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The Bureau of the Census reports city expenditures both by object and by function. This study, however, deals only with total general expenditure and the major functional categories.[5]

Capital outlays, largely reflecting construction programs, vary sharply from year to year.[6] They may be expected to respond to forces different from those that influence current expenditures and have, therefore, been excluded from all but three expenditure categories for the 462 cities[7] and from all categories in the forty-large-city analysis. The magnitude of capital expenditures and the wide amplitude of their fluctuations suggest the desirability of studying the influences shaping them, but this is beyond our scope.

We have two general objectives. First, the establishment of patterns of differences in per capita expenditures. We begin with the frequency distribution for the 462 cities, following this with an analysis of the relative amounts spent by cities on various kinds of services. We also examine the association between levels of expenditure and the states and regions in which the cities are located. Second, we analyze the association between city expenditures per capita and available measurable economic variables and between expenditures and the nature of the city.

While the same dollar outlays do not, in any two instances, produce the same quality or quantity of public service, it is expenditures rather than performance or units of service that we are analyzing. Efficiency and quality of service contribute to variations in expenditure levels, but we are a long way from being able to measure either. They have been neglected only because it is not feasible to do otherwise.

VARIATION IN CITY EXPENDITURES

Some cities obviously spend considerably more than others per inhabitant on the various functions for which they are responsible. Our analysis may be useful in at least two ways: (1) City officials and others concerned with city government may be aided in evaluating the relative position of

[5]See Appendix A for a description of the expenditure categories.

[6]In fiscal 1951 $809 million out of a total of $979 million in capital expenditures for general government purposes was spent for new construction. Capital outlays rose from $318 million in 1947 to $467 million in 1948, $674 million in 1949, $782 million in 1950 and $979 million in 1951, more than tripling in the course of only four years.

[7]Police, fire and general control, for which the Census Bureau does not provide a breakdown between capital and current expenditures for individual cities. In 1951 these three categories accounted for only $52 million of the total of $979 million in capital expenditures.

TABLE 1

Measures of Variation in City Expenditures per Capita, 462 Cities, 1951
(dollars)

	Highest	*Lowest*	*Arithmetic Mean*	*Third Quartile*	*Median*	*First Quartile*	*Coefficient of Variation*[a]
Total general operating	165.16	12.86	47.54	65.36	36.66	25.53	54.3
Common functions	80.66	11.31	28.26	33.67	26.70	21.50	22.8
Police	18.28	0.60	6.04	7.17	5.52	4.45	24.6
Fire	16.96	0.73	5.78	7.02	5.28	4.13	26.4
Highways	14.60	1.15	5.00	6.07	4.61	3.50	27.9
Recreation	16.04	0	2.36	3.09	2.03	1.30	44.1
General control	12.77	0.26	3.34	4.15	2.89	1.95	38.0
Sanitation	17.15	0	4.04	5.16	3.63	2.45	37.3

[a]One half the difference between the third and first quartile values expressed as a percentage of the median.

Source: Computed from data appearing in Bureau of the Census, *Compendium of City Government Finances in 1951*, pp. 44-61.

particular cities, and (2) an understanding of expenditure variations among cities would appear to be the first step toward explaining these variations.

City Expenditures per Capita for 462 Cities in 1951

The relative importance of the expenditure categories may be seen in column 3 of Table 1. Mean per capita total general operating expenditure is $47.54, of which the common functions[8] account for $28.26, or 59 per cent. Police and fire protection and highway maintenance are the most important of the common functions, their mean per capita amounts being, respectively, $6.04, $5.78 and $5.00. Together they account for about 60 per cent of expenditure on common functions and 36 per cent of total general operating expenditure. Operating expenditures for recreation average $2.36 per capita, for general control, $3.34, and for sanitation $4.04. These six categories account for all but 6 per cent of common functions expenditures.

The mean expenditure values are well above the median amounts shown in column 5 of Table 1, reflecting the skewness in each of the eight expenditure distributions.

[8]Police and fire protection, highways, recreation, general control, sanitation, health other than hospitals, and general public buildings.

