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# Salary Trends

# FIREMEN AND POLICEMEN, 1924-64

Bulletin No. 1445



UNITED STATES DEPARTMENT OF LABOR  
W. Willard Wirtz, Secretary

BUREAU OF LABOR STATISTICS  
Ewan Clague, Commissioner



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## Preface

This report traces salary trends for firemen and policemen for the period 1924-64.

It includes materials previously published as Wage Movements: Salaries of Firemen and Policemen, A Quarter Century Review, Series 3, Number 2, and six supplementary reports from the Monthly Labor Review of June 1950, January 1952, July 1953, July 1955, October 1958, March 1962, and February 1965, which brought the original study up to date through 1964. This revised report is intended merely to incorporate the information for the entire period into one document rather than to present any information not previously published.

The appendix explains the coverage, methodology, and source of data used for the studies. A brief description of the calculation of the indexes is also included.

The salary trends program is directed by Lily Mary David, Chief of the Division of Wage Economics under the general direction of L. R. Linsenmayer, Assistant Commissioner for Wages and Industrial Relations. This report was prepared under the supervision of Albert A. Belman. The analysis for the period 1961 to 1964 was prepared by Arthur Sackley.

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## Salary Trends:

### Firemen and Policemen, 1924-50

Salary scales of the firemen and policemen employed in United States cities have increased more than 80 percent over the past quarter century. The sharpest advances occurred in the past decade when salary scales rose by about 50 percent. There was some increase in salaries during the latter 1920's, followed by a noticeable decline in the early 1930's (table 1). The net effect of this reduction in salary scales and the succeeding recovery in the late 1930's<sup>1</sup> was an 8-percent rise from 1929 to 1939.

Table 1. Indexes of average salary rates<sup>1</sup> for firemen and policemen in cities of 100,000 population or more, 1924-50

Year <sup>2</sup>	Index (1939=100)		
	Firemen and policemen	Firemen	Policemen
1924	84	87	82
1929	93	96	92
1932	96	99	94
1934	94	93	94
1938	100	100	100
1939	100	100	100
1940	100	100	100
1941	100	100	100
1942	101	103	101
1943	104	106	103
1944	110	111	109
1945	117	117	116
1946	119	118	121
1947	128	130	126
1948	137	139	136
1949	148	149	147
1950	152	153	151

<sup>1</sup> From 1924 to 1938 based on actual annual salaries paid; subsequently based on maximum of salary scale in each city.

<sup>2</sup> Data for 1939 to 1950 refer in general to rates effective on January 1; data for earlier years refer to varying periods throughout the year.

Practically the entire increase during the past decade has occurred since 1942. For the entire war period (1941 to 1945) the increase was 17 percent, as compared with 26 percent for the period 1945 to 1949. During the past year, an additional increase of 3 percent has been recorded.

Salary rates for these workers responded to the same general forces that lifted the whole wage and salary structure of the country during

these years. However, the increase in salary scales of firemen and policemen from 1939 to 1950 did not equal the increase in the cost of consumers' goods and services, as measured by the Bureau's Consumers' Price Index. This index rose by 69 percent between January 1939 and January 1950 compared with the 52-percent rise in salary scales of firemen and policemen. The rise in salaries of these workers was also considerably smaller than the increase in wage rates or annual earnings of manufacturing wage earners many of whom, however, have experienced less stable employment than have municipal workers. (See chart.)

Both the level and trend of earnings were practically the same for firemen as for policemen.<sup>2</sup> The slight variations that appear in the indexes (table 1) may be due to lags in granting pay changes to one group or the other or to a delay in reporting retroactive increases.

### Intercity Variations

There was no marked variation in wage movements among different-sized cities, although those with 250,000 but less than 500,000 population showed somewhat greater average increases in salary scales than either smaller or larger communities. Among individual cities, however, there was considerable variation in the proportionate increases in salary scales, particularly from 1945 to 1950 (table 2). Increases varied from about 10 to 50 percent or more, although cities employing over a fourth of the policemen and firemen raised salary scales between 20 and 25 percent. Increases of at least 40 percent were reported in cities employing a fifth of these protective workers.

<sup>1</sup> This salary recovery occurred somewhat later than in manufacturing.

<sup>2</sup> In 1950 maximum annual pay scales in the cities covered in this report averaged about \$8,550 for firemen and about \$8,600 for policemen.

# Average Salary Rates of Firemen and Policemen in 91 Large Cities

Average for 1939 = 100

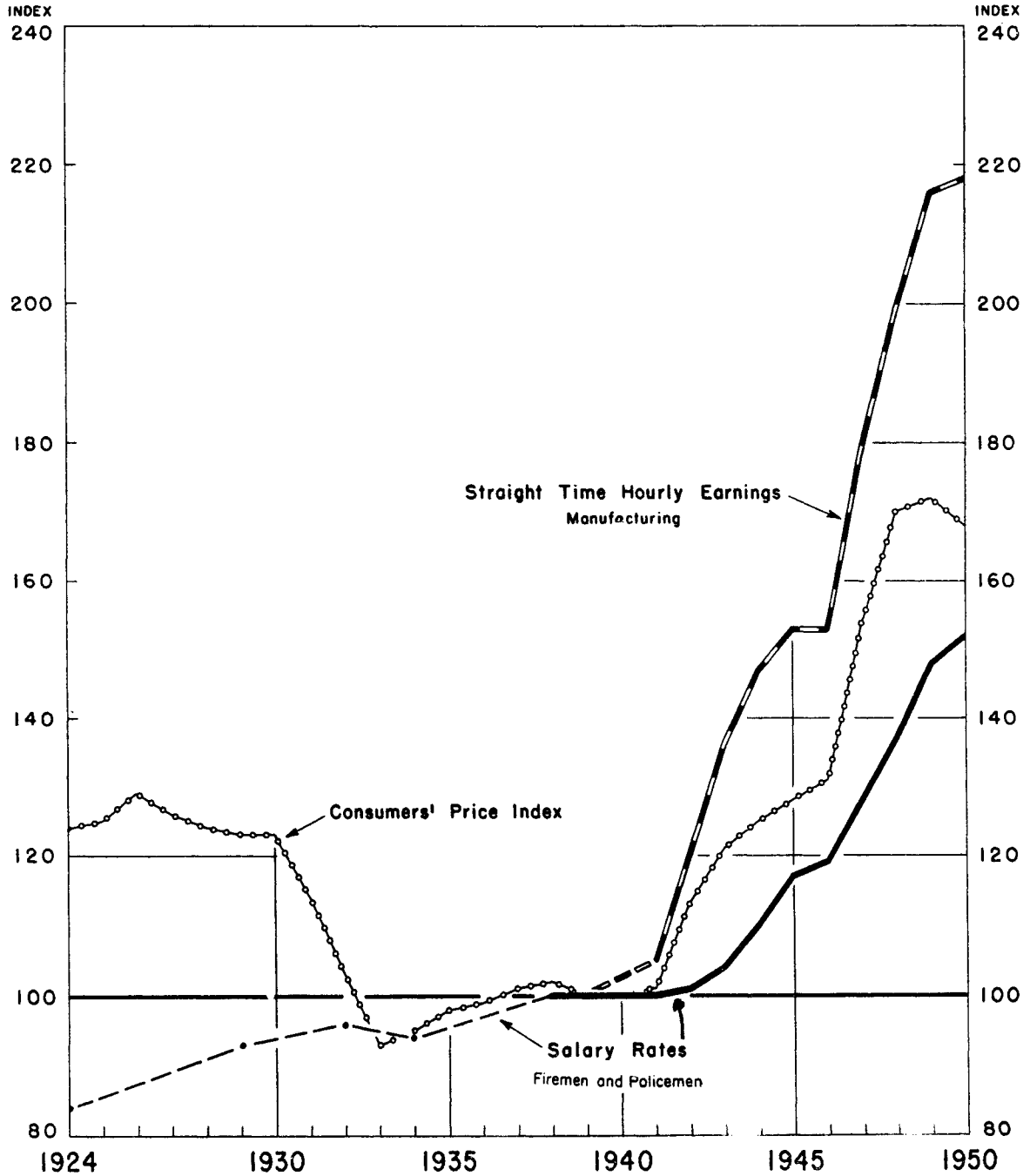




Table 2. Percentage distribution of firemen and policemen<sup>1</sup> in large cities<sup>2</sup> according to increase in salary scales, 1945-50

Increase	Percent of—		
	Firemen and policemen	Firemen	Policemen
Total -----	100	100	100
Expressed in percentage terms:			
10 and under 15 -----	1	1	-
15 and under 20 -----	10	12	8
20 and under 25 -----	28	29	28
25 and under 30 -----	8	5	12
30 and under 35 -----	15	16	14
35 and under 40 -----	14	14	13
40 and under 45 -----	9	9	8
45 and under 50 -----	6	6	6
50 and under 55 -----	3	3	3
55 and over -----	2	2	3
Not reported -----	4	3	5
Expressed in dollars per year:			
\$200 and under \$300 -----	-	-	-
\$300 and under \$400 -----	1	1	(3)
\$400 and under \$500 -----	9	10	7
\$500 and under \$600 -----	4	3	5
\$600 and under \$700 -----	6	5	7
\$700 and under \$800 -----	34	34	35
\$800 and under \$900 -----	12	14	10
\$900 and under \$1,000 -----	4	2	7
\$1,000 and under \$1,100 -----	17	20	14
\$1,100 and under \$1,200 -----	5	5	5
\$1,200 and over -----	4	3	5
Not reported -----	4	3	5

<sup>1</sup> Based on total employment in fire and police departments in cities with specified increases.

<sup>2</sup> All cities of 100,000 population or more except Reading, Pa.

<sup>3</sup> Less than 0.5 percent.

On the whole, there is little relationship between the size of pay increases since 1945 and salary levels in the city at the beginning of the period; the largest increases were not found consistently in cities with either the lowest or the highest pay scales. Between 1939 and 1950 pay scales in cities with over a fourth of these protective workers rose by 35 to 40 percent while nearly half were increased by 40 to 65 percent (table 3).

New York City, which employed more than a fifth of all police department and almost a fifth of all fire department employees in cities of 100,000 or more, granted a smaller percentage increase in salaries from 1924 to 1950 than did all other cities considered as a group. Exclusion of the lower wage changes for New York City would have the effect of raising by 7 percent the salary changes for cities of 100,000 population and over from 1939 to 1949. In both 1924 and 1950, the pay scale in New York City for firemen and policemen was higher than that for other large cities.

Table 3. Percentage distribution of firemen and policemen<sup>1</sup> in large cities<sup>2</sup> according to percent of increase in salary scales, 1939-50

Percent of increase	Percent of—		
	Firemen and policemen	Firemen	Policemen
Total -----	100	100	100
Under 30 -----	1	-	1
30 and under 35 -----	1	1	1
35 and under 40 -----	28	26	32
40 and under 45 -----	4	3	4
45 and under 50 -----	5	6	4
50 and under 55 -----	12	11	12
55 and under 60 -----	21	21	21
60 and under 65 -----	4	4	4
65 and under 70 -----	2	2	2
70 and under 75 -----	9	10	9
75 and under 80 -----	2	2	2
80 and under 85 -----	1	1	1
85 and under 90 -----	3	4	2
90 and over -----	3	4	2
Not reported -----	4	5	3

<sup>1</sup> Based on total employment in fire and police departments in cities with specified increases.

<sup>2</sup> All cities of 100,000 or more population except Reading, Pa.

Table 4. Percentage distribution of public workers 1940-49

Type of worker	Percent of employment in—			
	January 1940	January 1941	January 1945	January 1949
Total -----	100	100	100	100
Federal civilian -----	23	25	48	33
State and local -----	77	75	52	67
School -----	32	33	23	28
Nonschool -----	45	42	29	39
State -----	13	12	8	11
City -----	20	19	13	17
County -----	8	7	5	7
Other -----	4	4	3	4

## Hours

The rise in salary scales was accompanied by a gradual reduction in the length of the work-week for both groups of workers. Between 1934 (the first year for which data on hours were available) and 1950, cities employing three-fifths of all policemen reduced their scheduled hours. Averaged over all cities studied, the decrease amounted to about 6 percent. For fire-fighters, hours on duty were reduced by cities employing almost nine-tenths of all firemen studied. The average decrease in hours for firemen amounted to about 25 percent.



## Salary Changes of Firemen and Policemen, 1950-51

MAXIMUM SALARY RATES for firemen and policemen combined, in cities of 100,000 and over, increased an average of 5.5 percent between January 1950 and January 1951. Percentage-wise and in terms of dollars, firemen received greater increases—5.7 percent or \$201—than policemen, who gained an average 5.3 percent or \$190 over the year.<sup>1</sup> (The indexes reflecting these percentage changes are shown in table 1.) Nevertheless policemen maintained a slightly higher salary level—an annual average of \$3,794 compared with \$3,702 for firemen.

About three-quarters of all firemen included in this study were located in cities that made salary adjustments during 1950. The remainder were employed in one-third of the cities. Of the firemen whose salaries were raised, nearly two-fifths received annual salary increases of between 5 and 7.5 percent; a fifth received increases between 10 and 12.5 percent. Annual pay scales of 17 percent were raised 7.5 to 10 percent. The remainder

were distributed in increases below 5 percent and above 12.5 percent. (See table 2.)

Salary scales in communities employing 7 out of 10 policemen were increased during the year. Nearly half of these, whose rates were adjusted, received from 5 to 7.5 percent—also the most common increase for firemen. Salaries of a fifth of the policemen were increased from 7.5 to 10 percent and an equal proportion received more than 10 percent. Rates for the remainder rose less than 5 percent.

TABLE 2.—Percentage distribution of firemen and policemen<sup>1</sup> in cities of 100,000 population or more, according to increase in salary scales, 1950-51

Increase	Firemen and policemen		Firemen		Policemen	
	Percent of—		Percent of—		Percent of—	
	Total	Number receiving increases	Total	Number receiving increases	Total	Number receiving increases
<i>Expressed in percentage terms</i>						
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
No change.....	28.4		26.5		29.8	
Under 2.5.....	1.1	1.5	1.2	1.6	1.0	1.4
2.5 and under 5.0.....	8.9	12.5	9.9	13.5	8.3	11.8
5.0 and under 7.5.....	30.3	42.3	27.4	37.3	32.2	45.8
7.5 and under 10.0.....	13.7	19.1	12.9	17.5	14.2	20.3
10.0 and under 12.5.....	13.0	18.2	16.8	22.9	10.4	14.8
12.5 and under 15.0.....	2.9	4.0	3.5	4.7	2.5	3.6
15.0 and under 17.5.....	.9	1.3	1.2	1.6	.7	1.0
17.5 and under 20.0.....	.5	.7	.6	.9	.4	.6
20.0 and over.....	.3	.4			.5	.7
<i>Expressed in dollars</i>						
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
No change.....	28.4		26.5		29.8	
Under \$100.....	1.5	2.1	2.1	2.9	1.0	1.4
\$100 and under \$150.....	4.3	6.0	5.9	7.9	3.2	4.6
\$150 and under \$200.....	7.5	10.5	5.7	7.8	8.8	12.5
\$200 and under \$250.....	7.8	10.8	8.2	11.1	7.5	10.6
\$250 and under \$300.....	27.7	38.7	25.7	34.9	29.1	41.5
\$300 and under \$350.....	8.6	12.1	11.1	15.1	6.9	9.9
\$350 and under \$400.....	1.5	2.1	1.6	2.1	1.5	2.1
\$400 and under \$450.....	10.4	14.6	9.8	13.4	10.8	15.4
\$450 and under \$500.....	1.5	2.0	2.8	3.9	.5	.7
\$500 and over.....	.8	1.1	.6	.9	.9	1.3

<sup>1</sup> Based on total employment in fire and police departments in cities with specified increases.

