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CHAPTER I

THE EXPENDITURES OF CITIES

Municipal expenditures for public works in this country have grown with great rapidity during the past ten years. This growth is in part due to the rapid rate of increase in the urban population of the United States, and in part to the rising standards of living of American cities.

The rate of increase of our urban population is a well-known feature of American population growth during these many decades, and seems to be continuing without interruption. Since 1910, as the following tabulation shows, the numbers living in cities with a population of 30,000 and over increased from less than 30 per cent to 36 per cent of the total population of the country,² in the face of a substantial rise in that total.

Year	Total Population United States (thousands)	No. of Cities of 30,000 and over	Population In Cities of 30,000 and over (thousands)	Per Cent of Total Population in Cities of 30,000 and over
1910	91,972	184	27,316	29.7
1920	106,422	247	36,654	34.4
1922	109,893	261	38,737	35.2
1924	113,727	248	39,981	35.2
1926	117,136	250	41,840	35.7
1927	118,628	250	42,716	36.0

The accelerated rate of growth of the American city, particularly of the large cities, has necessarily left municipal governments far behind in their programs to provide the equipment required by an increasing population. Congestion of population has caused municipal governments to fall far behind in their plans for the development of adequate transportation facilities. An increasing

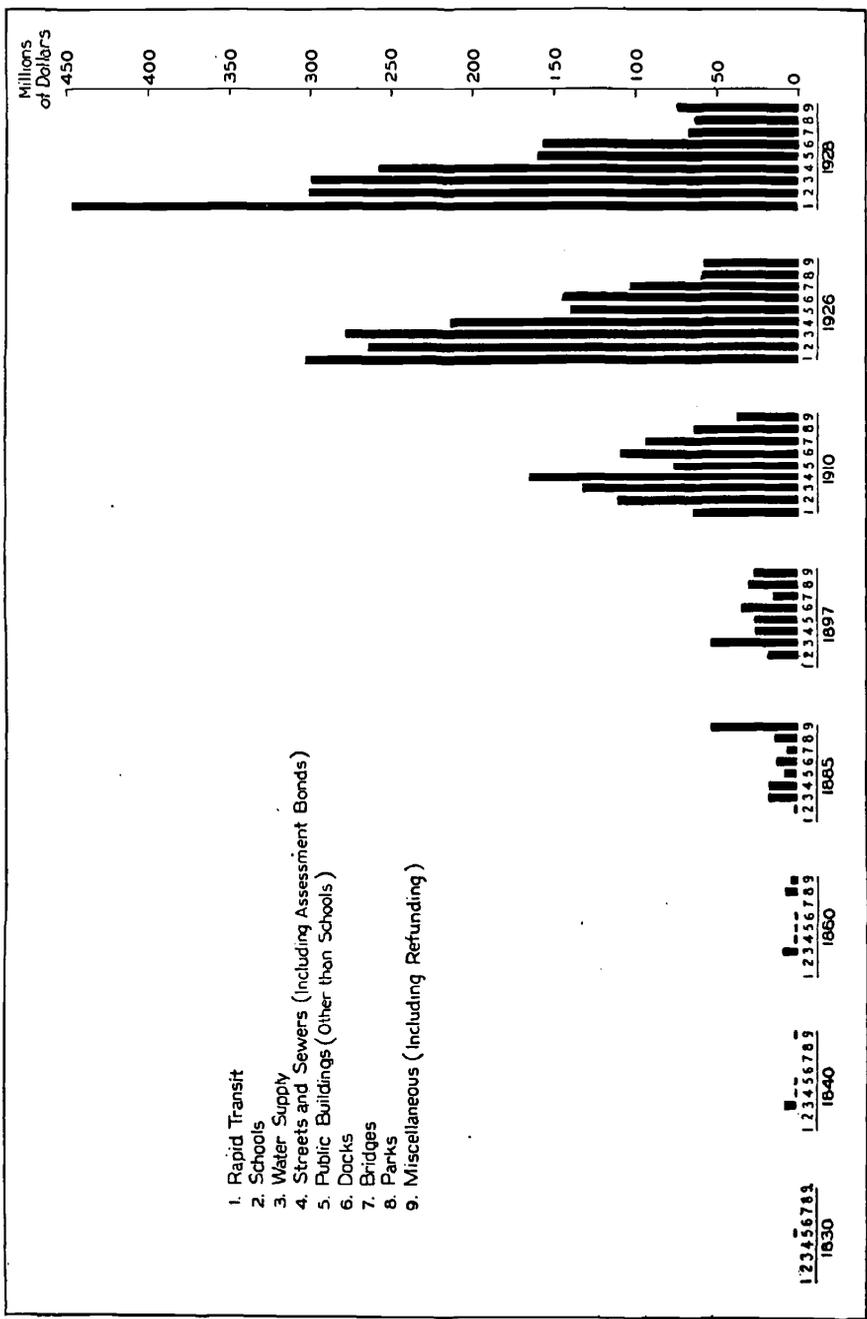
² U. S. Bureau of the Census, *Financial Statistics of Cities*.

