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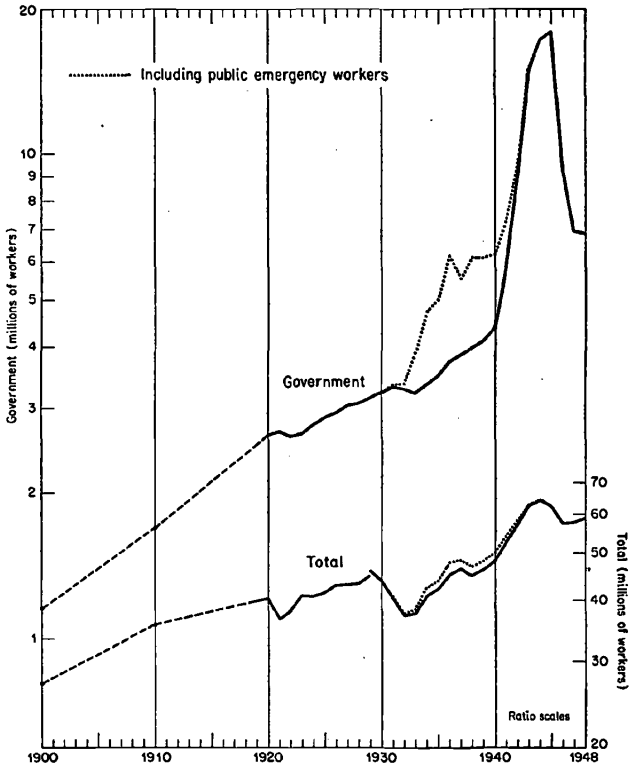
Chapter Title: FUNCTIONS OF GOVERNMENT WORKERS

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CHART 5
 Government and Total Employment, Annual Estimates
 (Full-time equivalent number)



To return to a question posed at the outset of this Paper, it seems clear that the activities government took on under the New Deal were a substantial factor in expanding government employment. After 1933 growth in both federal and state government employment speeded up. Yet the New Deal was not the sole factor determining trends in government employment even in that period. And growth before 1933 is attributable to other factors.

II FUNCTIONS OF GOVERNMENT WORKERS

To understand the big increase in the number of government workers since 1900 we need to know more about their functions. Government engages in even more diverse activi-

ties than housewives, ministers, or handymen. Many are as well known, but the ordinary citizen's notion of the relative importance of the various activities is likely to be shaped by his range of experience with them. To get a more balanced view, let us look at the current functional distribution of all government workers and the major changes during the last half century.

