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United States Department of Agriculture

Economic Research Service

Technical Bulletin Number 1817

Grocery Retailing Concentration in Metropolitan Areas, 1954-82

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Grocery Retailing Concentration in Metropolitan Areas, 1954-82. By Phillip R. Kaufman, Doris J. Newton, and Charles R. Handy. Commodity Economics Division, Economic Research Service, U.S. Department of Agriculture. Technical Bulletin No. 1817.

Abstract

Grocery retailing concentration in U.S. cities increased on average in 1982, continuing a long-term trend. The all-SMSA (Standard Metropolitan Statistical Area) average four-firm concentration level in grocery retailing rose to 58.3 percent in 1982, compared with 56.3 percent in 1977, the previous census year. These results were obtained from a special tabulation of the 1982 Census of Retail Trade, previously unpublished. The four-firm concentration level ranged from 27 percent in Appleton, WI, to 90.6 percent in Iowa City, IA, in 1982. Although concentration levels have generally increased since 1954, considerable diversity in concentration change of individual metropolitan areas (SMSA's) was found. This report analyzes grocery retailing market concentration in 1982, as well as changes in concentration from 1954 to 1982.

Keywords: Grocery retailing, concentration, SMSA's, market structure, Census of Retail Trade

Acknowledgments

The authors thank Dr. Margaret Malanoski and Dr. Warren Preston, U.S. Department of Agriculture, and Dr. Richard Rogers, University of Massachusetts, for their helpful reviews of this manuscript. Dr. Bruce Marion, University of Wisconsin, provided the historical concentration data series. Brenda Powell contributed editing skills, and Nedra Williams prepared the tables, charts, and final manuscript of this report.

1301 New York Avenue, NW.
Washington, DC 20005-4788

August 1993

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Summary

Grocery retailing concentration in U.S. cities increased on average in 1982, continuing a long-term trend. Standard Metropolitan Statistical Areas (SMSA's), used to define grocery retailing markets, had an average four-firm concentration level of 58.3 percent, compared with 56.3 percent in 1977 and 45.4 percent in 1954. Metropolitan areas accounted for more than three-fourths of U.S. grocery store sales in 1982, compared with only two-thirds of total sales in 1954. The combined sales share of the four largest grocery retailers in a metropolitan area ranged from 27 percent in Appleton, WI, to 90.6 percent in Iowa City, IA, in 1982.

While the average grocery retailing concentration level for all metro areas rose in each census year, analysis revealed a significant number of metro areas that diverged from this norm. In all but two of the six consecutive paired census years analyzed, more than 40 percent of metro areas experienced four-firm concentration declines. Among these metro areas, almost one-third fell by 5 percentage points or more, on average. Individual SMSA's displayed considerable variation in patterns of concentration change between 1954-82 as well. Examples of increasing-, decreasing-, variable-, and stable-concentration change patterns were found.

Concentration is a measure of the number and size of competing firms in a market or industry. The four-firm concentration ratio is the most common measure used in both theoretical and empirical analyses. The four-firm concentration ratio measures the combined output of the four largest firms as a percent of total market or industry output. The output quantity is typically measured either by sales (in the case of retailing, services, and wholesaling industries), or by value of shipments (in the case of manufacturing).

Data in support of this study were obtained, in part, from a special tabulation of the 1982 Census of Retail Trade, previously unpublished. The special tabulation extends the present concentration data series to include census years, 1954-82. Four-firm concentration analysis enables researchers and policymakers to document the impact of mergers, acquisitions, divestitures, and firm growth on the changing structure of grocery retailing markets.

Grocery Retailing Concentration in Metropolitan Areas, 1954-82

Phillip R. Kaufman
Doris J. Newton
Charles R. Handy

Introduction

Grocery retailing in metropolitan areas (such as cities and their surrounding suburbs) has exhibited considerable dynamism over time. The entry of new competitors, the exit of existing competitors, and the growth of incumbent firms provide impetus for evolutionary structural change. This report analyzes the nature of structural change primarily through the measurement of concentration and concentration change in grocery retailing markets, defined by Standard Metropolitan Statistical Areas (SMSA's).[1] The availability of 1982 census data permitted us to analyze both changes in concentration since 1977, the previous census year, and concentration trends since 1954.

Although the average four-firm concentration of all grocery retailing market areas increased between 1977 and 1982, considerable diversity among them was found. The four largest firms' share of grocery store sales ranged from 27 percent in Appleton, WI, to 90.6 percent in Iowa City, IA. Of the 318 SMSA's used to define market areas in 1982, more than 40 percent experienced concentration declines. In addition, larger metro areas were more likely to have lower four-firm concentration levels than less populous SMSA's.

Similar diversity was found in the rates of change between consecutive paired census intervals over the entire 28-year span. Four basic patterns were identified to characterize individual metro area change between 1954 and 1982--increasing, decreasing, variable, and stable SMSA's. The analysis underscores the diversity of concentration change masked by the rising all-SMSA averages.

Unlike many industries that are defined by regional, national, or even international markets, grocery retailing takes place largely within local markets such as cities and towns. The designation used by the Bureau of Census, the SMSA, most closely approximates a geographic area comprising a local market. The SMSA has analytical advantages as well, due to the availability of uniform economic and business statistics.

Industry concentration ratios for each SMSA are not routinely reported as part of the Census of Retail Trade publication series, however. The most recent concentration data contained in this report were developed from a special tabulation of grocery stores from the 1982 Census of Retail Trade. The special tabulation was conducted at the request of the Economic Research Service (ERS) to analyze four-firm grocery store sales concentration levels of SMSA's in existence as of January 1982.[2] Due to cost considerations, the ERS special tabulation was limited to a single measure of concentration--four-firm market share as a percentage of grocery store sales. Prior census tabulations reported by Parker, Grinnell and others, and the National Commission on Food Marketing (NCFM)[3] have provided alternative measures of concentration, including four- and eight-firm share of sales, concentration as a percentage of SMSA supermarket sales, and corresponding partial Herfindahl indexes of these measures.

[1]A Standard Metropolitan Statistical Area (SMSA) is defined as an integrated economic and social unit having a population of at least 50,000 inhabitants. In practice, the SMSA closely conforms to that of a city and its adjacent suburban areas.

[2]There were 318 local market areas designated as SMSA's by the Office of Management and Budget (OMB) as of January 1982. A new Metropolitan Statistical Area (MSA) definition was subsequently designated beginning July 1, 1983. Rather than subject census reporting to potential delays as a result of the change, the 1982 Census of Retail Trade was conducted on the basis of the prior SMSA designation.

[3]Names in parentheses refer to sources listed in the References section.

Concentration measures are frequently applied in antitrust law to determine the competitive impact of mergers and acquisitions involving firms in the same industry or market. Concentration measures are also useful in assessing the net effect of mergers, acquisitions, divestitures, and internal growth on the structure of markets and industries. A thorough documentation of the extent and consequences of changes in the structure of markets ultimately serves the public policy formulation process and its larger economic and social goals.

Conceptual and Empirical Considerations

Concentration is a measure of the number and size of competing firms in a market or industry. Although a number of concentration measures have been used in both theoretical and empirical analyses, the most common of these is the four-firm concentration ratio (Bain, Kwoka). Although the four-firm partial Herfindahl index (H_4) is considered superior to the more common summation of market shares as a concentration measure, its use in market structure analysis has been limited by the requirement that individual firm market shares be known.[4]

The four-firm concentration ratio (CR_4) measures the combined output of the four largest firms as a percent of total market or industry output. The output quantity is typically measured either by sales (in the case of retailing, services, and wholesaling industries), or by value of shipments (in the case of manufacturing).

Market structure measures such as four-firm concentration have been linked both theoretically and empirically to firm conduct and market performance. From theories of imperfect competition and industrial organization, a structure-conduct-performance (S-C-P) paradigm has evolved that relies upon measures of market structure as principal determinants of firm conduct and market performance. In more concentrated markets, fewer firms account for an increasing share of total industry or market sales. The potential for interfirm coordination of production and marketing decisions (firm conduct), such as quantity supplied and prices charged, is hypothesized to increase with rising concentration, producing suboptimal market performance. Market performance characteristics include prices, profits, promotion and advertising expenditures, technological progressiveness, and productivity (Bain, Scherer).

Empirical studies applying these hypotheses have often found a positive relationship between the degree of market or industry concentration (a measure of structure) and the level of prices or profits (measures of performance) (Bresnahan, Weiss). Analyses of the structure-performance relationship in grocery retailing markets have produced mixed results, however (see NCFM, Marion and others, Gorman and Mori, and Cotterill). The most recent grocery retailing study found no statistically significant effect of concentration on supermarket firm prices when other city-, firm-, and store-level determinants were taken into account (Kaufman and Handy).

Defining the Relevant Market

Much controversy has centered on the question of an appropriate market definition. It is important to define product markets that encompass relevant competitors. In addition to the traditional grocery retailers (supermarkets, superettes, and convenience stores) there are specialized foodstores such as bakeries, butcher shops, produce stands, and dairies. Over the past decade, a variety of nontraditional outlets for grocery products has developed, including membership wholesale club stores, drugstores, department stores, mass merchandisers, and gasoline stations. All of these participants compete to varying degrees with one another. Concentration levels are likely to vary significantly depending upon the definition of the relevant market.

