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## A City Index: Measurement of a City's Attractiveness

Ralph H. Todd  
*University of Nebraska at Omaha*

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## A CITY INDEX: MEASUREMENT OF A CITY'S ATTRACTIVENESS

BY  
RALPH H. TODD\*

### Introduction

The most commonly recognized factors that attract industrial investment to a city are those with impact upon sales and profit. Size of market; availability and price of labor, materials and service; and proximity to supportive industry all weigh heavily. In addition, location decision makers must consider the conditions that relate to living in the new area: a city's overall economic condition, its demographic and physical environment, the seriousness of its crime problems, and its recreational and educational opportunities. Similarly, the decision may reflect acceptance of the premise that such conditions as a city's geographic location, its population size or growth rate or its age relate to its attractiveness.

The attractiveness of one city over another clearly has subjective aspects that do not lend themselves to measurement. This paper does not present data on attitudes or opinions about how a city's residents perceive their city. The intention is to provide a yardstick with which to compare conditions in one city with those in other cities. It is expected that such findings will both stimulate and aid decision makers to improve those conditions of a city that make it a less attractive place in which to invest, work and live. A related use will be that made of the data by potential investors making locational decisions. The assumption inherent in the reliance on objective data rather than subjective perceptions of a city's attractiveness is that the measurable conditions do in fact determine how well satisfied the residents are with those conditions.<sup>1</sup>

\*The author wishes to acknowledge the work of Yeshen Chen who assisted in the compilation of the statistical data for this study. The author is also grateful to Murray Frost, Edward Hauswald and Paul Lee for their constructive criticism of the manuscript. The author also had the benefit of suggestions from Jon Empson and Linda Ferring who reviewed the text for accuracy and consistency. However the content and views expressed in the study are those of the author who is ultimately responsible.

<sup>1</sup>For a recent discussion of the relation between objective measurements of conditions and subjective perceptions of these conditions see Angus Campbell, Philip Converse and Willard Rodgers, *The Quality of American Life: Perceptions, Evaluation, and Satisfaction* (New York: Russell Sage Foundation, 1976). In their recent nationwide survey the authors found that one of the strongest influences on an individual's satisfaction with his situation is his perception of himself in relation to his perception of the average person's situation. The authors do acknowledge that objective indicators of an area's well being are more reliable than subjective. Nevertheless the subjective element is essential to provide a complete analysis of quality of life.

### The Composite Rankings

Eighty quantifiable aspects of a city's economic, demographic and social environment have been used to develop a composite index to compare the attractiveness of 100 major United States cities (Figure 1). The more attractive the 80 conditions reveal a city to be, the nearer it ranks to 7 on the City Index; the less attractive it is, the nearer it ranks to 100. All data were drawn from existing statistics with a focus on the most current data available. When data gaps for any city existed, data were drawn from a different source or from the same source for an earlier year.

*Methodology.* The technique of ranking cities was used as a basis for evaluation. Two approaches were employed to rank the cities. First, a final city standing was computed from the aggregate score of the city for all 80 indicators separately ranked. This method assigns equal weights to each factor, i.e., high electrical rates and dirty air have equal weights. This approach, while straight-forward and simple, produces a measure that may be criticized as not taking into consideration the fact that many basic statistics measure the same conditions and that some conditions may be more or less important than others. For comparison, a second ranking approach was used. This approach gives equal weight to four categories of conditions or concerns (economic, demographic/environmental, crime, recreational/educational).

The ranking technique permits only an approximate measure of city differences at one point in time. The emphasis on the city as the unit for measure has in some cases led to under-recognition of the extent of the interaction between nearby cities in large metropolitan complexes such as Los Angeles. Despite these limitations the City Index can assist city planning and administrative decision makers by providing a picture of many functional areas of city life. Exhibits can also be prepared for any of the 100 cities in the study. Any city not included in the study could develop its own index and compare its own conditions with the specific values provided in this report or with other available data.

The relationships between a city's composite score and three other conditions were also investigated. The correlation was measured between the City Index rankings (first weighting method) and 1) the 1975 population size rankings, 2) the 1970-1975 population rate of change and 3) the age of the city. Finally, the correlations between key indicators and the composite scores were measured.

**Findings.** The City Index resulting from the ranking of the 100 cities according to 80 indicators is presented in Table 1. Five of the ten cities with the highest scores are concentrated in the Midcontinent states of Oklahoma, Kansas, Nebraska and Iowa. Five of the ten are state capitals, and five have 1975 populations under 250,000.

On the other hand eight of the ten lowest ranked cities are concentrated along the Northeastern Atlantic Coast in New Jersey, New York and Maryland and in the industrial states of Michigan and Ohio. None of the lowest ranked cities are state capitals and four have 1975 populations under 250,000.

What is the significance of changing the weighting system on the rank of individual cities? As noted previously, the cities were ranked by two methods (A) giving equal weight to each of the 80 indicators and (B) giving equal weight to each of the four categories of indicators-economic, demographic/environmental, crime and recreational/educational factors. Of the 100 major cities studied, 62 had their final standings changed by more than five rank positions when the weights were changed. Lincoln, Madison, Des Moines and Omaha ranked as the four most attractive cities regardless of the weighting approach used. At the other extreme, Detroit, Gary and Newark ranked as the three least attractive cities by either weight scheme. This suggests that the standings of both the top and the bottom cities on the list are rather secure. The results of the alternate weighting procedures are distinguished in Columns A and B of Table 1.

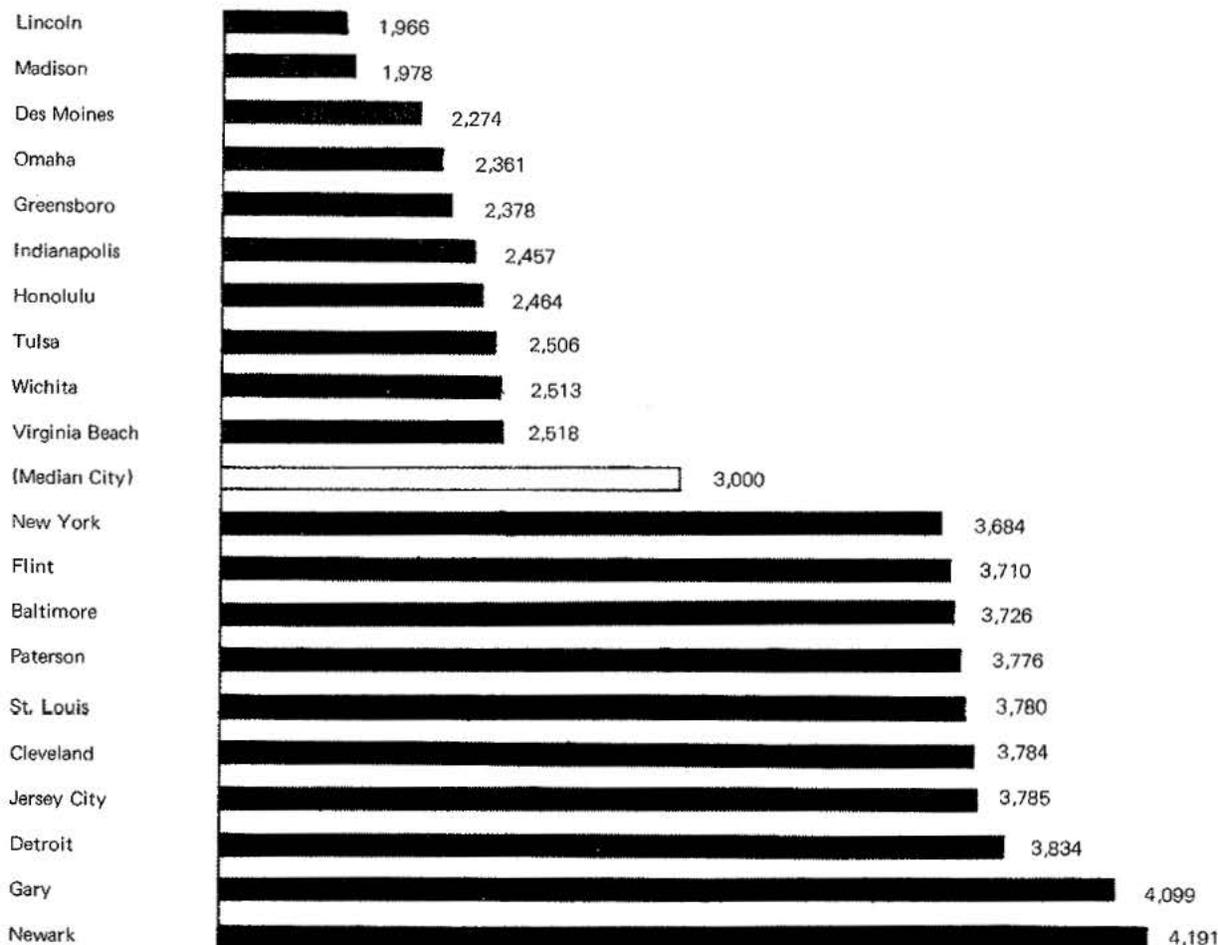
Is there an optimal city size? Currently residents of many of the cities in our 50 states are debating this issue. Although

it will not end the debate, the findings from a correlation of city size and the City Index indicated no significant relationship between the population size of the 100 cities and the comparative standings of their economic, demographic/environmental, crime, and recreational/educational characteristics. Five of the ten highest ranked cities (Lincoln, Madison, Des Moines, Greensboro and Virginia Beach) had 1975 populations of less than 250,000. Further examination, however, showed that four of the ten lowest ranked cities (Gary, Paterson, Jersey City and Flint) also had populations under 250,000. The statistical correlation between city size and the City Index composite score has a coefficient,  $r$ , of + 0.26. Of the 80 indicators used in the Index, only two had substantial correlation (i.e., greater than an  $r$  of +/-0.50) with population size. These are population density ( $r$  of +0.60) and carbon monoxide air pollution ( $r$  of +0.59).

Are the most attractive cities those that are growing most rapidly? The correlation between growth in population and City Index composite score is inverse and of an  $r$  of value of -0.34. That is to say the lower the composite score (higher the rank) the higher the rate of growth in that city tended to be, but the relationship is weak. Only two of the 80 individual indicators were strongly correlated with population growth rates, building permits per 10,000 population ( $r$  of +0.73) and hospital beds per 100,000 population ( $r$  of -0.50).

Is age of city correlated with city composite score? Although there was somewhat more correlation between the year a city was founded and the City Index score ( $r$  of -0.46) than between city size and the Index score, it would be an over-

FIGURE 1  
COMPOSITE CITY SCORES  
MOST ATTRACTIVE AND LEAST ATTRACTIVE MAJOR AMERICAN CITIES \*



\*Lowest composite score = most attractive city.