Columns 1 and 2 of the table offer clear evidence of the wide range in per capita city expenditures for all of our functional categories. Even within the middle half of cities (arrayed according to the level of expenditures) there is a consistently wide range in expenditures. The degree of variation in per capita outlays is shown in column 7. It is the coefficient of variation, or one half the difference between the third and first quartiles expressed as a percentage of the median. This coefficient is highest, at 54.3, for total general operating expenditure, a variable that reflects, far more than any of the others, differences among cities in the distribution of functional responsibilities. Some indication of the influence of this factor may be seen in the fact that the coefficient of variation for expenditure on the common functions is, while still rather high, only 22.8. For the individual common functions the coefficient ranges from 24.6 for police to 44.1 for recreation. The considerably higher coefficients of variation for the individual functions than for the common functions taken together suggests that for many cities high expenditures on some functions are accompanied by relatively low expenditures on others.[9]

Further generalizations are prompted by comparison of the coefficients of variation. In the case of police protection, fire control, and highways, for which needs are more clearly defined, the coefficient tends to be comparatively low. It is highest, on the other hand, with respect to recreation, which is commonly regarded as less essential. The high degree of variation in general control expenditure may be ascribed in part to the catch-all nature of this function and to vagaries of municipal accounting. Contributing to the high coefficient of variation for sanitation is the fact that this is the only common function that frequently involves special districts.[10]

Association between Expenditure Categories

If the same factor or factors were responsible for variation in the levels of per capita expenditures under the various functional categories we should expect to find high coefficients of correlation between these categories. But, for the 462 cities, among the six individual functions we find only two correlation coefficients, those for police protection and fire control and police and general control, higher than 0.5.[11] Most striking is the low degree of association between highway expenditure and the other five categories. The coefficient in each instance is 0.3 or lower.

[9]See also the next section and Appendix B.

[10]In 1952, the year closest to 1951 for which data are available, special sanitation districts spent $120 million, about one-sixth of the amount spent by cities for sanitation that year. See Department of Commerce, *Summary of Governmental Finances in 1952*, p. 30.

[11]See Tables B-1 to B-5.

Moreover, there is apparently no more reason to expect cities within individual states to follow a consistent expenditure pattern than in the case of the 462 cities taken together. Actually, with respect to police, fire, highways and general control, the mean coefficient is higher for the 462 cities than it is for the cities of California, Massachusetts or Ohio.[12] The similarity among the four groups of cities is shown by the fact that the values of their mean coefficients for recreation range from 0.44 to 0.41; for highways the range is 0.27 to 0.14.

Table B-5 presents the correlation coefficients among a slightly different selection of expenditure categories for forty large cities[13] and their overlying local governments.[14] Inclusion of the expenditures of these latter governments eliminates the influence upon city expenditures of differences in the allocation of functions among local governments.[15] But the picture remains essentially unchanged. If anything, there appears to be an even smaller degree of association between per capita amounts spent on the various functional categories. Again the relationship between police and fire expenditures is closest, and highway expenditure is apparently unrelated to the other functions.

Budgetary patterns among cities, therefore, appear to be extremely diverse. This strongly suggests that no single factor accounts for a substantial portion of variation among cities in total per capita expenditures, and that the separate expenditure categories may be subject in widely varying degrees and directions to specific circumstances. Conceivably, for example, a high population density might be accompanied by high expenditure on police protection and low outlays for streets.

Differences in Per Capita Expenditures in 1951 of Cities Grouped by State and Regional Location

The relationship between per capita expenditure by particular cities and the states in which they are located is especially marked in the case of

[12]These states were selected for this and subsequent analyses because no others contain as many as thirty cities with 1950 populations of 25,000 or more and because they represent, in a variety of characteristics, a good cross-section.

[13]All cities with 1950 populations in excess of 250,000 except Washington, D.C. For these cities education replaces general control, the common functions are the six indicated in the headings to columns 3 to 8, welfare expenditures are included as an additional functional category, and the data relate to fiscal 1953.

[14]Overlying local governments include counties, school districts, and special districts. When the overlying unit extended beyond the city, its expenditures were allocated according to the ratio of the city's population to that of the overlying unit.

[15]Differences in the allocation of functional responsibilities between the states and their local subdivisions are likely to be important with respect to education, welfare and highways. These differences are, of course, not eliminated.