Among grocery stores, some have argued that supermarkets--the dominant segment by sales share--form a strategic group of competitors (Marion and others). The argument is that supermarkets offer a mix of products, services, and pricing that has little in common with other grocery stores such as convenience stores, superettes, and "mom and pop" grocery stores. Concentration levels as a percentage share of total supermarket sales would thus be higher than as a percentage share of total grocery store sales, all else being equal. The legality of antitrust cases involving a merger of supermarket chains may hinge on the determination of the relevant market definition,

[4]The Herfindahl index is calculated as: $H_4 = \text{Sum}(s_i^2)$ where s_i = market share, firm i, and market share is expressed as a decimal fraction. The value of H_4 can vary from 0 to 1, with 0 representing equal market share of all firms, and 1 representing a single firm with a 100-percent market share (a monopoly). The Herfindahl measure thus takes into account both the total share accounted for by the largest four firms, as well as the distribution of the total among them. The H_4 measure of concentration would produce different indexes for two markets having identical four-firm market shares, but with different market shares comprising their four-firm sums.

however. In the Grand Union-Colonial Stores merger hearing, the Federal Trade Commission (FTC) Administrative Law Judge ruled against the merger, in part based on the resulting level of supermarket four-firm concentration (FTC, 1981). On appeal, subsequent review by Commission members found that grocery store sales, not supermarket sales, should be used to calculate market concentration. Hence, the Commission ruled that competition was sufficient, and that the merger did not violate antitrust laws (FTC, 1983).

The approach taken in this analysis was to apply the broader market definition for calculating four-firm concentration levels. Given the relatively high correlation between SMSA supermarket sales and SMSA grocery store sales, we concluded that there would be no significant differences in concentration change analyses between the two measures.[5]

Defining the relevant geographic market requires careful judgment on the part of the analyst as well. The use of Census Bureau metropolitan area designations to identify grocery retailing markets has been criticized. An argument could be made that the use of Census SMSA's is inadequate because they are often too large and diverse, or they ignore natural and other barriers to trade that may segment designated metro areas into submarkets. For example, the Los Angeles SMSA contains both high-density and low-density population areas since it includes both a central city, its suburbs, a national forest, and a desert region. The New York SMSA consists of five boroughs, some separated by natural geographic boundaries. Necessary statistics and supporting data are not available for individual submarkets of larger SMSA's, however defined. We acknowledge these shortcomings and look to future research in this area for guidance.

Data Comparability Considerations

Comparisons of concentration levels between census years may at the outset contain potential pitfalls. The number of SMSA's has increased since 1954 as population centers have grown. There were 208 geographic areas qualifying as SMSA's in 1954, compared with 318 in 1982. In addition to newly defined SMSA's, many existing SMSA's were redefined geographically to the extent that they were not comparable between census years. Other SMSA's in close proximity to each other subsequently grew large enough to justify their combining as a single geographic entity, such as Dallas and Fort Worth, TX. To better understand the effect of these influences on subsequent analysis, we identified a subset of cities whose geographic areas were substantially comparable over the 1958-82 period (1954 subset data were not available). There were 173 cities whose geographic areas were relatively unchanged during the 24-year period. For each census year, four-firm concentration averages were calculated for both the all-SMSA and constant-SMSA (n=173) groups. The simple correlation between the all- and 173-SMSA group averages was 0.999 (r=0.999). This almost perfect correlation indicates that differences between groups are consistent across census years. The correlation results also suggest that comparisons of all-SMSA concentration averages between census years are valid, despite differences in the number and composition of SMSA's.

Estimation Procedures

The 1982 Census of Retail Trade did not report data for establishments without paid employees except for major aggregations such as U.S. totals at the three-digit Standard Industrial Classification code (SIC) level.[6] Prior census years reported "all-establishment" data as the basis for calculating concentration ratios. For comparability purposes, it was necessary to adjust the 1982 census data to include those sales by grocery stores without paid employees. As a first step, we obtained separate 1982 State-level grocery store sales totals for establishments with payroll and for all establishments. The sales ratio of all-grocery stores to grocery stores with paid employees was calculated for each State.[7] For each metro area, reported grocery store sales were then multiplied by their respective State sales ratios, in order to estimate "all-establishment" SMSA sales. In the case of multi-State SMSA's, individual State sales ratios were weighted by their corresponding share of total SMSA

[5]The simple correlation (r) between grocery store CR_4 and supermarket CR_4 measures would equal 1 if the share of grocery store sales that accounted for only supermarkets were the same for all SMSA's. Because the supermarket sales share varies from city to city, the actual correlation (r) is less than 1. Although comparable statistics are not available for 1982, the simple correlation (r) equaled 0.87 in 1972 (Grinnell and others, p. 25).

[6]Establishments without paid employees are those businesses operated by the proprietor(s) or unpaid family members.

[7]State sales ratio = (all establishment sales)/(establishments with payroll sales).

population.[8] Grocery stores without paid employees accounted for an estimated 1.6 percent of total sales of the 318 SMSA's in 1982.

Concentration in Metro Areas, 1982

Individual metro area four-firm concentration levels ranged from 27.0 to 90.6 percent of their respective total grocery store sales in 1982 (table 1). The all-SMSA average concentration was 58.3 percent in 1982 compared with 56.3 percent in 1977, the previous census year. Table 1 provides detailed firm and market data for each of the 318 SMSA's in 1982, including population, total grocery store sales, number and sales of grocery stores with payroll (paid employees), and the number, sales, and sales share accounted for by the four largest grocery store firms. Subsequent tables in this section summarize the contents of table 1 to allow for comparisons with concentration data from earlier census years.

The 10 most-concentrated and 10 least-concentrated SMSA's in 1982 are listed in table 2.[9] Smaller SMSA cities measured by either population or total grocery store sales were found in both groups. Population of the 10 most-concentrated cities ranged from 71,856 to 1,620,902, compared with 203,511 to 9,120,346 for the 10 least-concentrated cities. Average population was 280,086 among the most-concentrated SMSA's versus 1,367,170 for the least-concentrated SMSA's. Excluding the New York metro area, the 10 least-concentrated cities averaged 505,706 in population. These results suggest a potential inverse relationship between concentration and city size.

Market Size Effects

The all-SMSA average concentration level, although an important structure-related statistic, does not take into account the potential influence of differences in metro area/market size. Size differences are especially critical if a systematic relationship exists between market size and four-firm concentration. To account for the influence of market size in the calculation of the all-SMSA average concentration, we weighted individual SMSA four-firm concentration levels by two different size measures: total market sales (of all grocery stores) and SMSA population (table 3). The all-SMSA average (unweighted) concentration level (equaling 58.3 percent) is higher than either the sales or population-weighted means, an indication that larger markets tend to be less concentrated. Both market sales and population appear to be valid measures of SMSA size, given their minimal differences in weighted averages.[10] We will discuss the relationship between SMSA concentration and SMSA size in greater detail in subsequent sections.

Next, we considered the group of 173 SMSA's whose geographic areas were relatively unchanged during 1954-82. The constant-SMSA group average is 0.6 percentage point less (57.7 versus 58.3) than that for the all-SMSA group in 1982 (table 3). Weighing the 173-SMSA average by either market sales or population had a similar lowering effect on concentration as did the all-SMSA average, indicating a high degree of correspondence between the two metro area groups.

Subgroup Analysis

Grouped by population subclasses, metro area four-firm concentration averages differed considerably, varying by as much as 7 percentage points (table 4). Smaller SMSA's, those with less than 250,000 population, had the highest average concentration level, amounting to 61.2 percent. These SMSA's were also the most numerous, accounting for more than half of the total. The largest size class, metro areas of 1 million or more, had a concentration average of 54.9 percent.[11] Among the population classes, average concentration levels were generally lower with successively larger population groups in 1982. The standard deviation of the concentration means varied from 11.3 to 12.9 percentage points. These relatively small differences suggest that the distribution of concentration levels within population groups was comparable. The variation of average concentration between population subgroups for earlier census years will be discussed below.

Grouping metro areas into four-firm concentration classes further characterizes the extent of variability

[8] Multi-State sales ratio = $\sum_i SR_i W_{ij}$ where:

SR_i = sales ratio, $State_i$.

W_{ij} = share of SMSA population, $State_i$, $City_j$.

[9] A complete listing of metro areas in descending order of four-firm concentration is contained in appendix table 2.

[10] The simple correlation coefficient between the two measures of size, SMSA population and SMSA grocery store sales, are typically high enough to be considered substitutable. In 1982, the correlation (r) between SMSA population and SMSA grocery store sales was 0.98.

[11] The simple correlation (r) between SMSA four-firm concentration and SMSA population in 1982 was low, although inversely related (r = -0.19).

