that include them: 1902, 14; 1912, 0; 1922, 5; 1929, 5; 1939, 4; 1946, 3.

[4] Comparisons of this and other sorts are mentioned in ibid., Chapter 7. The Bureau of the Census usually draws attention to omissions, inconsistencies, and erratic changes in the reports it compiles.

with fairly satisfactory results.[5] Further, comparison of information from several sources, for example, the data on education in the *Biennial Surveys of Education* and in the *Financial Statistics of States, Cities, and Counties,* showed good conformity. While rough, the basic data are sufficiently complete and consistent to indicate trends and orders of magnitude.

C VALUATION

Several types of valuation underlie the figures: (1) Book values of capital assets of state and local public service enterprises and federal corporations conform, as a rule, to usual business accounting practice: the values represent original cost minus reserves for depreciation. The assets of nonenterprise departments also are sometimes valued on this basis. Our estimates of federal waterway improvements and reclamation projects are depreciated original cost. (2) Capital assets of nonenterprise departments of some (probably most) state and local governments are at original cost, without deduction of any reserves for depreciation. When the value of assets is obtained by cumulating outlays, the basis is essentially similar, namely, original cost before depreciation. (Assets sold, scrapped, or otherwise disposed of are excluded.) (3) Assessed values, reported for federally-owned real estate in the District of Columbia, were raised to 'estimated true values' on the basis of ratios supplied by the assessment authorities. The 'estimated true values' series was then used to interpolate and extrapolate the 1923, 1937, and 1940 real property inventory values and to that extent, therefore, federal real estate in the District of Columbia is on an original, undepreciated, cost basis. To judge from their stability, the 'estimated true values' do not differ very much from book values; the trends before 1923 and after 1940 are therefore essentially trends in book values. In any case, it is quite clear that the 'estimated true values' are not current sales values, as they do not fluctuate with major changes in prices. (4) Finally, the values of assets of some state

5 The procedure is illustrated in Table 20 of ibid.; see also p. 131.

and local government nonenterprise departments are, as the Bureau of the Census states, simply 'estimates' by the reporting governments. These estimates are probably similar to the stepped-up assessed values just mentioned.

The last two types of valuation inherently involve a process of revaluation of assets even though it may be slow and aimed not at current prices but rather at some trend level of prices. It is apparent, however, that revaluations, and particularly revaluations to reflect appreciation, are sometimes made even in the records constructed in accord with the first two types of valuation. First, revaluations in both the original reports of state and local governments and Census reports on Financial Statistics are sometimes mentioned explicitly. Second, the comparisons of reported assets and cumulated outlays, noted earlier, indicate that such revaluations have been made.[6] Third, the fact that reports accord with 'usual business accounting practice' does not obviate the possibility of revaluations; on the contrary, it suggests that on occasion changes in values are put into the accounts.

One final point must be emphasized before we sum up the valuation basis of our data. Failure to set up depreciation reserves, in the second type of valuation, means that the reported values are overstatements. But these overstatements lead to no serious *trend* bias. As mentioned, and as is indicated by the definitions of assets and outlays used by the Bureau of the Census and its field staff in gathering reports from state and local governments,[7] replaced assets or assets otherwise disposed of are eliminated from the reported aggregates.

[6] See ibid., pp. 129, 131-2.

[7] See the definitions of terminology in the Census reports, and the Census communication cited by Leo Wolman, *Planning and Control of Public Works* (NBER, 1930), p. 118, note 56.

Even when obsolete assets are not removed from the records, the trend bias is less serious for a group of assets growing rapidly than for one growing slowly. That the aggregate of government-owned nonmilitary assets was expanding rapidly is evident from Table 1—even after reasonable allowance for any trend bias that may affect the part of the assets in Table 1 that are valued in accordance with the second type of valuation and from which retired assets are not excluded.

On the whole, it seems fair to conclude that the aggregate values in Table 1 are a mixture of cost and 'current trend' values, as well as being in part gross and in part net of depreciation. In these respects they are not unique; the values available for private capital assets also are of this kind.[8]

Can we eliminate the effects of changes in prices and express our aggregates in 'constant dollars'? If we recognize that they yield reasonable approximations rather than precise magnitudes, some acceptable computations of relevant price indexes are possible.