TABLE I - PART A  
CITY INDEX

City	Composite Ranks <sup>a/</sup>		Subgroup Ranks <sup>b/</sup>				Individual Factor Ranks																							
	A	B	C	D	E	F	31 Economic Factors																							
							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Lincoln	1	1	2	7	1	16	41	10	10	19	57	8	9	13	15	34	11	26	11	21	9	8	5	26	5	22	41	22	11	
Madison	2	2	23	1	3	1	35	37	59	50	68	9	27	20	34	60	33	36	60	57	17	20	31	33	3	28	61	17	9	
Des Moines	3	3	15	53	9	2	25	33	57	41	26	2	28	22	32	20	40	34	47	54	44	31	35	19	9	4	23	49	37	
Omaha	4	4	8	10	19	45	31	17	71	30	63	25	18	25	11	25	39	17	13	10	26	41	24	26	22	23	19	29	26	
Greensboro	5	7	6	38	26	32	14	14	18	2	10	25	34	27	25	49	13	41	28	60	14	45	38	37	29	29	25	60	16	
Indianapolis	6	8	9	29	13	53	22	23	33	56	71	4	6	16	35	40	24	12	39	17	21	34	25	18	19	15	28	5	46	
Honolulu	7	5	34	10	8	34	13	4	93	34	66	3	73	84	72	32	12	46	31	88	6	1	2	30	16	5	15	27	7	
Tulsa	8	28	3	86	37	36	16	4	28	8	13	36	7	18	9	1	15	8	59	96	3	27	23	12	7	37	15	28	29	
Wichita	9	12	10	45	21	43	38	16	91	37	2	18	10	56	30	9	43	7	35	39	16	5	13	23	10	27	82	9	37	
Virginia Beach	10	9	5	6	2	97	2	2	9	6	61	28	50	77	66	25	2	20	28	93	19	6	14	45	14	19	22	2	1	1
Jackson	11	6	35	17	12	37	68	3	17	3	40	35	48	57	41	27	9	27	22	90	16	61	36	15	7	37	52	16	20	
Spokane	12	18	22	95	15	7	49	13	63	58	12	36	4	3	3	29	45	61	14	9	43	38	43	34	33	72	2	21	43	
Fort Wayne	13	10	37	41	6	29	44	40	53	12	56	4	37	21	33	53	34	9	58	44	46	71	63	21	38	67	3	4	35	
Laxington	14	11	25	13	16	62	48	43	43	5	35	9	36	61	29	60	21	10	4	5	22	21	16	23	2	43	29	90	22	1
Salt Lake City	15	19	17	40	70	13	21	11	44	3	23	23	12	45	20	6	50	15	40	71	31	44	76	31	19	50	4	28	47	
Lubbock	16	20	13	19	45	63	53	8	85	7	25	32	35	12	4	14	48	28	16	73	5	3	20	1	41	58	20	44	1	
Nashville	17	23	18	65	47	28	66	32	35	25	43	7	21	9	16	32	14	16	30	61	17	33	20	9	18	33	89	27	13	
Seattle	18	38	16	79	66	15	8	20	8	45	22	6	1	1	16	66	96	53	30	31	53	27	26	35	14	79	40	18		
Charlotte	19	31	12	52	55	49	11	10	20	4	5	14	33	27	25	46	29	87	29	63	24	55	45	13	33	18	51	44	15	
Knoxville	20	13	51	20	28	25	81	24	46	29	70	28	14	4	8	49	20	24	35	97	26	58	56	29	13	65	84	35	43	
Montgomery	21	39	14	90	17	59	72	5	39	18	33	10	58	32	60	26	22	44	44	10	91	9	13	7	23	6	44	26	23	23
Oklahoma City	22	42	4	64	77	44	32	23	55	28	3	31	11	17	17	9	36	46	21	34	22	30	28	15	11	33	91	8	13	
Houston	23	34	7	38	38	89	19	22	23	11	19	32	20	15	14	4	10	48	32	31	20	19	17	13	5	45	46	48	25	
Sacramento	24	35	19	16	79	59	23	24	37	85	27	8	3	6	5	28	65	4	7	3	27	14	55	22	33	36	35	74	43	
San Diego	25	21	32	15	23	77	17	19	13	62	36	8	55	43	46	37	31	83	52	52	18	24	37	39	41	30	8	43	10	
Austin	26	17	54	8	29	45	69	29	60	17	44	22	60	51	53	5	5	96	51	99	33	18	4	23	5	58	88	10	8	
Shreveport	27	26	33	36	5	87	84	6	48	20	64	14	25	23	7	17	38	42	36	78	11	26	11	21	35	69	39	26	38	
San Jose	28	22	27	3	20	100	28	47	30	76	27	26	26	30	18	31	7	38	65	43	28	10	21	36	30	63	14	53	6	
Little Rock	29	66	11	84	91	35	37	7	34	10	32	22	52	59	37	10	6	70	17	80	10	37	19	27	16	32	16	1	18	1
St. Paul	30	15	74	2	46	11	90	37	97	68	52	9	74	49	58	47	74	31	49	20	38	66	78	16	15	28	83	62	17	1
Syracuse	31	15	73	42	9	9	57	31	73	72	73	5	65	41	43	69	78	14	51	51	23	77	75	34	38	42	70	66	60	
Fort Lauderdale	32	49	24	51	63	64	1	9	1	1	4	32	24	55	54	11	18	64	26	59	10	59	68	33	55	20	42	18	3	
Milwaukee	33	14	71	22	7	30	47	45	81	60	77	4	35	19	49	51	81	62	56	55	41	74	71	20	26	40	31	32	45	
Baton Rouge	34	45	21	87	14	76	80	23	47	9	64	22	48	40	18	7	17	2	10	2	21	2	8	20	17	61	87	33	31	
Minneapolis	35	29	64	25	71	4	18	36	36	42	37	9	47	47	57	27	79	73	64	74	38	75	80	18	15	28	34	59	59	
Colorado Springs	36	56	31	93	32	56	52	21	82	26	24	25	39	11	21	13	1	13	66	96	18	35	8	40	16	63	78	20	5	
Portland	37	44	43	54	90	6	27	35	41	63	7	6	8	10	6	33	52	67	44	53	38	42	70	21	36	19	6	37	59	
Anaheim	38	33	36	4	34	95	26	28	5	71	20	36	52	53	47	30	30	93	43	14	36	9	62	39	28	34	18	47	4	
Denver	39	50	45	67	81	10	7	25	42	35	15	14	32	44	23	5	56	74	34	38	33	50	58	8	8	35	66	52	40	
Rockford	40	51	38	83	17	67	15	20	78	23	47	18	23	74	45	57	46	92	44	47	14	57	51	30	42	33	5	12	19	
Dallas	41	72	20	72	92	48	9	18	12	14	9	22	15	34	22	3	35	60	45	66	20	36	47	10	8	21	55	50	28	
Fort Worth	42	51	30	55	50	89	54	30	25	13	6	27	13	28	13	8	53	81	41	49	39	48	48	25	8	59	54	31	22	
Corpus Christi	43	31	42	26	22	77	92	5	89	22	38	22	85	35	51	2	19	6	9	13	4	39	12	32	20	81	33	38	26	
Memphis	44	55	39	47	69	55	76	12	23	44	65	19	22	8	10	19	21	33	6	16	31	68	44	27	21	60	86	49	19	
Grand Rapids	45	26	64	32	25	40	71	36	69	55	30	6	86	54	55	62	55	84	42	45	28	4	83	24	47	41	39	10	7	
Phoenix	46	58	26	33	73	81	20	27	21	28	11	24	59	37	59	35	32	23	27	24	30	23	34	29	43	58	47	25	14	
Richmond	47	46	52	49	78	21	24	38	21	24	38	29	68	77	66	55	57	91	5	8	34	15	41	4	4	19	97	79	25	
Columbus, Oh.	48	36	62	20	62	31	78	48	87	49	48	34	72	33	31	58	37	86	44	41	33	32	27	33	16	6	65	29	30	
Jacksonville	49	48	40	34	54	73	63	27	22	40	21	22	81	65	67	45	4	5	8	19	19	29	18	28	19	38	94	3	18	
Providence	49	23	77	37	24																									

TABLE I - PART B  
CITY INDEX

City	Individual Factor Ranks																													
	31 Economic Factors										21 Demographic/Environmental Factors																			
	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	
Lincoln	77	2	5	4	13	2	50	45	23	16	1	57	26	16	69	46	2	11	2	22	69	38	49	37	15	23	26	82	22	
Madison	35	1	11	4	28	1	33	3	24	28	8	43	14	26	89	49	34	5	10	22	21	1	16	14	27	7	32	87	14	
Des Moines	31	2	41	4	17	24	26	10	22	31	7	18	47	52	65	68	29	51	50	15	15	76	30	29	21	53	24	77	21	
Omaha	16	1	51	4	3	27	58	12	36	32	13	47	29	28	35	6	30	39	49	16	24	31	28	32	18	59	20	73	20	
Greensboro	19	2	20	4	19	35	5	8	15	33	20	81	39	33	59	4	32	47	20	27	77	67	71	23	20	43	20	35	6	
Indianapolis	75	1	48	3	18	21	13	17	9	59	23	10	65	27	20	41	25	19	5	35	73	42	64	55	22	63	7	52	17	
Honolulu	58	2	50	4	47	46	45	1	31	23	42	39	46	1	7	51	5	2	6	37	94	47	94	80	17	10	12	1	20	
Tulsa	1	3	23	4	19	15	57	39	9	34	24	20	96	32	79	67	25	42	24	31	67	82	75	51	21	15	22	42	25	
Wichita	41	2	38	4	8	4	60	32	17	68	18	15	77	29	93	37	23	45	12	27	35	69	33	39	14	48	14	55	28	
Virginia Beach	50	3	2	7	4	1	22	44	4	5	36	70	21	3	5	31	4	3	9	38	95	77	96	69	16	1	11	31	20	
Jackson	42	2	86	4	29	80	12	13	14	30	30	87	55	28	36	22	18	5	58	65	16	28	7	52	42	26	18	31	19	
Spokane	27	2	34	4	41	47	19	16	26	27	3	51	69	50	90	79	42	71	72	18	44	45	29	13	25	31	47	88	18	
Fort Wayne	7	1	12	4	88	7	28	39	25	42	27	6	35	46	86	62	24	63	27	30	34	83	37	9	16	28	3	71	21	
Lexington	61	4	27	4	84	67	15	19	50	24	48	74	65	33	39	14	8	43	14	12	47	5	44	43	22	2	24	48	12	
Salt Lake City	56	1	21	4	1	10	25	34	18	27	7	1	53	56	53	91	57	76	54	17	26	36	27	18	11	35	24	70	16	
Lubbock	17	2	4	3	37	30	74	40	9	57	3	5	89	34	6	28	71	27	36	17	5	58	57	78	35	9	44	6	36	25
Nashville	85	2	39	4	37	34	25	17	3	48	4	59	64	38	75	38	28	51	40	17	42	28	58	87	32	33	33	33	12	
Seattle	54	2	24	3	10	26	9	11	38	50	28	25	79	54	61	81	35	37	67	9	60	15	26	16	26	47	41	52	14	
Tulsa	1	3	23	4	19	15	57	39	9	34	24	20	96	32	79	67	25	42	24	31	67	82	75	51	21	15	22	42	25	
Wichita	41	2	38	4	8	4	60	32	17	68	18	15	77	29	93	37	23	45	12	27	35	69	33	39	14	48	14	55	28	
Virginia Beach	50	3	2	7	4	1	22	44	4	5	36	70	21	3	5	31	4	3	9	38	95	77	96	69	16	1	11	31	20	
Montgomery	2	4	13	4	39	73	28	5	22	21	12	78	81	40	80	16	31	44	22	12	80	89	93	63	16	42	34	17	5	
Oklahoma City	22	2	30	5	7	20	59	40	1	51	21	46	89	38	32	50	20	84	47	13	56	46	51	46	16	38	30	41	26	
Houston	26	1	17	3	31	36	66	21	15	17	24	91	82	19	14	53	22	61	36	19	51	44	73	52	27	27	24	9	12	
Sacramento	39	1	80	4	6	45	38	26	18	20	37	5	71	38	26	87	25	75	64	23	43	30	22	26	6	22	13	27	10	
San Diego	34	2	45	3	27	9	43	40	13	10	23	29	68	11	9	73	11	27	38	31	91	20	69	95	12	18	28	8	5	
Austin	87	1	8	3	62	44	76	20	23	9	2	71	80	4	48	27	3	41	32	26	88	99	79	12	17	5	1	5	15	
Shreveport	32	4	46	4	66	60	14	7	16	39	1	95	1	57	70	55	40	60	79	8	18	62	48	38	15	19	9	5	20	
San Jose	23	2	61	4	16	43	32	4	27	19	21	23	60	2	4	62	1	34	6	36	92	12	85	27	13	9	28	33	14	
Little Rock	9	3	50	4	26	52	18	15	15	15	12	63	94	66	82	72	53	78	80	16	64	14	67	10	13	11	10	32	7	
St. Paul	29	2	55	4	76	16	68	19	42	70	9	5	24	19	33	46	15	19	23	41	7	11	39	11	8	20	34	17	82	16
Syracuse	67	2	26	4	36	3	14	44	51	49	40	11	18	88	67	62	52	16	32	19	31	33	9	32	30	41	23	80	17	
Fort Lauderdale	92	4	1	5	25	17	65	36	39	1	48	67	74	62	31	57	93	14	58	68	4	23	25	34	81	8	93	18	2	
Milwaukee	36	1	65	3	55	5	69	54	52	59	43	68	16	23	19	66	11	14	23	19	45	53	38	1	27	16	8	86	25	
Baton Rouge	82	6	57	3	32	64	17	2	46	25	10	92	76	12	44	44	12	62	25	33	86	80	88	78	24	31	11	25	13	
Minneapolis	68	1	43	4	30	14	67	36	47	67	20	19	27	45	47	64	48	32	60	17	2	39	1	5	20	31	21	99	16	
Colorado Springs	14	2	19	4	50	21	56	64	10	51	7	5	66	62	13	81	76	15	53	31	30	90	98	74	22	4	40	35	79	23
Portland	88	1	59	3	41	57	27	31	32	57	16	3	73	61	78	66	38	45	68	7	20	21	13	30	28	21	42	50	14	
Anaheim	33	3	10	4	63	6	36	44	44	8	17	12	67	7	12	65	7	45	42	6	68	41	81	3	19	37	23	5	4	
Denver	93	2	71	3	14	69	61	33	35	73	29	4	91	34	49	90	42	25	28	17	25	10	7	56	10	64	46	72	19	
Rockford	3	2	53	4	11	18	64	2	31	63	31	5	44	50	44	91	47	29	54	16	24	54	74	57	7	26	14	19	94	18
Dallas	83	1	15	3	24	48	70	23	21	37	41	87	93	25	16	52	28	53	31	17	63	64	70	54	14	30	5	21	17	
Fort Worth	43	2	7	3	15	33	72	48	6	43	32	92	86	35	17	59	37	49	58	7	49	64	68	36	9	14	5	21	17	
Corpus Christi	51	2	33	4	70	85	63	44	5	54	4	86	58	9	13	54	24	70	8	14	71	78	86	21	17	21	4	3	27	
Memphis	4	2	88	3	49	83	28	18	14	43	15	41	42	37	34	13	33	74	40	33	40	34	80	86	16	50	25	26	15	
Grand Rapids	74	2	63	4	52	13	8	60	34	36	27	7	31	47	85	23	35	59	63	14	33	73	31	4	31	15	3	85	14	
Phoenix	65	2	9	4	5	31	23	47	14	5	6	45	87	17	5	69	25	88	29	30	78	29	69	62	2	65	27	10	9	
Richmond	66	2	91	3	36	53	2	28	30	76	2	62	62	63	94	80	49	50	84	1	7	11	8	20	23	28	20	40	3	
Columbus, Oh.	48	2	74	4	12	71	52	35	26	38	18	26	51	38	33	35	44	9	19	26	32	50	35	49	33	29	37	5	10	
Jacksonville	71	3	40	4	20	56	71	61	2	26	6	80	95	10	3	40	10	73	34	31	85	70	76	50	19	19	20	4	4	
Providence	49	2	67	3	44	37	7	26	40	44	14	14	3	61	96	7	51	42	70	17	12	32	5	85	26	29	43	63	17	
Tucson	76	3	18	4	45	55	31	57	25	3	5	34	83	38	2	84	32	80	28	25	66	8	40	72	1	22	17	16	11	
Albuquerque	57	3	49	5	10	76	28	37	22	14	9	16	94	22	74	83	21	77	63	25	82	23	56	75	7	44	53	64	19	
Columbus, Ga.	78	3	79	4	36	68	28	59	2	77	1	76	85	31	45	3	24	58	61	33	83	90	90	45	22	51	1	52	18	5
Tacoma	96	3	47	4	86	43	21	30	22	58	28	58	78	41	64	85	3	16	81	4	55	75	46	2	26	20	24	57	14	
Toledo	40	2	69	4	62	59	41	11	38	55	10	35	44	49	10	77	18	29	11	24	50	72	39	73	31	20	35	75	15	
Mobile	12	4	62	5	57	79	49	28	7	34	22	73																		