Table 1--Four-firm concentration ratios for all SMSA's, 1982

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
Abilene, TX	139,192	168,635	52	166,291	38	96,361	57.1
Akron, OH	660,328	679,602	147	672,601	139	382,446	56.3
Albany-Schenectady-Troy, NY	795,019	841,693	233	826,892	73	565,064	67.1
Albany, GA	112,402	112,698	59	109,119	11	67,078	59.5
Albuquerque, NM	454,499	480,140	69	475,857	37	293,801	61.2
Alexandria, LA	151,985	144,011	98	139,681	10	64,982	45.1
Allentown-Bethlehem-Easton, PA-NJ	635,481	653,922	218	641,981	46	363,285	55.6
Altoona, PA	136,621	145,536	46	142,808	8	76,790	52.8
Amarillo, TX	173,699	244,432	33	241,033	24	167,502	68.5
Anaheim-Santa Ana-Garden Grove, CA	1,932,709	2,246,618	307	2,220,198	125	1,273,293	56.7
Anchorage, AK	174,431	285,802	26	283,421	23	254,189	88.9
Anderson, IN	139,336	140,501	30	139,096	20	90,472	64.4
Anderson, SC	133,235	139,369	58	134,125	46	102,874	73.8
Ann Arbor, MI	264,748	210,861	63	207,418	24	154,304	73.2
Anniston, AL	119,761	102,769	46	97,504	11	61,740	60.1
Appleton-Oshkosh, WI	291,369	246,705	81	244,383	10	66,656	27.0
Asheville, NC	177,761	1,044	67	1,000	44	817	78.3
Athens, GA	130,015	131,428	56	127,254	34	71,848	54.7
Atlanta, GA	2,029,710	2,162,350	595	2,093,677	183	1,357,020	62.8
Atlantic City, NJ	194,119	224,523	66	221,205	19	138,204	61.6
Augusta, GA-SC	327,372	308,252	98	297,886	28	188,242	61.1
Austin, TX	536,688	712,872	148	702,960	96	456,414	64.0
Bakersfield, CA	403,089	500,281	210	494,398	21	237,172	47.4
Baltimore, MD	2,174,023	2,048,543	642	2,025,653	98	922,618	45.0
Bangor, ME	83,919	104,286	55	101,653	11	75,450	72.3
Baton Rouge, LA	494,151	641,138	230	621,860	90	262,793	41.0
Battle Creek, MI	187,338	137,259	71	135,018	17	97,806	71.3
Bay City, MI	119,881	103,606	54	101,914	9	71,277	68.8
Beaumont-Port Arthur-Orange, TX	375,497	458,420	187	452,046	28	167,457	36.5
Bellingham, WA	106,701	126,351	55	125,336	11	71,414	56.5
Benton Harbor, MI	171,276	136,867	78	134,632	11	50,124	36.6
Billings, MT	108,035	151,217	49	149,232	27	70,691	46.7

See footnotes at end of table.

Continued--

Table 1--Four-firm concentration ratios for all SMSA's, 1982--Continued

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
Biloxi-Gulfport, MS	191,918	193,718	82	181,503	21	108,469	56.0
Binghamton, NY-PA	301,336	310,941	100	305,443	44	198,972	64.0
Birmingham, AL	847,487	877,782	314	832,810	71	504,606	57.5
Bismarck, ND	79,988	77,525	34	76,507	6	52,549	67.8
Bloomington-Normal, IL	119,149	107,193	41	106,184	8	68,386	63.8
Bloomington, IN	98,785	92,499	30	91,574	9	56,077	60.6
Boise City, ID	173,036	218,942	57	216,367	22	147,539	67.4
Boston, MA	2,763,357	2,460,018	798	2,433,974	106	1,167,706	47.5
Bradenton, FL	148,442	206,229	43	204,369	15	121,808	59.1
Bremerton, WA	147,152	144,241	69	143,082	13	90,430	62.7
Bridgeport, CT	395,455	400,437	138	396,002	18	180,813	45.2
Bristol, CT	73,762	74,924	28	74,094	7	51,061	68.2
Brockton, MA	169,374	155,238	47	153,595	13	90,049	58.0
Brownsville-Harlingen-San Benito, TX	209,727	259,843	98	256,230	16	144,676	55.7
Bryan-College Station, TX	93,588	135,810	46	133,922	9	98,653	72.6
Buffalo, NY	1,242,826	1,257,369	429	1,235,258	82	520,666	41.4
Burlington, NC	99,319	113,011	65	108,290	18	71,743	63.5
Burlington, VT	114,070	137,832	80	134,418	16	96,816	70.2
Canton, OH	404,421	423,772	116	419,410	13	141,585	33.4
Casper, WY	71,856	106,507	15	105,935	20	95,924	90.1
Cedar Rapids, IA	169,775	175,579	38	174,480	19	140,939	80.3
Champaign-Urbana-Rantoul, IL	168,392	145,958	38	144,584	11	87,115	59.7
Charleston-North Charleston, SC	430,462	473,323	144	455,512	37	173,374	36.6
Charleston, WV	269,595	325,776	107	313,005	38	179,613	55.1
Charlotte-Gastonia, NC	637,218	772,022	238	739,768	66	400,983	51.9
Charlottesville, VA	113,568	142,746	112	139,319	7	74,363	52.1
Chattanooga, TN-GA	426,540	479,371	114	459,168	40	344,550	71.9
Chicago, IL	7,103,624	5,970,394	1,675	5,914,209	334	3,683,791	61.7
Chico, CA	143,851	192,797	73	190,530	13	95,152	49.4
Cincinnati, OH-KY-IN	1,401,491	1,342,023	521	1,318,294	166	774,056	57.7
Clarksville-Hopkinsville, TN-KY	150,220	128,216	84	121,578	5	49,087	38.3
Cleveland, OH	1,898,825	1,871,724	585	1,852,458	111	890,295	47.6

See footnotes at end of table.

Continued--

Table 1--Four-firm concentration ratios for all SMSA's, 1982--Continued

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
Colorado Springs, CO	317,458	316,326	44	314,940	70	267,715	84.6
Columbia, MO	100,376	100,702	33	99,577	5	47,615	47.3
Columbia, SC	410,088	370,844	123	356,890	37	198,448	53.5
Columbus, GA-AL	239,196	188,571	85	181,843	19	78,668	41.7
Columbus, OH	1,093,316	1,123,752	272	1,112,185	77	589,500	52.5
Corpus Christi, TX	326,228	456,228	108	449,885	91	304,699	66.8
Cumberland, MD-WV	107,782	90,544	64	88,899	10	53,241	58.8
Dallas-Fort Worth, TX	2,974,805	3,881,227	776	3,827,263	192	1,924,811	49.6
Danbury, CT	146,405	169,990	55	168,107	8	86,457	50.9
Danville, VA	111,789	108,846	87	106,233	8	52,729	48.4
Davenport-Rock Island-Moline, IA-IL	383,958	361,059	75	358,158	32	245,839	68.1
Dayton, OH	830,070	815,700	178	807,304	28	374,846	46.0
Daytona Beach, FL	258,762	342,875	81	339,783	59	242,640	70.8
Decatur, IL	131,375	122,655	31	121,501	10	85,014	69.3
Denver-Boulder, CO	1,620,902	2,103,149	196	2,093,936	258	1,812,874	86.2
Des Moines, IA	338,048	425,170	94	422,508	56	286,100	67.3
Detroit, MI	4,353,413	3,674,861	1,497	3,614,854	215	1,995,055	54.3
Dubuque, IA	93,745	86,104	25	85,565	7	70,602	82.0
Duluth-Superior, MN-WS	266,650	241,495	103	239,104	18	108,751	45.0
Eau Claire, WS	130,932	111,297	59	110,250	6	53,340	47.9
El Paso, TX	479,899	431,924	97	425,919	69	236,778	54.8
Elkhart, IN	137,330	171,143	41	169,432	15	126,748	74.1
Elmira, NY	97,656	89,785	37	88,206	8	57,747	64.3
Enid, OK	62,820	82,341	31	80,647	9	61,084	74.2
Erie, PA	279,780	269,752	76	264,696	20	160,635	59.5
Eugene-Springfield, OR	275,226	258,189	164	254,474	25	134,398	52.1
Evansville, IN-KY	309,408	335,469	93	329,894	18	158,407	47.2
Fall River, MA-RI	176,831	141,668	55	140,196	27	88,190	62.3
Fargo-Moorhead, ND-MN	137,574	123,994	41	122,524	15	99,331	80.1
Fayetteville-Springdale, AK	178,609	185,323	61	176,801	17	95,549	51.6
Fayetteville, NC	247,160	211,508	66	202,672	52	105,045	49.7
Fitchburg-Leominster, MA	99,957	77,823	24	76,999	18	64,678	83.1

See footnotes at end of table.