INDEXES, 1929 MARKET PRICES: 100

		1902	1912	1922	1929	1939	1946
1	Market price	46	55	94	100	96	133
2	Depreciated cost	45	50	77	87	90	98
3	Simple av. of (1) and (2)	46	52	86	94	93	115

The indexes for 1922 and 1929 are from *Capital Consumption and Adjustment*, p. 186 (cf. ibid., pp. 178 and 237). Extrapolations to 1939 and 1946 follow approximately the procedures that produced the 1922 and 1929 indexes. The estimates for 1902 and 1912 are based on similar calculations by Simon Kuznets, *National Product since 1869*, p. 216, plus price information summarized by W. H. Shaw, *Value of Commodity Output since 1869* (NBER, 1947), p. 294.

The 1946 ratio of market price to depreciated cost is 1.36, lower than the corresponding ratio estimated by Reeve, et al, about 1.48. (The ratio given by Reeve and his associates, which averages about 1.65, is for December 1946. We converted this to a corresponding ratio for the entire year 1946 by applying a correction factor based on indexes of prices and of construction costs.)

As the reader will gather from the preceding discussion, it is not easy to determine with any accuracy what fraction of the aggregate values shown in Table 1 is stated at market price or some approximation to it and what fraction reflects depreciated cost or some approximation to it (such as undepreciated or gross cost). Nor would a rough estimate for a single year be sufficient, since it could hardly be expected to apply to all the years with which we are concerned. It is best, therefore, to present two deflated aggregates. One is derived by using the third price index (except for 1946); the other, by using the second. For 1946 the third price index seems quite inappropriate; [9] the alternative estimate for 1946 is therefore based on

[8] Simon Kuznets, *National Product since 1869* (NBER, 1946) , pp. 191-3.

[9] For two reasons: (1) the big changes between 1939 and 1946 are mainly in assets carried on a depreciated cost basis—the assets of federal corporations; and (2) the state and local government assets for 1946 are essentially the 1939 values extrapolated by us to 1946 via cumulated outlays.

the third index for 1939 extrapolated to 1946 via the second.
We reach, then, the accompanying results.

	1902	1912	1922	1929	1939	1946
			(billions of dollars)			
Government property in reported						
values (Table 1)	3.8	7.3	15.4	21.1	30.9	51.1
Government property in 1929 prices,						
estimated by deflating by:						
An index of prices underlying						
depreciated cost values	8.4	14.6	20.0	24.3	34.3	52.1
The average of indexes of mar-						
ket prices & of prices underly-						
ing depreciated cost values	8.3	14.0	17.9	22.4	33.2	50.6*

* See text for the derivation of this figure.

The alternative deflations yield fairly similar results. All
except one of the percentage increases between contiguous
years in the original values is reduced; the largest deflation
affects (as one would expect) the decade 1912-22. The average
annual percentage increase in the 'real value' of government
property (excluding military assets) is largest for the seven
years ending 1946; the other periods follow in this order:
1902-12, 1929-39, 1912-22, and 1922-29.

Both 1922 and 1946 include a great many assets acquired by
the federal government during the two World Wars. We know
that in 1923 $2 billion was written off the value of merchant
vessels, and we may expect similar writedowns of the 1946
value of surplus property. When the 1922 estimate of federal
property is reduced $2 billion, to anticipate the 1923 write-
down, the average annual rate of growth in real assets during
1912-22 becomes the lowest for any of the periods covered (and
the rate for the subsequent period is pushed up correspond-
ingly). By how much the 1939-46 rate would be cut by similar
anticipation is not yet clear.

The annual data in Tables 2-5 suggest continued growth at
a substantial rate between 1912 and the outbreak of World
War I. The preceding figures imply, therefore, an actual net
reduction in property values (in constant prices) between
1916 and 1923. Of course, this may reflect some overdeflation.
But there is little question that the rate of increase in govern-

ment property between 1916 and 1923 was very small, if not actually negative.

D COMPARISON WITH TOTAL NATIONAL WEALTH

Rough as are the deflated figures for government property, it is interesting to compare them with deflated totals of national wealth (which are just as rough). These are Simon Kuznets' compilations of real estate improvements and equipment, excluding consumer equipment, extended by us with the aid of his net capital formation figures and other estimates to cover all the years of interest to us. Land values are excluded from both sets of figures.[10]

	1902	1912	1922	1929	1939	1946
			Billions of 1929 dollars			
Government property	6.7	11.7	15.9	18.9	27.7	45.1
Total wealth (real estate improvements & equipment)	101	155	163	210	208	220
% government is of total	6.6	7.5	9.8	8.8	13.3	20.5

	1902–12	1912–22	1922–29	1929–39	1939–46
			Percentage changes		
Government property	+75	+36	+19	+47	+63
Total wealth (real estate improvements & equipment)	+53	+5	+29	−1	+6