TABLE 2

Mean per Capita Expenditures, 462 Cities Grouped by States, 1951

Number of Cities	State	Total General Operating ($)	(rank)	Common Functions ($)	(rank)	Police ($)	(rank)	Fire ($)	(rank)	Highways ($)	(rank)	Recreation ($)	(rank)	General Control ($)	(rank)	Sanitation ($)	(rank)
6	Ala.	26.89	34	20.00	39	5.02	28	3.29	45	3.51	38	1.41	37	2.33	37	3.48	40
2	Ariz.	46.77	17	40.97	2	8.08	3	8.01	4	7.97	3	4.07	5	5.75	1	5.43	5
4	Ark.	19.86	46	18.44	43	3.99	40	4.72	31	3.33	42	0.91	45	2.03	42	2.46	38
35	Calif.	40.94	23	33.38	9	7.80	4	6.62	11	5.87	15	4.08	4	4.04	10	3.46	22
3	Colo.	53.56	15	28.82	15	6.05	19	5.57	19	5.51	17	4.14	3	3.63	14	2.71	32
12	Conn.	72.66	4	33.40	8	6.77	11	6.74	10	6.29	11	2.78	11	5.10	3	3.23	25
1	Del.	65.36	6	26.24	25	6.33	14	5.98	15	5.37	19	2.44	15	2.24	38	2.07	43
13	Fla.	53.38	16	38.98	3	7.73	5	5.51	22	6.25	12	5.77	1	4.61	6	7.64	1
6	Ga.	41.98	20	25.40	28	5.74	21	5.22	25	3.49	39	1.88	27	3.71	12	3.71	17
2	Idaho	32.62	30	26.57	22	6.20	15	5.55	20	6.51	9	3.09	10	2.24	39	2.85	31
26	Ill.	22.49	44	17.89	45	4.17	39	3.69	42	3.90	33	1.05	44	1.97	44	2.40	39
19	Ind.	27.20	33	24.64	29	5.57	23	5.88	18	4.49	29	2.29	18	2.02	43	3.57	18
13	Iowa	25.78	36	22.07	34	3.87	43	4.66	33	4.73	28	2.19	21	2.52	32	3.47	21
5	Kans.	26.73	35	21.90	35	4.53	34	4.94	29	3.42	40	1.93	25	2.18	41	3.19	26
7	Ky.	35.33	26	23.37	31	5.60	22	5.07	27	3.18	43	1.59	32	2.95	23	3.44	23
7	La.	41.28	22	26.61	21	4.67	32	6.27	14	5.12	24	1.78	30	2.89	25	4.81	9
3	Me.	60.29	8	27.87	19	5.47	25	6.59	12	7.46	4	1.58	33	3.22	18	1.70	45
3	Md.	56.02	13	28.55	18	6.08	18	4.68	32	5.10	25	2.71	12	3.09	20	4.49	11
30	Mass.	107.97	1	37.65	4	7.11	8	9.21	2	6.66	7	2.66	14	4.14	9	4.88	8
19	Mich.	45.12	18	32.08	10	7.09	9	6.28	13	5.50	18	2.38	17	4.67	5	4.29	13
6	Minn.	41.28	21	29.65	12	5.02	27	5.25	24	6.04	13	4.27	2	3.40	17	2.60	36
5	Miss.	22.77	43	19.61	41	4.36	37	3.09	47	5.32	21	1.17	42	2.90	24	2.32	40
9	Mo.	24.66	39	19.97	40	4.53	35	3.53	43	3.65	35	2.38	16	2.24	40	2.18	41
3	Mont.	31.01	32	25.96	27	3.74	46	4.39	34	6.55	8	2.11	22	3.50	16	4.38	12
2	Neb.	25.59	37	19.00	42	4.29	38	4.36	35	3.76	34	2.06	23	2.36	35	0.72	47