<sup>1</sup> Current indications are that the 1950 movement continued and spread during the first half of 1951. These changes, together with any occurring during the latter half of the year, will be reflected in the report based on January 1952 maximum pay scales.

TABLE 1.—Indexes of average salary rates<sup>1</sup> for firemen and policemen in cities of 100,000 population or more, 1924-51

Year <sup>2</sup>	Index					
	1939=100			1947-49=100		
	Firemen and policemen	Firemen	Policemen	Firemen and policemen	Firemen	Policemen
1924.....	84	87	82	61	63	60
1929.....	93	96	92	67	69	68
1932.....	96	99	94	70	71	69
1934.....	94	93	94	68	67	69
1938.....	100	100	100	72	72	74
1939.....	100	100	100	72	72	74
1940.....	100	100	100	72	72	74
1941.....	100	100	100	72	72	74
1942.....	101	103	101	73	74	74
1943.....	104	106	103	75	76	76
1944.....	110	111	109	80	80	80
1945.....	117	117	116	85	84	85
1946.....	119	118	121	86	85	89
1947.....	128	130	126	93	94	93
1948.....	137	139	136	99	100	100
1949.....	148	149	147	107	107	108
1950.....	152	153	151	110	110	111
1951.....	160	162	159	116	117	117

<sup>1</sup> From 1924 to 1938 data were based on actual annual salaries paid; subsequently on maximum of salary scale in each city.

<sup>2</sup> Data for 1939 to 1951 refer in general to rates effective on January 1; data for earlier years refer to varying periods throughout the year.

In the present supplement to the basic study of trends in maximum salary scales of policemen and firemen, the indexes for all years have been recomputed on a 1947 to 1949 base. A few changes in survey techniques were adopted in computing the 1951 index: (a) the weighting procedure was slightly revised and (b) a new group of 15 cities was added to the index as a result of shifting from the 1940 to the 1950 Census of Population.

The addition of cities, however, did not affect the index.

Two series of indexes for firemen and policemen are presented in table 1. One is computed on a 1939 base for comparison with the indexes previously published. The other is based on an average 1947-49 base in accordance with the current policy of changing Government indexes wherever possible to this new base.

## Salary Changes of Firemen and Policemen, 1951-52

SALARY SCALES in cities employing three-quarters of the firemen and policemen in all communities of 100,000 or more were raised during the year ending January 1952. On the average, annual salary scales of all protective employees covered by this survey were about \$250 or 6.8 percent higher in January 1952 than in January 1951 (table 1). Over the 2-year period from January 1950 to January 1952 virtually all the cities raised maximum rates for firemen and policemen; less than 1 percent were employed where salary scales remained unchanged (chart 1 and table 2). Taking the entire postwar period (1945-52) the average salary scales for protective workers increased by almost half—about 46 percent. (Trends since 1945 are presented in terms of indexes based on 1947-49 in table 3.) During the same period, the BLS Consumer Price Index rose by 49 percent.

During 1951, the smallest average increase in salary scales was reported for communities with a million population or more, where the rise averaged 4.2 percent.<sup>1</sup> Among smaller communities, average changes in salary scales ranged from 10

percent in cities of 500,000 but less than a million down to 8.6 percent for cities of 100,000 but less than 250,000 population.

### Occupational Comparisons

Both in the year ending in January 1952 and during the entire period from January 1945 to January 1952, firemen showed slightly larger percentage increases in pay scales than did policemen. For the year ending in January 1952, increases averaged about 7.0 percent (\$257) for firefighters and 6.8 percent (\$256) for police. Considering the whole postwar period, the average increase

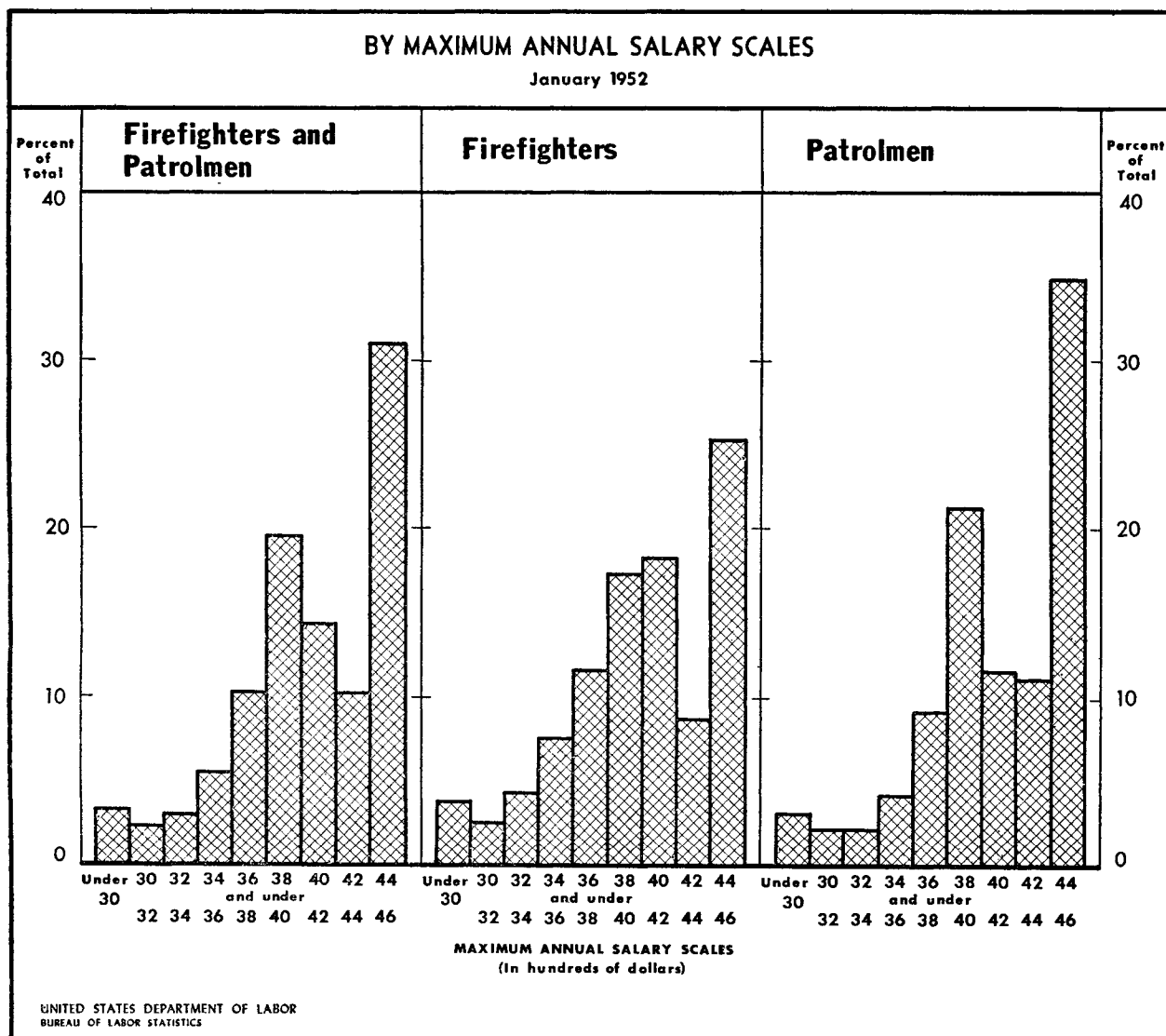
<sup>1</sup> Substantial numbers of firemen and policemen within this city-size group have received increases since January 1952; the effects of these adjustments will be reflected in the January 1953 salary scales.

TABLE 1.—Changes in maximum salary rates of firemen and policemen in cities of 100,000 population or more,<sup>1</sup> by city size group, 1951-52

City size group	Firemen and policemen			Firemen			Policemen		
	Number	Maximum salary rates		Number	Maximum salary rates		Number	Maximum salary rates	
		Average, Jan. 1952	Percent increase, Jan. 1951 to Jan. 1952		Average, Jan. 1952	Percent increase, Jan. 1951 to Jan. 1952		Average, Jan. 1952	Percent increase, Jan. 1951 to Jan. 1952
All size groups.....	153, 243	\$3, 997	6. 8	62, 407	\$3, 940	7. 0	90, 836	\$4, 036	6. 8
1,000,000 and over.....	63, 557	4, 327	4. 2	21, 434	4, 327	4. 2	42, 123	4, 326	4. 1
500,000 and under 1,000,000.....	35, 330	3, 971	10. 0	14, 447	3, 958	9. 4	20, 883	3, 980	10. 4
250,000 and under 500,000.....	23, 720	3, 786	8. 7	11, 213	3, 765	7. 9	12, 507	3, 804	9. 3
100,000 and under 250,000.....	30, 636	3, 508	8. 6	15, 313	3, 511	8. 6	15, 323	3, 505	8. 5

<sup>1</sup> Based on data in all cities of over 100,000 (with the exception of three for policemen and two for firemen in the 100,000 and under 250,000 population group).

Chart 1.—Distribution of Firefighters and Patrolmen in Cities of 100,000 or More Population



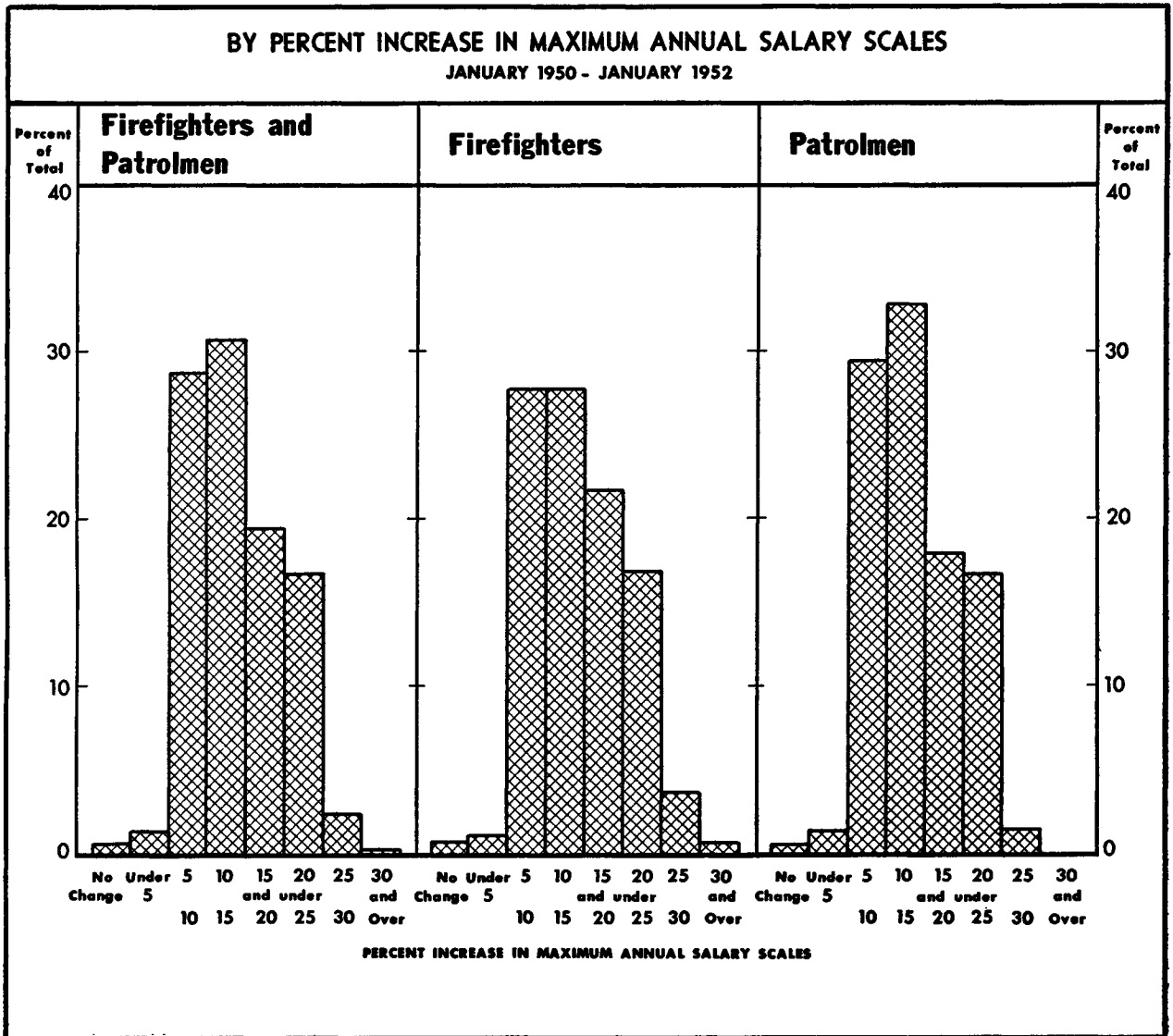
for firemen was 48 percent compared with 47 percent for policemen.

Cities employing about a third of the firemen and a fourth of the policemen raised their maximum scales by 7.5 but less than 10 percent between January 1951 and January 1952 (table 3). Communities with almost as many policemen and a sixth of the firemen adjusted scales of patrolmen and firefighters by at least 10 but less than 12.5 percent. About a fifth of the policemen and 1 out of 7 firemen were in cities where the increases amounted to less than 7.5 percent, while salary

scales in the communities employing about 1 out of 12 policemen and 1 out of 8 firemen increased by 12.5 percent or more. In the remaining communities, employing a fourth of the firemen and policemen, no changes in scales were made.

The most common dollar increase for firemen (affecting about three-tenths of the total) was \$300 but less than \$350 a year; for policemen, it was \$350 but less than \$400. About a fifth of the policemen affected by salary increases were in cities where this was the size of the adjustment (table 4).