Land was excluded from the government figures with the aid of the 1923 and 1937 federal real property data (see notes to Table 2); and on the assumption that land accounted for 20 percent of the value of state and local government property (see *Capital Consumption and Adjustment,* Table 23, note 1). The estimate of government property in constant prices is the mean of the two estimates that may be derived with the alternative deflators selected earlier. Similarly, the estimate for total wealth in constant prices (excluding land) is the mean of Kuznets' two estimates (based on wealth estimates) in *National Product since 1869,* p. 230, interpolated with the aid of W. H. Shaw's data *(Value of Commodity Output since 1869,* pp. 76-7) to obtain a 1902 figure, and extended by means of Kuznets' estimate of net capital formation, nonwar, excluding inventories and foreign claims (ibid., pp. 46 and 54), to obtain 1929 and 1939 figures. The 1946 estimate is based on an unpublished estimate by Marvin Hoffenberg of private wealth, plus our estimate for government property.

With respect to the general level of the ratios of government to total wealth revealed by this comparison, it may be noted,

10 The exclusion of land helps to avoid duplication of values in government and private wealth. An example of a duplicated item is the cost of putting in city streets and sewers paid for by special assessment on owners of adjacent property. Assessments of this kind are usually included in the land cost to the private owner, as well as in the cost of streets and sewers to the city government.

first, that inclusion of the value of highways and sewers in the government property total would, of course, raise all the percentages substantially (see below). Inclusion of the property of local governmental units not listed in Table 1 would raise all the percentages somewhat further. Addition of military assets to both numerator and denominator would also work in this direction. The effect might be opposite if all assets were valued on a thorough-going depreciation accounting basis; but it would hardly offset completely the effect of the various additions mentioned.

With respect to the changes in the ratios of government to total property, the sharply upward movement is striking. Only between 1922 and 1929 did the real value of government property fail to rise more rapidly than the real value of nongovernment or total property. This is due to the inclusion, in the 1922 figure for government property, of World War I shipping at its original high cost value minus ordinary depreciation. In 1923 much of this property was written down in value. The 1923 write-down of World War I shipping might be taken into account in computing the percentage change for 1912-22, and its effect removed from the percentage change for 1922-29. When this is done, no period fails to show a relative growth in government property.

E ROADS, STREETS, AND RELATED ITEMS

Roads, streets, and sewage systems are omitted from our aggregates because of lack of adequate data. Nevertheless, because of their importance, it is desirable to glance at the available information (summarized in Table 6).

Some readers may feel that the information on this class of government capital assets is not so inferior in quality to the information available for the classes covered by Table 1 as

	1922	1929	1939	1946
	(billions of dollars)			
Government property (Table 1)	15.4	21.1	30.9	51.1
Roads & streets, excl. land, at depreciated cost (Table 6)	5.1	10.8	16.9	17.5
Total	20.5	31.9	47.8	68.6

to warrant hesitation in including it in the aggregates. Inclusion would yield the accompanying results. Whatever doubts there may be about the accuracy of the total, roads and streets clearly constitute a substantial portion of governmental capital goods, running close to a third, even when the value of the land covered by them is excluded. Addition of sewers and nontoll bridges, items also not covered in Table 1, would still further increase the relative importance of this class of government assets.

F   COMPARISON WITH OTHER ESTIMATES

Through 1922 there is information on the value of real property exempt from taxation. Since the preponderant part of tax-exempt real estate consists of government-owned property, we may take the trend in the former to constitute an approximation to the trend in the latter.[11] Estimates of tax-exempt property are not entirely independent of estimates of government property, of course, because reports of the latter are sometimes based on assessments; and presumably assessments, especially of government property, are in part based on costs. Nevertheless, we have at least partly independent estimates, and the published sources of the data are quite independent. Comparison is therefore of some value as a rough check on our estimates of government property.[12] There are no startling discrepancies. Indeed, the differences are surprisingly small when we consider the rough character of both series, differences in valuation basis, and the inclusion of private property in the tax-exempt series.

[11] The proportion of exempt real estate in New York State, owned by governmental units, was: 1905, 71.6; 1912, 70.8; 1922, 76.2; 1929, 64.1; 1939, 76.8. Computed from annual reports of the New York State Tax Commission.

[12] The value of tax-exempt real estate is from Kuznets' *National Product since 1869*, pp. 201-2. Information on equipment is nonexistent, except for 1922. The figures in parentheses are the best guesses we can make for 1902.