Number of Cities	State	Total General Operating ($)	(rank)	Common Functions ($)	(rank)	Police ($)	(rank)	Fire ($)	(rank)	Highways ($)	(rank)	Recreation ($)	(rank)	Control ($)	(rank)	Sanitation ($)	(rank)
1	Nev.	56.65	11	43.11	1	10.95	1	10.06	1	7.19	6	3.72	7	3.75	11	5.38	6
3	N. H.	57.18	10	31.47	11	5.54	24	6.84	8	10.02	2	1.57	34	3.01	21	2.69	33
27	N. J.	81.56	3	37.05	5	9.56	2	8.21	3	3.61	36	2.20	20	4.37	7	5.63	4
2	N. M.	16.57	47	15.56	47	4.38	36	3.23	46	1.58	47	1.23	41	2.95	22	1.85	44
28	N. Y.	58.72	9	35.60	7	7.11	7	6.82	9	5.92	14	3.17	9	4.23	8	6.61	2
10	N. C.	43.06	19	26.50	23	6.09	17	4.96	28	4.42	31	2.22	19	2.66	29	4.15	14
2	N. D.	33.33	28	20.12	38	3.96	41	3.82	41	5.30	23	0.02	47	2.45	33	3.54	19
32	Ohio	31.38	31	25.99	26	5.43	26	5.10	26	5.03	26	1.57	35	2.71	28	4.03	15
5	Okla.	21.75	45	16.40	46	3.80	44	3.39	44	2.19	46	1.15	43	1.91	45	3.19	27
3	Orc.	32.90	29	28.77	16	6.92	10	7.54	5	4.92	27	1.91	26	3.16	19	2.91	30
26	Penna.	23.27	41	21.04	37	4.72	30	4.04	38	4.24	32	1.32	39	2.65	30	3.01	29
6	R. I.	64.28	7	26.65	20	5.89	20	5.96	16	5.75	16	1.38	38	3.56	15	2.51	37
4	S. C.	35.91	25	26.35	24	7.16	6	5.96	17	2.84	44	1.83	29	2.45	34	5.29	7
2	S. D.	23.35	40	24.10	30	3.96	42	4.16	37	6.50	10	3.24	8	2.86	26	2.62	35
6	Tenn.	54.12	14	22.52	32	4.70	31	5.52	21	2.83	45	2.02	24	2.56	31	3.41	24
19	Texas	38.52	24	21.49	36	4.78	29	4.19	36	3.40	41	1.74	31	2.34	36	3.86	16
3	Utah	25.01	38	22.13	33	4.59	33	3.87	40	5.34	20	2.67	13	2.79	27	1.61	46
1	Vt.	56.31	12	28.68	17	3.80	45	5.31	23	11.09	1	1.30	40	1.27	47	2.15	42
10	Va.	72.33	5	29.08	14	6.44	13	4.79	30	3.58	37	1.83	28	5.39	2	4.62	10
8	Wash.	33.37	27	29.38	13	6.49	12	7.00	7	5.31	22	1.57	36	4.80	4	2.65	34
6	W. Va.	23.22	42	18.25	44	3.70	47	3.90	39	4.48	30	0.58	46	1.49	46	3.07	28
17	Wisc.	87.33	2	36.57	6	6.14	16	7.25	6	7.27	5	3.87	6	3.65	13	6.48	3
462	All Cities	47.54		28.26		6.04		5.78		5.00		2.36		3.34		4.04	

Source: Computed from data in Bureau of the Census, *Compendium of City Government Finances in 1951*, pp. 44-61.

total general operating expenditure, where the inclusion or absence of optional functions exerts considerable influence. A comparison of the mean per capita operating expenditures on all functions for each state shows a very wide range (Table 2). From the levels of $107.97, $87.33 and $81.36 for Massachusetts, Wisconsin and New Jersey, they descend to $21.75, $19.86 and $16.57 for Oklahoma, Arkansas and New Mexico.[16] Within the top 5 per cent of the 462 cities are to be found seventeen of the thirty Massachusetts cities included in this study. Four of the others are in New Jersey, one in Wisconsin, and one (New York City) in New York. Each of these cities includes education and welfare in its reported expenditures and, in several cases, operating expenditures for hospitals as well. A similar though less pronounced geographic concentration is found with respect to the cities reporting the least per capita total general operating expenditures. Within the lowest 5 per cent there are nine of the twenty-six Illinois cities and five of the twenty-six Pennsylvania cities. The other nine among the lowest twenty-three are scattered through California, Indiana, Iowa, Mississippi, Missouri (two), New Mexico (two) and Oklahoma. None of these cities reported expenditures on the important optional functions, education, welfare and hospitals.