TABLE 1.—THE GROWTH AND DISTRIBUTION OF THE OUTSTANDING DEBT OF NEW YORK CITY,
1830-1928
(In thousands)

PURPOSE	YEAR ENDING DECEMBER 31ST.									
	1830	1840	1860	1885	1897	1910	1926	1928		
Rapid transit.....	\$64,652	\$301,609	\$446,110		
Schools.....	\$ 1,168	\$18,045	110,367	263,074	301,374		
Water supply.....	\$7,803	\$8,899	17,747	53,083	130,821	277,203	299,686		
Streets and sewers, including assess- ment bonds.....	400	1,897	16,963	24,992	164,460	212,459	256,198		
Public buildings, other than schools..	\$570	1,015	943	6,345	24,319	75,030	138,583	160,527		
Docks.....	800	12,053	34,033	108,783	143,298	155,986		
Bridges.....	5,587	13,474	93,782	101,165	67,482		
Parks.....	6,656	13,250	28,845	62,606	56,957	62,958		
Miscellaneous, including refunding...	1,623	3,303	52,015	25,168	36,622	56,847	74,031		
Total.....	\$570	\$10,841	\$22,203	\$125,475	\$223,018	\$857,953	\$1,551,198	\$1,824,352		

SOURCE: For years 1830-1926, from *The Finances and Financial Administration of New York City: Recommendations and Report of the Sub-Committee on Budget, Finance and Revenue of the City Comptroller on Plan and Survey, New York, 1928*, p. 192; for 1928, figures from Comptroller's Statement of the Debt Incur-
ring Power of the City as of January 1, 1929, p. 14.

CHART I.—THE GROWTH AND DISTRIBUTION OF THE OUTSTANDING DEBT OF NEW YORK CITY, 1830-1928.



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rate of water consumption likewise has made necessary extensions and improvements in the existing plant and the utilization of more remote supplies of potable water, involving rising expenditures for construction. Pressure of population thus produces a wide range of needs, that have led inevitably to rapid growth in the size of the plant and equipment of the typical American city.

Most American cities are, further, centers of industry and commerce. The prevailing level of wealth and income is notably higher in our urban than in our rural areas, and has tended to become relatively more so. Municipal expenditure for public improvements, consequently, has come to reflect the mounting standards of living of the population in these communities for whom the improvements are made. Advanced standards of school buildings and hospitals; improved sanitary provisions; better lighting systems; the widening and resurfacing of city streets; extensions of park systems, are all items in the expenditures of cities that increase with the rise of incomes of the urban population. While the figures do not lend themselves to this kind of analysis, it is probable that the expenditures for public construction by cities with a population of 30,000 and over now amount to more than one-fourth of the total expenditures for public works in the country; and this proportion would be even greater if expenditures for highways, financed largely by state, county and federal governments, were taken out of the totals.