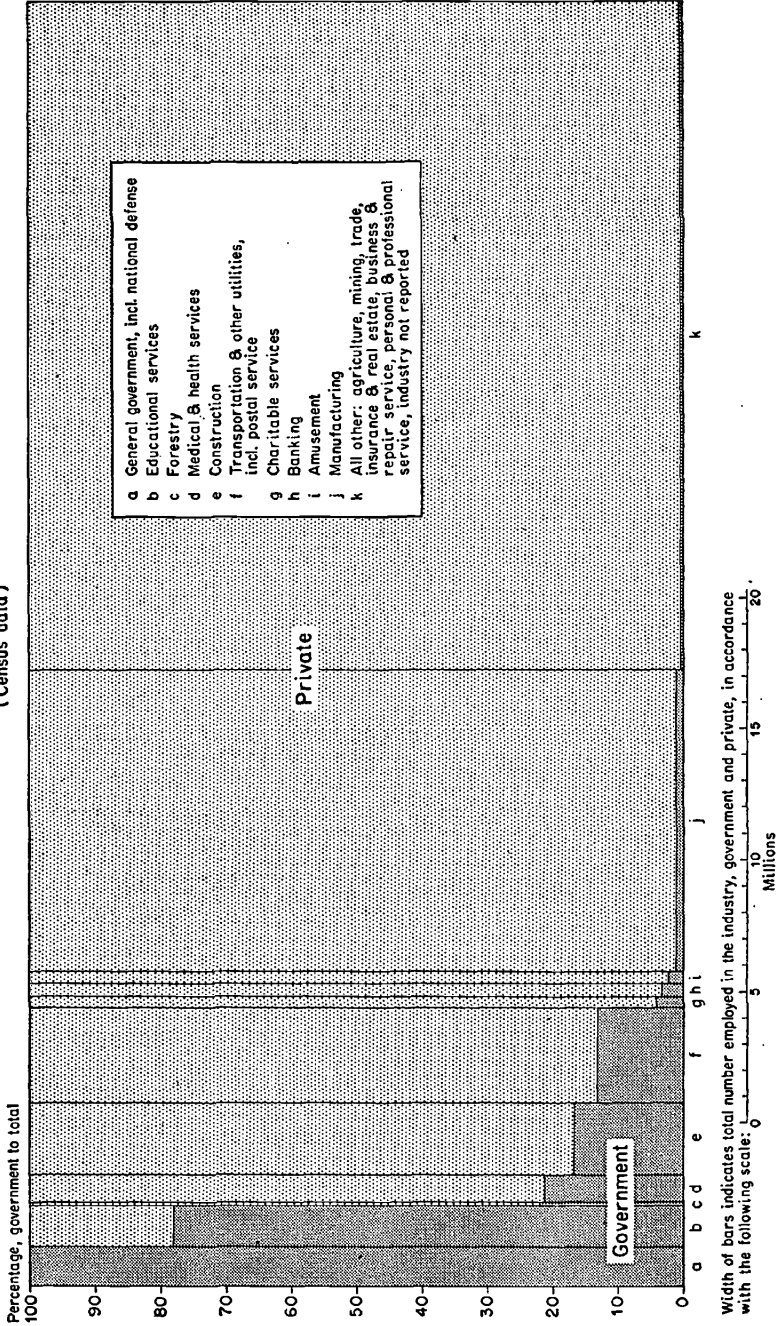
The Prewar Pattern

Two-thirds of all government employees in 1940, though on government payrolls, were working in industries producing goods and services also produced by nongovernmental agencies. (Following the Census, I use 'industry' rather broadly to cover any class of activity employing paid workers.) The most substantial portion was in education, as the reader will have gathered from preceding charts: education itself occupied close to a third of all government workers in 1940. Medical and health services, transport and public utilities (including the postal service), construction, and shipbuilding also occupied considerable numbers of government employees. The rest were scattered over almost all other industries.

Only one-third were in the group labeled, for want of a better title, 'general government' (Chart 6). This group carries on functions rated in this country as peculiarly governmental—protection by the armed forces, police, and fire departments, regulation of business and other social relations, roads, and similar functions.

That 'government' and education are entirely or largely manned by government workers is obvious, of course. That government employees constituted a substantial fraction—over 10 percent—of workers in forestry, medical and health services, construction, and transportation and public utilities, is less well known. In 1940, 21 percent of all workers in health and medical services were on government payrolls; the percentage was 22 for forestry, 17 for construction, 24 for electric and gas utilities, and 37 for shipbuilding (classified under manufacturing).

CHART 6
Industrial Distribution of Government and Total Employment, 1940
 (Census data)



Such functions of government as are involved in administration, legislation, tax collection, and regulation accounted for only a small fraction of all government workers in 1940, much smaller than the third mentioned above. This is shown by a subclassification of the 'general' government function (Table 1), in accordance with groups more conventional in government statistics. Even the 9 percent or so shown in the table is something of an overstatement. Because 'full-time equivalents' could not be computed for each functional group, the large number of part-time county, township, and village workers inflates the figure.

Something like a 'division of labor' among governmental units is also revealed by the table. The prevalence of federal troops, state hospitals, and county courts has deep historical roots. Rural-urban differences in the populations served help to explain differences between cities and counties with respect to number of policemen, firemen, park workers, and employees in public service enterprises.

Change in the Pattern

Almost ceaseless change in the relative importance of private industries seems to be a characteristic concomitant of economic development. During the last half century relative declines in agricultural employment, relative rises then declines in mining, domestic service, and rail transport, and almost continuous relative rises in electric light and power, insurance, real estate, and personal and business service (other than domestic) reflect some of these changes in the industrial distribution of private employment.