When expenditure on the common functions is compared by states, cities in Massachusetts, Wisconsin and New Jersey remain close to the top of the range, in fourth, fifth and sixth place, with mean per capita outlays of $37.65, $36.57 and $37.05. But the first three places are taken by Nevada ($43.11 for one city), Arizona ($40.97 for two cities) and Florida ($38.98 for thirteen cities). Similarly, the states in which cities spent least on all operating accounts remain among the lowest with respect to expenditures on the common functions. New Mexico, whose two cities included in this study spent $15.56 per capita, was at the bottom of the array, joined again by the five Oklahoma cities with $16.40 per capita, and Illinois, with an average of $17.89 for twenty-six cities. The four Arkansas cities, having spent $18.44 per capita on the common functions, rose from forty-sixth to forty-third place.

Reflecting the exclusion of the optional functions from the common function category is a much smaller concentration of the cities of any one state among the top few. Massachusetts is represented by five cities within the highest 5 per cent, as is New Jersey. Of the remainder, four are in New York, three in each of California and Florida, two in Michigan, and one in Ohio. As in the case of total general operating expenditure, however, nine Illinois cities dominate the twenty-three falling within the low-

[16]Only forty-seven states are ranked because Cheyenne, the only city in Wyoming with a population in excess of 25,000, is not included here.

est 5 per cent. Pennsylvania with four and Missouri with two are the only other states represented by more than one city in this group.

With respect to the individual functional categories, cities in California, Massachusetts, New Jersey, New York, Wisconsin and Florida are most prevalent within the highest group, while those in Pennsylvania and Illinois appear with disproportionate frequency among the lowest spending cities. State averages for expenditure on police range from $10.25 for one city in Nevada, $9.56 for twenty-seven New Jersey cities, and $8.08 for two Arizona cities to $3.50, $3.74 and $3.70 for one city in Vermont, three in Montana, and six in West Virginia, respectively. Nevada, Massachusetts and New Jersey cities, with expenditures of $10.06, $9.21 and $8.21, rank highest for fire control, while at the bottom of the range are the cities of Alabama (6), New Mexico (2) and Mississippi (5), which spent $3.29, $3.23 and $3.09. The columns of Table 2 dealing with highways, recreation, general control, and sanitation reveal similarly wide ranges in mean per capita expenditures of cities grouped by states.

While variation in expenditures among the 462 cities and the forty-seven states is high, the coefficients of variation presented in Table 3 for the cities of California, Massachusetts and Ohio suggest that it is not always reduced substantially when the state-location factor is removed. The clearest evidence of the influence of differences among states in the distribution of functional responsibilities is seen in the fact that, in contrast with a value of 54.3 for the 462 cities for total general operating expenditure, the coefficients of variation for cities in California, Massachusetts and Ohio are, respectively, 23.5, 8.8 and 25.0. They are consistently and appreciably lower as well for the common functions, fire control and general control, but for the other four expenditure categories the coefficients of variation are, for at least one of the three states, about

TABLE 3

Coefficients of Variation in per Capita Expenditures of Cities in California, Massachusetts, and Ohio and 462 Cities, 1951

Expenditure Category	*California* (35 cities)	*Massachusetts* (30 cities)	*Ohio* (32 cities)	*462 Cities*
Total general operating	23.5	8.8	25.0	54.3
Common functions	19.0	17.0	10.5	22.8
Police	28.9	12.7	22.8	24.6
Fire	20.4	9.7	14.8	26.4
Highways	29.8	47.2	14.0	27.9
Recreation	40.4	54.6	45.6	44.1
General control	32.6	14.5	17.5	38.0
Sanitation	32.7	34.6	36.5	37.3

as high or even higher than those for the 462 cities taken together. Although the coefficients for all three states are uniformly highest for recreation, relatively high for sanitation and low for the common functions, there is wide variation with respect to the other categories. The coefficient of variation in highway expenditure in Ohio, for example, is 14.0, whereas it rises to 29.8 for California and 47.2 for Massachusetts.

Although variation in expenditure levels is high within the individual states, the variance between states is significantly greater (Table 4). While the deviations of our expenditure distributions from normality detract somewhat from the accuracy of our results, the ratios between variances, or F values, are in all instances so much higher than 1.6, the ninety-ninth percentile value of the F distribution, that we are reasonably justified in drawing inferences from them. The results leave virtually no doubt of a systematic association between per capita expenditure for all categories and the state in which a city is located.