Unfortunately, no statistical series are available to describe the changes in the expenditures of American municipalities for public works during the past century. The growth of the outstanding indebtedness of New York City since 1830 and the classification of this indebtedness by purpose throws considerable light on the matter. The variations are, in a measure, representative of the changes for the whole country, except, of course, that the expenditures of New York City for rapid transit came, in the latest decades, to consume a larger share of the total than is the case in smaller cities.

"In the outstanding indebtedness of 1860 the water supply was the principal item, with parks coming second. By 1897 docks and public buildings, streets and sewers, parks, schools and bridges all required substantial expenditures, but water still held the leading place. By 1926, parks, which had been second in importance in 1860 and third in 1897, held the eighth position. Rapid transit

TABLE 2.—PUBLIC CONSTRUCTION CONTRACTS AWARDED IN 14
SELECTED CITIES, COMBINED, 1919-1928 *

(In thousands)

Purpose	1919		1920		1921		1922		1923	
	Amount	% Dis-tribution								
Educational buildings.....	\$25,017	23.5	\$30,482	16.6	\$45,018	31.4	\$56,983	32.2	\$73,179	47.5
Hospitals and institutions.....	8,741	8.2	11,839	6.5	20,004	14.0	27,730	15.7	17,326	11.3
Military and naval buildings.....	4,697	4.4	3,892	2.1	604	0.4	500	0.3	501	0.3
Public buildings.....	2,227	2.1	10,378	5.6	10,691	7.4	5,403	3.0	4,137	2.7
Waterfront developments.....	5,484	5.1	4,359	2.4	6,589	4.6	5,021	2.8	5,994	3.9
Bridges.....	6,742	6.3	6,348	3.5	6,577	4.6	5,210	2.9	5,575	3.6
Incinerators.....	102	0.1	232	0.1	5	0	103	0.1	1,709	1.1
Lighting systems.....	1,164	1.1	45,121	24.5	1,966	1.4	3,763	2.1	5,590	3.6
Docks and piers.....	6,758	6.3	22,720	12.4	2,279	1.6	3,626	2.0	823	0.5
Subways and tunnels.....	1,011	0.9	4,261	2.3	1,983	1.4	21,705	12.2	7,818	5.1
Sewage systems.....	19,734	18.5	11,828	6.4	16,324	11.4	13,482	7.6	4,524	2.9
Streets and roads.....	23,035	21.6	27,567	15.0	24,527	17.1	26,071	14.7	15,949	10.3
Water supply systems.....	1,769	1.7	4,359	2.4	6,414	4.5	6,702	3.8	10,700	6.9
Parks (public).....	247	0.2	438	0.2	241	0.2	981	0.6	421	0.3
Total.....	\$106,728	100.0	\$183,824	100.0	\$143,227	100.0	\$177,280	100.0	\$154,246	100.0

Purpose	1924		1925		1926		1927		1928	
	Amount	% Dis-tribution	Amount	% Dis-tribution	Amount	% Dis-tribution	Amount	% Dis-tribution	Amount	% Dis-tribution
Educational buildings.....	\$75,398	36.5	\$74,983	29.3	\$90,612 ^a	27.8 ^b	\$96,129 ^b	23.0 ^b	\$100,073 ^b	23.1 ^b
Hospitals and institutions.....	27,652	13.4	37,904	14.8	44,073	13.5	44,346	10.6	60,542	14.0
Military and naval buildings.....	218	0.1	1,977	0.8	1,136	0.3	867	0.2	3,115	0.7
Public buildings.....	10,570	5.1	9,671	3.8	15,301	4.7	20,997	5.1	13,084	3.0
Waterfront developments.....	4,741	2.3	2,363	0.9	6,370	2.0	6,462	1.5	7,116	1.6
Bridges.....	13,330	8.8	13,593	5.3	27,307	8.4	45,189	10.8	23,802	5.5
Incinerators.....	1,385	0.7	704	0.3	565	0.2	1,998	0.5	1,527	0.6
Lighting systems.....	3,433	1.7	8,431	3.3	13,407	4.1	6,515	1.6	6,820	1.6
Docks and piers.....	472	0.2	2,037	0.8	d	d	d	d	d	d
Subways and tunnels.....	28,220	13.6	62,367	24.3	65,000 ^c	20.0 ^c	75,000 ^c	18.0 ^c	80,000 ^c	18.5 ^c
Sewage systems.....	7,591	3.7	11,268	4.4	17,611	5.4	40,790	9.8	28,229	6.5
Streets and roads.....	25,592	12.4	25,462	9.9	37,155	11.4	68,261	16.4	58,633	13.6
Water supply systems.....	2,875	1.4	5,376	2.1	6,851	2.1	9,799	2.3	48,522	11.2
Parks (public).....	219	0.1	126	0	353 ^d	0.1 ^d	983 ^d	0.2 ^d	551 ^d	0.1 ^d
Total.....	\$206,606	100.0	\$256,262	100.0	\$325,741	100.0	\$417,336	100.0	\$432,014	100.0