Chart 2.—Distribution of Firefighters and Patrolmen in Cities of 100,000 or More Population



The differences in average salary changes between policemen and firemen, however, were not primarily the result of differential treatment of the two groups within the same community. In some communities, firemen received higher rates than policemen, while in other cities the reverse relationship existed. In both 1951 and 1952, about three-fifths of the cities studied had identical salary scales for the two groups of workers. Salary adjustments which equalized scales for the two groups were made in 18 additional cities during the year. In less than a tenth of the cities,

employing about 2 percent of all firemen and policemen studied, differences in salary levels exceeded \$100 in early 1952.

Average pay scale increases between firemen and policemen differed largely because proportionately more police were employed in cities of 1,000,000 or more, where the increase in salary scales was below average. About one-half the total number of policemen in all cities of 100,000 or more were employed in these large communities compared with about a third of the firemen. Cities with less than 500,000 population employed

**TABLE 2.—Percentage distribution of firemen and policemen<sup>1</sup> in cities of 100,000 population or more, according to dollar increase in maximum annual salary scales, 1950-52**

Dollar increase in maximum annual salary scales	Firemen and policemen		Firemen		Policemen	
	Percent of—		Percent of—		Percent of—	
	Total	Number receiving increases	Total	Number receiving increases	Total	Number receiving increases
No change.....	0.6	0.3	0.7	0.4	0.6	0.2
Under \$100.....	3	0.3	4	0.4	2	0.2
\$100 and under \$200.....	2.2	2.2	1.9	2.0	2.4	2.4
\$200 and under \$300.....	22.5	22.6	19.7	19.8	24.3	24.5
\$300 and under \$400.....	14.0	14.1	16.4	16.5	12.3	12.4
\$400 and under \$500.....	24.0	24.2	20.9	21.0	26.2	26.3
\$500 and under \$600.....	13.0	13.1	16.9	17.0	10.4	10.5
\$600 and under \$700.....	7.5	7.5	6.0	6.1	8.5	8.6
\$700 and under \$800.....	14.0	14.1	13.5	13.6	14.4	14.4
\$800 and over.....	1.9	1.9	3.6	3.6	.7	.7
Total.....	100.0	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> Based on 1952 total employment in fire and police departments in cities with specified increases.

more than two-fifths of the firemen but only three-tenths of the policemen.<sup>2</sup>

In the largest and smallest cities studied there was little difference in the rise in firemen's and policemen's salary scales between 1951 and 1952: increases in cities of a million or more amounted to 4.2 percent for firemen and 4.1 percent for policemen; in the smallest cities, the increase for firemen amounted to 8.6 percent and 8.5 percent for policemen. Policemen received larger average increases in the two groups of cities where population ranged from 250,000 to 1,000,000.<sup>3</sup>

### Intercity Variation of Salary Levels

In January 1952, maximum salary rates for patrolmen and firefighters varied among the cities

**TABLE 3.—Indexes of maximum salary rates<sup>1</sup> for firemen and policemen in cities of 100,000 population or more, 1945-52**

Year	Index (1947-49=100)		
	Firemen and policemen	Firemen	Policemen
1945.....	85	84	85
1946.....	86	85	89
1947.....	93	93	92
1948.....	* 100	100	100
1949.....	* 108	107	108
1950.....	110	110	111
1951.....	116	* 116	117
1952.....	124	124	125

<sup>1</sup> Data in this and subsequent tables and charts refer to maximum rates for patrolmen and firefighters effective on January 1 of each year.

<sup>2</sup> Revised.

studied from less than \$3,000 to \$4,600 a year. Those communities employing about 1 in 30 policemen and firemen paid maximum annual salaries of less than \$3,000 a year for this type of police and fire work (chart 2). A third of the

**TABLE 4.—Percentage distribution of firemen and policemen<sup>1</sup> in cities of 100,000 population or more, by increase in maximum annual salary scales, 1951-52**

Increase	Firemen and policemen		Firemen		Policemen	
	Percent of total	Percent of number receiving increases	Percent of total	Percent of number receiving increases	Percent of total	Percent of number receiving increases
<i>Expressed in percentage terms</i>						
No change.....	24.4	23.6	23.6	25.0	25.0	25.0
Under 2.5.....	1.1	1.4	2.3	3.0	2	0.3
2.5 and under 5.0.....	4.3	5.6	3.4	4.4	4.8	6.4
5.0 and under 7.5.....	11.5	15.2	9.1	11.9	13.2	17.5
7.5 and under 10.0.....	27.1	35.9	31.3	41.0	24.2	32.3
10.0 and under 12.5.....	19.5	25.8	16.9	22.1	21.3	28.4
12.5 and under 15.0.....	3.7	5.0	4.2	5.5	3.4	4.6
15.0 and under 17.5.....	5.9	7.9	6.2	8.1	5.8	7.7
17.5 and under 20.0.....	7	.9	1.0	1.4	.5	.6
20.0 and over.....	1.8	2.3	2.0	2.6	1.6	2.2
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
<i>Expressed in dollars</i>						
No change.....	24.4	23.6	23.6	25.0	25.0	25.0
Under \$100.....	1.9	2.5	2.3	3.0	1.7	2.3
\$100 and under \$150.....	2.0	2.6	1.7	2.2	2.2	3.0
\$150 and under \$200.....	3.3	4.4	5.1	6.6	2.1	2.8
\$200 and under \$250.....	6.0	8.0	3.2	4.2	8.0	10.7
\$250 and under \$300.....	8.8	11.7	8.3	10.9	9.2	12.2
\$300 and under \$350.....	15.9	21.1	21.4	28.1	12.2	16.2
\$350 and under \$400.....	14.7	19.4	11.9	15.6	16.5	22.0
\$400 and under \$450.....	12.3	16.2	11.0	14.4	13.1	17.5
\$450 and under \$500.....	2.5	3.3	2.9	3.8	2.2	2.9
\$500 and under \$550.....	5.6	7.4	5.6	7.3	5.5	7.3
\$550 and under \$600.....	.1	.1	.2	.2	0	0
\$600 and over.....	2.5	3.3	2.8	3.7	2.3	3.1
Total.....	100.0	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> Based on 1952 total employment in fire and police departments in cities with specified increases.

protective workers were employed in cities where these maximum salaries were at least \$4,400 but less than \$4,600. More patrolmen than firefighters (34.9 percent compared with 25.3 percent) were in cities with a maximum pay ranging from \$4,400 to less than \$4,600.

<sup>2</sup> The difference in average salary levels of policemen and firemen is also explained in part by the fact that dollar salaries are higher in large communities where relatively more policemen are employed and that in consequence average salaries for the entire group of cities are higher for policemen. Therefore, a given dollar increase amounts to a somewhat lower percentage increase for policemen than for firemen.

<sup>3</sup> Policemen received the larger increase in each of these two size groups because in one city within each group they received a pay increase to compensate for an earlier lag. In St. Louis and Newark, policemen's maximum salaries were increased to the equivalent of firemen's scales by January 1952.



## Salary Changes of Firemen and Policemen, 1952-54

NEARLY all cities of 100,000 or more population advanced salary scales of policemen and firemen between January 1952 and January 1954; only 4 percent of the patrolmen and firefighters were employed where scales remained unchanged. During this period the increase in maximum annual scales for these city employees averaged \$422, or 10.5 percent (table 1).

During 1952 the increases were larger on the average and more widespread than they were during 1953, with the salary scales for all firemen and policemen rising an average of 6.7 percent in 1952 and 3.6 percent in 1953.<sup>1</sup> The increase in the latter year was proportionately smaller than in any previous postwar year except 1950 (table 2).

The total increase in average scales of firemen and policemen from 1939 to the beginning of 1954

TABLE 1.—Average increases in maximum salary rates of firemen and policemen in cities of 100,000 population or more,<sup>1</sup> by city size group, 1952-54

Period and city size group	Firemen and policemen		Firemen		Policemen	
	Dol-lars	Per-cent	Dol-lars	Per-cent	Dol-lars	Per-cent
<b>1952-54</b>						
All size groups.....	\$422	10.5	\$421	10.7	\$423	10.5
1,000,000 and over.....	451	10.3	445	10.3	455	10.4
500,000 and under 1,000,000..	394	9.9	425	10.8	373	9.4
250,000 and under 500,000..	459	12.1	448	11.9	470	12.5
100,000 and under 250,000..	371	10.6	365	10.4	378	10.8
<b>1952-53</b>						
All size groups.....	268	6.7	260	6.6	273	6.8
1,000,000 and over.....	398	8.9	393	9.1	387	8.9
500,000 and under 1,000,000..	158	4.0	183	4.6	142	3.6
250,000 and under 500,000..	220	5.8	209	5.6	231	6.1
100,000 and under 250,000..	189	5.4	190	5.4	189	5.4
<b>1953-54</b>						
All size groups.....	154	3.6	161	3.8	150	3.5
1,000,000 and over.....	63	1.3	52	1.1	68	1.4
500,000 and under 1,000,000..	236	5.7	242	5.9	231	5.6
250,000 and under 500,000..	239	6.0	239	6.0	239	6.0
100,000 and under 250,000..	182	4.9	175	4.7	189	5.1

<sup>1</sup> Based on data in all cities of over 100,000 (with the exception of 2 communities of 100,000 but under 250,000 population). Data refer to changes in maximum rates for fire fighters and patrolmen effective on January 1 of each year.

In these tables, average increases were computed by multiplying the rise in maximum scales for fire fighters in each city by total employment in the entire fire department in that city, adding these, and then dividing the aggregate rise by the total number of fire department employees in all cities studied. For patrolmen, data were computed in the same manner, using scales for patrolmen and total employment in the police department of each city. In developing the distributions, total employment in fire and police departments was also used.

TABLE 2.—Indexes of maximum salary rates<sup>1</sup> for firemen and policemen in cities of 100,000 population or more, 1939-54

Year	Index (1947-49=100)		
	Firemen and policemen	Firemen	Policemen
1939.....	73	72	73
1940.....	73	72	73
1941.....	73	72	73
1942.....	74	74	74
1943.....	76	76	76
1944.....	80	80	80
1945.....	85	84	85
1946.....	85	85	89
1947.....	85	93	92
1948.....	100	100	100
1949.....	108	107	108
1950.....	110	110	111
1951.....	116	116	117
1952.....	124	124	125
1953.....	132	132	133
1954.....	137	137	138

<sup>1</sup> Data refer to changes in maximum rates for firefighters and patrolmen effective on January 1 of each year. <sup>2</sup> Revised.

amounted to about 90 percent (table 2). This may be compared with an advance of less than 80 percent in average salary rates of Federal Government (Classification Act) employees and a rise in average salaries of urban public school teachers of 96 percent between the 1938-39 and the 1952-53 school years.<sup>2</sup> Average weekly earnings of factory production workers tripled from 1939 to early 1954.

### Variation in Increases, 1952-54

The most common salary increases for patrolmen and firefighters from January 1952 to January 1954 amounted to 7.5 but less than 12.5 percent, with three-fifths being employed in cities where changes of this size were put into effect (table 3). Measured in dollar terms, increases ranging from \$300 to less than \$500 went into effect in cities employing 3 out of every 5 firemen and policemen; in communities employing about 1 of every 8, the gain was \$500 but less than \$600 a year.

<sup>1</sup> Changes in scales between January 1952 and January 1953 are referred to as 1952 increases and those between January 1953 and January 1954 as 1953 increases, even though some of the new scales may have gone into effect on January 1 of the following year.

<sup>2</sup> See also *Salary Trends: Federal Classified Employees, 1939-60* (BLS Report 200, 1961), and *Salary Trends: City Public School Teachers, 1926-59* (BLS Report 194, 1961).

TABLE 3.—Percentage distribution of firemen and policemen<sup>1</sup> in cities of 100,000 population or more, by percentage and dollar increases in maximum annual salary scales, 1952-54

Increase	Firemen and policemen		Firemen		Policemen	
	Percent of—		Percent of—		Percent of—	
	Total	Number receiving increases	Total	Number receiving increases	Total	Number receiving increases
<i>Expressed in percentage terms</i>						
No change.....	3.9		3.1		4.5	
Under 2.5.....	0	0	0	0	0	0
2.5 and under 5.0.....	4.0	4.1	4.4	4.5	3.7	3.8
5.0 and under 7.5.....	7.2	7.5	8.2	8.5	6.4	6.8
7.5 and under 10.0.....	35.4	36.8	36.2	37.4	34.8	36.4
10.0 and under 12.5.....	24.5	25.5	21.8	22.5	26.4	27.7
12.5 and under 15.0.....	12.1	12.6	11.0	11.3	12.9	13.5
15.0 and under 17.5.....	5.2	5.5	6.4	6.6	4.4	4.6
17.5 and under 20.0.....	1.5	1.5	2.0	2.1	1.1	1.1
20.0 and under 22.5.....	2.2	2.3	2.4	2.5	2.1	2.2
22.5 and over.....	4.0	4.2	4.5	4.6	3.7	3.9
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
<i>Expressed in dollars</i>						
No change.....	3.9		3.1		4.5	
Under \$100.....	0	0	0	0	0	0
\$100 and under \$200.....	5.1	5.3	6.3	6.5	4.3	4.5
\$200 and under \$300.....	7.6	7.9	8.1	8.4	7.2	7.5
\$300 and under \$400.....	33.4	34.8	34.2	35.3	32.9	34.5
\$400 and under \$500.....	23.3	24.2	21.9	22.6	24.2	25.3
\$500 and under \$600.....	12.6	13.1	12.2	12.6	12.8	13.5
\$600 and under \$700.....	8.4	8.8	7.9	8.1	8.8	9.2
\$700 and under \$800.....	.8	.8	.9	.9	.7	.7
\$800 and over.....	4.9	5.1	5.4	5.6	4.6	4.8
Total.....	100.0	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> Based on 1954 total employment in fire and police departments.

### Comparison of 1952 and 1953

The average salary increase was smaller in 1953 than in 1952, not only because the proportion of firemen and policemen in cities making salary adjustments declined from four-fifths to a little more than one-half, but also because the increases were smaller in amount (table 4). In 1953, 46 percent of the workers were employed by cities which did not change their salary scales, as compared with 19 percent in 1952. In communities where scales were advanced during the year, the average increase was 7.0 in 1953 compared with 8.2 in the earlier year.

Most of these differences between the 2 years occurred in the 5 cities of more than a million population. In the year ending January 1953 all 5 had granted salary increases, which averaged 8.9 percent. During the following year only 2 out of the 5 gave pay increases. Salary advances in the smallest communities averaged 5.4 percent in 1952 compared with 4.9 percent during the following year. In communities with 250,000

but less than 1,000,000 population, however, the gain in salaries in 1953 exceeded that in 1952.

Almost 2 out of 5 policemen and firemen were employed in areas where salary scales were raised in both years; in some cases one of these adjustments was described as a cost-of-living increase and was for a relatively small amount. The average increase over the 2-year period in cities that adjusted scales twice was 13.4 percent—distinctly higher than in communities that gave a single increase during this period.