Continued--

Table 1--Four-firm concentration ratios for all SMSA's, 1982--Continued

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
Flint, MI	521,589	436,860	181	429,727	62	215,395	49.3
Florence, AL	135,065	120,401	81	114,232	6	59,379	49.3
Florence, SC	110,163	113,876	85	109,591	9	43,763	38.4
Fort Collins, CO	149,184	165,551	29	164,826	9	127,775	77.2
Fort Lauderdale-Hollywood, FL	1,018,200	1,224,818	179	1,213,773	102	891,106	72.8
Fort Myers-Cape Coral, FL	205,266	325,549	68	322,613	60	196,274	60.3
Fort Smith, AR-OK	203,511	1,828,43	153	176,031	11	66,447	36.3
Fort Walton Beach, FL	109,920	109,604	41	108,616	34	57,823	52.8
Fort Wayne, IN	382,961	333,408	73	330,074	37	252,482	75.7
Fresno, CA	514,621	582,297	274	575,449	34	218,206	37.5
Gadsden, AL	103,057	113,448	40	107,636	8	77,457	68.3
Gainesville, FL	151,348	193,439	52	191,695	14	124,155	64.2
Galveston-Texas City, TX	195,940	287,021	84	283,030	14	136,378	47.5
Gary-Hammond-East Chicago, IN	642,781	608,582	153	602,497	23	204,441	33.6
Glens Falls, NY	109,649	133,898	51	131,543	27	103,316	77.2
Grand Forks, ND-MN	100,944	82,439	36	81,445	11	63,415	76.9
Grand Rapids, MI	601,680	482,160	155	474,287	31	231,685	48.1
Great Falls, MT	80,696	84,359	26	83,252	11	63,699	75.5
Greeley, CO	123,438	111,439	38	110,951	6	67,480	60.6
Green Bay, WI	175,280	131,844	43	130,603	17	76,396	57.9
Greensboro-Winston-Salem-High Point, NC	827,252	841,227	290	806,082	70	353,275	42.0
Greenville-Spartanburg, SC	569,066	635,173	177	611,272	88	424,018	66.8
Hagerstown, MD	113,086	104,150	48	102,986	10	70,762	67.9
Hamilton-Middletown, OH	258,787	240,894	94	238,414	39	162,734	67.6
Harrisburg, PA	446,576	533,610	142	523,609	30	301,351	56.5
Hartford, CT	726,114	780,050	236	771,410	38	345,727	44.3
Hickory, NC	130,207	144,364	71	138,333	22	75,132	52.0
Honolulu, HI	762,565	644,920	198	638,408	46	407,284	63.2
Houston, TX	2,905,353	4,233,146	896	4,174,289	486	1,818,406	43.0
Huntington-Ashland, WV-KY-OH	311,350	299,626	148	287,880	10	97,020	32.4
Huntsville, AL	308,593	293,264	120	278,239	23	168,787	57.6
Indianapolis, IN	1,166,575	1,075,723	226	1,064,967	135	643,910	59.9

See footnotes at end of table.

Continued--

Table 1--Four-firm concentration ratios for all SMSA's, 1982--Continued

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
Iowa City, IA	81,717	73,367	19	72,908	13	66,443	90.6
Jackson, MI	151,495	103,641	60	101,949	7	56,284	54.3
Jackson, MS	320,425	332,972	129	311,976	34	187,276	56.2
Jacksonville, FL	737,541	738,301	189	731,643	73	514,444	69.7
Jacksonville, NC	112,784	92,406	35	88,545	9	37,958	41.1
Janesville-Beloit, WS	139,420	136,212	41	134,930	10	83,778	61.5
Jersey City, NJ	556,972	493,905	284	486,606	14	224,730	45.5
Johnson City-Kingsport-Bristol, TN-VA	433,638	445,704	229	426,960	39	219,465	49.2
Johnstown, PA	264,506	225,916	121	221,682	15	114,118	50.5
Joplin, MO	127,513	132,819	65	131,335	13	89,105	67.1
Kalamazoo-Portage, MI	279,192	237,882	107	233,998	15	107,073	45.0
Kankakee, IL	102,926	91,021	25	90,164	7	61,836	67.9
Kansas City, MO-KS	1,327,106	1,285,418	310	1,272,565	151	499,084	38.8
Kenosha, WI	123,137	119,162	44	118,041	10	74,463	62.5
Killeen-Temple, TX	214,656	207,088	74	204,209	43	114,105	55.1
Knoxville, TN	476,517	578,320	237	551,306	43	326,213	56.4
Kokomo, IN	103,715	96,806	34	95,838	16	69,636	71.9
La Crosse, WI	91,056	96,680	27	95,770	11	71,010	73.4
Lafayette-West Lafayette, IN	121,702	104,080	20	103,039	22	89,417	85.9
Lafayette, LA	150,017	228,538	113	221,666	10	90,671	39.7
Lake Charles, LA	167,223	240,256	84	233,032	21	118,824	49.5
Lakeland-Winter Haven, FL	321,652	405,708	90	402,049	88	255,143	62.9
Lancaster, PA	362,346	351,099	122	344,519	66	151,861	43.3
Lansing-East Lansing, MI	471,565	400,739	163	394,195	41	151,753	37.9
Laredo, TX	99,258	158,448	61	156,245	23	112,451	71.0
Las Cruces, NM	96,340	82,784	27	82,046	7	57,167	69.1
Las Vegas, NV	463,087	650,076	144	647,228	44	382,106	58.8
Lawrence-Haverhill, MA-NH	281,981	245,380	79	242,494	15	173,580	70.7
Lawrence, KS	67,640	57,554	17	57,103	8	45,138	78.4
Lawton, OK	112,456	1,021	47	1,000	24	670	65.6
Lewiston-Auburn, ME	72,378	96,245	56	93,815	9	69,515	72.2
Lexington-Fayette, KY	317,629	354,647	150	334,100	27	192,173	54.2

See footnotes at end of table.

Continued--

Table 1--Four-firm concentration ratios for all SMSA's, 1982--Continued

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
Lima, OH	218,244	192,294	88	190,315	15	88,011	45.8
Lincoln, NE	192,884	176,170	52	174,737	12	89,780	51.0
Little Rock-North Little Rock, AR	393,774	412,212	128	393,257	22	276,463	67.1
Long Branch-Asbury Park, NJ	503,173	603,326	163	594,410	33	356,617	59.1
Longview-Marshall, TX	151,752	242,418	98	239,047	20	137,501	56.7
Lorain-Elyria, OH	274,909	256,254	67	253,616	50	141,470	55.2
Los Angeles-Long Beach, CA	7,477,503	7,844,816	1,667	7,752,561	318	3,630,419	46.3
Louisville, KY-IN	906,152	896,847	426	851,707	65	467,111	52.1
Lowell, MA-NH	233,410	223,511	99	220,926	20	171,961	76.9
Lubbock, TX	211,653	250,887	49	247,399	39	198,248	79.0
Lynchburg, VA	153,260	165,932	96	161,948	23	103,900	62.6
Macon, GA	253,794	266,230	107	257,775	39	160,734	60.4
Madison, WI	323,545	300,975	111	298,143	18	141,879	47.1
Manchester, NH	160,767	194,115	83	191,567	8	105,982	54.6
Mansfield, OH	131,205	115,999	39	114,805	9	62,784	54.1
Mcallen-Pharr-Edinburg, TX	283,229	303,349	147	299,131	23	157,762	52.0
Medford, OR	132,456	120,252	66	118,522	16	62,687	52.1
Melbourne-Titusville-Cocoa, FL	272,959	303,920	61	301,179	33	212,123	69.8
Memphis, TN-AR-MS	913,472	946,590	397	901,514	29	489,946	51.8
Meriden, CT	57,118	1,011	20	1,000	7	728	72.0
Miami, FL	1,625,781	1,658,107	568	1,643,154	138	1,090,798	65.8
Midland, TX	82,636	149,506	41	147,427	11	106,846	71.5
Milwaukee, WI	1,397,143	1,365,420	316	1,352,571	95	808,873	59.2
Minneapolis-St. Paul, MN-WS	2,113,533	2,006,411	414	1,986,349	117	812,202	40.5
Mobile, AL	443,536	507,144	157	481,161	68	286,066	56.4
Modesto, CA	265,900	304,247	129	300,669	24	171,523	56.4
Monroe, LA	139,241	146,096	70	141,703	10	80,833	55.3
Montgomery, AL	272,687	257,523	79	244,329	26	155,081	60.2
Muncie, IN	128,587	108,076	20	106,995	36	96,283	89.1
Muskegon-Norton Shores-Muskegon Hts, MI	179,591	147,314	83	144,909	17	66,646	45.2
Nashua, NH	114,221	149,157	58	147,199	5	83,230	55.8
Nashville-Davidson, TN	850,505	930,840	419	887,359	43	465,308	50.0

See footnotes at end of table.