SOURCE: F. W. Dodge Corporation, Statistical Division.

* The fourteen cities included are Albany, Boston, Buffalo, Chicago, Cleveland, Detroit, Indianapolis, Newark, New Haven, New York, Philadelphia, Rochester, St. Louis and St. Paul.

^b Includes private schools.

^c Less than 0.05%.

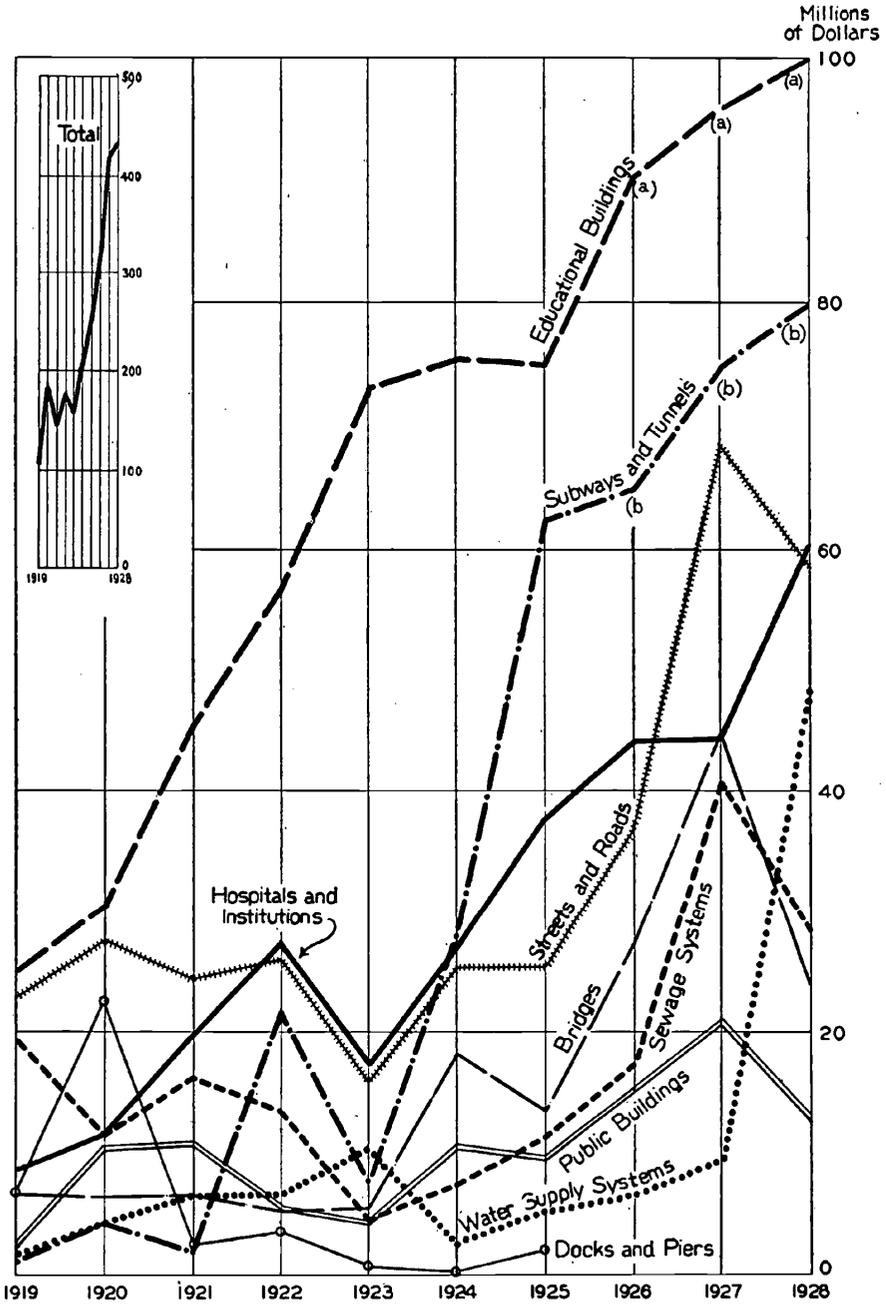
^d Not reported in these three years.