### Intercity Variation in Salary Levels

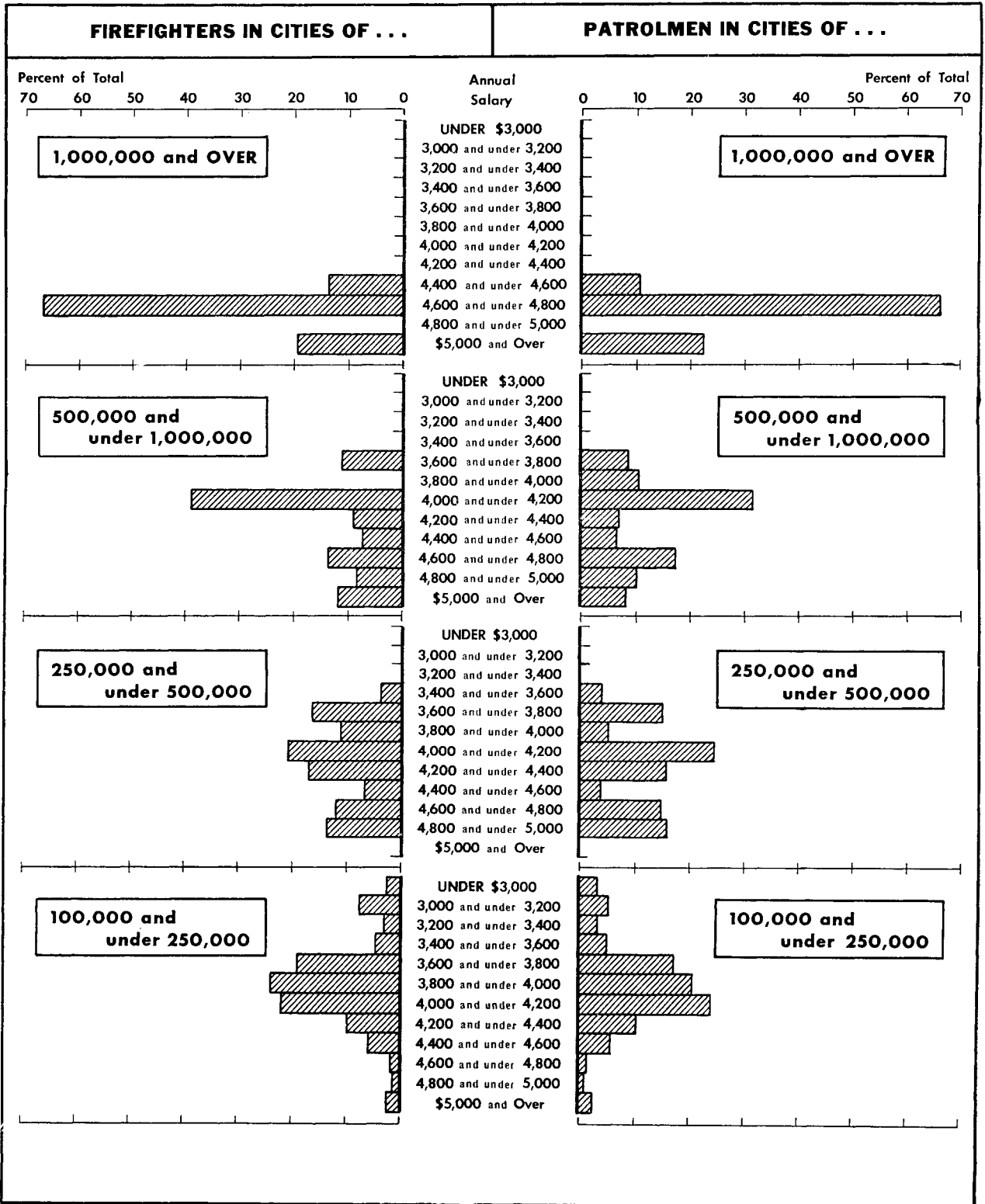
Maximum salary scales for patrolmen and firemen in 1954 ranged from less than \$3,000 to more than \$5,000 a year, with about 4 out of 10 of the patrolmen and 3 out of 10 firemen being employed in communities with maximums of \$4,600 but under \$4,800. (See chart.) In the 5 cities of more than 1 million population—Chicago, Detroit, Los Angeles, New York City, and Philadelphia—no maximum rate of less than \$4,400 was reported. Two-thirds of both the policemen and firemen

TABLE 4.—Percentage distribution of firemen and policemen<sup>1</sup> in cities of 100,000 population or more, by percentage increase in maximum annual salary scales, 1952-53 and 1953-54

Year and percentage increase	Firemen and policemen		Firemen		Policemen	
	Percent of—		Percent of—		Percent of—	
	Total	Number receiving increases	Total	Number receiving increases	Total	Number receiving increases
<i>1952-53</i>						
No change.....	19.0		18.8		19.2	1.1
Under 2.5.....	1.1	1.4	1.4	1.7	.9	1.1
2.5 and under 5.0.....	12.3	15.2	14.5	17.9	10.7	13.2
5.0 and under 7.5.....	18.7	23.1	19.2	23.7	18.4	22.7
7.5 and under 10.0.....	28.4	35.0	25.5	31.3	30.4	37.6
10.0 and under 12.5.....	9.6	11.9	9.3	11.5	9.8	12.2
12.5 and under 15.0.....	7.3	8.9	7.3	9.0	7.2	8.9
15.0 and under 17.5.....	2.9	3.6	3.0	3.7	2.9	3.5
17.5 and under 20.0.....	.4	.5	.7	.8	.2	.3
20.0 and over.....	.3	.4	.3	.4	.3	.4
Total.....	100.0	100.0	100.0	100.0	100.0	100.0
<i>1953-54</i>						
No change.....	46.4		44.6		47.6	
Under 2.5.....	.2	0.3	.4	0.8	0	0
2.5 and under 5.0.....	14.7	27.4	14.8	26.7	14.6	27.8
5.0 and under 7.5.....	17.3	32.3	14.9	26.8	19.0	36.3
7.5 and under 10.0.....	10.5	19.6	13.4	24.3	8.5	16.2
10.0 and under 12.5.....	9.2	17.3	9.6	17.4	9.0	17.2
12.5 and under 15.0.....	.9	1.6	1.1	1.9	.7	1.4
15.0 and under 17.5.....	.6	1.1	.9	1.7	.4	.7
17.5 and under 20.0.....	0	0	0	0	0	0
20.0 and over.....	.2	.4	.3	.4	.2	.4
Total.....	100.0	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> The 1952-53 distribution is based on 1953 total employment in fire and police departments and the 1953-54 distribution on 1954 employment.

## Distribution of Firefighters and Patrolmen in Cities of 100,000 or More Population, by Maximum Annual Salary Scales and of City Size, January 1954



were employed where the top salary in their rank ranged between \$4,600 and \$4,800; this group included employees of New York and Chicago. In the 5 largest cities, scales for firemen and policemen were identical. Of all cities studied, only 6 reported salary differences of \$100 or more in 1954.

Salaries became progressively lower in each smaller city size group. In communities of 500,000 but under 1 million population, almost two-fifths of the firefighters and a third of the patrolmen were employed where maximum scales ranged from \$4,000 to less than \$4,200. Among the smallest cities studied, scales ranged from less than \$3,000 a year to more than \$5,000.

### Occupational Comparisons

Variations among the proportion of policemen and firemen employed by the communities of different size, rather than differences in pay within the same community, explain the difference in average salary levels and salary trends between the two occupational groups. Employment for both groups, by city size group, was as follows in January 1954:

<i>City size group</i>	<i>Firemen</i>	<i>Policemen</i>
All size groups <sup>1</sup> .....	65,347	95,097
1,000,000 and over.....	21,727	43,877
500,000 and under 1,000,000.....	15,256	21,765
250,000 and under 500,000.....	11,651	13,107
100,000 and under 250,000.....	16,713	16,348

<sup>1</sup> Based on all cities of over 100,000 (with the exception of 2 communities of 100,000 but under 250,000 population).

Greater proportions of patrolmen are employed in the larger communities. Since salary scales in the larger cities tend to be higher than in the

smaller communities, the average salary level in all cities combined for policemen is somewhat higher than for firemen. Hence, an almost identical dollar rise in pay amounted to slightly less in percentage terms for policemen than for firefighters: from January 1952 to January 1954, annual salaries of firemen rose \$421, or 10.7 percent, while policemen's scales increased \$423, or 10.5 percent.

The smallest relative increase over the 2 years in firemen's salaries—10.3 percent—was recorded for the largest cities. For policemen, however, maximum scales in communities of between 500,000 and 1 million population rose less than in any other group.<sup>3</sup> The smallest dollar increase in firemen's salaries occurred in the smallest cities studied, but the percentage increase in communities of this size was practically the same as that in the largest size communities. Salaries in population centers of 250,000 but under 500,000 showed the highest gains for both firemen and policemen—11.9 and 12.5 percent, respectively—and the dollar increases were also greatest for these cities.

The advance in salaries for firemen was slightly smaller than that for policemen in 1952 but was slightly greater in 1953. This minor reversal in relationship again is traceable to employment of policemen in proportionately greater numbers in the largest communities which gave most of their salary increases in 1952.

<sup>3</sup> No increase in maximum scales of patrolmen was recorded for one city (St. Louis) in this group, although the city raised scales for firefighters. Pay of St. Louis police is determined by the State legislature, whereas firefighters' rates are set by the city.

## Salary Changes of Firemen and Policemen, 1954-58

IN THE 4-YEAR PERIOD between January 1954 and January 1958, maximum annual salary scales of firefighters and patrolmen in cities of 100,000 or more population increased by an average of 18.6 percent, or about \$820 (table 1). In only one of these cities did salary scales remain stationary.

The rate of increase in maximum salary scales of firemen and policemen was slightly lower during this 4-year period than during earlier postwar years; between 1945 and 1954, salaries rose at an annual rate of about 5.5 percent, compared with slightly less than 4.5 percent between 1954 and 1958 (table 2).<sup>1</sup>

The most rapid advance in maximum pay scales during these 4 years occurred in 1956 in cities of all sizes except the smallest ones studied—those with fewer than 250,000 inhabitants.<sup>2</sup> Except in cities of a million or more, the smallest average increase took place in 1954. The increase in all cities studied averaged 5.7 percent (\$269) in 1956 and 3.3 percent (\$144) in 1954.

The larger increase in 1956 was traceable to two factors: (1) Proportionately more workers were

in cities where scales were raised than in any of the other 3 years, and (2) the raises that went into effect were also greater. In that year, salary scale increases went into effect in communities that employed 82 percent of all firefighters and patrolmen studied (table 3), and the increase in maximum scales in these cities averaged 6.9 percent. On the other hand, in 1954 approximately two-fifths of all workers were employed in cities where scales were not altered.

### Intercity Variations in Increases

The increases in maximum scales put into effect during the period 1954-58 varied among areas

<sup>1</sup> Because in most cities pay scales for firefighters and patrolmen are identical, the text of this article does not discuss the two groups separately.

Variations in the proportion of policemen and firemen among different communities rather than differences in pay within the same community largely explain the differences in average salary levels and salary trends between the two occupational groups.

<sup>2</sup> Changes in scales between January 1, 1954, and January 1, 1955, are referred to as 1954 changes, between 1955 and 1956 as 1955 changes, etc., although some of the new scales may have gone into effect on January 1 of the following year.

TABLE 1. Average increases in maximum salary scales of firemen and policemen in cities of 100,000 population or more,<sup>1</sup> by city size group, 1954-58

Occupation and city size group	1954-58		1954-55		1955-56		1956-57		1957-58	
	Dollars	Percent <sup>2</sup>	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
<b>FIREMEN AND POLICEMEN</b>										
All size groups.....	\$822	18.6	\$144	3.3	\$180	3.9	\$269	5.7	\$229	4.6
1,000,000 and over.....	909	19.0	195	4.1	181	3.6	300	5.8	233	4.3
500,000 and under 1,000,000.....	852	19.7	142	3.3	181	4.1	270	5.8	259	5.3
250,000 and under 500,000.....	742	17.9	80	1.9	161	3.8	302	6.9	199	4.2
100,000 and under 250,000.....	675	17.3	92	2.3	195	4.9	176	4.2	212	4.9
<b>FIREMEN<sup>3</sup></b>										
All size groups.....	811	18.6	144	3.3	172	3.8	268	5.8	227	4.6
1,000,000 and over.....	917	19.2	194	4.1	179	3.6	308	6.0	236	4.3
500,000 and under 1,000,000.....	872	20.2	176	4.1	152	3.4	293	6.3	251	5.1
250,000 and under 500,000.....	731	17.6	82	2.0	153	3.6	298	6.8	198	4.2
100,000 and under 250,000.....	671	17.3	92	2.4	194	4.9	171	4.1	214	4.9
<b>POLICEMEN<sup>3</sup></b>										
All size groups.....	832	18.6	144	3.2	188	4.1	269	5.6	231	4.6
1,000,000 and over.....	906	19.1	195	4.1	182	3.7	296	5.7	233	4.3
500,000 and under 1,000,000.....	841	19.4	118	2.7	203	4.6	255	5.5	265	5.4
250,000 and under 500,000.....	749	17.9	76	1.8	167	3.9	307	6.9	199	4.2
100,000 and under 250,000.....	679	17.3	92	2.3	195	4.9	182	4.3	210	4.8

<sup>1</sup> Based on data in all cities of over 100,000 (with the exception of 1 city of 100,000 but under 250,000 population). Data refer to changes in the maximum rates (excluding longevity rates) for firemen and patrolmen in effect on January 1 of each year.

<sup>2</sup> The percent change for policemen and firemen combined is in some cases

slightly above or below the changes for both groups considered separately because of weighting methods.

<sup>3</sup> For an explanation of the difference in average salary levels and salary trends between the two occupational groups, see footnote 2 of the text.

from 1.9 to 44.4 percent, but about 3 out of 10 of the policemen and firemen were employed in cities where the gain was 22.5 but less than 25 percent and almost 1 in 5 were employed where increases averaged 12.5 but less than 15.0 percent (in 1 city scales did not change) (table 4). Maximum scales in cities employing more than four-fifths of all firemen and policemen rose by at least 12.5 percent; more than one-half were in cities where increases amounted to 20 percent or more.