TABLE 1 - PART C  
CITY INDEX

City	8 Crime Factors								Individual Factor Ranks												20 Recreation, Education and Other Factors											
	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80				
Lincoln	1	1	4	22	2	25	38	2	7	25	2	15	51	27	25	58	11	15	74	53	49	32	28	7	21	8	7	10				
Madison	3	15	1	27	9	1	65	3	1	45	7	17	35	7	33	15	1	5	50	21	14	15	24	11	33	6	12	13				
Des Moines	32	8	15	13	3	11	79	18	32	54	7	20	12	31	23	31	59	1	18	8	16	9	1	21	19	29	15	12				
Omaha	44	1	23	49	6	46	28	22	42	76	8	39	46	43	26	3	51	13	30	59	55	30	22	40	41	32	9	9				
Greensboro	8	63	19	21	12	75	35	5	10	44	6	23	27	35	49	77	28	30	61	19	56	22	27	20	22	19	17	11				
Indianapolis	54	1	37	51	13	15	8	23	43	29	8	44	57	41	54	48	65	13	38	9	63	38	37	31	35	25	19	12				
Honolulu	9	65	17	14	19	3	21	24	28	28	8	45	4	23	5	5	60	15	6	64	86	23	34	37	61	46	24	12				
Tulsa	12	43	31	39	50	48	33	32	43	55	8	37	36	40	30	22	63	44	35	27	38	18	13	33	24	26	21	12				
Wichita	23	40	39	6	29	14	58	19	37	74	7	32	48	37	46	9	49	21	32	73	57	7	18	28	15	53	15	10				
Virginia Beach	2	41	25	4	1	5	25	1	51	88	7	62	39	32	53	95	67	38	74	26	89	58	64	41	68	63	11	14				
Jackson	11	32	58	19	15	17	26	17	36	17	6	18	62	76	80	56	12	29	25	22	36	54	22	27	16	12	9					
Spokane	7	14	9	32	22	31	73	21	27	38	6	1	17	33	18	4	25	9	13	31	54	62	38	28	29	18	13	11				
Fort Wayne	17	1	2	24	10	2	71	11	31	1	7	25	53	33	36	45	41	6	74	15	72	21	14	35	26	36	14	13				
Lexington	24	13	21	4	35	41	66	7	5	87	6	38	43	28	87	49	3	13	74	44	70	68	46	8	20	27	14	10				
Salt Lake City	47	58	12	65	62	29	84	40	8	37	9	2	6	53	9	76	7	24	26	61	7	63	49	5	2	62	3	8				
Lubbock	5	45	63	53	32	47	55	8	18	80	6	5	56	35	37	60	13	39	30	48	83	48	28	44	42	38	24	11	5			
Nashville	60	42	64	20	32	30	36	30	21	84	8	38	28	45	3	64	45	4	33	24	61	34	35	9	5	25	13	11				
Seattle	54	34	27	75	48	49	69	35	14	49	8	26	33	3	6	40	14	20	14	84	21	35	20	26	44	35	20	12				
Charlotte	34	47	70	18	61	52	40	10	39	53	7	34	30	50	21	69	47	6	22	11	67	42	37	37	8	95	26	14				
Knoxville	26	66	36	17	11	38	13	39	12	36	7	10	16	35	55	89	10	32	51	10	47	43	44	7	6	37	25	13				
Montgomery	15	19	79	34	21	4	37	9	40	77	8	13	21	56	62	35	61	7	74	46	62	28	25	20	18	52	7	14				
Oklahoma City	28	67	90	77	62	59	42	47	49	43	8	33	26	52	27	24	64	27	42	86	28	40	50	25	14	11	22	1				
Houston	61	18	72	43	35	7	9	47	42	82	9	54	32	48	63	88	65	26	34	59	38	51	30	40	60	61	27	13				
Sacramento	54	37	48	67	68	66	62	41	26	6	7	24	40	40	38	67	2	15	64	62	18	77	70	32	71	43	11	12				
San Diego	31	26	17	26	25	22	52	32	35	46	8	51	38	54	40	65	26	13	47	72	71	74	67	30	75	7	25	14				
Austin	13	33	29	69	28	13	49	13	3	41	8	39	37	27	69	87	4	26	41	54	29	73	59	12	35	9	17	4				
Shreveport	6	6	53	5	7	35	22	3	47	75	7	17	44	45	82	53	74	26	45	27	76	54	47	35	46	69	5	19				
San Jose	10	30	14	40	40	19	45	28	35	79	7	57	68	34	86	19	39	29	70	79	87	81	51	38	77	64	28	14				
Little Rock	89	16	65	89	65	89	88	27	42	60	6	11	33	21	24	81	53	40	31	35	25	56	27	6	9	31	10	14				
St. Paul	53	47	11	30	50	51	23	44	11	39	6	9	29	22	43	52	62	14	24	78	19	5	6	13	13	39	16	14				
Syracuse	41	6	8	25	31	27	29	14	6	49	6	16	24	28	26	32	12	10	28	2	20	26	56	10	43	59	19	7				
Fort Lauderdale	49	64	67	10	67	6	87	40	52	74	3	27	2	50	4	17	31	26	10	90	9	60	72	43	79	72	16	10				
Milwaukee	37	22	26	11	4	12	18	33	25	19	8	49	67	22	39	2	34	4	58	23	41	15	9	37	52	76	16	13				
Baton Rouge	4	12	8	23	20	78	27	31	23	67	8	39	41	20	75	62	21	26	74	57	68	54	47	27	64	67	13	12				
Memphis	58	55	52	82	49	40	34	26	40	65	8	46	33	32	60	47	57	14	20	14	74	27	30	34	25	42	27	13				
Colorado Springs	25	37	22	60	34	16	55	22	29	73	7	28	34	9	16	11	55	40	52	22	75	57	71	10	72	18	25	14				
Portland	64	38	38	83	72	82	81	50	25	30	7	18	40	19	11	28	27	3	27	60	17	44	22	24	17	12	24	11				
Anaheim	30	34	5	38	54	43	53	23	52	59	2	61	7	44	39	38	76	45	3	95	90	75	69	46	82	71	20	14				
Denver	66	9	43	92	77	61	51	53	31	33	8	34	8	9	14	10	40	30	8	26	11	63	49	26	14	47	16	10				
Rockford	36	17	7	7	41	54	50	6	46	53	7	40	55	32	65	26	50	16	74	80	72	16	15	29	63	17	9	14				
Dallas	51	57	76	76	64	69	85	34	42	56	8	51	14	42	17	75	71	26	23	41	27	47	15	34	39	14	24	12				
Fort Worth	46	50	57	46	44	9	48	31	31	57	7	40	68	45	44	75	62	32	23	51	73	31	35	26	36	41	24	12				
Corpus Christi	14	1	24	31	33	68	44	15	51	68	7	35	56	25	64	71	69	26	74	29	76	51	58	37	38	1	11	11				
Memphis	58	55	52	82	49	40	34	26	40	65	8	46	33	32	60	47	57	14	20	14	74	27	30	34	25	42	27	13				
Grand Rapids	20	6	31	42	36	55	42	4	23	27	7	8	43	34	57	20	42	22	66	42	50	39	41	35	7	49	25	1				
Phoenix	33	62	32	45	71	53	83	36	51	72	8	47	57	58	20	41	70	37	16	66	61	76	60	31	60	6	24	12				
Richmond	73	53	77	59	37	57	52	28	15	50	6	18	21	13	86	42	21	42	57	12	20	24	33	1	1	58	10	11				
Columbus, Oh.	57	26	33	74	57	28	63	36	11	11	8	53	45	37	45	79	21	32	40	20	37	11	11	41	46	13	28	14				
Jacksonville	43	2	51	66	44	71	46	16	49	62	8	42	54	36	42	66	67	26	36	30	82	1	55	40	34	68	11	14				
Providence	39	42	12	1	29	26	14	71	2	13	6	10	72	8	74	20	5	24	65	32	13	25	20	6	33	77	24	11				
Tucson	22	27	16	44	76	50	78	29	17	64	7	21	25	63	51	39	13	25	21	58	58	49	52	27	74	28	20	10				
Albuquerque	35	50	28	73	53	74	61	18	22	81	7	12	20	57	32	70	37	18	12	83	59	52	63	13	66	4	19	12				
Columbus, Ga.	29	7	49	2	17	10	6	16	48	49	5	19	73	24	85	65	73	17	74	43	88	33	57	38	28	40	17	6				
Tacoma	27	88	41	68	39	42	47	18	30	14	4	22	67	37	15	7	16	21	2	63	53	71	62	31	53	44	17	3				
Toledo	56	11	30	56	29	21	76	15	37	23	8	49	63	50	48	13	62	8	68	45	67	10	5	42	30	48	19	12				
Mobile	45	54	44	28	38	58	25	12	38	70	6	15	34	50	58	63	61	26	60	49	72	6	38	31	23	31	25	13				
Cincinnati	52	44	46	70	42	56	39	20	19	4	7	31	45	58	19	7	25	13	49	50	23	11	11	18	26	38	20	2				
Long Beach	72	10	47	52	45	44	17	48	28	58	5	53	61	47	52	59	9	45	38	95	84	82	57	36	67	55	15	14				
Akron	47	25	41	62	32	68	27	33	24	7	48	72	38	61	6	38	24	67	47	48	12	12	35	67	19	4	4					

TABLE 1 - PART D  
INDIVIDUAL FACTORS AND SOURCES FOR CITY INDEX

<sup>1/</sup>Composite Ranks: A - all 80 factors weighted equally. B - rank based on average of four major category ranks.  
<sup>2/</sup>Subgroup Ranks: C - based on 31 economic factors; D - based on 21 demographic and environmental factors; E - based on 8 crime factors; F - based on 20 recreation, education and other factors.  
<sup>3/</sup>, <sup>4/</sup>, <sup>5/</sup>, <sup>6/</sup>, and <sup>7/</sup>See notes for individual factors.