Continued--

Table 1--Four-firm concentration ratios for all SMSA's, 1982--Continued

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
Nassau-Suffolk, NY	2,605,813	2,746,639	1,137	2,698,339	126	1,593,870	58.0
New Bedford, MA	169,425	161,983	51	160,268	11	114,146	70.5
New Britain, CT	142,241	136,593	50	135,080	8	80,462	58.9
New Brunswick-Perth Amboy-Sayreville, NJ	595,893	655,186	156	645,503	25	335,006	51.1
New Haven-West Haven, CT	417,592	401,625	152	397,177	25	227,746	56.7
New London-Norwich, CT-RI	248,554	272,866	91	269,870	14	126,045	46.2
New Orleans, LA	1,187,073	1,491,150	360	1,446,314	79	862,147	57.8
New York, NY-NJ	9,120,346	6,830,595	3,861	6,712,456	232	2,194,537	32.1
Newark, NJ	1,965,969	2,060,825	594	2,030,369	90	1,074,061	52.1
Newark, OH	120,981	106,231	46	105,138	11	71,170	67.0
Newburgh-Middletown, NY	259,603	316,627	98	311,059	20	249,067	78.7
Newport News-Hampton, VA	364,449	382,855	94	373,663	96	224,833	58.7
Norfolk-Virginia Beach-Portsmouth, VA-NC	806,951	725,713	148	708,082	217	381,056	52.5
Northeast PA	640,396	602,965	236	591,664	45	276,385	45.8
Norwalk, CT	126,692	180,310	57	178,313	6	106,711	59.2
Ocala, FL	122,488	160,707	58	159,258	10	79,092	49.2
Odessa, TX	115,374	196,574	58	193,841	13	113,821	57.9
Oklahoma City, OK	834,088	1,121,803	265	1,098,730	66	379,703	33.8
Olympia, WA	124,264	149,836	66	148,632	11	89,008	59.4
Omaha, NE-IA	569,614	568,024	148	563,516	39	304,782	53.7
Orlando, FL	700,055	888,996	154	880,979	146	572,483	64.4
Owensboro, KY	85,949	99,667	42	93,893	24	59,476	59.7
Oxnard-Simi Valley-Ventura, CA	529,174	597,570	122	590,543	35	356,139	59.6
Panama City, FL	97,740	98,505	45	97,617	44	64,423	65.4
Parkersburg-Marietta, WV-OH	162,836	166,913	77	165,195	10	90,616	54.3
Pascagoula-Moss Point, MS	118,015	129,612	54	121,439	17	69,690	53.8
Paterson-Clifton-Passaic, NJ	447,585	327,678	126	322,835	16	179,785	54.9
Pensacola, FL	289,782	312,673	69	309,853	27	160,995	51.5
Peoria, IL	365,864	346,072	106	342,815	26	176,323	50.9
Petersburg-Colonial Heights-Hopewell, VA	129,296	100,221	63	97,815	19	45,356	45.3
Philadelphia, PA-NJ	4,716,818	4,158,326	1,404	4,083,997	193	2,085,560	50.2
Phoenix, AZ	1,509,052	1,915,792	256	1,901,908	105	1,097,035	57.3

See footnotes at end of table.

Continued--

Table 1--Four-firm concentration ratios for all SMSA's, 1982--Continued

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
Pine Bluff, AR	90,718	89,472	54	85,358	11	60,006	67.1
Pittsburgh, PA	2,263,894	2,210,759	673	2,169,325	134	838,383	37.9
Pittsfield, MA	90,505	106,461	38	105,334	11	86,311	81.1
Portland, ME	183,625	301,716	145	294,099	19	204,816	67.9
Portland, OR-WA	1,242,594	1,207,742	490	1,190,363	90	422,247	35.0
Portsmouth-Dover-Rochester, NH-ME	163,880	177,213	86	174,474	9	90,756	51.2
Poughkeepsie, NY	245,055	285,383	101	280,364	21	191,635	67.2
Providence-Warwick-Pawtucket, RI-MA	919,216	887,377	228	878,330	47	528,387	59.5
Provo-Orem, UT	218,106	173,281	36	172,162	13	78,957	45.6
Pueblo, CO	125,972	135,857	24	135,262	10	102,885	75.7
Racine, WS	173,132	164,110	68	162,566	10	104,624	63.8
Raleigh-Durham, NC	531,167	614,208	255	588,547	68	333,195	54.2
Reading, PA	312,509	279,919	97	274,673	22	135,406	48.4
Redding, CA	115,715	141,148	65	139,488	17	82,188	58.2
Reno, NV	193,623	299,313	87	298,002	24	227,464	76.0
Richland-Kennewick-Pasco, WA	144,469	180,705	62	179,253	17	101,511	56.2
Richmond, VA	632,015	775,892	213	757,263	148	429,056	55.3
Riverside-San Bernardino-Ontario, CA	1,558,182	1,763,175	444	1,742,440	147	1,147,799	65.1
Roanoke, VA	224,341	265,991	105	259,605	49	174,246	65.5
Rochester, MN	92,006	98,091	21	97,110	7	67,181	68.5
Rochester, NY	971,230	995,200	295	977,699	84	708,344	71.2
Rock Hill, SC	106,720	130,807	55	125,885	14	64,550	49.3
Rockford, IL	279,514	263,628	69	261,147	17	173,872	66.0
Sacramento, CA	1,014,002	1,219,339	327	1,205,000	68	625,302	51.3
Saginaw, MI	228,059	185,607	134	182,576	16	90,964	49.0
Salem, OR	249,895	206,743	87	203,768	19	107,147	51.8
Salinas-Seaside-Monterey, CA	290,444	262,113	108	259,031	19	156,686	59.8
Salisbury-Concord, NC	185,081	261,942	80	250,998	18	167,547	64.0
Salt Lake City-Ogden, UT	936,255	948,477	164	942,352	73	553,357	58.3
San Angelo, TX	84,784	121,956	36	120,260	10	70,347	57.7
San Antonio, TX	1,071,954	1,281,042	270	1,263,230	76	807,099	63.0
San Diego, CA	1,861,864	1,846,082	517	1,824,372	129	1,248,497	67.6

See footnotes at end of table.

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Table 1--Four-firm concentration ratios for all SMSA's, 1982--Continued

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
San Francisco-Oakland, CA	3,250,630	3,537,655	1,214	3,496,052	211	1,962,284	55.5
San Jose, CA	1,295,071	1,460,688	342	1,443,510	95	827,391	56.6
Santa Barbara-Santa Maria-Lompoc, CA	298,694	341,984	98	337,962	20	198,675	58.1
Santa Cruz, CA	188,141	230,271	107	227,563	13	106,826	46.4
Santa Rosa, CA	299,681	380,840	143	376,361	21	185,733	48.8
Sarasota, FL	202,251	283,687	42	281,129	47	211,268	74.5
Savannah, GA	230,728	236,248	92	228,745	14	126,688	53.6
Seattle-Everett, WA	1,607,469	1,918,454	571	1,903,039	156	1,039,240	54.2
Sharon, PA	128,299	119,552	74	117,311	6	55,020	46.0
Sheboygan, WI	100,935	85,350	28	84,547	11	64,055	75.0
Sherman-Denison, TX	89,796	104,288	43	102,838	6	66,052	63.3
Shreveport, LA	376,710	427,605	191	414,748	69	196,172	45.9
Sioux City, IA-NE	117,457	127,163	41	126,317	16	80,949	63.7
Sioux Falls, SD	109,435	112,563	32	110,421	12	80,042	71.1
South Bend, IN	280,772	254,940	82	252,391	18	141,873	55.6
Spokane, WA	341,835	373,710	113	370,707	36	232,021	62.1
Springfield-Chicopee-Holyoke, MA-CT	530,668	510,711	154	505,304	37	318,703	62.4
Springfield, IL	187,789	185,991	48	184,241	18	116,087	62.4
Springfield, MO	207,704	220,767	49	218,300	24	158,797	71.9
Springfield, OH	183,885	168,452	49	166,718	12	110,479	65.6
St. Cloud, MN	163,256	121,706	55	120,489	9	64,522	53.0
St. Joseph, MO	101,868	108,610	44	107,396	5	45,247	41.7
St. Louis, MO-IL	2,356,460	2,283,176	605	2,258,334	150	1,436,861	62.9
Stamford, CT	198,854	220,141	70	217,703	15	105,512	47.9
State College, PA	112,760	105,057	29	103,088	23	83,670	79.6
Steubenville-Weirton, OH-WV	163,099	158,434	89	154,766	14	73,256	46.2
Stockton, CA	347,342	360,570	144	356,330	21	136,833	37.9
Syracuse, NY	642,971	678,975	213	667,035	39	342,833	50.5
Tacoma, WA	485,643	440,730	158	437,189	41	265,288	60.2
Tallahassee, FL	159,542	187,210	48	185,522	15	119,622	63.9
Tampa-St. Petersburg, FL	1,569,134	1,977,793	325	1,959,957	158	1,234,329	62.4
Terre Haute, IN	176,583	164,535	60	162,890	11	111,602	67.8

See footnotes at end of table.