^e Not reported in these three years. Figures represent estimates of subway construction in New York City.

^f Estimated.

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CHART 2.—PUBLIC CONSTRUCTION CONTRACTS AWARDED IN 14 SELECTED CITIES, COMBINED, 1919-1928



(a) Includes Private Schools in 1926, 1927, 1928

(b) Represents Subway Construction in New York City alone in 1926, 1927, 1928.

expenditures topped all others, with water, schools, streets and sewers and docks following in the order mentioned. Such an order may be only temporary, but the differences in the amounts of indebtedness incurred for the different purposes are so great, and the city's borrowing-margin is so limited, that some time must elapse before these relative positions are materially modified."³

A view of the probable expenditures for public construction by cities is given in Table 2, which shows the combined contracts for public construction awarded in 14 selected cities for each year from 1919 to 1928.⁴ Contracts awarded are not a precise measure of the amount actually expended for construction during the period indicated, or of the volume of work under way or completed. There are indeed frequently great discrepancies between the volume of contracts awarded and the amount expended.⁵ In the absence of other measures, however, the figures furnished by the F. W. Dodge Corporation are a reliable representation of the volume, trend and distribution of expenditures for public construction.

Between 1919 and 1928 these 14 municipalities quadrupled their expenditures for public works. If New York City were omitted from the totals, the rate of increase for the remaining cities would be somewhat slower. In general, the large cities appear to have increased their public works expenditures much more rapidly than the smaller ones. Occasionally, also, the picture is distorted when a single city undertakes a new program of public improvements and contracts for construction are concentrated in a few years. Thus contracts awarded in St. Louis⁶ jumped from \$1,700,000 in 1919 to more than \$18,000,000 in 1928, due, in the main, to large increases in the latter year in contracts for hospitals and institutions, bridges, lighting systems, and street paving and road construction.