Economic Factors

1. 1973 per capita income. Sources: International City Management Association, *The Municipal Year Book 1976*. <sup>3/</sup>1972 data.
2. 1973 per capita income CC/OCC: central city as percent of outside central city. Sources: Advisory Commission on Intergovernmental Relations, *Trends in Metropolitan America*, February 1977. <sup>4/</sup>1970 data calculated from *1972 City County Data Book*.
3. 1975 housing construction costs per square foot as percent of per capita income. Sources: National Association of Home Builders, *Construction Cost Data Components*, June 1975. <sup>5/</sup>Cost of construction per square foot is for a nearby city.
4. 1975 hospital room costs as percent of per capita income. Sources: Mutual of Omaha, "Semi Annual Health Care Cost Study," October 1976.
5. 1973 automobile and truck registrations per 1,000 population. Sources: U.S. Department of Transportation, *Highway Statistics*, 1973. <sup>6/</sup>State average ratio. <sup>7/</sup>1975 *Statistical Abstract*.
6. 1972 percent employees covered by bus transit (1/2 mile band). Sources: U.S. Department of Transportation, *1974 National Transportation Report, Urban Data Supplement*, May 1976. <sup>8/</sup>Add 13 percent (average increase) to Indicator 65: 1972 percent of population covered by bus transit (1/2 mile band).
7. 1975 electric (residential rates) 1000 KWH as percent of per capita income. Source: Federal Power Commission, "All Electric Homes in the U.S.," January 1, 1975.
8. 1975 electric (commercial rates in dollars) monthly/1500 KWH. Source: Federal Power Commission "Typical Electric Bills 1975."
9. 1975 electric (industrial rates in dollars) per 60,000 KWH. Source: *Ibid*.
10. 1975 natural gas rates for 1,000 cubic feet as percent of per capita income. Sources: U.S. Department of Commerce, *1972 Census of Manufactures*. <sup>9/</sup>State average.
11. 1963-1972 percent change in retail sales in the central city. Sources: Advisory Commission on Intergovernmental Relations, *Trends in Metropolitan America*, February 1977. <sup>10/</sup>Calculated from *1962 and 1972 Census of Retail Trade*.
12. 1963-1972 percentage point change in manufacturing employment (ICC/SMSA). Sources: *Ibid*. <sup>11/</sup>Calculated from *1972 Census of Manufactures*.
13. 1972 value added in manufacturing/wages paid. Source: Calculated from *1972 Census of Manufactures*.
14. 1972 value added in manufacturing/employees. Source: *Ibid*.
15. 1970 median house value (CC/OCC) in percent. Source: U.S. Department of Commerce, *1970 Census of Housing*.
16. 1975 building permits per 10,000 population. Source: U.S. Department of Commerce, Bureau of Census, *Construction Reports: Housing Authorized by Building Permits and Public Contracts*, 1975 Summary.
17. 1975 building permits (CC/OCC) in percent. Source: *Ibid*.
18. 1975 per capita bank deposits in thousand dollars. Source: FDIC, *Summary of Accounts and Deposits in all Commercial and Mutual Savings Banks*, June 30, 1975.
19. 1975 average annual unemployment rate. Sources: Employment and Training Report of the President. <sup>12/</sup>Rate of January 1976, from U.S. Department of Labor, Bureau of Labor Statistics, *Employment & Earnings*. <sup>13/</sup>*Colorado Manpower Review*, Vol. XIII, No. II, November 1976.
20. 1974 telephones per 100 population. Sources: AT & T Long Lines, *The World Telephones 1974*. <sup>14/</sup>Estimated based on percent of housing with telephones from *1972 City County Data Book*.
21. 1974 per capita city debt as percent of per capita income. Source: U.S. Department of Commerce, Bureau of Census, *City Government Finances 1974-75*.
22. 1975 per capita nonschool taxes as a percent of per capita income. Sources: Advisory Commission on Intergovernmental Relations, *Trends in Metropolitan America*, February 1977. <sup>15/</sup>Calculated from *City Government Finances* in 1974-75.
23. 1960-1972 annual percent change in assessed value of real property. Sources: *Ibid*. <sup>16/</sup>Calculated from *1972 Census of Governments*, Vol. 2, Part 1, "Taxable and Other Property Values."
24. 1975 finance and general control government employees per 10,000 population. Source: U.S. Department of Commerce, Bureau of Census, *City Employment in 1975*.
25. 1975 municipal bond rating. Source: International City Management Association, *The Municipal Year Book 1976*. Bond rating = AAA=1, AA=2, A1=3, A=4, BAA1=5, BAA=6, BA=7, B=8, CAA=9, CA=10, C=11.
26. 1975 AFDC recipients per 10,000 population. Source: U.S. Department of Health, Education and Welfare, *Recipients of Public Assistance Money Payments and Amounts of Such Payments, By Program, State, and County*, February 1975.
27. 1975 city fire rating. Sources: International City Management Association, *The Municipal Year Book 1976*. <sup>17/</sup>Average rating of other cities in the same state.
28. 1975 cost of eating out as percent of per capita daily income. Sources: Survey of Buying Power, "Sales and Market Management," 1976. <sup>18/</sup>Estimated based on the prices given by major chain hotel restaurants. <sup>19/</sup>Average for nearby cities.
29. 1975 per capita subsidized amount of food stamps in dollars. Sources: U.S. Department of Agriculture, *Food and Nutrition Service Food Stamp Program Statistical Summary of Operations*, June 1975. <sup>20/</sup>State average.
30. 1974 commercial banking offices per 100,000 population. Source: FDIC, *Summary of Deposits in all Commercial and Mutual Savings Banks*, June 29, 1974.
31. 1975 percent of households with effective buying income under \$15,000. Source: Survey of Buying Power, "Sales and Marketing Management," 1976.

Demographic/Environmental Factors

32. 1973 population density (persons/acre). Sources: Advisory Commission on Intergovernmental Relations, *Trends in Metropolitan America*, February 1977. <sup>21/</sup>Population was estimated based on 1970 and 1973 city population in *Statistical Abstract 1976*; Area was calculated from U.S. Bureau of Census, *Boundary and Annexation Survey 1970-1973*.
33. 1970-1975 net population migration in percent. Source: U.S. Department of Commerce, Bureau of Census, "Population Estimates," *Current Population Reports*, Series P-26, 1976. <sup>22/</sup>Estimated assuming births equal deaths.
34. 1960-1970 percentage point change in ratio of white population to total population. Source: Advisory Commission on Intergovernmental Relations, *Trends in Metropolitan America*, February 1977. <sup>23/</sup>Calculation based on data from *1967 and 1972 City County Data Books*.
35. 1974 voters per 10,000 voting population. Source: *America Votes II*, 1974, Elections Research Center, 1975. <sup>24/</sup>1973 votes. <sup>25/</sup>Estimated based on 1972 and 1974 votes.
36. 1972 divorces per 100,000 population. Source: U.S. Department of Health, Education and Welfare, *Vital Statistics of the United States*, Vol. III, 1972.
37. 1975 deaths per 100,000 population. Sources: U.S. Department of Health, Education and Welfare, *Reported Morbidity and Mortality in the United States*, 1975. <sup>26/</sup>Estimated based on data from *Vital Statistics of the United States*, Vol. II, Part B, 1973.
38. 1975 deaths from influenza and pneumonia per 100,000 population. Sources: *Ibid*. <sup>27/</sup>Estimated based on data from *Vital Statistics of the United States*, Vol. II, Part B, 1973.
39. 1973 suicides per 100,000 population. Source: U.S. Department of Health, Education and Welfare, *Vital Statistics of the United States*, Vol. II, Part B, 1973.
40. 1975 infant deaths per 100,000 population. Sources: U.S. Department of Health, Education and Welfare, *Reported Morbidity and Mortality in the United States*, 1975. <sup>28/</sup>Estimated based on data from *Vital Statistics of the United States*, Vol. II, Part B, 1973.
41. 1973 motor vehicle deaths per 100,000 population. Source: U.S. Department of Health, Education and Welfare, *Vital Statistics of the United States*, Vol. II, Part B, 1973.
42. 1973 all other accidental deaths per 100,000 population. Source: *Ibid*.
43. 1975 hospitals per 100,000 population. Source: American Hospital Association, *Hospital Statistics*, 1976. <sup>29/</sup>For SMSA.
44. 1975 hospital beds per 100,000 population. Source: *Ibid*.
45. 1974 physicians per 100,000 population. Source: Bureau of Census, *1975 Statistical Abstract*.
46. 1975 registered nurses per 100,000 population. Source: American Hospital Association, *Hospital Statistics*, 1976.
47. 1975 nursing home beds per 1,000 population 65 and over. Source: U.S. Department of Health, Education and Welfare, *Directory of Nursing Home Facilities* (Regional Volumes), December 1975.
48. 1975 percent sunshine. Sources: National Oceanic and Atmospheric Administration, *Climatological Data*, 1975 Annual Summary. <sup>30/</sup>Same as for nearby city. <sup>31/</sup>1976 *Statistical Abstract*.
49. 1974 particulates mmq/m3. Source: U.S. Environmental Protection Agency, *Air Quality Data*, 1974 Annual Statistics, August 1976. <sup>32/</sup>Average of 50 percentile and 70 percentile levels.
50. 1974 CO mg/m3. Sources: *Ibid*. <sup>33/</sup>Average of 50 percentile and 70 percentile levels. <sup>34/</sup>Estimated based on given CO concentration data and highway CO emission data from *1974 National Transportation Report, Urban Data Supplement*.

TABLE 1 - PART D - CONTINUED  
INDIVIDUAL FACTORS AND SOURCES FOR CITY INDEX

51.	1975 heating degree days. Source: National Oceanic and Atmospheric Administration, <i>Climatological Data</i> , 1975 Annual Summary. $\frac{\$}{\#}$ Same as for nearby city.
52.	1975 average wind speed (m/s). Source: <i>Ibid.</i>
Crime Factors	
53.	1975 robberies per 100,000 population. Source: Federal Bureau of Investigation, <i>Uniform Crime Report</i> , 1975.
54.	1975 negligent manslaughter per 100,000 population. Source: Federal Bureau of Investigation, <i>Uniform Crime Report</i> , 1975.
55.	1975 non-negligent manslaughter per 100,000 population. Source: Federal Bureau of Investigation, <i>Uniform Crime Report</i> , 1975.
56.	1975 rapes per 100,000 population. Source: Federal Bureau of Investigation, <i>Uniform Crime Report</i> , 1975.
57.	1975 burglaries per 100,000 population. Source: Federal Bureau of Investigation, <i>Uniform Crime Report</i> , 1975.
58.	1975 assaults per 100,000 population. Source: Federal Bureau of Investigation, <i>Uniform Crime Report</i> , 1975.
59.	1975 larceny per 100,000 population. Source: Federal Bureau of Investigation, <i>Uniform Crime Report</i> , 1975.
60.	1975 motor thefts per 100,000 population. Source: Federal Bureau of Investigation, <i>Uniform Crime Report</i> , 1975.
Recreation, Education and Other Factors	
61.	1974 scholars per 100,000 population. Source: <i>Directory of American Scholars</i> , Volumes 1-4, R.R. Bowker Co., New York and London, 1974. $\frac{\$}{\#}$ Estimated by CAUR.
62.	1975 library volumes per 100 population. Source: <i>American Directory of Libraries</i> , 1975.
63.	1975 TV stations per 100,000 population. Source: <i>Broadcasting Yearbook</i> , 1976: Broadcasting Publications, Inc., 1976. $\frac{\$}{\#}$ Chicago and Gary are in the same broadcasting area.
64.	1975 radio stations per 100,000 population. Source: <i>Ibid.</i>
65.	1975 hotel and motel rooms per 10,000 population. Source: <i>Official Hotel and Resort Guide</i> , January 1975. $\frac{\$}{\#}$ From American Auto Association.
66.	1972-1973 student teacher ratio in public schools. Sources: <i>Research Memo</i> , "Student-Staff Ratios, 1972-73," Educational Research Service, Inc., August 1974. $\frac{\$}{\#}$ County or Parish-wide data. $\frac{\$}{\#}$ U.S. Department of Health, Education and Welfare, <i>Directory of Public Elementary and Secondary Schools in Selected Districts</i> , Fall 1972. $\frac{\$}{\#}$ Estimated using 1968 data.
67.	1972 recreation and amusement establishments per 100,000 population. Source: U.S. Department of Commerce, Bureau of the Census, <i>1972 Census of Selected Service Industries</i> , (1972).
68.	1972 eating and drinking establishments per 100,000 population. Source: U.S. Department of Commerce, Bureau of the Census, <i>1972 Census of Retail Trade</i> , (1972).
69.	1974-1975 enrollments in higher education per 1,000 population. Sources: National Center for Educational Statistics, <i>Education Directory, 1974-75</i> . $\frac{\$}{\#}$ From City Chamber of Commerce.
70.	1972 percent of population covered by bus transit ( $\frac{1}{2}$ mile band). Source: U.S. Department of Transportation, <i>1974 National Transportation Report: Urban Data Supplement</i> , May 1976. $\frac{\$}{\#}$ Estimate based on average of proximal and similar sized cities.
71.	1974 air passengers per 1,000 population. Source: <i>Supplement to the Handbook of Airline Statistics</i> , 1974.
72.	1976 circulation of daily newspapers as percent of households. Sources: ABC Daily Newspaper, Preliminary figures as filed with the Audit Bureau of Circulation, (Circulation averages for six months ending September 30, 1976). $\frac{\$}{\#}$ Supplement to ABC Newspaper FAS-FAX, November 30, 1976.
73.	1976 lawyers per 100,000 population. Source: <i>Martindale-Hubbell Law Directory</i> , Martindale-Hubbell Inc., 1977.
74.	1976 contributions to United Way as percent of effective buying income. Source: United Way of America, <i>Measurements of Campaign Performance, 1976</i> . $\frac{\$}{\#}$ For nearby city with value close to average value in the state.
75.	1976 per capita firm gifts for United Way in dollars. Source: <i>Ibid.</i>
76.	1976 museums per 100,000 population. Sources: American Association of Museums, <i>The Official Museum Directory 1977</i> , National Register Publishing Co., Inc. $\frac{\$}{\#}$ From City Chamber of Commerce.
77.	1974 religious organizations per 100,000 population. Sources: U.S. Department of Commerce, Bureau of Census, <i>1974 County Business Patterns</i> . $\frac{\$}{\#}$ From 1973 County Business Patterns.
78.	1975 park acreage per 10,000 population. Sources: International City Managers Association, 1975 Unpublished Data. $\frac{\$}{\#}$ From National Recreation and Park Association, <i>Recreation and Park Yearbook</i> , 1966. $\frac{\$}{\#}$ From 1975 <i>Information Please Almanac</i> . $\frac{\$}{\#}$ For the nearby city.
79.	1975 golf courses per 100,000 population. Sources: International City Managers Association, 1975 Unpublished Data. $\frac{\$}{\#}$ From National Recreation and Park Association, <i>Recreation and Park Yearbook</i> , 1966. $\frac{\$}{\#}$ From 1970, 1973 or 1974 County Business Patterns. $\frac{\$}{\#}$ For the nearby city.
80.	1975 swimming pools per 100,000 population. Sources: International City Managers Association, 1975 Unpublished Data. $\frac{\$}{\#}$ From National Recreation and Park Association, <i>Recreation and Park Yearbook</i> , 1966. $\frac{\$}{\#}$ For the nearby city. $\frac{\$}{\#}$ From city telephone directory. $\frac{\$}{\#}$ From city Chamber of Commerce. $\frac{\$}{\#}$ From City Recreation Department.