The ratios of between-state to within-state variance cover a wide range, from 28.3 for total general operating expenditures and 9.9 for the common functions, to 4.6 and 4.8 respectively, for general control and sanitation. A comparison of these F values suggests strongly that differences

TABLE 4

Variance between and within States in per Capita Expenditures, 462 Cities, 1951

Expenditure Category	*Sums of Squares of Deviations from Mean*		*Variance*[c]		
	Between[a] States	Within[b] States	Between States	Within States	*F Value*[d] (F .99 = 1.6)
Total general operating	280,488.76	89,424.44	6,097.58	215.48	28.3
Common functions	21,546.26	19,623.14	468.40	47.28	9.9
Police	1,077.76	1,575.77	23.43	3.80	6.2
Fire	1,200.88	1,300.79	26.11	3.13	8.3
Highways	808.98	1,418.41	17.59	3.42	5.1
Recreation	551.14	759.34	11.98	1.83	6.5
General control	477.61	934.23	10.38	2.25	4.6
Sanitation	905.54	1,687.49	19.69	4.07	4.8

[a]The sum of the squared deviations of the state means from the mean for the 462 cities, weighted for the number of cities in each state.

[b]The sum of the sums of the squared deviations of the per capita expenditures of each city from the mean for its state.

[c]To obtain the mean square deviations or variances, the sums of squares of deviations from the means between and within states are divided by the number of degrees of freedom, 46 for the former and 415 for the latter.

[d]F is the ratio of variance between groups to variance within groups.

among states in the distribution of functional responsibilities are far more important in the case of total general operating expenditure than for the common functions, viewed either collectively or individually. It is quite likely, moreover, in the case of the common functions, that state or regional differences in such factors as income levels, ethnic origins, political traditions, climatic and topographical conditions account for the major part of the excess of variance between states over that within states. That is, differences among states in the distribution of functional responsibilities may be of little or no importance with respect to these functions.

Marked differences are found as well in the mean levels of expenditure of cities grouped according to the Census Bureau's nine geographic divisions.[17] Table 5 presents mean per capita expenditures on the eight categories for cities in each of the geographic divisions and further summarizes the data for four broader geographic regions, Northeast, South, North Central, and West.

The geographic divisional means for total operating expenditures range from $89.19 per capita for cities in the New England states to $28.28 for the cities of the West North Central states. The highest average expenditures generally are found for the older cities of New England, the Middle Atlantic and South Atlantic states, in that order. In these parts of the nation traditions of local autonomy in government are strongest and their cities most frequently have assumed or retained responsibility for the optional functions of city government, functions which elsewhere are administered by the state, school district or county. On the other hand, total general operating expenditures per capita are lowest for the newer cities of the West North Central and West South Central states, where cities generally enjoy smaller measures of political and fiscal importance. The fact that the growth of these cities came relatively late, when various forces had already given rise to centralizing tendencies, may help to explain this. So also may the fact that they are less completely built-up than cities in older parts of the nation. In addition, more recently designed public and private structures, streets, and so forth, may permit more economical operation.

Moving to per capita expenditure on the common functions, we find that the range among the means for the nine geographic divisions narrows

[17]New England: Maine, New Hampshire, Vermont, Connecticut, Massachusetts, and Rhode Island. Middle Atlantic: New Jersey, New York, and Pennsylvania. East North Central: Ohio, Michigan, Illinois, Indiana, and Wisconsin. West North Central: Minnesota, Iowa, Missouri, North Dakota, Nebraska, and Kansas. South Atlantic: Maryland, Delaware, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida. East South Central: Kentucky, Tennessee, Alabama, and Mississippi. West South Central: Oklahoma, Arkansas, Louisiana, and Texas. Mountain: Wyoming, Colorado, New Mexico, Idaho, Utah, Nevada, Montana, and Arizona. Pacific: Washington, Oregon, and California.