Within government, also, there have been changes. The 1940 pattern is that of a section cut across trends of varying slope (Charts 7 and 8 and Tables 2-4). In few cases was I able to push the figures through to 1948, or to cover identical periods, yet the secular developments in which we are primarily interested are portrayed with reasonable accuracy.) Some activities of government that occupied but small percentages of government workers around 1900 grew to command the labor of much larger percentages in

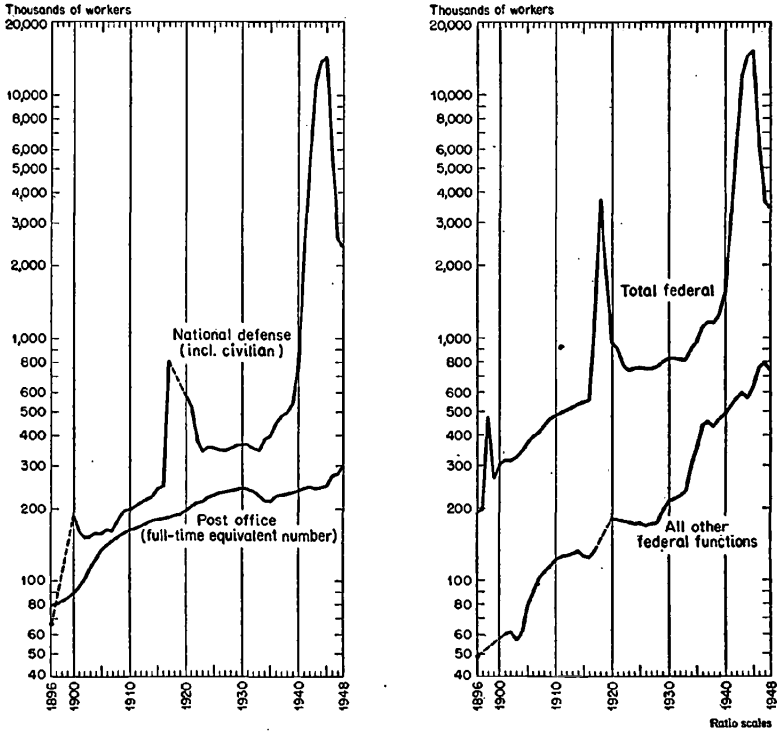
TABLE 1
Functional Classification of Government Workers by Type of Governmental Unit, 1940

	Federal	State	City	County	Sub- total	All Other Local	Grand Total
	PERCENTAGE DISTRIBUTION						
General administrative & financial	5.7	5.9	5.7	24.2	7.7	4.2	8.7
Legislative	.2	.3	3.8	...	1.3	...	...
Judicial	.2	.7	1.0	5.0	1.0	...	13.9
National defense	44.7	...	...	...	17.7	...	6.6
Law enforcement	.9	4.4	11.9	3.8	5.2	.6	...
Fire	...	...	10.6	...	3.1	...	...
Public works	0.2	...	...	...	...	...	...
Highways	3.0	23.2	11.2	25.8	12.8	8.3	13.3
Waterways & flood control	2.0	...	...	...	...	...	...
Other public works	...	...	6.4	...	1.9	...	...
Sanitation & waste removal	...	2.5	2.2	2.2	1.6	...	...
Health	.5	14.6	4.9	11.2	5.7	...	12.7
Hospitals	.1	8.7	2.4	6.5	7.3	...	...
Welfare*	10.5	3.6	...	2.2	1.1	...	...
Correction	.2	...	...	...	...	...	...
Development & conservation of natural resources	2.7	3.9	...	1.0	2.0	...	1.5
Recreation & parks	.2	.4	4.2	...	1.4	...	1.1
Agricultural, industrial, & commercial development	2.9	...	...	...	1.1	...	.9
Regulation	2.9	...	...	...	1.2	...	.9
General information & research	1.1	...	...	...	.4	...	...
Schools	.05	27.5	16.3	12.5	11.7	84.5	27.4
Libraries & museums	.1	.1	1.5	.8	.6	...	.5
Other general functions	...	2.5	4.0	4.2	2.1	.6	1.8
Postal service	20.3	...	...	...	8.0	...	6.3
Water supply	...	...	6.8	...	2.0	...	1.6
Gas & electric systems	.4	...	1.7	...	.7	...	.5
Other public service enterprises	1.0	2.0	5.3	.2	2.4	...	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	NUMBER OF WORKERS (1,000)						
Total	1,496	768	1,113	400	3,777	1,039	4,815

Blank spaces indicate either zero or small amounts not shown separately but included in the figures for other functional categories. The federal government figures are for June 1940; the school figures (other than federal), for the school year 1939-40; the other figures, for Oct. 1940. Employment is measured by the total number of full- and part-time workers, with no adjustment to a full-time equivalent basis. Public emergency workers are excluded.