	1900	1902	1912	1922
Tax-exempt real estate, $ billions	5.4	(6.3)	10.9	18.3
Government property, $ billions		3.8	7.3	15.4
Ratio of government property to tax-exempt real estate, %		(60)	67	84

The tax-exempt data are available for some earlier years. With the qualifications just noted, they provide a clue to the relative trend of government property before 1900. The suggestion of an upward trend during the last decades of the nineteenth century, as well as in the twentieth century, is interesting. Were tax-exempt real estate compared with total real estate (that is, national wealth minus equipment), the trend in the ratio would be somewhat steeper.

	1880	1890	1900	1902	1912	1922	1929	1939	1946
				Ratio (%)					
Tax-exempt real estate to total national wealth	5.9	6.4	7.3		7.4	7.6			
Government property to total national wealth, excl. land, 1929 dollars				6.6	7.5	9.8	8.9	13.2	20.4

The data on tax-exempt real estate and on national wealth are from *National Product since 1869*, pp. 201, 202, and 213.

Comparison of the figures in our tables with those in the paper by Reeve and his colleagues is difficult because of differences in categories and coverage. As nearly as we can make out, our 1946 figure for federal nonmilitary assets is about 10 percent below the depreciated historical cost figure reported by Reeve et al for 1946. One would expect our figure to be a little higher, because it includes several minor components valued at original cost before deduction of depreciation reserves. Our 1946 book value—in part at original cost, in part at depreciated original cost—for state and local assets (excluding roads and streets) is about the same as the original historical cost estimate of Reeve et al, and 44 percent above their depreciated historical cost figure, although it does not cover certain items included by them: sewage systems and assets of small municipalities, townships and certain special districts. Our 1946 figure for roads and streets, depreciated historical cost, is 7 percent above the estimate by Reeve and his associates. Corresponding relations hold for the two sets of 1939 estimates. These comparisons support the impression that our estimates indicate trends more accurately than they do levels.

Table 1

Government Nonmilitary Capital Assets (excluding Roads, Streets, and Sewage Systems), Continental United States
(millions of dollars)

	1902	1912	1922	1929	1939	1946
Federal						
Total, excl. corporations & credit agencies	615	982	1,397	1,910	4,608	6,250
Corporations & credit agencies	...	...	2,378	135	1,304	16,968
State (nonschool)	(550)	1,003	1,605	2,309	3,217	3,824
County (nonschool)	271	480	(770)	(1,100)	(1,300)	(1,500)
Cities of 2,500 & over (non-school)	1,700	3,413	5,825	9,171	11,935	12,998
Public schools						
Elementary & secondary	602	1,266	3,009	5,734	7,402⎫	9,542
Higher education	85	194	388	666	1,120⎭	
Total	3,823	7,338	15,369	21,116	30,927	51,082

For sources and definitions of all except county data, see supporting Tables 2-5. The county figures for 1902 and 1912 are from the Census reports on *Wealth, Debt, and Taxation* for those years, and are similar in scope and concept to the state and city data in Tables 3 and 4.

Figures in parentheses are exceedingly rough estimates made only in order to obtain the grand totals.

Omitted is nonschool property held by municipalities of less than 2,500 population, townships, and special districts not already covered by the figures for cities of 2,500 and over. Also omitted is a fraction of federally-owned equipment (see Table 2).

Table 2

Federal Government Nonmilitary Capital Assets, Continental United States
(millions of dollars)

June 30	Real prop. in D.C. (1)	Pub. build. outside D.C. (2)	River, harbor, & other waterway improvements (3)	Reclamation projects (4)	Other real prop. outside D.C. excl. prop. of corp. (5)	Sub-total (6)	CORPORATIONS AND CREDIT AGENCIES Capital assets (7)	Prop. held for sale (8)	Capital assets & inventories (9)	Total (6)+(7)+(8) (10)	Total (6)+(9) (11)
1902	223	126	259	...		615	...	...		615	
1903		128	271	...			...	...			
1904		131	276	2			...	...			
1905		165	293	6			...	...			
1906		170	303	13			...	...			
1907		178	328	25			...	...			
1908		184	338	37			...	...			
1909		194	355	46			...	...			
1910		205	383	54			...	...			
1911		219	401	63			...	...			
1912	(266)	231	401	73	(11)	982	...	...		982	
1913		241	454	80			...	...			
1914		250	453	89			...	...			
1915	278	261	486	103	(12)	1,140	...	...		1,140	
1916		269	496	111			...	...			
1917		277	524	117			53	...			
1918		285	540	118			743	...			
1919		291	577	124			2,230	...			
1920	295	294	591	124	(14)	1,319	2,743	...		4,062	
1921		300	604	129			2,122	...			