generalization to state that older cities are less attractive. The founding date of a city does, however, appear to be much more highly correlated with the subscore for the economic factors ( $r$  of -0.63) than with the other categories. Indicators that correlate with city founding date of +/-0.50 or greater are as follows: motor vehicle thefts per 100,000 population ( $r$  of -0.52); population density ( $r$  of -0.53); AFDC recipients per 10,000 population ( $r$  of -0.51); residential electrical rates/per capita income ( $r$  of -0.57); commercial electrical rates ( $r$  of -0.53); industrial electrical rates ( $r$  of -0.52); and natural gas rates/per capita income ( $r$  of -0.53).

Cities were also ranked within each of the four general categories. Based on the 31 economic factors, Las Vegas and Lincoln emerged as the highest ranked cities, with Newark ranked lowest. When scores were tallied for the 21 demographic and environmental factors, Madison was well ahead of second ranked St. Paul, and Chattanooga was lowest. Based on the eight crime factors, Lincoln and Virginia Beach ranked most favorable with Las Vegas least favorable. Finally, with respect to the 20 recreation and education factors, Madison again led by a large margin and Gary and San Jose ranked lowest.

### The Subcategory Rankings

The 80 indicators in the City Index reflect four broad areas of a city's attractiveness: economic, demographic/envi-

mental, crime and recreational/educational conditions. City scores were ranked for each of the four subcategories (Table 1, Columns C, D, E and F) as well as for the individual indicators. As in the composite index, the more attractive the city's relative standing, the nearer it ranked to 1. As a basis for comparison, the median and extremes for each indicator begin on page 11. Omaha and Lincoln have been included to illustrate a possible use of the Index by any city.

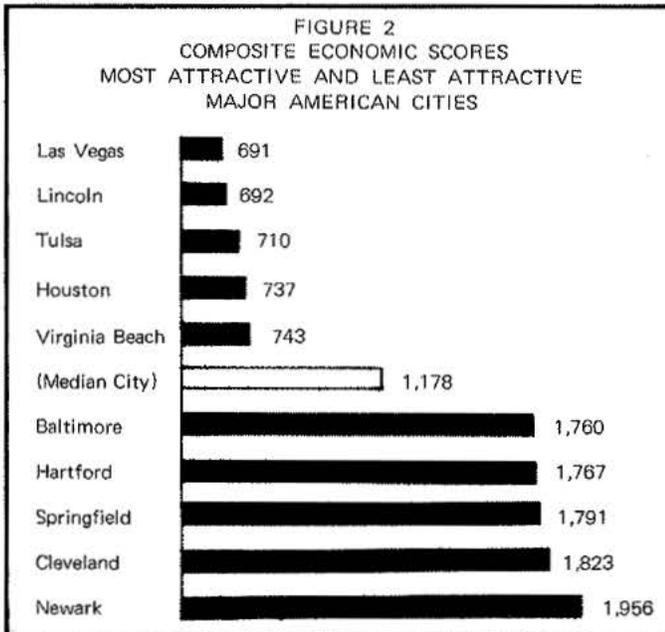
**Economic Indicators.** A total of 31 indicators have been used to measure economic conditions in the 100 cities in the study (Figure 2). The economic composite scores for these 31 economic conditions were highest for Las Vegas, Lincoln, Tulsa, Houston and Virginia Beach. Ranked lowest were Philadelphia, Baltimore, Hartford, Springfield (Mass.), Cleveland and Newark.

Twelve of the economic indicators measured per capita well-being. Per capita income was highest in Fort Lauderdale (\$5,485) and lowest in San Antonio (\$2,892), with per capita income of the median city being \$3,763. The percent of households with effective buying incomes after taxes of less than \$15,000 was lowest in Honolulu (24.3 percent) and highest in Colorado Springs (36 percent). AFDC recipients were fewest in Fort Lauderdale (179.6 per 10,000 population) as compared with the highest ratio reported in Baltimore (1,590.4 per 10,000). Per capita subsidized amounts of food stamps were lowest in Madison (\$3.60) and highest in New Orleans (\$58.10). Per capita bank deposits were highest in San Francisco (\$28,800)

and lowest in Virginia Beach (\$1,100). Telephones per capita were most numerous in Washington, D.C. (130.3 per 100 population) and least numerous in Corpus Christi (54.7 per 100).

In relation to per capita income, per capita nonschool taxes were lowest in Little Rock (2.12 percent) and highest in Lexington (11.82 percent). Residential electric rates were lowest in Seattle (.209 percent) and highest in Newark (1.346 percent). Construction costs were lowest in Fort Lauderdale (.2140 percent) as were hospital room costs (1.139 percent). Highest construction costs in relation to income were in Newark (.5364 percent) and highest hospital room rates in Boston (3.653 percent). The cost of eating out was lowest in Salt Lake City (56.8 percent of daily per capita income) and highest in Jersey City (129.3 percent).

Individual well-being is also reflected by the varying unemployment rates among the 100 cities. The 1975 unemployment rate was lowest in Lubbock (3.7 percent) and highest in Fort Lauderdale (15.5).



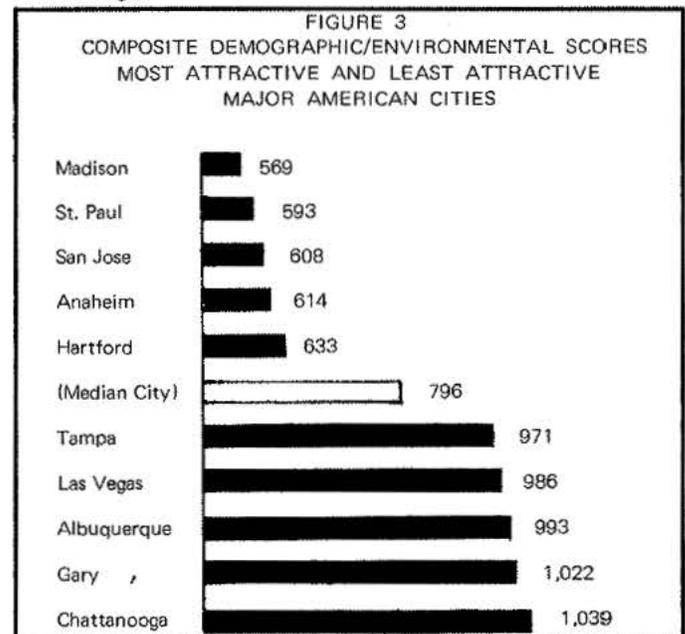
Nine of the economic indicators measured business and industry productivity, sales, and utility costs. Manufacturing productivity as measured by dollar value added per employee was highest in Long Beach (\$32,305). Measured by dollar value added per dollar wages paid, manufacturing productivity was highest in Jersey City (\$2.86). Manufacturing productivity in Pittsburgh was lowest, measured by value added either per employee (\$10,965) or per dollar wages paid (\$0.90). City retail sales increased most between 1963 and 1972 in Colorado Springs (312.2 percent) and decreased most in Newark (-4.1 percent). Automobile and truck registrations in 1973 were highest in Las Vegas (741 per 1,000 population), lowest in New York (229). Commercial banking offices per 100,000 population were most numerous in Charlotte (34.6) and least numerous in El Paso (4.5). The construction industry, as measured through 1975 building permits per 10,000 population, appears most active in Honolulu (20.18), least active in Buffalo (0.09). Natural gas rates for 1,000 cubic feet as a percent of per capita income were lowest in Tulsa (.0057 percent) and highest in Hartford (.0272 percent). Monthly electric rates for both commercial and industrial users were lowest in Seattle (\$24.28 per 1,500 KWH and \$615 per 60,000 KWH respectively) and highest in New York (\$177.20 and \$5,047).

Ten of the 31 indicators measure conditions of the city itself and the central city in comparison to the area immediately outside the city proper. The 1974 per capita city debt in relation to per capita income was lowest in Santa Ana (0.989 percent) with New York at the other extreme (44.898 percent). The change in assessed value of real property between 1960 and 1972

was greatest in Virginia Beach (35.4 percent) and least in Jersey City (-3.2 percent). The ratio of finance and general government employees<sup>2</sup> to total population was lowest in Tulsa (4.10 per 10,000) and highest in Washington, D.C. (36.09). Highest bond ratings (AAA) were enjoyed by 18 of the 100 cities and the lowest rating was given to New York City. On the other hand the most favorable fire rating was given to New York and the least favorable to Virginia Beach. Per capita income in 1973 inside the city limits as a percent of that outside the city was greatest in Albuquerque (144 percent), lowest in Newark (56 percent).

Median value of housing within the city in 1970 as a percent of that outside was greatest in El Paso (173 percent), as were building permits within the city as a percent of those outside (24,430 percent). At the lower extremes were median housing values in Baltimore (53 percent of that in the suburbs) and building permits in Albuquerque (one percent of those in the suburbs). Manufacturing employment within the city limits as a percent of that for the entire metropolitan area was measured for both 1963 and 1972. During the ten-year period, manufacturing employment within the city as a percent of that in the SMSA increased most in Tucson (46.03 percentage points) and decreased most in Seattle (28.42 percentage points). The condition of city transit service is represented by the percent of employees whose place of work is within a one-half mile band of bus transit, which was highest in New Orleans (95 percent) and lowest in Tampa (18 percent).

*Demographic/Environmental Indicators.* The 21 demographic and environmental indicators include population and migration, vital statistics, health care, and climate (Figure 3). Cities with the highest composite rank for the 21 factors were Madison, St. Paul, San Jose, Anaheim and Hartford. Cities ranked lowest were Tampa, Las Vegas, Albuquerque, Gary and Chattanooga.



Population density in 1973 was lowest in Oklahoma City (0.9 persons per acre) and highest in New York (39.8 persons per acre). Migration trends between 1970 and 1975 showed Fort Lauderdale with the largest positive net change (38.1 percent) and St. Louis with the largest loss (15.3 percent). The percentage point change between ratios of white to total population in 1960 and 1970 was used to measure the relative attractiveness of a city to both white and nonwhite population. The city with the greatest stability or the least change in the ratio was Lincoln

<sup>2</sup>Includes all financial and general government employees. Excludes fire, police, public works, parks and recreation and other service performing departments of city government.

(0.3 percentage point change) and the city with the most instability was Newark (21.6 percentage point change).

Salt Lake City's voting population had the best participation record (6,101 per 10,000 eligible voters) with Shreveport reporting the lowest (1,653 per 10,000).

Seven measurements of vital statistics are among the demographic and environmental indicators in the City Index. Divorces per 100,000 population were least frequent in Shreveport (131.2) and most frequent in Las Vegas (2,029.9). Suicide rates were least serious in Paterson (4.20 per 100,000), most serious in San Francisco (32.90 per 100,000). Accidental deaths and motor vehicle deaths showed Akron with the most favorable record (10.7 and 7.3 per 100,000); worst rates were reported in Richmond (58.4 accidental deaths per 100,000) and Las Vegas (47.9 motor vehicle deaths per 100,000). Deaths from influenza and pneumonia were also least frequent in Akron (2.8 per 100,000) and most frequent in Chattanooga (171.0 per 100,000). Infant deaths were fewest in San Francisco (9 per 100,000) and most in Salt Lake City (148 per 100,000). Total deaths per 100,000 were lowest in Honolulu (400) and highest in Dayton (2,550).