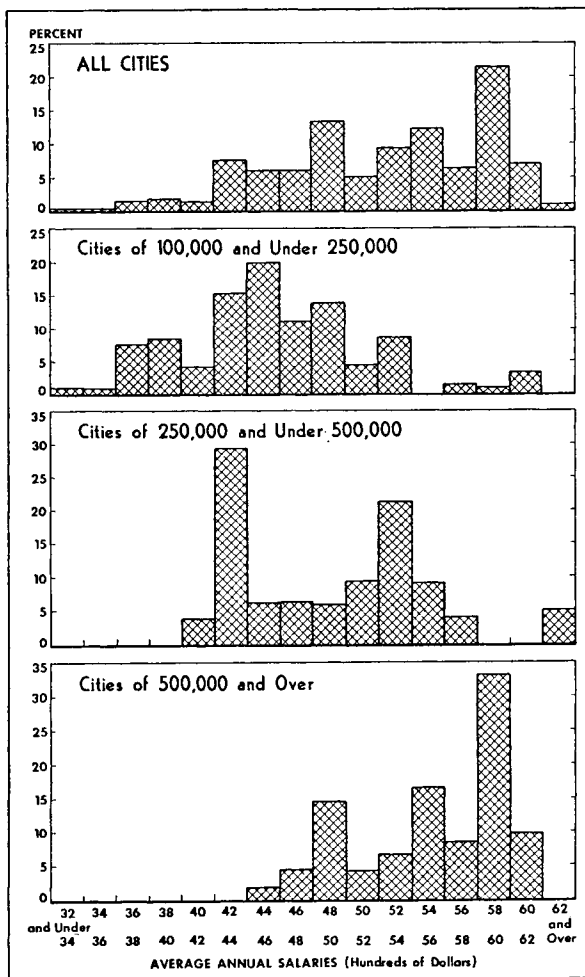
Measured in dollars, the increases between January 1954 and January 1958 ranged from \$75 to \$1,623. More than 3 out of 10 firemen and policemen were employed where the increase was \$1,100 but below \$1,200, while cities employing almost 1 in 5 raised maximum salary scales by

TABLE 2. Indexes of maximum salary scales<sup>1</sup> for firemen and policemen in cities of 100,000 population or more, 1939-58

Year	Index (1947-49=100)		
	Firemen and policemen	Firemen	Policemen
1939	73	72	73
1940	73	72	73
1941	73	72	73
1942	74	74	74
1943	76	76	76
1944	80	80	80
1945	85	84	85
1946	86	85	89
1947	83	93	92
1948	100	100	100
1949	108	107	108
1950	110	110	111
1951	116	116	117
1952	124	124	125
1953	132	132	133
1954	142	137	138
1955	147	142	142
1956	147	147	148
1957	156	156	156
1958	163	163	164

<sup>1</sup> Data are based on maximum rates (excluding longevity rates) for firemen and patrolmen in effect on January 1 of each year.

**Distribution of Firefighters and Patrolmen by Maximum Salary Scales and City Size, January 1958**



\$600 but less than \$700. More than three-fourths of these municipal employees were in cities where scales were increased by at least \$600.

At least 2 annual increases went into effect in cities employing 7 out of 8 firemen and policemen, and of the total studied, a substantial proportion, almost 2 out of 5 of these employees, were in cities where salaries were raised each year. Although relatively few cities (1 in 6) gave the 4 annual increases, those that did so included New York, Chicago, and Detroit, where large numbers of firemen and policemen were employed.

The average increase in maximum salary scales between 1954 and 1958 was greater, in both percentage and absolute terms, in the 18 cities of 500,000 or more population than in the smaller city size groups. The 19.7-percent gain for cities of 500,000 to 1,000,000 was proportionately the highest recorded and the 17.3-percent gain in areas of fewer than 250,000 population was the lowest. The largest average dollar increase (\$909) was in cities of 1 million or more and the smallest (\$675) was in those of less than 250,000.

**Intercity Variation in Salary Levels**

Not only the magnitude of pay increases from 1954 to 1958 but also the level of salaries in 1958 varied among cities. In 1958, maximum annual salary scales for firemen and policemen ranged from \$3,312 to \$6,215. However, almost three-

TABLE 3. *Percent distribution of firemen and policemen<sup>1</sup> in cities of 100,000 population or more by the increase in maximum annual salary scales, by year, 1954-58*

Percent increase	1954-55			1955-56			1956-57			1957-58		
	Firemen and policemen	Firemen	Policemen	Firemen and policemen	Firemen	Policemen	Firemen and policemen	Firemen	Policemen	Firemen and policemen	Firemen	Policemen
No change.....	40.4	41.9	39.3	29.8	32.2	28.1	18.0	19.3	17.0	23.0	24.2	22.0
Under 2.5.....	.5	.3	.7	13.6	11.0	15.6	1.2	2.2	.4	1.0	1.7	.5
2.5 and under 5.0.....	38.3	34.2	41.3	12.9	16.2	11.2	15.3	14.4	15.9	20.5	18.5	21.9
5.0 and under 7.5.....	15.9	17.6	14.6	30.2	28.8	31.2	35.6	32.5	37.8	42.9	40.8	44.4
7.5 and under 10.0.....	1.0	1.4	.6	7.1	7.6	6.8	13.1	13.1	13.2	3.1	4.7	1.9
10.0 and under 12.5.....	.7	.8	.6	3.4	3.0	3.6	10.9	11.7	10.3	6.3	7.2	5.7
12.5 and under 15.0.....	1.8	2.3	1.4	1.2	1.5	1.0	4.7	5.3	4.2	-----	-----	-----
15.0 and under 17.5.....	.2	.2	.2	1.5	.4	2.3	.7	.9	.5	3.0	2.4	3.4
17.5 and under 20.0.....	1.2	1.3	1.1	.3	.3	.2	-----	-----	-----	.3	.4	.2
20.0 and over.....	-----	-----	-----	-----	-----	-----	.6	.7	.5	-----	-----	-----
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> The 1954-55 distribution is based on 1955 total employment in fire departments and total number of uniformed patrolmen, the 1955-56 distribution on 1956 employment, and so forth.

NOTE: Because of rounding, sums of individual items do not necessarily equal 100.

fifths of these workers were in cities where maximum scales were at least \$5,200. (See chart.)

Salary scales tended to increase with size of city. They ranged from \$4,500 to \$6,192 in cities of 500,000 or more population, with two-thirds of all firemen and policemen in these cities employed where maximum scales of at least \$5,400 were in effect. These included employees in New York City, where a maximum scale of almost \$5,900 was in effect, and San Francisco and Los Angeles, with maximums of \$6,192.

In the smallest communities studied, salary scales varied from \$3,312 to \$6,120. About three-fifths of the workers within this population group were employed where maximum salaries of \$4,200 but less than \$5,000 were in effect, and almost another fifth were in cities where these salaries ranged from \$3,600 to less than \$4,200.

The highest salary scale in each city size group was paid by a California city. The cities of 100,000 but less than 500,000 that paid over \$6,000 were in the metropolitan areas of Los Angeles-Long Beach and San Francisco-Oakland.

#### Comparisons with Other Trends

From 1939 to 1958, maximum salary scales of firemen and policemen have increased by almost 125 percent—more than the Bureau of Labor Statistics Consumer Price Index or pay scales of Federal white-collar workers, but somewhat less than urban teachers' pay and much less than factory workers' earnings as measured by the BLS monthly series. Over approximately the same period, the CPI advanced by only 105 percent, and basic pay scales of Federal employees

TABLE 4. *Percent distribution of firemen and policemen<sup>1</sup> in cities of 100,000 population or more by the increase in maximum annual salary scales, 1964-58*

Percent increase	Firemen and policemen	Firemen	Policemen	Dollar increase			
				Firemen and policemen	Firemen	Policemen	
No change.....	0.2	0.3	0.1	No change.....	0.2	0.3	0.1
Under 2.5.....	.2	.3	.2	Under \$100.....	.2	.3	.2
2.5 and under 5.0.....	-----	-----	-----	\$100 and under \$200.....	-----	-----	-----
5.0 and under 7.5.....	1.5	1.8	1.3	\$200 and under \$300.....	1.5	1.8	1.3
7.5 and under 10.0.....	9.7	9.9	9.5	\$300 and under \$400.....	5.4	6.6	4.6
10.0 and under 12.5.....	6.6	7.8	5.8	\$400 and under \$500.....	9.3	9.4	9.2
12.5 and under 15.0.....	19.3	16.2	21.6	\$500 and under \$600.....	6.6	7.0	6.3
15.0 and under 17.5.....	3.0	3.1	2.9	\$600 and under \$700.....	19.2	16.8	21.0
17.5 and under 20.0.....	7.3	8.2	6.6	\$700 and under \$800.....	2.8	3.7	2.1
20.0 and under 22.5.....	10.3	12.2	9.0	\$800 and under \$900.....	7.5	8.0	7.2
22.5 and under 25.0.....	30.4	27.4	32.5	\$900 and under \$1,000.....	9.3	10.6	8.4
25.0 and under 27.5.....	5.9	7.1	5.0	\$1,000 and under \$1,100.....	2.0	2.6	1.6
27.5 and under 30.0.....	2.7	3.5	2.2	\$1,100 and under \$1,200.....	31.6	29.2	33.4
30.0 and over.....	2.9	2.3	3.3	\$1,200 and over.....	4.3	4.0	4.5
Total.....	100.0	100.0	100.0	Total.....	100.0	100.0	100.0

<sup>1</sup> Based on 1958 total employment in fire departments and total number of uniformed policemen.

NOTE: Because of rounding, sums of individual items do not necessarily equal 100.

under the Classification Act rose 79.1 percent.<sup>3</sup> However, hourly earnings excluding overtime as well as average weekly earnings of factory production workers more than tripled, and average salaries of urban public teachers by 1956-57 were 132 percent above those in effect during the 1938-39 school year.<sup>4</sup>

The 18.6-percent rise in patrolmen's and firefighters' salary scales between January 1954 and January 1958 may be compared with a 7.6-percent increase in basic pay scales for Federal Classification Act employees (excluding the retroactive

increase enacted in June 1958). Factory production workers' average hourly earnings went up 15 percent and consumer prices advanced 6.2 percent during the 4-year period.

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<sup>3</sup> The percentage is based on the BLS index for "general schedule" employees. In June 1958, the Congress approved an increase averaging 10.1 percent, retroactive to January 1958, which would bring the increase since 1939 to 97 percent.

See also *Salary Trends: Federal Classified Employees, 1939-60* (BLS Report 200, 1961).

<sup>4</sup> See also *Salary Trends: City Public School Teachers, 1926-59* (BLS Report 194, 1961).



## Salary Changes of Firemen and Policemen, 1958-61

MAXIMUM ANNUAL SALARY SCALES of firefighters and patrolmen in cities with 100,000 or more inhabitants rose an average of \$639, or 12.3 percent, in the 3-year period from January 1958 to January 1961 (table 1). Since most of the 175,000 firemen and policemen were already at the maximum of the salary range, an increase in maximum scales resulted in corresponding increases in salaries actually paid to most of these city employees. More than 95 percent of the firemen and police patrolmen were employed in cities where salary scales advanced during this period. Seventy percent of them received increases in at least 2 years, and 20 percent had their salaries increased each year.

The increase in salary scales during these 3 years was smaller than the 14.8-percent rise in the preceding 3-year period and was well below the record 25-percent rise that occurred between January 1946 and January 1949 (table 2). The annual rate of increase in maximum salaries between 1958 and 1961 was 4 percent, compared with an average of 5 percent over the entire period from the end of World War II to January 1958.

Because most of the largest cities in the country raised salary scales in 1960 and salary increases were widespread among smaller cities, the rise occurring in that year was greater than in either 1958 or 1959. The average rise in salaries and

TABLE 1. INCREASES IN MAXIMUM ANNUAL SALARY SCALES OF FIREFIGHTERS AND POLICE PATROLMEN,<sup>1</sup> BY CITY-SIZE GROUP AND REGION, 1958-61

City-size group and region <sup>2</sup>	Percent <sup>3</sup>						Dollars					
	1958-61			Firefighters and police patrolmen			1958-61			Firefighters and police patrolmen		
	Firefighters and police patrolmen	Firefighters	Police patrolmen	1958-59	1959-60	1960-61	Firefighters and police patrolmen	Firefighters	Police patrolmen	1958-59	1959-60	1960-61
All cities.....	12.3	12.0	12.5	3.0	4.1	4.7	639	621	653	157	220	262
CITY-SIZE GROUP												
1,000,000 and over.....	12.4	12.6	12.5	1.4	5.2	5.4	714	714	714	82	301	331
500,000 and under 1,000,000.....	12.4	12.2	12.2	5.1	2.2	4.6	633	634	633	263	117	253
250,000 and under 500,000.....	12.4	11.9	12.9	4.6	3.6	3.7	606	576	634	223	185	198
100,000 and under 250,000.....	11.8	11.5	11.9	3.3	4.2	3.9	535	524	544	149	197	189
REGION												
Northeast.....	12.0	11.8	12.1	1.6	4.0	6.0	639	624	655	84	215	340
South.....	11.9	11.0	12.6	5.2	2.3	4.0	530	482	572	232	108	190
North Central.....	12.2	12.3	12.1	3.3	4.2	4.2	640	635	643	172	229	239
West.....	14.1	14.2	14.0	4.5	6.3	2.7	818	824	813	259	384	175

<sup>1</sup> Based on data for all cities having a population of 100,000 or more (with the exception of 1 city of 100,000 but under 250,000 inhabitants). Data refer to changes in maximum salaries (excluding longevity rates) for firefighters and police patrolmen on January 1 of each year.

<sup>2</sup> The regions used in this study are *Northeast*—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; *South*—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; *North Central*—Illinois, Indiana, Iowa, Kansas, Michigan, Minne-

sota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; and *West*—Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

<sup>3</sup> Because of weighting methods, the percent change for firefighters and police patrolmen combined may be slightly above or below the changes for both groups considered separately.

Over the period 1958-61, 4 cities provided salary increases for patrolmen but not for firefighters; 3 other communities increased patrolmen's salaries by a larger amount than firefighters' salaries.

TABLE 2. INDEXES OF ANNUAL SALARY SCALES OF FIRE-FIGHTERS AND POLICE PATROLMEN,<sup>1</sup> 1924-61  
[Index, 1957-59=100]

Year	Firefighters and police patrolmen	Firefighters	Police patrolmen
1924	38	39	37
1929	42	43	42
1932	43	44	42
1934	42	41	42
1938	45	44	45
1939	45	44	45
1940	45	44	45
1941	45	44	45
1942	46	46	46
1943	47	47	46
1944	49	49	49
1945	52	52	52
1946	53	52	55
1947	57	58	57
1948	61	62	61
1949	66	66	66
1950	68	68	68
1951	72	72	72
1952	77	77	77
1953	82	82	82
1954	85	85	85
1955	87	87	87
1956	91	91	91
1957	96	96	96
1958	101	101	101
1959	104	104	104
1960	108	108	108
1961	113	113	113

<sup>1</sup> Based on data for all cities having a population of 100,000 or more (with the exception of 1 city of 100,000 but under 250,000 inhabitants). Data for 1939 to 1961 are based on maximum salaries (excluding longevity rates) for firefighters and police patrolmen in effect on January 1 of each year; data for earlier years are based on average salaries.

the proportion of firemen and patrolmen employed where scales were increased during each of the 3 years<sup>1</sup> were as follows:

	1958	1959	1960
Average percent increase, all cities	3.0	4.1	4.7
Percent of workers where scales were increased	44.0	68.3	76.1

**Intercity Variations in Pay Changes, 1958-61**

While the pay scale increases put into effect during the 3-year period varied among cities from 2.6 to 30 percent, there were a few cities in which salary scales were not changed at all; two-fifths of the firemen and policemen were employed where salary rates advanced 10-12½ percent.<sup>2</sup> One out of eight protective workers was employed where salaries advanced 15-17½ percent, almost as many

<sup>1</sup> Changes in scales are tabulated in the year in which they became effective, rather than the year in which the decision to change them was made. Changes in scales put into effect between January 1, 1958, and January 1, 1959, are referred to as 1958 changes; between 1959 and 1960, as 1959 changes; etc.