* Includes direct relief, social security, work programs, Veterans' Administration, and Indian affairs.

CHART 7
 Federal Government Workers, Major Functional Categories
 1896 - 1948



1939 or 1940. Others, of course, declined in relative importance.

That no revolution took place in the patterns needs equally to be emphasized. Important though the changes during the four decades are, the beginning and end patterns bear a distinct family resemblance. The correlation between the percentages at the opening of the century and just before World War II is substantial. Education, which had fallen off, continued to be a major function of state and local government (Table 4). And the postal service, to cite another example of relative decline, was still an outstanding employer of federal personnel in 1939.

These and other functional divisions of government declined in relative importance as employers of labor. Yet in not a single function of the federal government, the cities,

TABLE 2

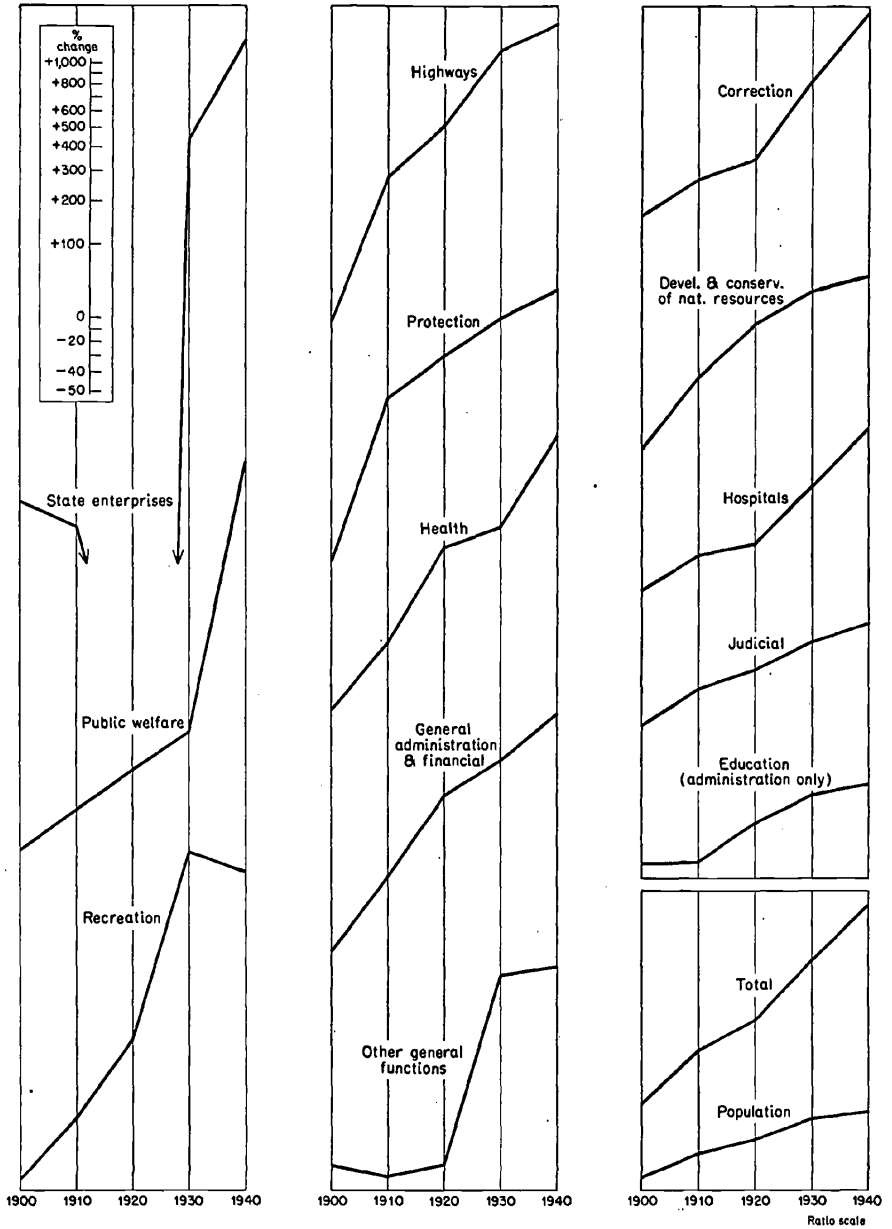
Functional Classification of Federal Workers, 1896 and 1939