Continued--

Table 1--Four-firm concentration ratios for all SMSA's, 1982--Continued

Standard Metropolitan Statistical Area (SMSA)[1]	Population[2]	All establishment sales[3]	Establishments with payroll		Four largest firms[4]		
			Number of firms	Sales	Number of establishments	Sales	Share of total SMSA sales
	Number	*Thousand dollars*	*Number*	*Thousand dollars*	*Number*	*Thousand dollars*	*Percent*
Texarkana, TX-Texarkana, AR	127,019	144,975	70	141,026	11	71,113	49.1
Toledo, OH-MI	791,599	784,626	206	775,782	68	465,256	59.3
Topeka, KS	185,442	195,850	66	194,315	32	107,679	55.0
Trenton, NJ	307,863	329,986	125	325,109	17	167,498	50.8
Tucson, AZ	531,443	579,679	119	575,478	136	333,798	57.6
Tulsa, OK	689,434	892,799	250	874,436	141	409,886	45.9
Tuscaloosa, AL	137,541	151,963	45	144,177	14	84,671	55.7
Tyler, TX	128,366	154,844	48	152,691	12	114,931	74.2
Utica-Rome, NY	320,180	307,137	94	301,736	30	202,208	65.8
Vallejo-Fairfield-Napa, CA	334,402	365,932	118	361,629	38	197,146	53.9
Victoria, TX	68,807	106,051	41	104,576	7	59,065	55.7
Vineland-Millville-Bridgeton, NJ	132,866	157,126	73	154,804	6	89,016	56.7
Visalia-Tulare-Porterville, CA	245,738	272,702	140	269,495	14	82,812	30.4
Waco, TX	170,755	206,824	74	203,948	42	130,322	63.0
Washington, DC-MD-VA	3,060,922	3,352,315	598	3,286,906	519	2,583,097	77.1
Waterbury, CT	228,178	252,284	102	249,490	12	112,763	44.7
Waterloo-Cedar Falls, IA	137,961	128,570	42	127,765	14	88,926	69.2
Wausau, WI	111,270	94,447	34	93,558	9	54,012	57.2
West Palm Beach-Boca Raton, FL	576,863	807,869	161	800,584	74	582,594	72.1
Wheeling, WV-OH	185,566	198,331	95	193,098	15	100,708	50.8
Wichita Falls, TX	130,664	142,380	54	140,400	13	84,687	59.5
Wichita, KS	411,313	434,513	94	431,107	113	253,902	58.4
Williamsport, PA	118,416	126,092	37	123,729	14	87,712	69.6
Wilmington, DE-NJ-MD	523,221	493,223	175	488,098	59	306,761	62.2
Wilmington, NC	139,248	176,418	72	169,048	24	102,603	58.2
Worcester, MA	372,940	342,161	105	338,539	15	149,821	43.8
Yakima, WA	172,508	186,605	76	185,106	16	101,230	54.2
York, PA	381,255	352,792	99	346,180	55	175,824	49.8
Youngstown-Warren, OH	531,350	499,140	207	494,002	75	192,892	38.6
Yuba City, CA	101,979	106,473	53	105,221	9	70,511	66.2

[1]SMSA = Standard Metropolitan Statistical Area, as defined by OMB in 1980.
[2]Source: Census of Population, 1980.
[3]Estimated by U.S. Dept. Agr., Econ., Res. Serv. All other data from 1982 census special tabulation.
[4]Percent of all establishment sales in shares.

Table 2--Ten most-concentrated and 10 least-concentrated SMSA's, 1982

Standard Metropolitan Statistical Area (SMSA)	Four-firm concentration	SMSA population
	Percent	*Number*
Most-concentrated, by rank:		
1 Iowa City, IA	90.6	81,717
2 Casper, WY	90.1	71,856
3 Muncie, IN	89.1	128,587
4 Anchorage, AK	88.9	174,431
5 Denver-Boulder, CO	86.2	1,620,902
6 Lafayette-W. Lafayette, IN	85.9	121,702
7 Colorado Springs, CO	84.6	317,458
8 Fitchburg-Leominster, MA	83.1	99,957
9 Dubuque, IA	82.0	93,745
10 Pittsfield, MA	81.1	90,505
Average	86.2	280, 086
Least-concentrated, by rank:		
1 Appleton-Oshkosh, WI	27.0	291,369
2 Visalia Tulare-Porterville, CA	30.4	245,738
3 New York, NY-NJ	32.1	9,120,346
4 Huntington-Ashland, WV-KY-OH	32.4	311,350
5 Canton, OH	33.4	404,421
6 Gary-Hammond-East Chicago, IN	33.6	642,781
7 Oklahoma City, OK	33.8	834,088
8 Portland, OR-WA	35.0	1,242,594
9 Fort Smith, AR-OK	36.3	203,511
10 Beaumont-Port Arthur-Orange, TX	36.5	375,497
Average	33.1	1,367,170

Table 3--All-SMSA average four-firm concentration, 1982

Four-firm concentration ratio average	Share	Standard deviation
	Percent	*Percentage points*
All SMSA's:		
Simple	58.3	11.8
Weighted--		
By sales	54.3	NA
By population	54.8	NA
173 constant SMSA's:		
Simple	57.7	11.8
Weighted--		
By sales	55.5	NA
By population	55.3	NA

NA = Not available.

between SMSA's. We assigned each of the 318 SMSA's into one of six concentration classes (table 5). The distribution of SMSA's by concentration subgroup approximates a bell-shaped (normal) curve. The largest concentration class, 50-59 percent, also contains the all-SMSA average. When combined with the 60-69 percent class, the two groups account for almost two-thirds of all SMSA's in 1982.[12]

The preceding analysis was used to summarize concentration characteristics of metropolitan areas in 1982. To put 1982 results in perspective, we next examine changes in concentration during 1954-82.

[12]The four-firm concentration mean for each class was significantly different from the all-SMSA concentration average at the 90-percent confidence level.

Table 4--Average SMSA four-firm concentration by SMSA population class, 1982[1]

Item	Four-firm concentration	Standard deviation	Number of SMSA's	Percent of SMSA's
	Percent	*Percentage points*	*Number*	*Percent*
SMSA population class:				
Less than 250,000	61.2	11.9	168	52.8
250,000 - 499,999	55.5	11.3	71	22.3
500,000 - 999,999	54.1	12.9	41	9.7
1 million or more	54.9	12.0	38	11.5
All SMSA's	58.3	11.8	318	100.0

[1]SMSA population as of 1980.

Table 5--Distribution of SMSA's by four-firm concentration class, 1982

Four-firm concentration class (percent)	SMSA's		Average four-firm concentration
	Number	*Percent*	*Percent*
80 and more	12	3.8	85.2
70-79	40	12.6	74.1
60-69	78	24.5	64.9
50-59	109	34.3	55.5
40-49	58	18.2	46.3
Less than 40	21	6.6	35.7
All SMSA's	318	100.0	58.3

Metro Area Concentration, 1954-82

As the U.S. population became more urbanized, the share of total economic activity taking place within metropolitan areas grew in importance. Metropolitan areas (SMSA's) accounted for an estimated 75.6 percent of U.S. grocery store sales in 1982, compared with 65.1 percent of sales in 1954 (table 6). The number of grocery stores in metropolitan areas represented more than two-thirds of total grocery stores nationwide in 1982, compared with only 50.8 percent of the total in 1954.

Concentration Trends

During the 28-year period of 1954-82, the all-SMSA average four-firm concentration level rose from 45.4 to 58.3 percent, an average annual (compounded) rate of almost 1 percent (table 7). Concentration averages of the constant-SMSA group displayed a similar pattern of growth. Between 1958 and 1982 (1954 data were not available), the constant-SMSA group experienced a 10-percentage point rise in average four-firm concentration, from 48.7 to 57.8 percent, compared with a 9-percentage point gain for the all-SMSA group. Between-group differences in concentration means varied little across census years, ranging from 0.1 to 0.7 percentage points. These comparisons provide support to the premise that all-SMSA concentration averages were not significantly affected by differences in geographic composition over time.

The growth in average metro area concentration over the time period was not uniform, however. Four-firm concentration levels surged between two census intervals--1954-58 and 1972-77. These two intervals accounted for 60 percent of the total increase over the 28-year span. Modest expansion occurred between other census years. In any other census interval, the increase in concentration amounted to no more than 16 percent of the total.

Table 6--Number of grocery stores and value of sales in SMSA's and in the United States, census years 1954-77[1]

Year	SMSA's	Grocery stores		Percentage of grocery stores in SMSA's	Grocery store sales		Percentage of grocery store sales in SMSA's
		United States	SMSA's		United States	SMSA's	
		Number		*Percent*	*--Million dollars--*		*Percent*
1954	212	279,440	141,902	50.8	34,421	22,398	65.1
1958	215	259,796	136,024	52.4	43,696	29,363	67.2
1963	218	244,838	124,539	50.9	52,566	35,748	68.0
1967	229	218,130	115,659	53.0	65,074	45,358	69.7
1972	263	194,346	113,045	58.2	93,328	68,697	73.6
1977	277	178,835	106,072	56.4	147,758	108,067	73.1
1982	318	168,041	113,561	67.6	230,696	174,621	75.6

[1]Includes SMSA's defined by the National Commission on Food Marketing, 1964-66, for the purpose of a special tabulation of concentration ratios by the Bureau of the Census covering the years 1954, 1958, and 1963. These SMSA's, 39 in 1954, 27 in 1958, and 1 in 1963, were not official SMSA's in those years but were all eventually officially defined by the Office of Management and Budget.
Sources: (Parker and ERS special tabulation).

Table 7--All SMSA's versus constant-group SMSA's, 1954-82

Item	1954	1958	1963	1967	1972	1977	1982
				Number			
SMSA's[1]	208	214	218	229	263	277	318
				Percent			
Four-firm concentration:							
All SMSA's--							
Simple average	45.4	49.3	50.0	50.9	52.4	56.3	58.3
Weighted average[2]	44.3	46.4	46.9	47.2	49.5	53.1	54.3
Constant-group SMSA's--[3]							
Simple average	NA	48.7	49.4	50.2	52.2	56.4	57.8

NA = Not available.
[1]Census disclosure rules applied to four SMSA's in 1954 and one SMSA in 1958.
[2]Weighted by SMSA grocery store sales.
[3]There were 173 SMSA's between 1958 and 1982 whose geographic boundaries were unchanged. All other metro areas were added or redefined during the period.