TABLE 5

Mean per Capita Expenditures of 462 Cities Grouped by Geographic Region, 1951

Geographic Region	*Number of Cities*	*Total General Operating* ($)	(rank)	*Common Functions* ($)	(rank)	*Police* ($)	(rank)	*Fire* ($)	(rank)	*Highway* ($)	(rank)	*Recreation* ($)	(rank)	*General Control* ($)	(rank)	*Sanitation* ($)	(rank)
New England	55	89.19	1	34.49	1	6.67	3	7.97	1	6.79	1	2.40	5	4.12	1	3.92	4
Middle Atlantic	81	54.95	2	31.41	3	7.16	2	6.39	3	4.61	5	2.25	6	3.77	3	5.13	1
Northeast	136	68.80	(1)	32.66	(1)	6.96	(2)	7.03	(1)	5.49	(2)	2.31	(2)	3.91	(2)	4.65	(1)
East North Central	113	39.36	4	26.51	6	5.55	6	5.43	4	5.10	4	2.05	7	2.89	6	3.99	3
West North Central	39	28.28	9	22.58	7	4.31	9	4.44	8	4.58	6	2.46	4	2.55	8	2.82	9
North Central	152	36.52	(4)	25.50	(3)	5.23	(4)	5.18	(3)	4.97	(3)	2.16	(3)	2.80	(4)	3.69	(3)
South Atlantic	53	49.36	3	29.09	4	6.33	4	5.05	6	4.55	7	2.80	3	3.64	4	4.99	2
East South Central	24	35.30	7	21.53	8	4.97	7	4.32	9	3.62	8	1.56	9	2.69	7	3.21	8
West South Central	35	34.34	8	21.44	9	4.53	8	4.55	7	3.56	9	1.57	8	2.35	9	3.79	5
South	112	41.72	(2)	25.08	(4)	5.48	(3)	4.74	(4)	4.04	(4)	2.15	(4)	3.03	(3)	4.23	(2)
Mountain	16	36.08	6	27.50	5	5.71	5	5.32	5	5.72	2	2.95	2	3.46	5	3.23	7
Pacific	46	39.10	5	32.38	2	7.51	1	6.75	2	5.71	3	3.50	1	4.11	2	3.28	6
West	62	38.32	(3)	31.12	(2)	7.05	(1)	6.38	(2)	5.71	(1)	3.36	(1)	3.94	(1)	3.27	(4)
United States	462	47.54		28.26		6.04		5.78		5.00		2.36		3.34		4.04	

Source: Computed from data in Bureau of the Census, *Compendium of City Government Finances, 1951*, pp. 44-61.

sharply. New England's cities remain at the top, with outlays averaging $34.49 per person, but they are followed closely by the cities of the Pacific states, while those of the Middle Atlantic states rank third. Ranking seventh, eighth and ninth are the cities of the West North Central, East South Central and West South Central states. These three divisions, in different order, also rank seventh, eighth and ninth with respect to mean total general operating expenditures.

Table 5 reveals that this same general rank pattern prevails for mean per capita expenditures on police, fire protection and general control, with the highest average expenditures regularly found for cities in New England and the Middle Atlantic and Pacific states and the lowest in the West North Central, East South Central and West South Central states. There is some deviation from this pattern, however, in the case of operating expenditures for highways, and the pattern is quite completely lost in the cases of recreation and sanitation.

Mean per capita expenditures for cities grouped within the four geographic regions suggest that for all categories of expenditure except total general operating, recreation, and sanitation, cities in the Northeastern and Western states exhibit average expenditure levels that are consistently high and, on the whole, not very different in magnitude. North Central and Southern cities, on the other hand, spent decidedly lesser average amounts which also differ comparatively little from each other. However, with respect to mean per capita total general operating expenditures, the $68.80 spent by Northeastern cities sets them distinctly apart from the other three regions, whose average per capita outlays range from $41.72 to $36.52. Similarly, with respect to recreation, Western city expenditures, at $3.36 per capita, are markedly higher than the $2.31 to $2.16 spent by cities of the South, the Northeast, and the West Central states. But these same cities of the Western region spent only $3.27 per capita for sanitation, considerably less than the $4.65 spent by the cities of the third-ranking North Central region.

These very substantial differences indicate that influences shaping city expenditure extend well beyond individual state lines.

FACTORS ASSOCIATED WITH VARIATIONS IN CITY EXPENDITURES

In recent years several students of public finance have concluded that there is a significant and positive relationship between municipal expenditures per capita and the population size of the city. For a group of fifty-six second and third class cities in New York State, covered in a study conducted by Donald H. Davenport, there was observed positive correlation