The number of hospitals, hospital beds, physicians, registered nurses, and nursing homes were included in the Index to show the availability of health care. Hospitals were most numerous in Richmond (6.0 per 100,000) but hospital capacity was greatest in St. Louis (1,820 beds per 100,000). Virginia Beach ranks last in these measures (0.5 hospitals and 123 hospital beds per 100,000 population). Physicians were most abundant in Madison (371.0 per 100,000) and least available in Gary (90.2 per 100,000). Registered nurses were in greatest supply in Minneapolis (1,005 per 100,000) with Virginia Beach again ranking last (64 per 100,000). Nursing home beds in relation to the population aged 65 or over were in greatest supply in Milwaukee (187.4 per 1,000) and most lacking in New York (11.0 per 1,000).

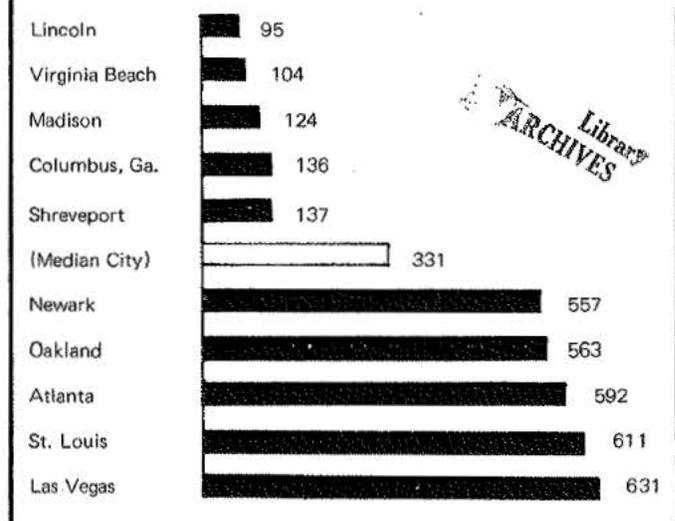
Climate and quality of environment in the geographically diverse city by five factors in common to all areas of the country. The most days of sunshine in 1975 were recorded in Tucson (91 percent); the least, in Pittsburgh (40 percent). The air in 1974 was most free of particulates in Virginia Beach (only 45 micrograms per cubic meter), most polluted in Cleveland (226 mmg/m<sup>3</sup>). Carbon monoxide particles were scarcest in Austin (0.2 milligrams per cubic meter) and most numerous in New York (18.6 mg/m<sup>3</sup>). Cold weather was scarcest in Honolulu (0 degree heating days) and most prevalent in Minneapolis (4,484). The wind was weakest in Fresno (2.5 meters per second) and strongest in Wichita (5.5 m/s).

**Crime Indicators.** Eight types of crime have been included in the City Index. Crime was measured in terms of the number of offenses per 100,000 population in each of the 100 respective cities (Figure 4). The eight types of crime include four offenses against property and four offenses against persons. Weighting the eight types of crime equally, Lincoln ranked at the top with the lowest overall crime rates followed by Virginia Beach, Madison, Columbus (Ga.) and Shreveport. The most serious composite crime rates were in Newark, Oakland, Atlanta, St. Louis and Las Vegas.

The crimes against property are burglary, larceny, motor vehicle theft and robbery. Burglary rates were lowest in Virginia Beach (810 per 100,000 population) and highest in Las Vegas (5,930 per 100,000). The lowest 1975 larceny rates were recorded for Philadelphia (1,630); the highest, for Las Vegas (9,690). Motor vehicle theft rates were least serious in Virginia Beach (180) and most serious in Boston (4,430). Robberies per 100,000 population were least frequent in Lincoln (47) and most frequent in Detroit (1,597).

Some of the same cities represented the extremes with respect to violent crimes against persons. Included in the Index were assault, rape and negligent and non-negligent manslaughter. Aggravated assault rates were again least serious in Madison

FIGURE 4  
COMPOSITE CRIME SCORES  
MOST ATTRACTIVE AND LEAST ATTRACTIVE  
MAJOR AMERICAN CITIES



(23.8) and were most serious in Flint (983.3). Forcible rapes per 100,000 population were reported least frequently in Providence (13.1), most frequently in Las Vegas (115.7). Ten cities reported no negligent manslaughter, with the highest rate in Tacoma (18.5 per 100,000 population). Murder and non-negligent manslaughter rates were lowest in Madison (0.0) and highest in Detroit (47.4).

**Recreation, Education and Other Indicators.** The final 20 indicators in the City Index relate to miscellaneous conditions affecting the general environment of a city: education, communications media, travel, entertainment and several conditions showing concern for the community (Figure 5). These 20 indicators suggest the level and range of leisure and personal opportunities available to and supported by the city's residents. Each factor has been quantified in relation to population size. Cities with the highest composite scores for all 20 educational, recreational and other indicators were Madison, Des Moines, Hartford, Minneapolis and Pittsburgh. Ranked lowest among the 100 major cities studied were Paterson, Virginia Beach, Santa Ana, Gary and San Jose. Of the top five cities, only the first two ranked among the top cities for all 80 indicators. Of the five ranked lowest in the educational/recreational factors, only Paterson and Gary placed among the lowest for all 80 indicators and Virginia Beach placed 10th and 9th by the two weighting methods. These findings attest to the extreme diversity of the cities and the aspects measured by the 80 indicators in the City Index.

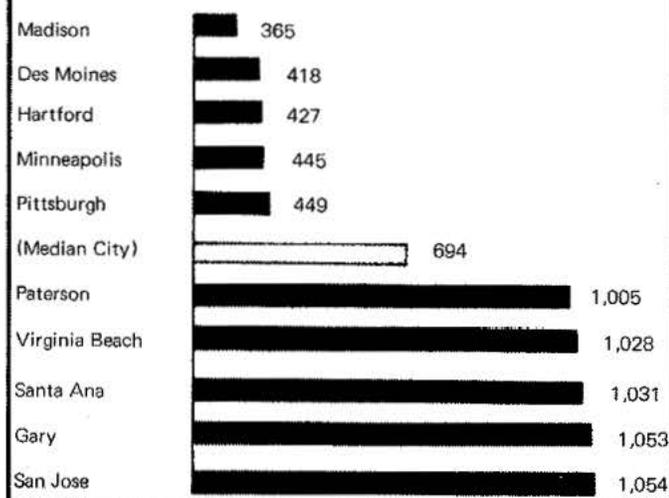
Quality of education and educational opportunities were measured by pupil-teacher ratios, enrollments in higher education, number of scholars, library volumes, and museums. Public school pupil-teacher ratios were most favorable in Newark (15.2) and least favorable in Tucson (27.9); the median for the 100 cities was 23.0 pupils per teacher. Enrollments in higher education per 1,000 population were highest in Madison (299) and lowest in Anaheim (0). Madison also boasts 159 entries per 100,000 population in the *Directory of American Scholars*<sup>3</sup> as compared with the median of 24 entries. Library volumes per 100 population were highest in Fort Wayne (749), fewest in Virginia Beach (48). Richmond's museums were most numerous in relation to population (9.0 per 100,000) and Gary's least numerous (0 per 100,000).

Lawyers per 100,000 population were predictably highest in Washington, D.C. (1,517), with Hartford (1,049) the next closest contender and the median much lower (377).

A city's communications media were represented by the

<sup>3</sup>*Directory of American Scholars* (New York: R. R. Bowker Company, 1974).

FIGURE 5  
COMPOSITE RECREATION/EDUCATION SCORES  
MOST ATTRACTIVE AND LEAST ATTRACTIVE  
MAJOR AMERICAN CITIES



number of radio and television stations per 100,000 population and the percentage of households purchasing a daily newspaper. Paterson and Bridgeport had the most television stations per 100,000 population (11 each), and Spokane had the most radio stations per 100,000 (10.9). Circulation of daily newspapers as a percent of households was highest in San Francisco (165.9 percent) and lowest in Anaheim (11.9 percent).

The 100 cities were also compared in terms of three measures of transportation and travel accommodations. The percentage of the population residing within a one-half mile band of bus transit lines was highest in Des Moines (92), lowest in Anaheim (25). The number of air passengers per 1,000 population was greatest in Las Vegas (11,530) as compared to the median St. Louis (1,750). Las Vegas also furnished the most hotel and motel rooms per 10,000 population (1,750), Paterson the fewest (4).

In recreation and amusement establishments per 100,000 population, Las Vegas again led the cities (266); Newark ranked lowest (19.0). However, in terms of eating and drinking establishments per 100,000 population, Buffalo (158.5) led with nearly twice as many as the median of 86.8 per 100,000 reported in Fort Wayne. Outdoor recreation facilities in relation to population size showed Springfield with the most golf courses (8.8 per 100,000 population), Corpus Christi with the most park acreage (985 per 10,000) and Oklahoma City with the most swimming pools (18 per 100,000).

Three other indicators relate in separate ways to the range or level of personal concerns of a city's population. The number of religious organizations per 100,000 population was greatest in Richmond (56.3) and least in New York (6.4). Dollar support for United Way community service organizations was strongest among households in Jacksonville and among businesses in Des Moines, weakest in St. Petersburg and Jersey City respectively.

### Multiple Regression Analysis

Few cities consistently ranked highest or lowest on each of the measures of attractiveness, as shown in Figure 6. In order to determine the relative importance of variables as they affect the overall attractiveness of cities, step-wise multiple regression analysis was employed.<sup>4</sup> The dependent variable was the composite score of a city. The independent variables included in the regression equation were those whose correlations with the dependent variable had coefficients that were significant at the one percent level.

The analysis through step-wise regression indicated that 70 percent or more of the variation among composite scores of

cities can be explained by the variation in the following variables: 1) hospital room costs as a percent of per capita income, 2) non-negligent manslaughter per 100,000 population, 3) residential electric rates per 1,000 KWH as a percent of per capita income, 4) the number of building permits per 10,000 population of a city and 5) assaults per 100,000 population. All coefficients in both equations are significant and of the expected sign.

Although the regression analysis does not explain a cause and effect relationship, it does indicate that a few variables can be used to explain a major part of the variation in the composite scores among cities. Assuming the equation has predictive value, a relative decline in manslaughter and assault rates, hospital room costs and residential electric rates as percents of per capita income, and a relative increase in building permits per 10,000 population would indicate an increase in the attractiveness of that city as compared with cities in which these conditions had not improved.

### Conclusion

Attracting industry and people back into our cities has proved to be a difficult task. One major reason for this is that many American cities have received "bad press," such as comments by *Fortune* editor Arthur Louis who recently wrote, "There are no good cities in America today--only bad and less bad."<sup>5</sup>

Cities are today what they have always been--the centers of economic, social and cultural opportunity. They offer to the individual a wide variety of employment and educational opportunities, cultural and recreational diversity, police and fire protection and a wide selection of housing types and costs. All of these conditions contribute in varying degrees to "the good life." Industrial investors who demand lower costs, larger and more diversified labor pools, readily available utilities, transportation, vocational and other educational programs, as well as medical and hospital facilities would normally find the best conditions in the city. Admittedly, not all our cities are equally successful in meeting these needs of individuals and industry.

This study has been designed to acknowledge most of the above concerns and, to the extent statistics exist, incorporate them into a composite City Index. Subjective considerations are considered to be beyond the scope of this study. Reliable indicators of subjective perceptions have not yet been developed. Thus the Index as constructed and presented here permits only an approximation of the comparative attractiveness of the 100 largest American cities.

<sup>4</sup>The results of the analysis follow:

Equation 1:

$$Y_1 = 1789.35 + 233.41X_4 + 1.50X_{55} + 618.98X_7 + 0.42X_{58} - 21.05X_{16}$$

$$t\text{-value: } (5.500)** (6.954)** (6.556)** (3.612)** (3.262)**$$

$$R^2 = 0.81$$

$$S.E. = 192.72$$

Equation 2:

$$Y_2 = 45.34 + 0.29X_{55} + 0.11X_{58} + 23.39X_4 + 37.69X_7 - 2.09X_{16}$$

$$t\text{-value: } (6.790)** (4.785)** (2.789)** (2.020)* (1.639)$$

$$R^2 = 0.70$$

$$S.E. = 38.09$$

\*Significant at 5% significant level

\*\*Very significant at 1% significant level

Where:  $Y_1$  = total composite scores on which composite rank A was based (80 factors weighted equally)

$Y_2$  = total composite scores on which composite rank B was based (4 categories weighted equally)

$X_4$  = hospital room costs as a percent of per capita income

$X_{55}$  = non-negligent manslaughter per 100,000 population

$X_7$  = residential electric rates as a percent of per capita income

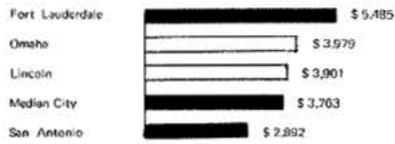
$X_{16}$  = building permits per 10,000 population

$X_{58}$  = assaults per 100,000 population

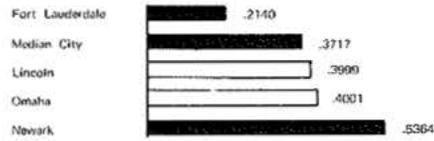
<sup>5</sup>Arthur M. Louis, "The Worst American City," *Harper's* (January, 1975), 67-71.