<sup>2</sup> For ease of reading, in this and subsequent discussions of tabulations, the limits of the class intervals are designated, for example, as 10 to 12½ percent and \$700 to \$800 instead of the more precise terminology "10 and under 12½ percent" and "\$700 and under \$800."

where they rose 17½-20 percent, and slightly more where the raise was 5-7½ percent. (See table 3.)

**Maximum Annual Salary Scales of Firefighters and Police Patrolmen, January 1961**

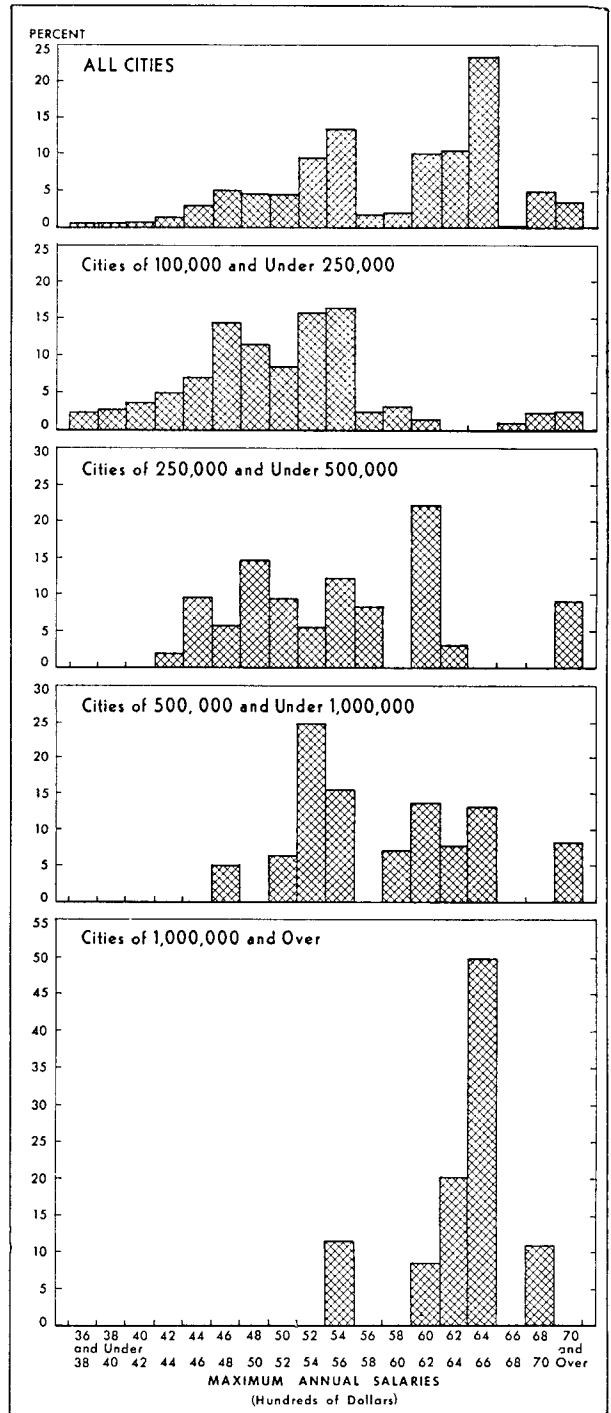


TABLE 3. PERCENT DISTRIBUTION OF FIREFIGHTERS AND POLICE PATROLMEN,<sup>1</sup> BY THE INCREASE IN MAXIMUM ANNUAL SALARY SCALES, 1958-61

Increase in maximum annual salary scale	Firefighters and police patrolmen	Firefighters	Police patrolmen	Increase in maximum annual salary scale	Firefighters and police patrolmen	Firefighters	Police patrolmen
PERCENT				DOLLARS			
No change.....	3.8	4.7	3.2	No change.....	3.8	4.7	3.2
Under 2.5.....				Under \$100.....			
2.5 and under 5.0.....	4.3	5.8	3.2	\$100 and under \$200.....	1.6	1.9	1.5
5.0 and under 7.5.....	13.0	13.1	12.9	\$200 and under \$300.....	10.0	12.1	8.6
7.5 and under 10.0.....	2.4	2.9	2.1	\$300 and under \$400.....	7.5	7.2	7.6
10.0 and under 12.5.....	40.1	35.6	43.3	\$400 and under \$500.....	3.0	3.9	2.4
12.5 and under 15.0.....	7.0	8.0	6.3	\$500 and under \$600.....	6.4	6.5	6.2
15.0 and under 17.5.....	12.5	14.9	10.7	\$600 and under \$700.....	11.7	11.4	11.9
17.5 and under 20.0.....	11.0	9.2	12.3	\$700 and under \$800.....	34.0	30.9	36.2
20.0 and under 22.5.....	1.7	1.8	1.6	\$800 and under \$900.....	3.5	4.4	2.9
22.5 and under 25.0.....	.1	.2		\$900 and under \$1,000.....	13.7	12.4	14.6
25.0 and under 27.5.....	1.2	1.3	1.1	\$1,000 and under \$1,100.....			
27.5 and under 30.0.....	2.2	1.5	2.7	\$1,100 and under \$1,200.....	.8	1.0	.6
30.0 and over.....	.7	.9	.6	\$1,200 and over.....	4.0	3.5	4.3
Total.....	100.0	100.0	100.0	Total.....	100.0	100.0	100.0

<sup>1</sup> Based on total employment in fire departments and total number of uniformed patrolmen in 1961. For city coverage and definition of salary scales, see footnote 1, table 1.

NOTE: Because of rounding, sums of percentages may not equal 100.

Measured in dollar terms, increases ranging from \$700 to \$1,000 went into effect for about half of these protective workers. In communities employing one-tenth of the firemen and patrolmen, the gain was \$200 to \$300.

Average salary increases in absolute and relative terms varied more among regions than among

city-size groups. Maximum scales rose 12.4 percent between 1958 and 1961 in each of the three largest city-size groups studied and 11.8 percent in the smallest size group. The dollar increase in salaries ranged from \$714 in cities of 1 million or more to \$535 in the smallest cities studied. The West recorded both the greatest percentage and

TABLE 4. PERCENT DISTRIBUTION OF FIREFIGHTERS AND POLICE PATROLMEN BY THE INCREASE IN MAXIMUM ANNUAL SALARY SCALES,<sup>1</sup> CITY-SIZE GROUP, AND REGION,<sup>2</sup> 1951-61

Increase in maximum annual salary scale	All cities	City-size group				Region			
		1,000,000 and over	500,000 and under 1,000,000	250,000 and under 500,000	100,000 and under 250,000	Northeast	South	North Central	West
PERCENT									
20 and under 30.....	0.2				1.1		1.2		
30 and under 40.....	3.0			7.7	8.5	0.6	14.3		
40 and under 50.....	40.3	69.3	22.7	19.7	17.4	65.1	25.7	31.2	2.3
50 and under 60.....	17.6		25.3	34.5	31.1	13.8	31.8	19.4	3.9
60 and under 70.....	28.4	30.7	31.2	26.1	22.8	19.2	12.2	40.0	58.8
70 and under 80.....	5.7		12.9	3.0	11.6	1.4	11.6	7.7	6.4
80 and under 90.....	4.2		8.0	9.0	5.1		3.2	1.7	24.6
90 and under 100.....	.5				2.4				4.0
100 and over.....									
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average change.....	56.5	53.9	60.4	57.5	57.5	52.7	52.1	57.1	73.5
DOLLARS									
\$800 and under \$1,000.....	.7				3.1		3.4		
\$1,000 and under \$1,200.....	2.1			7.7	4.3	.6	9.6		
\$1,200 and under \$1,400.....	2.3			3.6	8.1	1.3	7.6	1.0	
\$1,400 and under \$1,600.....	6.6		6.1	12.7	15.2	3.7	21.7	2.0	2.3
\$1,600 and under \$1,800.....	8.1		7.9	18.6	16.2	4.4	11.1	15.5	
\$1,800 and under \$2,000.....	19.7	19.5	27.3	11.0	18.7	13.2	32.7	29.4	
\$2,000 and under \$2,200.....	29.0	49.7	17.7	13.1	16.4	64.4	1.3	6.6	12.0
\$2,200 and under \$2,400.....	7.9		20.1	14.6	6.1	11.8	2.0	7.4	5.9
\$2,400 and under \$2,600.....	10.2	20.0		6.7	4.1	.7		32.2	10.8
\$2,600 and under \$2,800.....	3.9		12.9	3.0	3.0		10.6	6.0	1.5
\$2,800 and under \$3,000.....	4.6	10.7			.9				36.3
\$3,000 and under \$3,200.....	.3				1.5				2.5
\$3,200 and over.....	3.6		8.0	9.0	2.4				28.6
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average change.....	\$2,110	\$2,246	\$2,179	\$2,004	\$1,858	\$2,066	\$1,713	\$2,143	\$2,801

<sup>1</sup> See footnote 1, table 1.  
<sup>2</sup> See footnote 2, table 1.

NOTE: Because of rounding, sums of percentages may not equal 100.

dollar gains of any region—14.1 percent and \$818. Maximum salaries rose less in the Southern region than elsewhere—11.9 percent and \$530.

**Trends Over the Past Decade**

Over the decade from 1951 to 1961, increases in maximum scales varied among cities from 27 to 93 percent, but two-fifths of all firemen and policemen worked where the gain was 40–50 percent, and over one-fourth where increases were 60–70 percent (table 4).

As in the interval from 1958 to 1961, salary increases were more uniform on the average among different sized cities than among regions. Proportionately the greatest rise in salary scales—60 percent—occurred in communities of 500,000 to 1 million inhabitants, and the smallest—54 percent—in cities of 1 million or more. The increase in salaries was the same—58 percent—in the two smallest city-size groups studied.

The average increase in salaries was practically identical in the Northeast and South—52.7 and 52.1 percent, respectively, and not much higher in the North Central States—57.1 percent. In the Western cities, however, average salary scales advanced by about three-fourths—73.5 percent.

In terms of dollars, the rise in salary scales from 1951 to 1961 varied from \$1,850 in communities with a population of less than 250,000 to almost \$2,250 in cities with 1 million inhabitants or more. The advance in salaries was over \$1,700 on the average in the South and \$2,800 in Western communities. More than one-fourth of the firemen and policemen in the Western cities studied were employed where salaries advanced at least \$3,200. Scales of two-thirds of the firemen and policemen in the smallest cities rose less than \$2,000, whereas four-fifths of those in the largest cities were employed where pay increased at least \$2,000 but less than \$3,000.

**Comparison With Other Workers**

From January 1939 to January 1961, maximum salaries of firemen and patrolmen rose about 150 percent, somewhat more than the Consumer Price Index and basic salary scales and average salary rates of Federal office workers but less than salaries of urban teachers and gross average hourly and weekly earnings of factory production workers.

In the decade 1951–61, salaries of firemen and policemen rose much more than the Consumer Price Index, somewhat more than the pay of factory production workers, and more than basic or average salary rates of Federal office workers. They kept pace with the rise in urban teachers' pay, but the advance in overall average salaries of Federal office workers was somewhat greater. From 1958 to 1961, however, maximum pay scales of firemen and patrolmen increased more than earnings of factory production workers but less than the pay of Federal white-collar workers or of urban teachers, as shown below:

	Percent increase <sup>1</sup> from—		
	1939 to 1961	1951 to 1961	1958 to 1961
Firemen and policemen:			
Maximum salary scales-----	151	58	12
Urban teachers:			
Average annual salaries <sup>2</sup> -----	174	59	17
Federal Classification Act employees:			
Basic salary scales <sup>3</sup> -----	112	40	19
Average salary rates <sup>3</sup> -----	125	42	19
Average salaries <sup>3</sup> -----	186	63	27
Factory production workers:			
Average hourly earnings-----	266	50	10
Average weekly earnings-----	288	42	11
Consumer Price Index-----	114	17	4

<sup>1</sup> Increases for urban teachers computed as of school years ending in June. All others computed from January to January of each pair of years, except 1939 data for Federal employees which relate to August.

<sup>2</sup> Includes both changes in salary scales (including cost-of-living adjustments) and changes in pay for individual teachers because of length of service, merit, or improved educational qualifications. Figures for 1961 are preliminary. See also "Salaries of City Public School Teachers, 1957–59," *Monthly Labor Review*, March 1961, pp. 259–262, or BLS Report 194, *Salary Trends: City Public School Teachers, 1925–59*.

<sup>3</sup> Basic salary scales reflect statutory changes in salaries; average salary rates show, in addition, the effect of merit or in-grade salary increases; and average salaries also include the effect of changes in the proportion of workers employed in the various pay grades. See also "Federal Classified Employees' Salary Changes, 1958–60," *Monthly Labor Review*, May 1961, pp. 489–492, or BLS Report 200, *Salary Trends: Federal Classified Employees, 1959–60*.

TABLE 5. MAXIMUM ANNUAL SALARY SCALE OF FIREFIGHTERS AND POLICE PATROLMEN IN CITIES OF 500,000 INHABITANTS OR MORE, JANUARY 1961

City	Maximum annual salary scale	City	Maximum annual salary scale
San Francisco-----	\$7,152	Cleveland-----	\$6,000
Los Angeles-----	6,900	Pittsburgh-----	5,900
New York-----	6,581	Philadelphia-----	5,540
Washington, D.C.-----	6,450	Boston-----	5,500
Minneapolis-----	6,432	Buffalo-----	5,300
Chicago-----	6,360	Baltimore-----	5,250
Milwaukee-----	6,324	St. Louis-----	1 5,200
Detroit-----	6,057	Houston-----	5,136
Cincinnati-----	6,030	New Orleans-----	4,680

<sup>1</sup> Maximum for patrolmen; maximum for firefighters was \$5,571.

### **Intercity Variations in Salary Levels, 1961**

Maximum annual salary scales for patrolmen and firefighters in January 1961 ranged from \$3,648 in Savannah, Ga., to \$7,152 in San Francisco and Oakland, Calif. The mean salary was \$5,847, and the median about \$200 higher.