Year											
1922	(310)	303	637	134	(14)	1,897	2,371	7		3,775	
1923	317	305	679	138	14	1,453	236	3		1,692	
1924		303	712	142			236	4			
1925		305	746	149			202	12			
1926		308	783	153			166	16			
1927		315	819	158			156	21			
1928		323	880	165			147	22			
1929	332	351	931	171	(125)	1,910	112	23		2,045	
1930	338	387	996	178			111	28			
1931	333	449	1,067	186			106	43			
1932	333	527	1,133	191	(270)	2,455	93	71		2,619	
1933	348	622	1,205	196			81	86			
1934	340	675	1,315	201			72	84			
1935	341	715	1,449	218			125	105			
1936	376	745	1,609	339			151	192			
1937	366	811	1,777	384	624	3,963	224	499		4,686	
1938	393	868	1,921	430			395	804			
1939	417	909	2,063	491	(728)	4,608	439	865	1,308	5,912	5,916
1940	436	956	2,196	568	779	4,934	517	1,175	1,697	6,626	6,631
1941	442	1,016	2,330	(658)			588	1,802	2,392		
1942	450	1,128	2,456	749			798	5,581	6.376		
1943	454	1,167	2,576	793			1,600	11,039	12,582		
1944	458	1,187	2,620	834			1,614	17,314	18,456		
1945	462	1,202	2,646	857					22,619		
1946	464	1,213	2,697	887	(989)	6,250			16,968		23,218

COLUMN
1   The value of nonmilitary real property in the District of Columbia is
    derived, in the first place, from assessed values of government property in
    the District. The 1902 figure was taken from assessment records given in
    Senate Document 181, 58th Congress, 2d Session. The 1915 and 1920 fig-
    ures, from the Annual Reports of the Commissioners of the District of
    Columbia, are stepped up by us from the 2/3 value basis used by the
    assessor in those years to 'full' value. The 1929 to 1946 figures are from a
    letter from the Assessor of the District. The 1912 and 1922 figures are
    straight line interpolations. Assessed values are shown here as of the year
    preceding that in which they take effect.
        The assessed values were then used to interpolate and extrapolate the
    1923, 1937, and 1940 inventory cost figures from the following sources:
    figures for 1923 are given by the Federal Trade Commission in *National
    Wealth and Income;* those for 1937, in the *Federal Real Estate Inventory*
    (76th Cong., 1st Sess., House Document 111); and those for 1940, in an
    unpublished inventory taken by the Public Buildings Administration.
    Military property was excluded by interpolating and extrapolating the
    ratios of nonmilitary to total property given in terms of assessed values
    for 1902 and cost for 1937.
2   Real property outside the District of Columbia under the jurisdiction of
    the Supervising Architect of the Treasury or the Public Buildings Admin-
    istration. Derived from Real Property reported by the Supervising Archi-
    tect of the Treasury, 1902-39; and the Public Buildings Administration,
    1940-46. Figures for property inside the Continental United States and
    outside the District of Columbia are given in the reports of the Supervis-
    ing Architect for 1902-18 and 1920, and in a letter from the Public Build-
    ings Administration, for 1937. For 1933-46, they were estimated by adding
    to and subtracting from the 1937 figure construction under the Supervis-
    ing Architect and Public Buildings Administration inside the Continental
    United States and outside the District of Columbia, stepped up to include
    the cost of sites. The figures for 1919 and 1921-32 were interpolated by the
    total value of property reported by the Supervising Architect.
        The property consists of post offices, courthouses, custom houses, and
    miscellaneous buildings. The values are cumulated costs (minus costs of
    property dismantled or otherwise disposed of), without allowance for
    depreciation.
3   Derived, in the first place, from New Work, Plant, and Equipment re-
    ported by the U.S. Engineer Corps for 1929-46. All the figures for 1939-46
    are taken directly from the Engineer Corps Annual Reports, as are 'new
    work' for 1929-38, and 'value of plant' for 1933-38. 'Value of plant' for
    1929-32, and 'equipment' for 1929-38, are extrapolated from 1933 and 1939
    respectively by 'Value of Plant, Stocks, etc.'. The 1929 total was then
    extrapolated back to 1822 by cumulated appropriations for 'Rivers and
    Harbors Improvements', 'Improvement of South Pass, Mississippi River',
    and 'Construction of Dam No. 2, Muscle Shoals' (House Document 106,
    76th Cong., 1st Sess.).
        The annual increments in the series thus derived were depreciated on
    the basis of an 80-year life and a 15 percent salvage value, as given in
    Reeve et al. The final series therefore represents depreciated cost.
4   Derived, in the first place, from figures for 1924-40 on Construction Cost,
    Plant, and Equipment, extrapolated to 1946, except for 1941, by Gross
    Construction Costs, and back to 1903, by: 1920-23, Net Investment;
    1908-19, Gross Cost of Construction; and 1903-07, Disbursement Vouchers
    Paid, cumulated. In the absence of data on construction costs, the 1941