	NUMBER (1,000)		% OF TOTAL INCL. POSTAL SERVICE & NATIONAL DEFENSE		% OF TOTAL EXCL. POSTAL SERVICE & NATIONAL DEFENSE		1939 RELATIVE TO 1896
	1896	1939	1896	1939	1896	1939	
General government, incl. legislative & judicial	29.9	90.5	15.3	6.9	52.6	18.2	3.0
Law enforcement	1.6	14.0	.8	1.1	2.8	2.8	8.8
Public works	10.1	88.6	5.2	6.8	17.8	17.9	8.8
Conservation & development of natural resources	1.9	34.7	1.0	2.7	3.3	7.0	18.3
Agricultural, industrial, & commercial development	5.2	37.6	2.7	2.9	9.2	7.6	7.2
Regulation	1.1	41.5	.6	3.2	1.9	8.4	37.7
Health	1.1	9.7	.6	.7	1.9	2.0	8.8
Welfare	4.3	151.9	2.2	11.6	7.6	30.6	35.3
Public service enterprises other than postal	0.0	18.6	0.0	1.4	0.0	3.7	*
General information & research	1.2	6.6	.6	.5	2.1	1.3	5.5
Education & reference	.4	2.5	.2	.2	.7	.5	6.2
Subtotal	56.8	496.2	29.1	38.0	100.0	100.0	8.7
Postal service	78.9	232.2	40.5	17.8			2.9
National defense	59.2	575.9	30.4	44.2			9.7
Total	194.9	1,304.3	100.0	100.0			6.7

The figures for 1896 are as of June 30; those for 1939, as of Dec. 31, except for the postal service which is as of June 30. Postal workers are on a full-time equivalent basis. Public emergency workers are excluded.

* Denominator is zero.

CHART 8
 New York State, Major Functional Categories of
 State Government Workers, and Population
 1900 - 1940



or New York State (or other states of which we have record), was the number of workers actually reduced. In no other sector of the economy would we find *every* major division expanding.

The results are almost as striking when growth in population is taken as the standard against which to set the rates of increase in individual functions. Every federal function pushed employment up more than population grew. Every New York State function pushed employment up more than the population of the state grew. As for the cities, all except three functions pushed employment up more than urban population grew.

The three municipal functions that did not grow as rapidly as urban population are the 'general control' functions, administrative, legislative, and judicial. In the federal government as well, and in part also in New York and other states, it was these functions that tended to lag.

The big percentage expansions came in activities connected with public welfare, health, conservation of resources, public works, and, at the federal level, regulation.

The functional categories used here are rather wide. Hidden within them are specific activities. To illustrate them, a few federal activities may be mentioned. Under law enforcement, for example, there is now a federal Bureau of Investigation (it had 2,400 employees in 1939), and—as a consequence of the immigration laws established in the 1920's—a greatly expanded Immigration and Naturalization Service (there were 4,000 employees in 1939 as against fewer than 300 in 1896). Public works now include construction operations of the Panama Canal and the Tennessee Valley Authority (and in 1939 also of the Federal Works Agency). The Forest, National Park, and Soil Conservation Services have swelled the number of persons engaged in conservation and development of resources. Welfare now includes the vast and various relief, social security, and other programs instituted under the New Deal, as well as the Veterans' Administration. In

TABLE 3
Functional Classification of Municipal Nonschool Payrolls and Personnel, 1903 and 1940
Cities with Populations of 25,000 or More