Salary scales tended to be higher in large than in small communities (chart) and were highest on the average in West Coast cities and lowest in the South. In cities of 500,000 or more, maximum scales for patrolmen and firefighters ranged from \$4,680 to \$7,152 (table 5), with more than three-fifths of the firemen and policemen in these large cities employed where scales were at least

\$6,200. In the smallest communities studied (those with 100,000 to 250,000 inhabitants), about half the protective workers were employed where the maximum scale was \$4,800-\$5,600 a year. In five cities of this size, including four in the South, maximum salary scales were below \$4,000.

Two-thirds of the policemen and firemen in Western cities were employed where salary scales for these jobs were at least \$6,800. All eight of the California cities with 100,000 inhabitants or more had maximum scales of at least \$6,600. In the South, half of the firemen and patrolmen worked where maximum salaries were below \$5,000 a year.



## Salary Changes of Firemen and Policemen, 1961-64

THE BUREAU OF LABOR STATISTICS yearly indexes<sup>1</sup> of firemen's and policemen's salaries span four decades—a significant portion of the history of those public servants' paid employment. The indexes have increased 237 percent over the 40-year period (table 1).

### Historical Background

The first fire department in the United States with paid personnel was established in Cincinnati, Ohio, in 1853. The chief and the operators of steam fire engines received compensation; unpaid volunteers provided the other necessary skills. During the latter part of the 19th century, other major cities recognized the necessity for trained firefighters and replaced volunteers with full-time paid employees. During this period, societies were organized among the firemen for social and benefit purposes. On the foundations prepared by these societies, local unions were later chartered by the American Federation of Labor.<sup>2</sup>

As associations of governmental employees whose work is essential to public safety, firemen's unions do not have the collective bargaining and other rights normally enjoyed by labor unions in the private sector. Salaries and working conditions of these employees are set by State and local legislation. Even where strikes are not illegal or discouraged, as a matter of policy, firemen's unions do not engage in this activity to further their objectives. They concentrate their efforts on improving their members' economic position through negotiation with local authorities, the outcome of which is embodied in resolutions or ordinances.

Urbanization proceeded rapidly in the latter part of the 19th century and early years of the 20th, bringing with it a movement for better organization and expansion of local law enforcement agencies. The village constable and town marshal gave way to municipal police departments. Despite a longer history of paid public service, policemen have experienced more difficulty than firemen in organizing themselves into unions.

The level of compensation as well as working conditions of policemen was largely the result of the ability of the police administrator to convince the local authorities to enact appropriate legislation. Since this avenue for improvement was not always satisfactory, members of some departments formed fraternal organizations, which soon became spokesmen for police personnel in matters of employment conditions. However, unionization of policemen did not develop to the extent it has among firemen. Legal restrictions and public antipathy to police unionization have been major deterrents. Consequently, although police employee organizations fulfill certain of the functions of a union, they generally are not affiliated with organized labor.<sup>3</sup>

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<sup>1</sup> Methods used in constructing the indexes of salary scales are described in the appendix to *Salary Trends: Firemen and Policemen, 1924-61* (BLS Report 233, 1962).

This article extends the series to 1964, with particular emphasis on changes during the last 3 years. The portion dealing with salary scales is preceded by a discussion of the evolution of institutional arrangements for determining salaries of these protective employees. The series is based on salary tabulations prepared by the International Association of Firefighters, AFL-CIO (*Fire Department Salaries and Working Conditions in the United States and Canada*), the International City Managers Association (*Municipal Yearbook*), and the Fraternal Order of Police (*Survey of Salaries and Working Conditions of the Police Departments in the United States*). In addition, the Bureau obtains supplementary data for some cities by direct inquiry.

For the most part, this article does not present separate analyses for firemen and policemen because, in most communities, pay scales for the two are identical.

<sup>2</sup> At present, most firemen are represented by the International Association of Firefighters (AFL-CIO), which was founded in 1918 by 60 locals comprising 4,000 members and whose membership in the United States and Canada since has grown to 115,000.

<sup>3</sup> The local police organizations that have national affiliations are associated with the Fraternal Order of Police (which comprises 55,000 members in 560 local lodges and 17 State associations) and the National Conference of Police Associations (which acts as a coordinating agency in matters of concern to the 275,000 policemen it represents). In the States of New York and New Jersey, there are statewide Police Benevolent Associations with local chapters. In October 1964, the American Federation of State, County and Municipal Employees (AFL-CIO) reported 48 police locals with 4,500 members, chiefly in Connecticut and Illinois. Collective bargaining contracts between municipalities and these locals are still rare; only 7 are recorded in the files of the parent union.

TABLE 1. INDEXES OF ANNUAL MAXIMUM SALARY SCALES OF FIREFIGHTERS AND POLICE PATROLMEN,<sup>1</sup> 1924-64

[1957-59=100]

Year	Fire-fighters and police patrolmen	Fire-fighters	Police patrolmen	Year	Fire-fighters and police patrolmen	Fire-fighters	Police patrolmen
1924.....	38	39	37	1950.....	68	68	68
1929.....	42	43	42	1951.....	72	72	72
1932.....	43	44	42	1952.....	77	77	77
1934.....	42	41	42	1953.....	82	82	82
1938.....	45	44	45	1954.....	85	85	85
1939.....	45	44	45	1955.....	87	87	87
1940.....	45	44	45	1956.....	91	91	91
1941.....	45	44	45	1957.....	96	96	96
1942.....	46	46	46	1958.....	101	101	101
1943.....	47	47	46	1959.....	104	104	104
1944.....	49	49	49	1960.....	108	108	108
1945.....	52	52	52	1961.....	113	113	113
1946.....	53	52	55	1962.....	118	117	118
1947.....	57	58	57	1963.....	124	123	124
1948.....	61	62	61	1964.....	128	127	128
1949.....	66	66	66				

<sup>1</sup> Based on data for all U.S. cities having a population of 100,000 or more (1960 Census) with the exception of Santa Ana, Calif.; Utica, N.Y.; and Honolulu, Hawaii. Data for 1939 to 1964 are based on maximum salaries (excluding longevity rates) for firefighters and police patrolmen in effect on January 1 of each year; data for earlier years are based on average salaries.

### Employment and Salary Trends, 1954-64

Over the past decade, employment of police patrolmen and firefighters in cities with a population of 100,000 or more has increased by nearly one-fifth—to 193,000—with the rate of increase accelerating in the most recent 3-year period. From 1954 to 1964, the ranks of these protective employees grew at a rate almost twice that of all the working population but only one-third as fast as the number of all State and local employees. This increase generally paralleled the growth of the population in urban areas except in the largest cities, where their number increased much more rapidly than the general population. However, these increases in employment of urban policemen and firemen have been relatively less than those of other groups of municipal employees. The more rapid growth of other State and local employees reflects, in part, the growth in school age population and the consequent increase in the number of teachers, the increased number of employees in State and local hospitals, and expanding public welfare programs.

<sup>4</sup> Text references to tabular classes, including city-size groups, are phrased as, for example, "60 to 70 percent" or "100,000 to 200,000" rather than "60 to less than 70 percent" or "100,000 to under 200,000" as used in tables.

<sup>5</sup> All pay references in this article pertain to maximum salary scales (excluding longevity rates) for policemen engaged in general police duties (patrolmen) and firefighters (excluding drivers and engineers).

<sup>6</sup> For definition of regions used in this article, see footnote 1, table 2.

Between 1954 and 1964, the communities where salaries of the protective workers increased 60 to 70 percent<sup>4</sup> during that period employed one-third of the employees; those where the advances were 40 to 60 percent employed two-fifths of the workers.<sup>5</sup> The pay scales of slightly more than 25 percent of workers were raised during the decade by \$1,400 to \$1,800; about an equal number of workers received pay scales in 1964 that were between \$3,000 and \$3,200 higher than 10 years earlier (table 2).

At opposite ends of the pay scales, 0.1 percent received raises of less than \$800, and 5 percent were paid under salary scales that rose \$3,200 or more in the past 10 years.

### Variations by Size of City

Both percentage and dollar increases were greater in large than small cities. About 38 percent of the salary scales in effect in 1964 in cities of 1,000,000 inhabitants or more accrued over the past decade. The fact that, during the period, over three-fifths of the workers in cities of this size received increases of 60 to 70 percent or \$3,000 to \$3,200 reflects employment of half of the policemen and firemen in these categories in New York City.

As might be expected, there was less concentration of increases in population groupings containing a larger number of cities—that is, in small communities. In the second largest population group—500,000 to 1 million—the pay scales of approximately 63 percent of the workers advanced during the 10-year period between 30 and 50 percent; a similar percent of those in the 250,000 to 500,000 group obtained salary raises of 40 to 60 percent. Percentage and dollar increases were more varied in cities of 100,000 to 250,000, but one-third of the policemen and firemen in these communities were employed where maximum scales were raised 30 to 40 percent during the period.

### Variations by Region

Over this decade, as in recent years, average increases varied more among regions<sup>6</sup> than city size groups. Salaries in the West recorded the largest percentage increase, followed by the Northeast, South, and North Central regions. The average rise in salary scales in dollar terms was greatest in the West (\$2,878) and smallest in North Central cities (\$1,886).



TABLE 2. PERCENT DISTRIBUTION OF FIREFIGHTERS AND POLICE PATROLMEN,<sup>1</sup> BY THE INCREASE IN MAXIMUM ANNUAL SALARY SCALES, BY CITY-SIZE GROUP AND REGION, 1954-64

Increase in maximum annual salary scale	All cities 100,000 and over	City-size group				Region <sup>2</sup>			
		1,000,000 and over	500,000 and under 1,000,000	250,000 and under 500,000	100,000 and under 250,000	Northeast	South	North Central	West
PERCENT									
Under 20.....	0.4	8.2	13.9	7.0	2.0	1.1	0.6	1.0	
20 and under 30.....	6.0	11.1	39.5	18.0	7.9	29.0	4.4	19.0	
30 and under 40.....	17.5	19.1	23.1	32.6	34.5	10.6	16.3	9.4	0.9
40 and under 50.....	26.2	13.5	14.1	30.7	18.9	3.8	29.6	60.3	4.4
50 and under 60.....	13.5	61.6	9.4	11.9	14.5	55.0	32.7	6.9	22.0
60 and under 70.....	32.9				15.7		6.7	3.4	65.4
70 and under 80.....	3.0				3.7		10.0		5.3
80 and over.....	.6				2.8	.7			2.0
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average increase.....	50.4	53.4	50.6	47.3	46.5	52.1	49.8	42.0	61.4
DOLLARS									
Under \$800.....	.1				.7		.6		
\$800 and under \$1,000.....	1.1			1.2	4.8	1.1	2.2	1.0	
\$1,000 and under \$1,200.....	1.9			2.8	7.1		4.7	3.3	
\$1,200 and under \$1,400.....	5.8		8.3	5.5	14.7	6.4	10.4	3.8	
\$1,400 and under \$1,600.....	13.4	19.3	4.4	9.3	15.9	13.3	12.8	21.3	
\$1,600 and under \$1,800.....	12.4		20.2	23.8	18.3	18.9	14.8	5.4	2.7
\$1,800 and under \$2,000.....	6.7		4.9	20.3	10.3	2.0	17.1	5.7	4.6
\$2,000 and under \$2,200.....	19.2	19.1	34.4	12.0	7.1	2.4	21.6	51.1	6.4
\$2,200 and under \$2,400.....	2.6			7.7	6.7	1.7	1.4	3.8	5.2
\$2,400 and under \$2,600.....	1.8		4.1	2.6	2.2	1.1		1.8	7.1
\$2,600 and under \$2,800.....	3.0		4.0	8.0	3.3	1.7	4.2	2.8	5.0
\$2,800 and under \$3,000.....	.5			2.9					3.6
\$3,000 and under \$3,200.....	26.4	61.6	2.6	3.9	3.6	51.5			45.3
\$3,200 and over.....	5.0		16.9		5.2		10.0		20.2
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average increase.....	\$2,216	\$2,559	\$2,179	\$1,950	\$1,793	\$2,363	\$1,915	\$1,886	\$2,878

<sup>1</sup> Based on data for all cities having a population of 100,000 or more in the 1960 census (with the exception of 3 cities of 100,000 but under 250,000 inhabitants). Data refer to maximum salaries (excluding longevity rate) on January 1 of each year.

<sup>2</sup> The regions used in this study are *Northeast*—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont; *South*—Alabama, Arkansas, Delaware, District of

Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; *North Central*—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; and *West*—Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

NOTE: Because of rounding, sums of individual items may not equal totals.

Over half of the protective workers in the Northeast and nearly nine-tenths of policemen and firemen in western cities were employed during the decade where salaries for such workers increased 50 to 70 percent in that time; fewer than 1 percent of the latter protective employees were employed where pay rose less than 30 percent. On

the other hand, only 1 in 10 firemen and patrolmen in the North Central region were in cities where there was more than a 50-percent increase over the decade.

In western cities, about two-thirds of the workers received pay raises of \$3,000 or more, and over half the firemen and patrolmen in the Northeast

TABLE 3. PERCENT DISTRIBUTION OF CITIES, FIREFIGHTERS, AND PATROLMEN,<sup>1</sup> BY THE INCREASE IN MAXIMUM ANNUAL SALARY SCALES, 1961-64

Increase in maximum annual salary scale	Fire-fighters and police patrolmen	Firefighters		Police patrolmen		Increase in maximum annual salary scale	Fire-fighters and police patrolmen	Firefighters		Police patrolmen	
		Workers	Cities	Workers	Cities			Workers	Cities	Workers	Cities
PERCENT											
No change.....	2.8	2.3	2.4	3.2	3.1	No change.....	2.8	2.3	2.4	3.2	3.1
Under 2.5.....	.2	.3	.8	.2	.8	Under \$100.....					
2.5 and under 5.0.....	2.6	3.0	6.3	2.4	7.9	\$100 and under \$200.....	1.3	2.0	4.7	.7	3.1
5.0 and under 7.5.....	14.1	15.3	16.5	13.2	13.4	\$200 and under \$300.....	4.5	5.3	8.7	4.0	8.7
7.5 and under 10.0.....	20.8	20.6	17.3	20.9	15.7	\$300 and under \$400.....	5.9	8.3	10.2	4.2	10.2
10.0 and under 12.5.....	10.1	11.1	13.4	9.3	17.3	\$400 and under \$500.....	25.2	22.2	15.0	27.4	15.7
12.5 and under 15.0.....	6.7	7.7	18.1	5.9	15.0	\$500 and under \$600.....	5.1	7.0	11.8	3.7	11.0
15.0 and under 17.5.....	7.2	8.0	8.7	6.7	8.7	\$600 and under \$700.....	5.8	6.0	10.2	5.6	7.9
17.5 and under 20.0.....	28.6	25.4	9.4	31.0	10.2	\$700 and under \$800.....	5.5	6.4	10.2	4.9	11.0
20.0 and under 22.5.....	2.9	3.8	4.7	2.2	3.9	\$800 and under \$900.....	3.9	4.3	6.3	3.7	7.1
22.5 and under 25.0.....	3.7	2.3	1.6	4.7	2.4	\$900 and under \$1,000.....	6.3	6.5	7.9	6.2	9.4
25.0 and over.....	.2	.2	.8	.2	1.6	\$1,000 and under \$1,100.....	2.0	3.0	5.5	1.3	3.9
						\$1,100 and under \$1,200.....	2.4	2.9	2.4	2.1	2.4
						\$1,200 and over.....	29.2	23.9	4.7	33.1	6.3
Total.....	100.0	100.0	100.0	100.0	100.0	Total.....	100.0	100.0	100.0	100.0	100.0

<sup>1</sup> See footnote 1, table 2.