figure is a straight line interpolation. All these figures are from the Annual Reports of the Reclamation Service since 1908.

The annual increments in the series thus derived were depreciated on the basis of an 80-year life and a 15 percent salvage value. The final series therefore represents depreciated cost.

5 Federal government nonmilitary real property outside the District of Columbia other than that under the Supervising Architect, the Public Buildings Administration, the U.S. Engineer Corps, the Reclamation Service, and government corporations and credit agencies. Figures for 1923, 1937, and 1940 are given in the inventories cited in the note to column 1. Figures for the other years are interpolated and extrapolated by the figures in column 2. Values are 'cost' in the 1937 and 1940 inventories; 'substantially' cumulated original cost without allowance for depreciation, in the 1923 inventory.

6 Total of columns 1-5.

7 Net book value (gross capital assets minus reserves for depreciation) of business real estate, equipment, vessels, and rolling stock of Federal government corporations and credit agencies. For 1933-44, Annual Reports of the Secretary of the Treasury, especially the 1940 Report, p. 170. Three corporations, the Virgin Islands Co., the Porto Rico Reconstruction Administration, and the Panama Railroad Co., were eliminated from the totals as being outside the Continental United States. The 1937 figure for the U.S. Maritime Commission, not given in the Treasury reports, is taken from Senate Document 172, 76th Congress, 3d Session: Financial Statistics of Certain Government Agencies. The figures for the Inland Waterways Corporation, 1924-32, and Federal Land Banks, 1928-32, are calendar year assets from the Senate Document cited. Those for the Federal Land Banks, 1922-27, are from the *Annual Reports of the Federal Farm Loan Board*. Those for the U.S. Shipping Board, from the Board's annual reports, represent depreciated original cost through 1922, appraised value in later years. The figures for the U.S. Housing Corporation are cumulated construction cost for 1919 and 1920, and straight line interpolations for 1921 and 1922 between the figure for 1920 and zero for 1923; data are for calendar years as given in Chawner, *Construction Activity in the United States, 1915-1937*.

8 Book value of real estate and other property held for sale. 'Other property' held for sale includes some commodity inventories. For 1935-44, the data are from *Annual Reports of the Secretary of the Treasury*. The U.S. Maritime Commission figures represent 'other assets'. Agencies cited above as 'outside the Continental United States' are excluded. Figures for 1924-32 are for the Federal Land Banks; and those for 1932-34, for the Federal Land Banks and the Reconstruction Finance Corporation. These are calendar year data from the Senate Document cited above and the *Annual Reports of the Federal Farm Loan Board*. The figures for 1922-25 are 'forced sale value' of land, structures, and equipment held for sale by the U.S. Shipping Board; data are from its *Annual Reports*.

9 Book value of land, structures, equipment, plus inventories of commodities, supplies and materials, minus reserves. Corporations outside the Continental United States are excluded. The value of inventories included is (millions): 1945, $2,499; 1946, $1,452. Data are from *Annual Reports of the Secretary of the Treasury*, 1945-47, especially 1947, pp. 462-3.

Table 3
State Government Capital Assets (excluding School Property)
(millions of dollars)

Dec. 31	Value	Dec. 31	Value	Dec. 31	Value	Dec. 31	Value	Dec. 31	Value
1912	1,003	1919	1,399	1926	1,927	1933	2,678	1940	3,343
1913		1920	1,456	1927	2,073	1934	2,717	1941	3,451
1914	1,183	1921	1,526	1928	2,197	1935	2,804	1942	3,518
1915	1,227	1922	1,605	1929	2,309	1936	2,880	1943	3,563
1916	1,263	1923	1,690	1930	2,435	1937	2,968	1944	3,602
1917	1,301	1924	1,766	1931	2,562	1938	3,085	1945	3,661
1918	1,349	1925	1,832	1932	2,647	1939	3,217	1946	3,824