	PAYROLLS (\$1,000,000)				P E R S O N N E L			
	1940 relative to 1903		Number (1,000)		1940 relative to 1903		% of Total	
	1903	1940 ^a	1903	1940 ^a	Direct estimate	Est. by deflation of payrolls	1903 (est.)	1940
Administrative	13.6	67.3	5.0	31.9	2.3	2.3	8.8	5.3
Legislative	1.8	5.8	3.2	3.7	1.5	1.5	1.6	.6
Judicial	5.4	17.5	3.2	6.6	1.5	1.5	2.8	1.1
Total general control	20.8	90.6	4.4	42.2	2.0	2.0	13.2	7.0
Police	36.6	215.6	5.9	34.2 ^b	2.8	2.7	22.0	15.6
Fire	21.6	159.4	7.4	20.6 ^b	3.5	3.4	13.3	11.8
Highways	12.8	82.0	6.4	52.4	2.9	2.9	11.3	8.7
Sanitation	14.4	92.5	6.4	19.5	3.1	2.9	13.2	10.2
Health	2.4	28.7	11.9	16.9	5.4	5.4	2.0	2.8
Hospitals	1.9	52.0	26.8	53.1	12.2	12.2	2.7	8.8
Public welfare	1.7	33.8	20.3	23.6	9.2	9.2	1.6	3.9
Water supply	9.4	73.6	7.9	42.8	3.6	3.6	7.5	7.1
Electricity	.4	23.8	52.8	12.6	24.0	24.0	.3	2.1
All other	15.4	219.1	14.2	133.1	6.5	6.5	12.9	22.1
Total	137.3	1,071.1	7.8	170.3	603.5	3.5 ^c	100.0	100.0

^a October 1940; payrolls were multiplied by 12. Part-time workers are included.

^b Excludes callmen, volunteers, substitutes, and supernumeraries.

^c Estimated from the figure for all cities by applying the relative increase in population. The population in cities of 25,000 or more was 22,292,000 in 1903, and 52,908,000 in 1940.

TABLE 4
Distribution of Government Workers by Main Functional Categories, 1900 and 1940

	NUMBER (1,000)		PERCENTAGE OF			1940 RELATIVE TO 1900	
	1900	1940	Grand total 1900	Grand total 1940	Total excl. emergency workers 1900		
National defense	160	788	13.8	12.7	13.8	17.9	4.9
Schools	467	1,228	40.2	19.8	40.2	27.9	2.6
Public service enterprises	129	432	11.1	7.0	11.1	9.8	3.3
All other regular employees	405	1,950	34.9	31.5	34.9	44.3	4.8
Total regular employees	1,161	4,398	100.0	71.0	100.0	100.0	3.8
Public emergency workers	0	1,800	0.0	29.0			*
Grand total	1,161	6,198	100.0	100.0			5.3

This is a rough distribution of the full-time equivalent number. The national defense estimate for 1900 is based largely on the 1901 figure. The 1900 estimate for state and local public service enterprise employees is very rough, but the figure was certainly very small.

* Denominator is zero.

1896 the only 'welfare' activities of the federal government we could identify as such were the supervision of Indian affairs and operation of federal penitentiaries.

The federal agencies that appeared on the scene after 1896 employed 264,000 persons by 1939. Agencies in existence in 1896 (other than the postal and national defense services) employed only 193,000 in 1939. Excluding the post office and national defense, then, over half of federal employment in 1939 was in bureaus and divisions not organized in 1896. Corresponding or even larger proportions characterize agencies associated with such functions as conservation and development, welfare, regulation, general information and research, and public service enterprises (other than the postal system).

Measured by 1939 employment, the big additions to federal agencies came during the seven years beginning with 1933. Yet, in every decade the agencies and functions of the federal government were added to: for example, the early conservation agencies and the Panama Canal were established during 1903-12; and in every period the number of workers engaged in existing agencies and functions increased.

III FACTORS AFFECTING THE TREND OF GOVERNMENT EMPLOYMENT

The factors underlying the rising trend of government employment may be put into two groups: first, those affecting the relation between the number of government workers employed and the services they perform; second, those affecting the volume of government services.

Relation between Employment and Output

Influencing the ratio of employment to production are: change in hours worked by government employees; substitution of capital goods, and materials, supplies, and services purchased from the nongovernment sector, for the labor of government workers (or the reverse); and change in the efficiency of utilization of labor and other resources