**FIGURE 6**  
**SCORES FOR INDIVIDUAL CITY INDEX COMPONENTS**  
**MOST ATTRACTIVE AND LEAST ATTRACTIVE MAJOR AMERICAN CITIES**

**PER CAPITA INCOME, 1973**



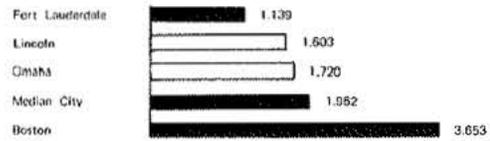
**HOUSING CONSTRUCTION COSTS PER SQUARE FOOT AS PERCENT OF PER CAPITA INCOME, 1975**



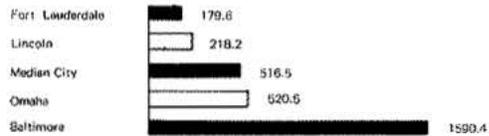
**PERCENT OF HOUSEHOLDS WITH EFFECTIVE BUYING INCOME UNDER \$15,000, 1975**



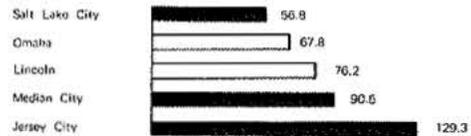
**HOSPITAL ROOM COSTS AS PERCENT OF PER CAPITA INCOME, 1975**



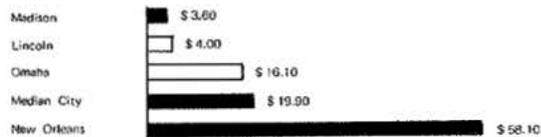
**AFDC RECIPIENTS PER 10,000 POPULATION, 1975**



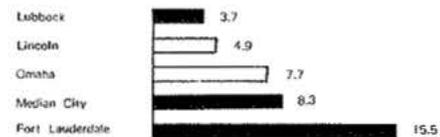
**COST OF EATING OUT AS PERCENT OF PER CAPITA DAILY INCOME, 1975**



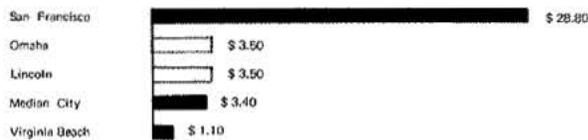
**PER CAPITA SUBSIDIZED AMOUNT OF FOOD STAMPS IN DOLLARS, 1975**



**AVERAGE UNEMPLOYMENT RATE, 1975**



**PER CAPITA BANK DEPOSITS IN THOUSANDS OF DOLLARS, 1975**



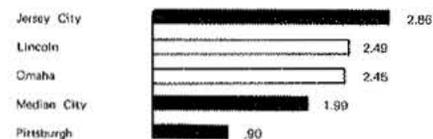
**DOLLAR VALUE ADDED IN MANUFACTURING PER EMPLOYEE, 1972**



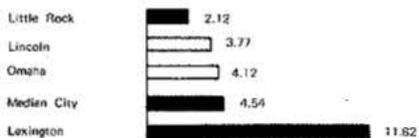
**TELEPHONES PER 100 POPULATION, 1974**



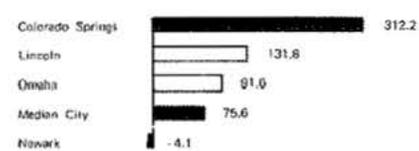
**DOLLAR VALUE ADDED IN MANUFACTURING PER DOLLAR WAGES PAID, 1972**



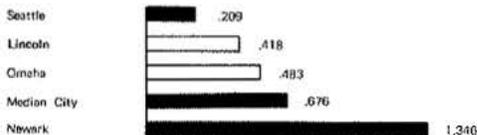
**PER CAPITA NON-SCHOOL TAXES AS PERCENT OF PER CAPITA INCOME, 1975**



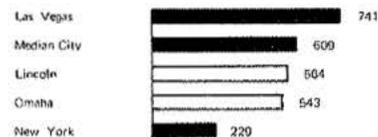
**PERCENT CHANGE IN RETAIL SALES, 1963-1972**



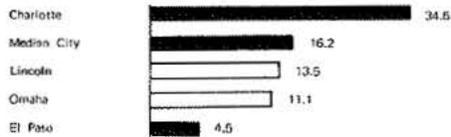
**RESIDENTIAL ELECTRIC RATES, 1975--1000 KWH AS PERCENT OF PER CAPITA INCOME**



**AUTOMOBILE AND TRUCK REGISTRATIONS PER 1,000 POPULATION, 1973**



**COMMERCIAL BANKING OFFICES PER 100,000 POPULATION, 1974**

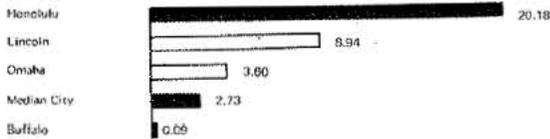


**MUNICIPAL BOND RATING, 1975**

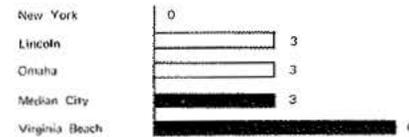


\*Austin, Charlotte, Corpus Christi, Fort Wayne, Hartford, Houston, Indianapolis, Los Angeles, Madison, Milwaukee, Minneapolis, Omaha, Portland, Rochester, Sacramento, Salt Lake City, San Francisco, and Washington, D.C. have AAA bond ratings.

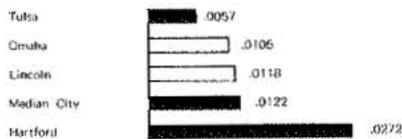
**1975 BUILDING PERMITS PER 10,000 POPULATION**



**CITY FIRE RATING, 1975**



**NATURAL GAS RATES FOR 1,000 CU. FT. AS PERCENT OF PER CAPITA INCOME, 1975**



**PER CAPITA INCOME IN CENTRAL CITY AS PERCENT OF PER CAPITA INCOME IN SUBURBS, 1973**



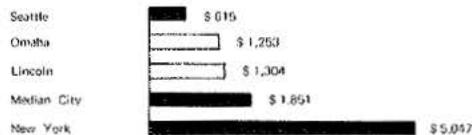
**COMMERCIAL ELECTRIC RATES, 1975 - DOLLARS PER 1500 KWH**



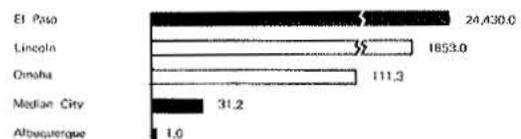
**MEDIAN VALUE OF HOUSE IN CENTRAL CITY AS PERCENT OF MEDIAN VALUE OF HOUSE OUTSIDE CENTRAL CITY, 1970**



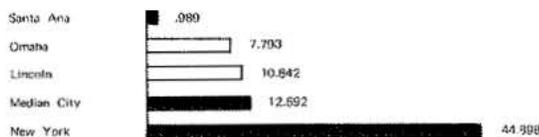
**INDUSTRIAL ELECTRIC RATES, 1975 DOLLARS PER 60,000 KWH**



**BUILDING PERMITS IN CENTRAL CITY AS PERCENT OF BUILDING PERMITS OUTSIDE CENTRAL CITY, 1975**



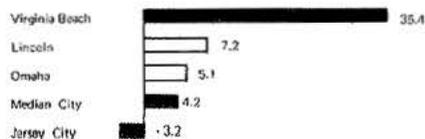
**PER CAPITA CITY DEBT AS PERCENT OF PER CAPITA INCOME, 1974**



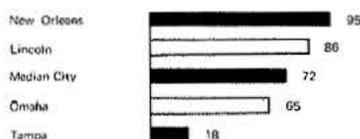
**PERCENTAGE POINT CHANGE IN MANUFACTURING EMPLOYMENT, 1963-1972 CENTRAL CITY/OUTSIDE CENTRAL CITY**



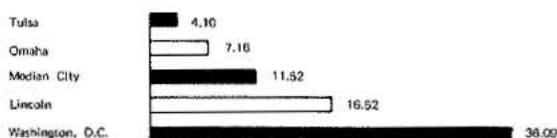
**ANNUAL PERCENT CHANGE IN ASSESSED VALUE OF REAL PROPERTY, 1960-1972**



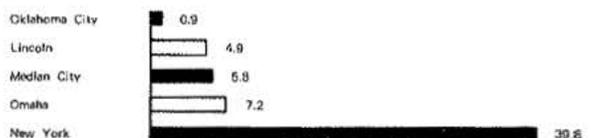
**PERCENT OF EMPLOYEES COVERED BY BUS TRANSIT WITHIN ONE-HALF MILE BAND, 1972**



**FINANCE AND GENERAL CONTROL GOVERNMENT EMPLOYEES PER 10,000 POPULATION, 1975**



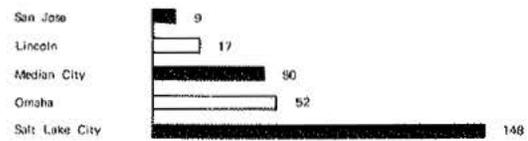
**POPULATION DENSITY IN PERSONS PER ACRE, 1973**



**NET POPULATION MIGRATION IN PERCENT, 1970-1975**



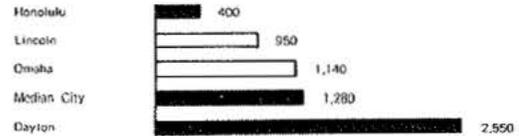
**INFANT DEATHS PER 100,000 POPULATION, 1975**



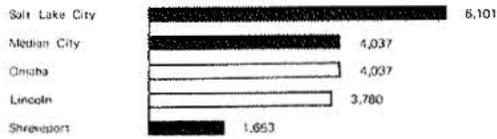
**1960-1970 PERCENTAGE POINT CHANGE IN RATIO OF WHITE POPULATION TO TOTAL POPULATION**



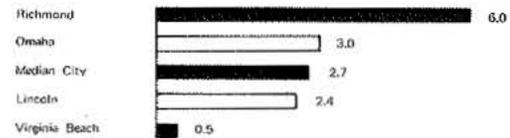
**DEATHS PER 100,000 POPULATION, 1975**



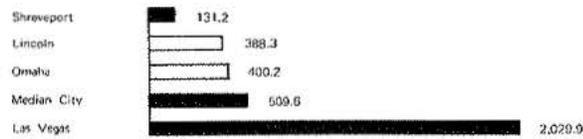
**VOTERS PER 10,000 VOTING POPULATION, 1974**



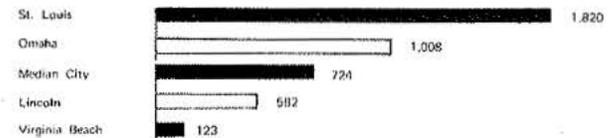
**HOSPITALS PER 100,000 POPULATION, 1975**



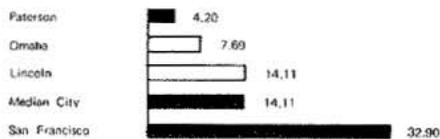
**DIVORCES PER 100,000 POPULATION, 1972**



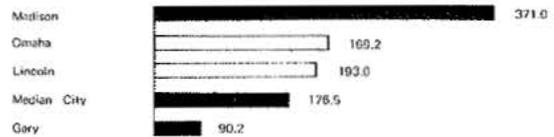
**HOSPITAL BEDS PER 100,000 POPULATION, 1975**



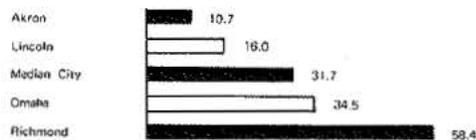
**SUICIDES PER 100,000 POPULATION, 1973**



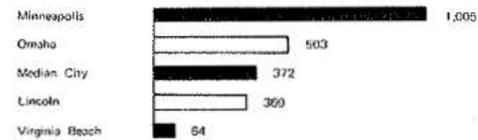
**PHYSICIANS PER 100,000 POPULATION, 1974**



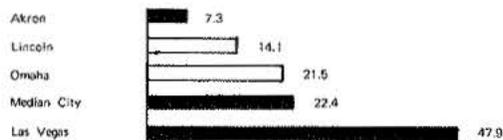
**ACCIDENTAL DEATHS PER 100,000 POPULATION, 1973**