Nonschool assets for 1912 are from *Wealth, Debt, and Taxation, 1913* adjusted with the help of 1914 data to cover the State of Pennsylvania, trust and investment funds for all the states, and libraries (see *Financial Statistics of States, 1915* for 1914 data). Nonschool assets for 1914-17 and 1923-30 are given in *Financial Statistics of States*. For 1918-22, the asset figures are interpolated by cumulated nonschool, nonhighway outlays partly from *Financial Statistics of States*, partly estimated by us. The extrapolation from 1931-46 is also by cumulated nonschool, nonhighway outlays partly from the *Financial Statistics*, partly estimated as follows: outlays other than roads and schools, for 1932-35, are estimated by interpolation via Department of Commerce figures on construction expenditures of states and counties (excluding expenditures for highways) as given in Chawner, *Construction Activity in the United States, 1915-1937*, Tables 3a and 41; outlays for 1941-46 are stepped up by 1940 and 1942 ratios to offset the omission first of alcoholic beverage monopoly systems, then of all other state public enterprises. All report year figures, except the figure for 1912, have been converted by us to calendar years.

Value of property is essentially cumulated cost with little or no allowance for depreciation, except in the case of most public service enterprises. Assets covered are land, buildings, and equipment (including rolling stock); toll bridges are included, but public roads and free bridges are excluded.

Table 4
City Government Capital Assets (excluding School Property)
Cities of 2,500 and over
(millions of dollars)

Dec. 31	Value	Dec. 31	Value	Dec. 31	Value	Dec. 31	Value	Dec. 31	Value
1902	1,700	1911	3,246	1920		1929	9,171	1938	11,739
1903	1,798	1912	3,413	1921	5,606	1930	10,102	1939	11,935
1904	2,207	1913		1922	5,825	1931	10,737	1940	12,461
1905	2,325	1914	4,168	1923	6,050	1932	10,905	1941	12,615
1906	2,464	1915	4,401	1924	6,399	1933	10,996	1942	12,716
1907	2,642	1916	4,563	1925	6,901	1934	11,119	1943	12,789
1908	2,791	1917	4,692	1926	7,553	1935	11,267	1944	12,836
1909	2,913	1918	4,878	1927	8,291	1936	11,411	1945	12,899
1910	3,126	1919		1928	8,847	1937	11,595	1946	12,998

Nonschool assets of cities with populations over 30,000 for 1902-11, 1914-18, and 1923-31, and of cities over 100,000 for 1936, are given in various issues of *Financial Statistics of Cities* (the 1936 figure is partly estimated for New York, Dayton, and Fort Wayne). Nonschool assets of cities over 2,500 for 1912 are given in *Wealth, Debt, and Taxation, 1913*.

Estimates for 1921-22, 1932-35, and 1937-46 are based partly on cumulated outlays (other than on roads and streets, sewers, and schools), from the same source, and partly from estimates as follows: the 1921 figure was given for only 183 out of 253 cities, and had to be estimated for the others by the 1922 ratio of the outlays of the 253 cities to those of the 183 cities; the 1933-37 figures were raised to include construction expenditures of the Metropolitan Water District of Southern California directly assessable against the city of Los Angeles (see Department of Commerce, *Fluctuations in Capital Outlays of Municipalities*).

For 1922 and 1940-46 outlays for sewers were estimated from outlays for sanitation by the ratios in 1923 and 1939. The 1941 figure for cities 100,000 and over is partly estimated to add counties in cities over 300,000 which are included in earlier years. Figures for 1942 and later years are for cities 25,000 and over, and do not include any overlying areas. Outlays for 1937-46 are cumulated at about half their value in accordance with the 1931-36 ratio of changes in assets to cumulated outlays. Using the 1912 ratio of per capita outlays in cities over 2,500 to per capita outlays in cities over 30,000, and the ratios of population in cities over 2,500 to that in cities over 30,000, the figures were raised to include all cities over 2,500. Figures through 1941 cover overlying areas and counties in cities with more than 300,000 inhabitants as well as the cities themselves.

Value of property is essentially cumulated cost with little or no allowance for depreciation, except in the case of most public service enterprises. Assets covered are land, buildings, and equipment (including rolling stock); streets and sewer systems are excluded.