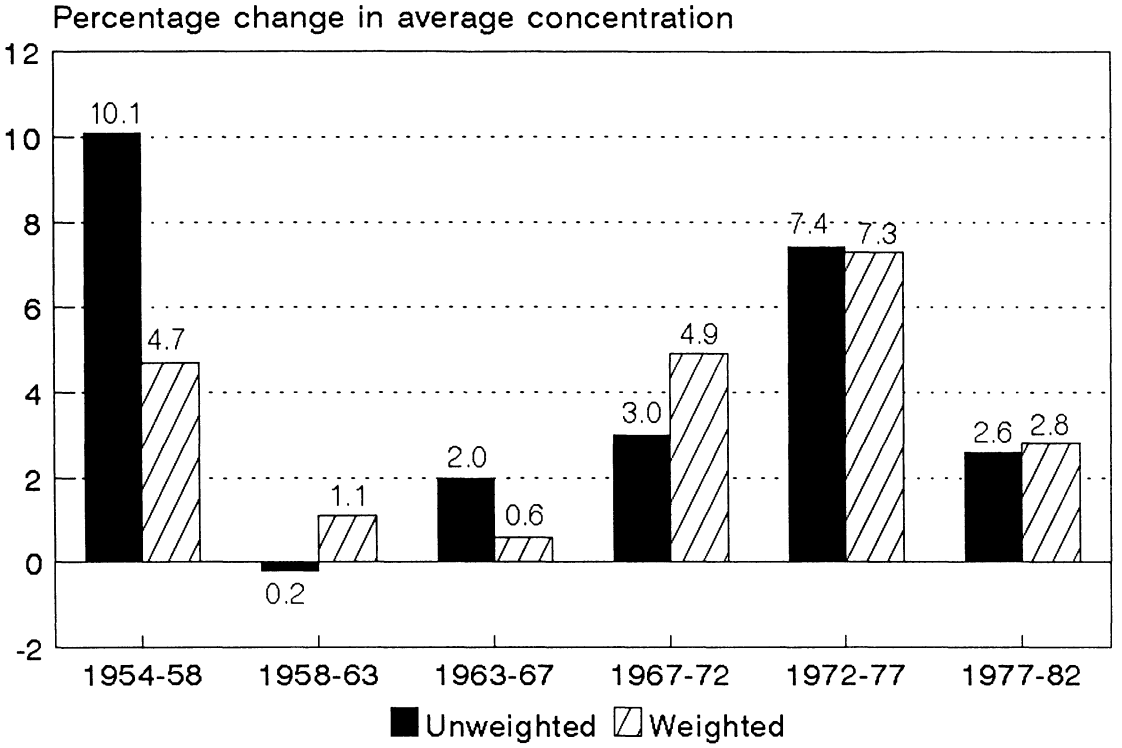
Rates of change in average SMSA concentration for paired census years are presented in figure 1. Both the sales-weighted and unweighted averages follow a similar pattern of change, although sales-weighted averages are often considerably lower than their unweighted counterparts. The result is due to the differential in concentration growth rates between larger and smaller metropolitan areas (smaller cities experienced greater increases than larger cities over the time period).

Size-Related Variation

Table 8 provides greater detail about the variation in four-firm concentration due to differences in SMSA size. We assigned each metro area to one of four size classes according to population in 1980. The SMSA four-firm concentration average is given for each population class by census year. Although concentration averages increased for all population classes through 1982, considerable differences in

Figure 1

Change in all-SMSA concentration: Paired census years, 1954-82



Weighted averages are weighted by SMSA grocery store sales.
Source: (Parker and Econ. Res. Serv.).

Table 8--Average four-firm concentration by SMSA population class[1]

Population class	1954	1958	1963	1967	1972	1977	1982
				Percent			
Less than 250,000	25.6	30.1	31.9	36.5	48.2	58.2	61.2
250,000 - 499,999	36.8	40.4	41.7	42.5	45.7	48.8	55.5
500,000 - 999,999	37.4	41.4	41.1	43.8	47.4	50.9	54.1
1 million or more	43.5	45.6	45.8	45.4	49.9	52.9	54.9

[1]Population as of 1980.

growth rates are apparent between size classes. Metro areas of 250,000 to 499,999 in population increased their concentration average by 6.7 percentage points between 1977 and 1982, compared with a 2-percentage point gain for SMSA's of 1 million or more.

Striking differences in the rates of growth are apparent between 1954 and 1982, however. Larger metro areas were more concentrated than smaller SMSA's in 1954. Since then, this relationship has reversed such that smaller SMSA's were more concentrated than larger ones by 1982. The 28-year increase in average concentration among metro areas of 1 million or more in size was only 11.4 percentage points. In contrast, the most rapid concentration trend--a gain of 32.6 percentage points--occurred among metro areas with fewer than 250,000 persons in 1980. Much of the increase in the all-SMSA average between 1954 and 1982 is due to growth among these smaller, but more numerous metro areas.

Concentration-Related Variation

Dramatic shifts in the distribution of SMSA's by four-firm concentration levels have taken place as well. Although the all-SMSA and constant-SMSA group averages are indicative of the overall concentration trend (see table 7), a more complete picture of how SMSA's are distributed by levels of four-firm concentration is found in table 9. Metro areas were grouped by concentration range in order to examine rates of concentration change. More than two-thirds of metro areas had concentration levels of less than 50 percent in 1954. In 1982, fewer than one-quarter of SMSA's could make this claim. Fewer than one-third as many SMSA's had concentration levels below 40 percent in 1982 than in 1954. The share of SMSA's in this class shrank by almost 25 percentage points between 1954 and 1982. Over the same 28-year period, metro areas with concentration levels of 60 percent or greater increased more than sixfold, from 5.8 percent in 1954 to 40.9 percent in 1982. The progression of more concentrated metro areas during the 28-year period was not uniform, however. The single largest share gain, amounting to more than 13 percentage points, took place between 1972 and 1977.

Merely comparing aggregate SMSA concentration over the 1954-82 period masks important distribution differences in rates of concentration change. The preceding analysis demonstrates that concentration growth has been highly variable both at the all-city level and when viewed within size and concentration subgroups. In the next section, we will extend the analysis of concentration change within subgroups to include individual metro areas for paired census years.

Table 9--Distribution of SMSA's by concentration class

Four-firm concentration class (percent)	1954[1]	1958[2]	1963	1967	1972	1977	1982
				Percent of SMSA's[3]			
Less than 40.0	31.3	16.8	16.5	14.0	9.1	9.4	6.6
40.0-49.9	38.5	39.3	31.7	30.1	35.4	23.8	18.2
50.0-59.9	24.5	27.1	33.5	36.7	31.2	27.8	34.3
60.0-69.9	5.3	16.4	16.5	17.0	18.3	24.2	24.5
70.0-79.9	0.5	0.5	1.8	1.7	5.3	12.3	12.6
80.0 or more	0.0	0.0	0.0	0.4	0.8	2.5	3.8
				Number of SMSA's			
Less than 40.0	65	36	36	32	24	26	21
40.0-49.9	80	84	69	69	93	66	58
50.0-59.9	51	58	73	84	82	77	109
60.0-69.9	11	35	36	39	48	67	78
70.0-79.9	1	1	4	4	14	34	40
80.0 or more	0	0	0	1	2	7	12

[1]Four SMSA's were withheld under census disclosure rules.
[2]One SMSA was withheld under census disclosure rules.
[3]Percentages may not sum to 100 due to rounding.

Metro Area Concentration Change: Paired Census Years, 1954-82

We next investigate concentration change by individual metro areas. Because only 173 SMSA's are directly comparable over the entire 1954-82 timespan, we chose instead to analyze individual SMSA concentration change between consecutive paired census years, thereby considerably expanding the number of comparable metro areas. To summarize individual SMSA concentration change, we first classified them into increasing- and decreasing-concentration groups for each paired census interval (table 10), and then we assigned each metro area into one of three concentration change classes (tables 11 and 12).

Table 10 gives the number and percentage of metro areas that experienced either increasing or decreasing four-firm concentration for each of the six paired census-year intervals between 1954 and 1982. Over the six paired census-year intervals, the share of SMSA's with concentration gains exceeded those with concentration declines. In every period, the share of increasing-concentration SMSA's ranged from 54.7 percent to 75.2 percent of the total. The share of decreasing-concentration SMSA's over these same paired census years ranged from 24.8 percent to 45.3 percent. Declining metro areas notably accounted for more than 40 percent of the total in all but two of the census-year intervals.

Of metro areas experiencing concentration increases, those with gains of less than 5 percentage points ranged from 43.9 percent of the total in 1954-58 to 62.4 percent during 1958-63 (table 11). SMSA's with gains of 5 to less than 10 percentage points varied from 27.4 during 1958-63 to 41.9 percent during 1954-58 of the total across paired census-year intervals. Those metro areas increasing in four-firm market shares by 10 percentage points or more ranged from 10.3 percent of all SMSA's during 1954-58 to 18.3 percent of the total in 1972-77.