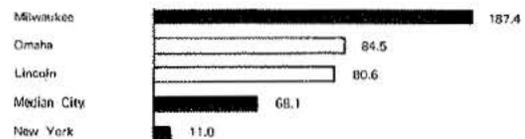
**REGISTERED NURSES PER 100,000 POPULATION, 1975**



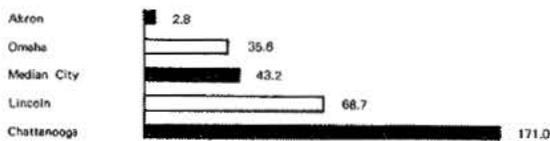
**MOTOR VEHICLE DEATHS PER 100,000 POPULATION, 1973**



**NURSING HOME BEDS PER 1,000 POPULATION AGED 65 AND OVER, 1975**



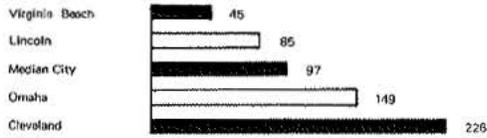
**INFLUENZA AND PNEUMONIA DEATHS PER 100,000 POPULATION, 1975**



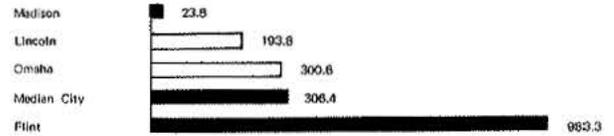
**PERCENT SUNSHINE, 1975**



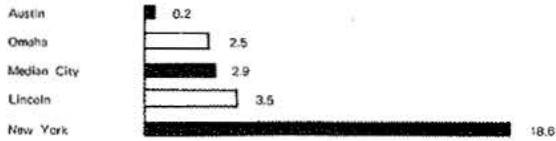
**AIR PARTICULATES IN MICROGRAMS PER CUBIC METER, 1974**



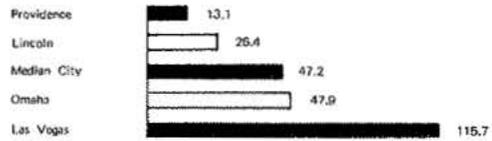
**ASSAULTS PER 100,000 POPULATION, 1975**



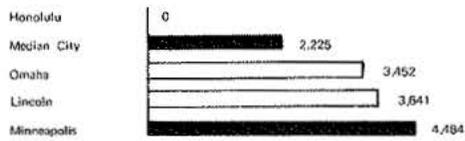
**CARBON MONOXIDE IN AIR IN MILLIGRAMS PER CUBIC METER, 1974**



**RAPES PER 100,000 POPULATION, 1975**



**HEATING DEGREE DAYS, 1975**



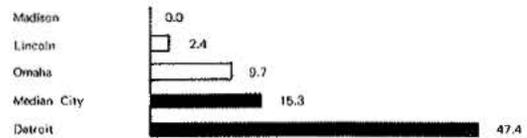
**NEGLIGENT MANSLAUGHTER PER 100,000 POPULATION, 1975**



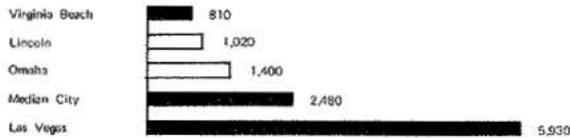
**AVERAGE WIND SPEED IN METERS PER SECOND, 1975**



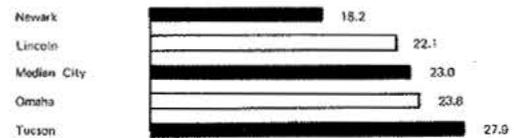
**NON-NEGLIGENT MANSLAUGHTER PER 100,000 POPULATION, 1975**



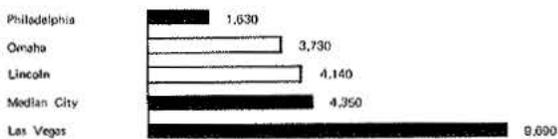
**BURGLARIES PER 100,000 POPULATION, 1975**



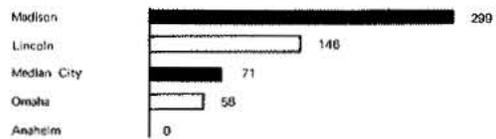
**PUBLIC SCHOOL STUDENT-TEACHER RATIO, 1972-1973**



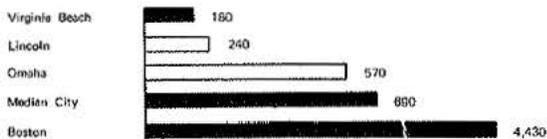
**LARCENY PER 100,000 POPULATION, 1975**



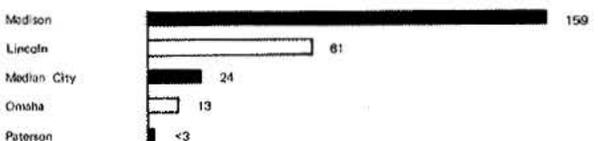
**ENROLLMENTS IN HIGHER EDUCATION PER 1,000 POPULATION, 1974-1975**



**MOTOR VEHICLE THEFTS PER 100,000 POPULATION, 1975**



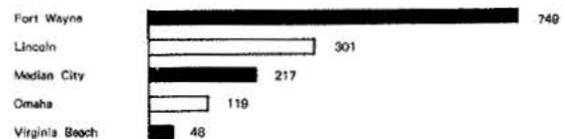
**SCHOLARS PER 100,000 POPULATION, 1974**



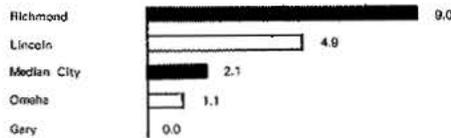
**ROBBERIES PER 100,000 POPULATION, 1975**



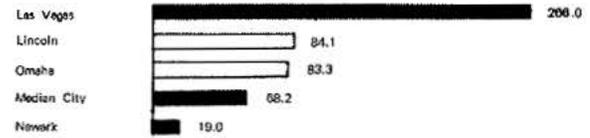
**LIBRARY VOLUMES PER 100 POPULATION, 1975**



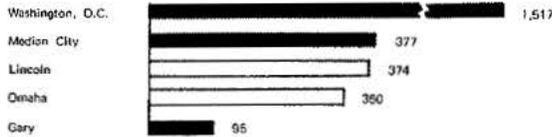
**MUSEUMS PER 100,000 POPULATION, 1976**



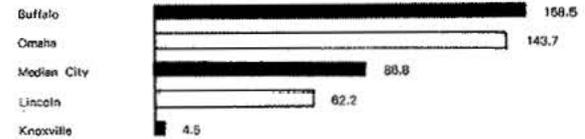
**RECREATION AND AMUSEMENT ESTABLISHMENTS PER 100,000 POPULATION, 1972**



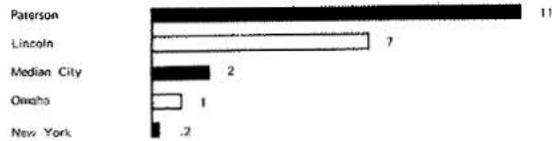
**LAWYERS PER 100,000 POPULATION, 1976**



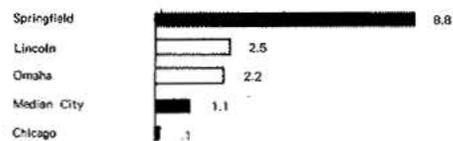
**EATING AND DRINKING ESTABLISHMENTS PER 100,000 POPULATION, 1972**



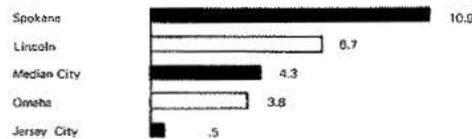
**TELEVISION STATIONS PER 100,000 POPULATION, 1975**



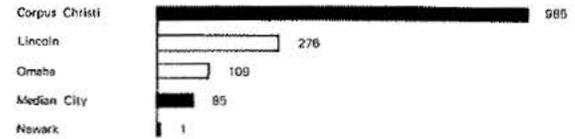
**GOLF COURSES PER 100,000 POPULATION, 1975**



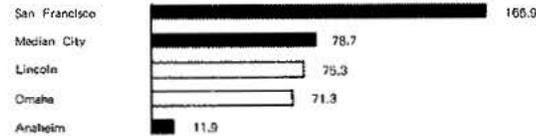
**RADIO STATIONS PER 100,000 POPULATION, 1975**



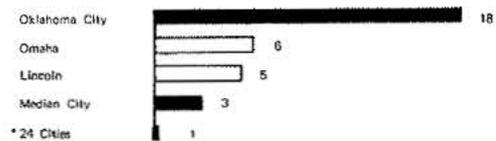
**PARK ACREAGE PER 10,000 POPULATION, 1975**



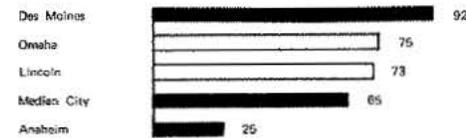
**CIRCULATION OF DAILY NEWSPAPERS AS A PERCENT OF HOUSEHOLDS, 1976**



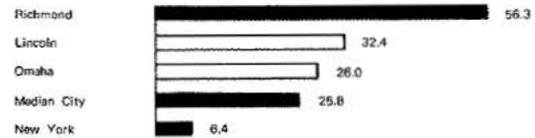
**SWIMMING POOLS PER 100,000 POPULATION, 1975**



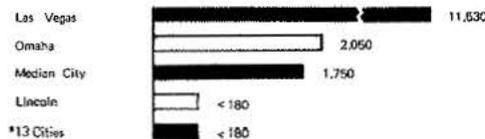
**PERCENT OF POPULATION COVERED BY BUS TRANSIT WITHIN ONE-HALF MILE BAND, 1972**



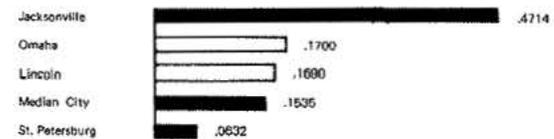
**RELIGIOUS ORGANIZATIONS PER 100,000 POPULATION, 1974**



**AIR PASSENGERS PER 1,000 POPULATION, 1974**

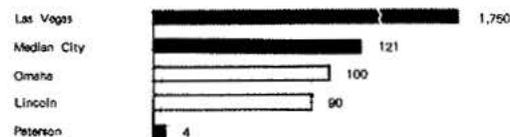


**CONTRIBUTIONS TO UNITED WAY AS PERCENT OF EFFECTIVE BUYING INCOME, 1976**

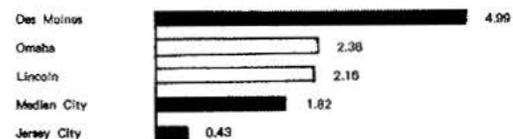


\*Baton Rouge, Bridgeport, Columbus, Georgia, Corpus Christi, Flint, Fort Wayne, Gary, Lexington, Lincoln, Montgomery, Paterson, Riverside and Rockford have less than 180 air passengers per 1,000 population.

**HOTEL AND MOTEL ROOMS PER 10,000 POPULATION, 1975**



**CONTRIBUTIONS TO UNITED WAY PER FIRM IN DOLLARS, 1976**



## WHAT IS CAUR?

The Center for Applied Urban Research (CAUR) is the major research component of the College of Public Affairs and Community Service of the University of Nebraska at Omaha. The primary goal of the Center is to contribute to the solution of problems plaguing urban society. In order to meet this goal the following objectives were established:

- to conduct research
- to provide technical assistance and consultation to governmental and other agencies
- to collect and disseminate data on urban conditions
- to contribute to the educational experience of students

The Center's research staff of twelve full-time professionals includes six Ph.D.'s (in economics, geography, political science, sociology, and statistics). Graduate and under-graduate students with training in urban planning, social work, economics, history, political science, and other urban-related skills, as well as faculty members from other departments of the University of Nebraska, are available to the Center as

needed for various research projects.

The Center has a full-time urban information and statistical data coordinator and its own library containing over 6,000 documents concerned with urban Nebraska, the Mid-Continent and the United States.

The Division of Housing Research and Services of CAUR fosters cooperation among University colleges and departments in a long-term, comprehensive program of education, research and services on the full spectrum of housing concerns and problems in the Omaha metropolitan region, the state of Nebraska and the nation with special attention to housing for low- and middle-income families.

The research staff serves on city, state, regional and national advisory committees and boards to make available the Center's research findings and conclusions to those making decisions on urban problems.

Research findings are published monthly by the Center as a public service and distributed free in Nebraska. Annual subscription rate outside Nebraska is \$3.60.

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Joyce Carson, Betty Mayhew, Beverly Walker, *Clerical*

Center for Applied Urban Research  
University of Nebraska at Omaha  
Box 688  
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