Table 5
Government Controlled Schools: Value of Property
(millions of dollars)

School Year Ended in	Element.& Secondary Schools	Institutions of Higher Education	Total	School Year Ended in	Element.& Secondary Schools	Institutions of Higher Education	Total
1900	550	69	619	1923			
1901	572			1924	3,745	482	4,227
1902	602	85	687	1925	4,252		
1903	644			1926	4,677	616	5,293
1904	685			1927	5,105		5,783
1905	733			1928	5,487	734	6,221
1906	783			1929	5,734		6,491
1907	859			1930	6,211	807	7,019
1908	945			1931	6,453		7,314
1909	968			1932	6,582	900	7,482
1910	1,091			1933	6,612		7,536
1911	1,222			1934	6,625	947	7,572
1912	1,266	194	1,460	1935	6,637		7,586
1913	1,347			1936	6,731	982	7,695
1914	1,445			1937	6,925		7,945
1915	1,567			1938	7,115	1,077	8,192
1916	1,662			1939	7,402		8,563
1917	1,826			1940	7,635	1,238	8,873
1918	1,984			1941			
1919				1942	7,801		
1920	2,410			1943			
1921				1944	7,928		
1922	3,009	385	3,393	1945			
				1946			9,542

Annual Reports and *Bulletins* of the U. S. Office of Education, 1900-15, and for 1916 on,
Biennial Surveys of Education, except for 1946, with interpolations for 1916 and most odd-
years beginning with 1917 based on value of school assets reported in *Financial Statistics of
Cities* and *States*. The 1946 figure is extrapolated from 1940 by estimated total school out-
lays based on school outlays given in *Financial Statistics of States*, of *Cities, 1938-1946*, and
of *Counties, 1942-1946*, and *Government Finances, 1942*.

Property includes "libraries, scientific apparatus, machinery, furniture, grounds and
buildings", and is presumably valued at cost without allowance for depreciation. Libraries
of universities and colleges in 1912 were estimated from separate figures for libraries in
1902, and libraries, machinery, furniture, etc. in 1902 and 1922.

There is probably a slight upward bias in the figures for higher education because of in-
creasing coverage up to 1922. In addition, the 1900, 1902, and 1912 figures may omit small
amounts for libraries, machinery, furniture, etc., of professional schools reporting separately
from universities, and may omit altogether some public professional schools not attached to
universities.

Table 6
Value of Roads, Streets, and Other 'Public Improvements'
(excluding Land)
(millions of dollars)

	1907	1912	1922	1929	1939	1946
Rural roads						
Depreciated cost			2,700	6,600		
Depreciated reproduction cost			6,000			
City streets						
Depreciated cost		1,700	2,400	4,200		
Depreciated reproduction cost	645		2,750			
Roads & streets, total						
Depreciated cost			5,100	10,800	16,900	17,500
Depreciated reproduction cost			8,750			
Water mains & sewers						
Depreciated reproduction cost	455		2,500			
Highway bridges & other improvements						
Depreciated reproduction cost	238		1,500			

The 1907 figures are from *Financial Statistics of Cities, 1907,* stepped up to cover all cities. It is not clear whether land values are excluded. The figure for water mains and sewers covers sewers only. Toll bridges are excluded.

The 1922 figures for depreciated reproduction costs are those of the Federal Trade Commission, *National Wealth and Income,* pp. 40-3. Land values, as estimated by the Commission, are $850 million for rural roads and $8,250 million for city streets.

The other figures are derived from estimates of 'unamortized cost at beginning of year' of various types of roads and streets as given in *Public Aids to Transportation.* Federal Coordinator of Transportation, 1940. We included the cost of grading and draining unimproved roads, shown separately in the same source. Extrapolations of the Coordinator's figures through 1946 are based on total road construction and the depreciation rates used by the Coordinator.

Public Aids to Domestic Transportation (79th Cong., 1st Sess., House Document 159) gives the depreciated cost of all public roads at the end of 1920 as $5.4 billion; $3.8 billion for 1920 is the figure we estimate. Most of the difference is due to the method of estimating the value of city streets.

A rough estimate of the value of public roads in constant (1917-20) prices can be derived from mileage and construction cost data collected by the Bureau of Public Roads. So calculated, our estimate (without allowance for depreciation) is $8 billion for 1904 and $28 billion for 1945. It is not clear whether the construction cost of surfaced roads includes the original cost of grading and draining before surfacing. If it does not, the rate of growth is understated. Mileage of public roads, by type, for 1904 is given in Bureau of Public Roads *Bulletin 41* (1909), and for 1945 in *Highway Statistics, 1945.* The cost figures are from *Public Roads,* December 1920.