NOTE: Because of rounding, sum of individual items may not equal totals.

and North Central regions had their pay scales advanced from \$3,000 to \$3,200 and \$2,000 to \$2,200, respectively. On the other hand, 86 percent of the protective workers in the South were employed where increases were less than \$2,400. Salary increases in the South, where there are more small communities than in other regions, were less uniform than in other parts of the country.

### Salary Trends, 1961-64

Maximum annual salary scales of firefighters and police patrolmen employed in cities with 100,000 inhabitants or more continued to move up from January 1961 to January 1964 at about the same rate as in the previous 3-year period.<sup>7</sup> For firemen and policemen combined, the total dollar increase from 1961 to 1964 was \$757, compared with \$639 for the 1958-61 period—a difference that reflects a slightly larger average percentage increase in the later period applied to higher salary scales.

Primarily because of an increase of almost 10 percent in salaries for New York City firemen and policemen, average salaries rose significantly more—5 percent—in 1962 than either in 1961 or 1963, when the increases averaged 4.0 and 3.5 percent, respectively. In 1963, more workers—3 out of 4—were affected by scale changes than in 1961

<sup>7</sup> See "Salaries of Firemen and Policemen, 1958-61," *Monthly Labor Review*, March 1962, pp. 282-286.

<sup>8</sup> Computations not shown in this article.

or 1962, when about 2 out of 3 were employed where salary scales were raised.<sup>8</sup>

Maximum salary scales of firefighters in three cities with 2.3 percent of all firefighters, and of patrolmen in four cities accounting for 3.2 percent of all policemen remained unchanged from 1961 to 1964. At the other end of the pay spectrum, two cities raised maximum salary scales of policemen 25 percent or more and one raised salaries of firemen over 25 percent (table 3). The majority of cities, 3 out of 5 for policemen and 2 out of 3 for firemen, raised salaries of patrolmen and firefighters 5 to 15 percent, with a median increase of just over 11 percent for both groups. Three-fifths of the cities increased salaries at least twice during the 3-year period.

About 3 out of 10 workers were employed where salary scales were raised 17.5 to 20 percent and 2 out of 10 worked where the advances were 7.5 to 10 percent. In dollar terms, the most common increases were \$1,200 or more and \$400 to \$500; these affected about 30 and 25 percent, respectively, of the policemen and firemen grouped together. New York City workers were among those whose scales rose over \$1,200.

Salary scale increases for patrolmen slightly exceeded those for firefighters in 1958-61 and 1961-64. In the latter period, police salaries increased 13.0, while those of firemen rose 12.7 percent. The comparable dollar increments were \$780 and \$726, respectively.

TABLE 4. INCREASES IN MAXIMUM ANNUAL SALARY SCALES OF FIREFIGHTERS AND POLICE PATROLMEN,<sup>1</sup> BY CITY-SIZE GROUP AND REGION, 1961-64

City-size group or region <sup>2</sup>	Percent <sup>3</sup>						Dollars					
	1961-64			Firefighters and police patrolmen			1961-64			Firefighters and police patrolmen		
	Fire fighters and police patrolmen	Fire-fighters	Police patrolmen	1961-62	1962-63	1963-64	Fire-fighters and police patrolmen	Fire-fighters	Police patrolmen	1961-62	1962-63	1963-64
All cities.....	13.0	12.7	13.0	4.0	5.0	3.5	757	726	780	233	301	223
CITY-SIZE GROUP												
1,000,000 and over.....	14.3	14.6	14.2	5.0	5.8	2.9	915	939	903	319	388	208
500,000 and under 1,000,000.....	12.2	11.1	13.2	2.8	4.7	4.3	704	652	838	159	277	268
250,000 and under 500,000.....	12.2	12.2	12.2	3.9	4.2	3.6	661	654	666	214	236	211
100,000 and under 250,000.....	11.5	11.9	11.2	3.3	3.9	3.9	584	597	571	167	205	212
REGION												
Northeast.....	14.5	14.0	14.7	4.4	5.9	3.5	864	827	887	261	371	232
South.....	14.7	13.2	16.0	3.4	7.0	3.7	735	639	815	170	361	204
North Central.....	8.6	9.3	8.4	2.0	2.1	4.3	511	546	499	118	128	265
West.....	14.6	14.5	14.8	7.2	4.7	2.1	963	961	975	471	334	158

<sup>1</sup> See footnote 1, table 2.

<sup>2</sup> For definition of regions, see footnote 1, table 2.

<sup>3</sup> Because of weighting methods, the percent change for firefighters and police patrolmen combined may be slightly above or below the change for either group considered separately.

*Changes by City-Size.* In the 3-year period, salary scales for firefighters and patrolmen rose most rapidly in cities with a population of 1,000,000 or more (table 4)—a reversal of the trend for the decade ending in 1961 but consistent with the prior 3-year period—1958–61. The average increase from 1961 to 1964 ranged from 11.5 percent in the smallest city-size group to 14.3 percent in the 1,000,000 or more group—\$584 and \$915, respectively. Differences between increases for policemen and firemen were significant only in the 500,000 to 1,000,000 group and were attributable to substantial raises in police pay scales that were not accorded firemen in a few southern cities.

*Regional Differences.* Increases in salary scales varied more among regions than among city size groups, as in the previous 3-year period. In both periods, the western cities led in terms of dollar increases in pay scales. These large increases are related to the relatively high salary levels in major California metropolitan areas and in smaller communities surrounding them. The percentage increase in salaries was practically identical in the West, South, and Northeast regions, and was markedly smaller in the North Central region.

The rapid pay scale increase in southern cities during the past 3 years was concentrated in 1962–63, when the scales in these cities advanced 7 percent, exceeding those in other areas. Firemen in some of these cities failed to share in the gains; southern police salaries rose 16 percent, those of firemen in the region increased 13.2 percent.

During 1961–64, the North Central region replaced the South as the area with the slowest rate of increase in maximum salary scales for patrolmen and firefighters. Salary scales in the North Central region rose only 8.6 percent or \$511, although the rate of increase in the last of the 3 years was about double that of the first or second year.

*1964 Salaries.* In cities with a population of 100,000 or more, maximum annual salary scales for firefighters and patrolmen in January 1964 ranged from \$8,316 for policemen in San Francisco and Berkeley, Calif., to \$4,080 for firefighters in Wichita Falls, Tex.; the average salary scale for both groups combined was \$6,587.

Salary scales were higher in heavily populated centers than in smaller communities. They were highest in the West and lowest in the South, where

7 out of the 10 cities with the lowest maximum firemen salary scales and 8 of the 10 lowest pay scales for policemen were located. Of the 10 cities with the highest pay scales for both firemen and policemen, 9 were in California.

### Comparison With Other Workers

Over the quarter century from 1939 to 1964, the 184 percent rise in maximum salary scales of patrolmen and firefighters outpaced the increase in the BLS Consumer Price Index and exceeded the rise in salary rates for Federal white-collar employees. However, it fell short of the rise in average annual salaries of urban public school teachers and the hours and weekly earning of factory production workers. The comparisons are made in the following tabulations:

	Percent increase <sup>1</sup> from—		
	1939 to 1964	1951 to 1964	1961 to 1964
Firemen and policemen:			
Maximum salary scales.....	184	51	13
Urban public school teachers:			
Average annual salaries <sup>2</sup> .....	<sup>3</sup> 192	<sup>4</sup> 49	( <sup>5</sup> )
Federal Classification Act employees:			
Basic salary scales <sup>6</sup> .....	143	46	14
Average salary rates <sup>6</sup> .....	158	48	15
Average salaries <sup>6</sup> .....	253	76	22
Factory production workers:			
Average hourly earnings.....	301	41	10
Average weekly earnings.....	336	42	12
Consumer Price Index.....	121	15	4

<sup>1</sup> Increases for urban teachers were computed for school years ending in June; those for all other workers are based on January of each year, except percentage increases for Federal employees which are derived from the August 1939, July 1954, July 1961, and July 1964 preliminary data.

<sup>2</sup> Includes both changes in salary scales (including cost-of-living adjustments) and changes in pay for individual teachers because of length of service, merit, or improved educational qualifications.

<sup>3</sup> 1939 to 1963.

<sup>4</sup> 1953 to 1963.

<sup>5</sup> 1964 data not available.

<sup>6</sup> Basic salary scales reflect statutory changes in salaries; average salary rates show, in addition, the effect of merit or in-grade increases; average salaries also include the effect of change in the proportion of workers employed in the various pay grades.

Much of the improvement in the relative position of firemen and policemen has taken place in the past decade when their salaries rose proportionately more than earnings of factory production workers and salaries of urban teachers and more than three times as fast as the CPI. Over the 3 years ending in January 1964, the 13-percent rise in policemen and firemen salary scales fell short of the 14-percent advance in Federal classified pay scales, but was higher than the rise in hourly or weekly earnings of factory production workers.



## Appendix: Scope and Method of Survey

These indexes are designed to measure trends in the movement of salaries of an important group of workers at the local level. In the absence of reliable data for all municipal workers, it is believed that an analysis of the movement of salaries for firemen and policemen will be valuable not only in itself, but also will throw some light on the movement of municipal salaries generally.<sup>1</sup>

Information reflecting wage levels of municipal workers has been collected from time to time by research and other organizations for the use of city officials, labor organizations, planning agencies, and others interested in public administration. There has been, however, no regular collection of data for all city employees suitable for the preparation of salary indexes. Information for early periods was usually limited to salary levels or salary ranges for municipal officers, many of whom are elected and who represent only a small fraction of the city-employee group. A study made by the Bureau of Labor Statistics in 1944 covering salaries in 15 medium-size cities has not been repeated.<sup>2</sup>

### Scope

Municipal employees performing other than educational functions constitute a substantial proportion of total local government employment. Policemen and firemen are heavily represented in the nonschool employee group. In October 1963, workers engaged in police and fire protection functions comprised about 22 percent of all municipal employment in cities of 100,000 population or more—approximately the same proportion as that of 10 years earlier.<sup>3</sup> The studies included in this report cover 9 out of 10 of these protective employees; i. e., police patrolmen and firefighters. In the decade from 1954 to 1964, employment of police patrolmen and firefighters in cities with a population of 100,000 or more increased by nearly one-fifth—to 193,000.

The indexes presented here are based on maximum salary scales (excluding longevity rates) in cities of 100,000 population or more for policemen engaged in general police duties in the prevention of crime or in law enforcement, patrolmen assigned to specific areas, those engaged in traffic control, and those making crime investigations. Chauffeurs, policewomen, and detectives were not included. In the fire department, the salary data were limited to firefighters and exclude drivers and engineers. Rates of probationary workers were excluded from the averages used for earlier periods wherever they could be identified.

The pay period covered by the data for 1924 through 1938 varied from year to year. Subsequent data for policemen refer to the first of the year, or in some cases to the last of the year preceding that for which information is shown; those for firemen refer to January 1 of each year. All information refers to annual salary rates, rather than to annual earnings which may be influenced by absences, promotions, and other factors. No attempt has been made to adjust the indexes to reflect the effect on hourly earnings of the reduction in hours that has occurred since 1924.

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<sup>1</sup> Indexes of salary changes for urban school teachers and for Federal workers are presented in Wage Indexes: Long-Term Trend Data for Selected Occupations and Metropolitan Areas (BLS Bulletin 1427, 1965).

<sup>2</sup> Monthly Labor Review, August 1945, pp. 319-333.

<sup>3</sup> U. S. Department of Commerce, Bureau of the Census, Annual report, City Employment in 1963; City Employment in 1953.

Indexes for the years 1924 to 1938 are based on the average of the salaries actually paid, since data for those years gave the number of firemen and policemen actually receiving each rate within the salary range. The indexes for subsequent years refer to the maximum salary scales established for the two groups of workers. It is possible that in some periods, notably during World War II, changes in averages of rates may have differed significantly from changes in maximum salary scales because of changes in both the rate of turnover and the rate of advancement to the maximum salary rate. Over comparatively long periods of time, however, an index based on maximum salary scales should provide a reliable indication of the trend of average salary rates.

A comparison of changes in maximum rates of firemen and policemen with changes in average rates for those periods for which both types of information were available indicates that movements of the two types of measures generally were closely parallel. This close relationship is apparently due to the relatively short time required to qualify for the maximum rate in most metropolitan communities. At any one time, therefore, most of the policemen and firemen in a city apparently receive the maximum of the salary rate range. Any effect on the indexes of the shift from use of average salary rates to data on maximum pay scales has been eliminated by linking the series for 1924-38 and the 1939-50 series.

The series is based on actual annual salary dates for 1924, 1929, 1932, 1934, and 1938,<sup>4</sup> and on special salary tabulations prepared by the International Association of Fire Fighters (Fire Department Salaries and Working Conditions), the International City Managers Association (Municipal Yearbook), and the Fraternal Order of Police (Survey of Salaries and Working Conditions of Police). In addition, the BLS obtained supplementary data for some cities for the 1958-64 period by direct inquiry.

#### Method

Index Construction. In constructing the original indexes, the effect of lack of data for some cities in certain years was reduced by the "chain" method of index construction. An average for all cities combined was computed for each pair of successive years; then the percentage relationship between these overall averages was computed and applied to the index for the preceding period. (In making the comparison for each pair of years, data were used only for those cities reported in both years.) Prior to the computation of the index for 1951, constant (1949) weights were used in combining cities in order to eliminate the effect of changes in the relative importance in terms of employment of policemen and firemen. Beginning with the indexes showing the changes from 1950 to 1951, the linking method was relied upon to minimize the effect of such shifts. In obtaining the overall averages for each pair of successive years, the number of policemen and firemen employed in the latest of the 2 years was used to weight individual city averages.

No material change in the indexes was caused by the change in method of computation. The use of the chain-link system made it easier to continue the index despite changes in the list of cities for which data were available over the entire period.

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<sup>4</sup> *Monthly Labor Review*, October 1924, pp. 70-82; December 1929, pp. 124-140; January 1930, pp. 118-138; May 1933, pp. 1117-1150; June 1933, pp. 1336-1364; October 1935, pp. 857-863; November 1935, pp. 1159-1165; and BLS Bulletins 684 and 685.

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