Throughout the period since 1919, school buildings are the

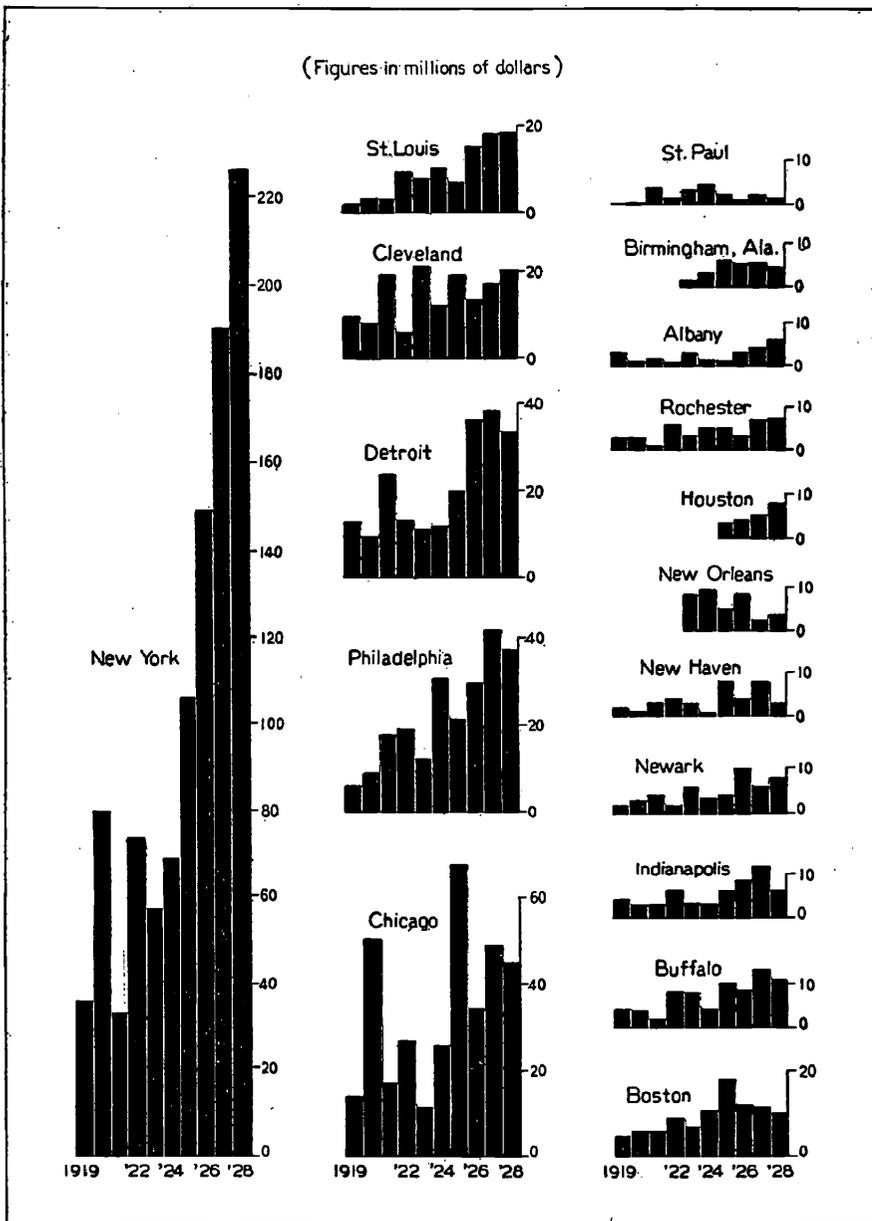
³ *The Finances and Financial Administration of New York City: Recommendations and Report of the Sub-Committee on Budget, Finance and Revenue of the City Committee on Plan and Survey, 1928, p. 190.* This report will hereafter be referred to as *Lehman*.

⁴ See Appendix A, Tables 1-17. These tables show public contracts awarded in each of 14 selected cities from 1919 through 1928, and in 3 additional cities for which no material is available before 1923.

⁵ See below, Chapter V, pp. 120-122.

⁶ Appendix A, Table 16.

CHART 3.—TOTAL PUBLIC CONSTRUCTION CONTRACTS AWARDED IN 17 SELECTED CITIES, 1919-1928



Source: F. W. Dodge Corporation, Statistical Division.

largest single item. Contracts for school buildings, hospitals and institutions, and public buildings of other character give a total for this group that accounts usually for more than one-third of the whole of public construction contracts. The next largest items are subways and tunnels, heavily weighted by the subway construction contracts of New York City, and sewage systems and streets and roads. Contracts for water supply construction run uniformly low throughout the period, except in the last year when New York City accounts for more than 90 per cent of the contracts awarded for this purpose. The construction of public parks involves expenditures in most years of this last decade of less than one per cent of the total.

The growth of city expenditures for public works is not an isolated phenomenon. It has its counterpart in the rising outlays since 1919 of all American units of government, and in the equally striking increase in the expenditures for private construction. To compare the rate of rise in public expenditures for construction with the rate of increase of other series that measure economic growth is not a simple task, because it is not clear what the arithmetical relation between these rates of growth should be. All that can be said is that increasing expenditures on public works have taken place in a period in which the income of the people of the United States has grown with great rapidity, when the capacity to pay taxes and to absorb bonds has been greater than before, and when the assessed valuation of property, even allowing for defects in the methods of measuring assessed valuation, has also mounted to new and higher levels.

The wide range of problems that surround the past and future construction programs of American municipalities are considered in detail elsewhere in this book.⁷ As with private construction, expanding programs of public improvement involve difficult problems of financing. Growing burdens of taxation and steady encroachment on more or less rigid debt limits frequently constitute the forces that slacken the rate of increase of public construction and keep it for a time on a low level. The vast number of public agencies concerned with administering these projects make unusually difficult the adoption of a procedure that might lead to greater uniformity and a larger measure of control. On the other hand, the

⁷ Chapters VII, VIII and IX.

TABLE 3. — ASSESSED VALUATION OF PROPERTY SUBJECT TO GENERAL PROPERTY TAX IN
SELECTED CITIES, 1919-1928
(In thousands)

Year	Type	NEW YORK CITY		CHICAGO		PHILADELPHIA		DETROIT		ALL CITIES OVER 30,000
		Assessed Valuation	Reported Basis of Assess- ments ^a %							
1919	Real property.....	\$ 8,423,323	100	\$ 757,915	25	\$1,823,961	100	\$1,003,492	100	\$31,219,989
	Personal property.....	362,413	100	276,745	25	703,668	100	372,469	100	7,750,789
1920	Real property.....	8,626,122	100	b	b	b	b	b	b	b
	Personal property.....	296,506	100	b	b	b	b	b	b	b
1921	Real property.....	9,972,985	100	1,166,212	40	2,135,731	100	c	c	28,821,846
	Personal property.....	213,222	100	410,447	40	708,984	100	c	c	6,867,575
1922	Real property.....	10,249,992	100	1,176,571	e	2,320,411	100	c	c	41,932,204
	Personal property.....	210,608	e	415,883	e	723,820	e	1,490,015	e	10,170,420
1923	Real property.....	10,596,066	100	1,297,355	35	2,630,333	100	1,621,276	100	43,982,896
	Personal property.....	216,623	100	416,009	25	791,257	100	488,714	100	10,560,939
1924	Real property.....	11,148,811	100	1,292,942	35	3,694,120	100	1,916,045	100	47,745,756
	Personal property.....	231,174	100	414,853	25	860,500	100	589,283	100	11,055,036
1925	Real property.....	11,901,349	100	1,356,609	35	3,876,028	100	2,185,646	100	51,503,292
	Personal property.....	239,508	100	431,942	25	1,725,368	100	572,018	100	11,429,848
1926	Real property.....	12,997,581	100	1,403,963	35	3,169,537	100	2,570,109	100	55,739,082
	Personal property.....	258,988	100	387,478	25	1,549,912	100	586,148	100	11,559,093
1927	Real property.....	14,539,838	100	3,247,359	70	4,639,084	100	2,778,907	100	61,820,099
	Personal property.....	297,984	100	822,561	50	1,645,120	100	615,426	100	12,201,466
1928	Real property.....	15,845,506	100	d	d	d	d	d	d	d
	Personal property.....	308,440	100	d	d	d	d	d	d	d

SOURCE: New York City Assessed Valuation from New York City, Comptroller's Annual Reports. Other figures from United States Bureau of the Census, *Financial Statistics of Cities*.

^a For most cities this figure is an estimate, furnished by city officials, of the percentage which the assessed valuation of property forms of its true value. See, for example, United States Bureau of the Census, *Financial Statistics of Cities*, 1927, p. 62. It is impossible to estimate how reliable these figures are. They are no doubt subject to a wide margin of error; but it seemed advisable to present the table as published by the Bureau of the Census instead of attempting to correct these estimates by the use of such inadequate data as are available.

^b No volume of *Financial Statistics of Cities* for 1920 was published.

^c Data not given.

^d *Financial Statistics of Cities* for 1928 not yet available.

sheer magnitude of public enterprises and their almost certain growth during the next decades has forcibly turned the attention of many public officials to the need for more deliberate planning and has, in some instances, led to the creation of new agencies charged with just this function.