Among metro areas experiencing declining concentration between census intervals, the largest share of SMSA's registered declines of less than 5 percentage points. Their share ranged from 63.1 percent of SMSA's during 1972-77 to 82.4 percent of SMSA's during 1954-58 (table 12). Successive concentration change classes accounted for substantially smaller shares of metro areas in each census interval. The share having negative change from 5 to less than 10 percentage points varied from 15.7 percent (1954-58) to 32.4 percent (1972-82) of SMSA's. Concentration declines amounting to 10 percentage points or more accounted for only 2 percent of metro areas in 1954-58, reaching 10.8 percent of SMSA's in 1972-77.

Thus, while average concentration across all SMSA's has increased each census year, the trend masks tremendous variation in concentration change among metro areas. The share of increasing-concentration metro areas did not gradually expand over the 28-year timespan, nor did the share of declining concentration SMSA's gradually fall over time. Rather, the proportion of metro areas in each group varied widely across the census intervals, bearing little relationship to rates of change in the all-SMSA concentration average. For example, although the all-SMSA average rose by 2 percentage points between 1977 and 1982, 40 percent of the 277 comparable metro areas underwent concentration declines.

Individual Metro Area Concentration Change, 1954-82

While the average four-firm concentration level of all SMSA's has increased in every census year since 1954, this trend masks important differences in concentration change observed for individual metro areas. An analysis of concentration change on an SMSA-by-SMSA basis would be necessary to fully appreciate this phenomenon. In this section, we offer selected examples to indicate the wide range of concentration change apparent from the individual SMSA concentration series found in appendix tables 1 and 2.

Selection of a truly representative sample of SMSA's proved difficult, given considerable differences in the characteristics of metro areas and their concentration change patterns. In order to characterize individual SMSA concentration change, we selected metro areas that typified each of four basic patterns of change: decreasing-concentration SMSA's, increasing-concentration SMSA's, variable-concentration SMSA's, and stable-concentration SMSA's. Four SMSA's were used to illustrate each concentration change pattern. The all-SMSA concentration average for each census year is included for comparison purposes.[13]

[13]Of the 318 metro areas defined in 1982, only those defined in all census years were used in the individual SMSA concentration change analysis.

Table 10--Change in four-firm concentration: Increasing and decreasing SMSA's

Change in four-firm concentration	1977-82		1972-77		1967-72		1963-67		1958-63		1954-58	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*
Increasing SMSA's	166	59.9	197	75.2	125	56.3	118	54.9	117	54.7	155	75.2
Decreasing SMSA's	111	40.1	65	24.8	97	43.7	97	45.1	97	45.3	51	24.8
Total	277	100.0	262	100.0	222	100.0	215	100.0	214	100.0	206	100.0

Table 11--Change in four-firm concentration: Increasing SMSA's

Change in four-firm concentration (percentage points)	1977-82		1972-77		1967-72		1963-67		1958-63		1954-58	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*
0 - less than 5	87	52.4	93	47.2	58	46.4	72	61.0	73	62.4	68	43.9
5 - less than 10	59	35.5	68	34.5	48	38.4	33	28.0	32	27.4	65	41.9
10 or more	20	12.1	36	18.3	19	15.2	13	11.0	12	10.3	22	14.2
Total	166	100.0	197	100.0	125	100.0	118	100.0	117	100.0	155	100.0

Table 12--Change in four-firm concentration: Decreasing SMSA's

Change in four-firm concentration (percentage points)	1977-82		1972-77		1967-72		1963-67		1958-63		1954-58	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*
0 - less than 5	69	62.2	41	63.1	63	64.9	70	72.2	62	63.9	42	82.4
5 - less than 10	36	32.4	17	26.2	24	24.7	23	23.7	28	28.9	8	15.7
10 or more	6	5.4	7	10.8	10	10.3	4	4.1	7	7.2	1	2.0
Total	111	100.0	65	100.0	97	100.0	97	100.0	97	100.0	51	100.0

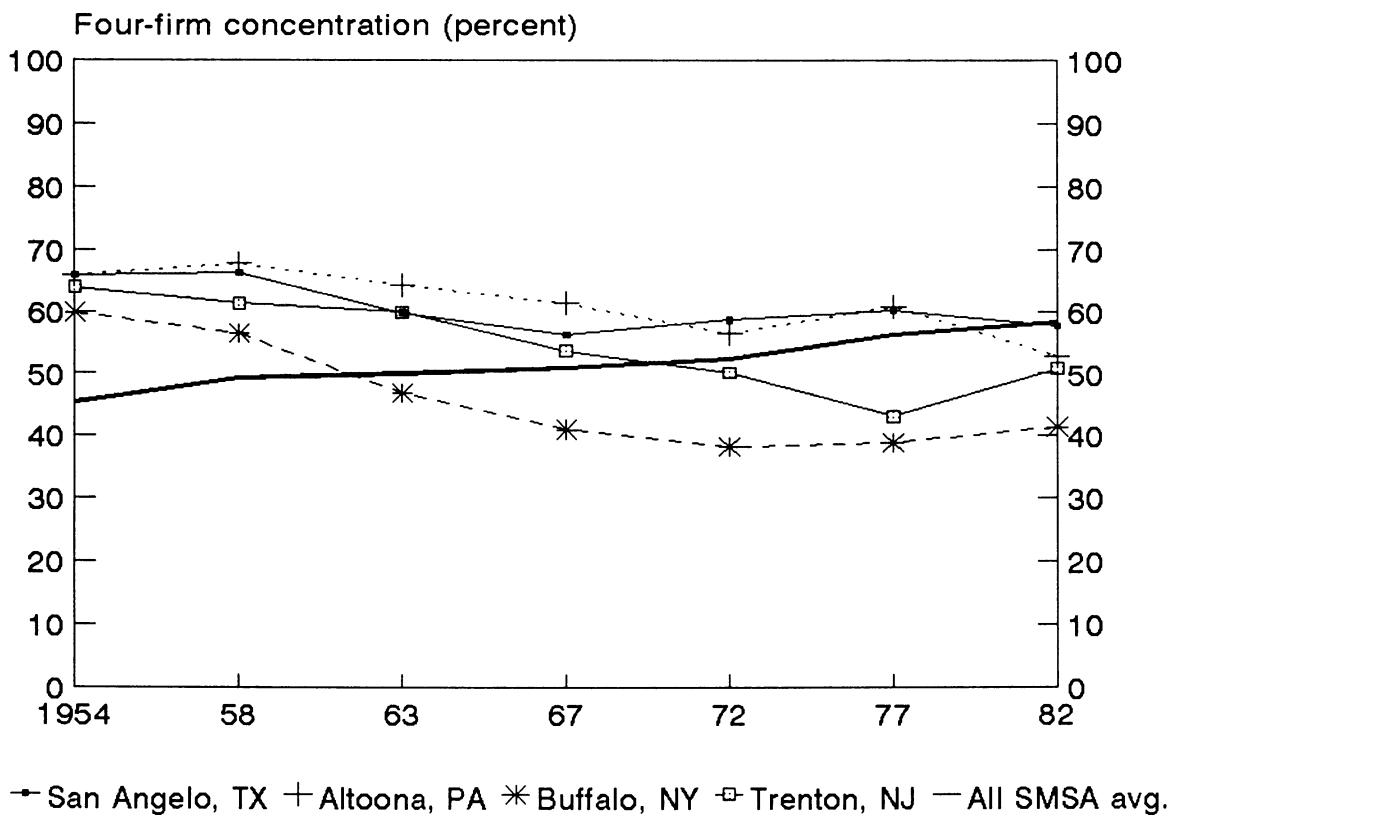
Four examples of decreasing-concentration change are shown in figure 2. These metro areas are typical of SMSA's that registered net concentration declines between 1954 and 1982. There were reversals in the long-term trend at one or more census-year intervals, however. San Angelo, TX, and Altoona, PA, experienced rising concentration both in 1958 and 1977. Buffalo, NY, and Trenton, NJ, underwent an uninterrupted period of deconcentration between 1954 and 1977, followed by subsequent increases in 1982. Nevertheless, decreasing-concentration metro areas clearly distinguish themselves from the all-SMSA average over the same time period.

Selected increasing-concentration cities depicted in figure 3 exhibited more divergence in rates of change over the timespan, compared with the all-SMSA average. Fresno, CA, underwent a period of modest concentration growth between 1954 and 1982, growing at an average 0.5-percentage point annual rate, resulting in a net increase of 15 percentage points. Riverside, CA, and Tacoma, WA, underwent significant concentration growth over the same period, however. Four-firm concentration rose 35.3 percentage points from 1954-82 in Riverside, while Tacoma grew by almost 29 percentage points. Following a brief period of decline between 1958 and 1963, concentration in the Memphis, TN-AR-MS, metro area shot up by almost 29 percentage points (after 1963, reaching 51.8 percent of grocery store sales in 1982). These gains, although significant, took place from relatively low concentration levels in 1954. The rates of concentration increase of the selected metro areas greatly exceeded the all-SMSA average annual compounded increase of 0.9 percent.

Selected variable-concentration change metro areas are presented in figure 4. SMSA's in this group were characterized by considerable switching in both the magnitude and direction of change over the 28-year span. Although net concentration increases were

Figure 2

Decreasing-concentration SMSA's

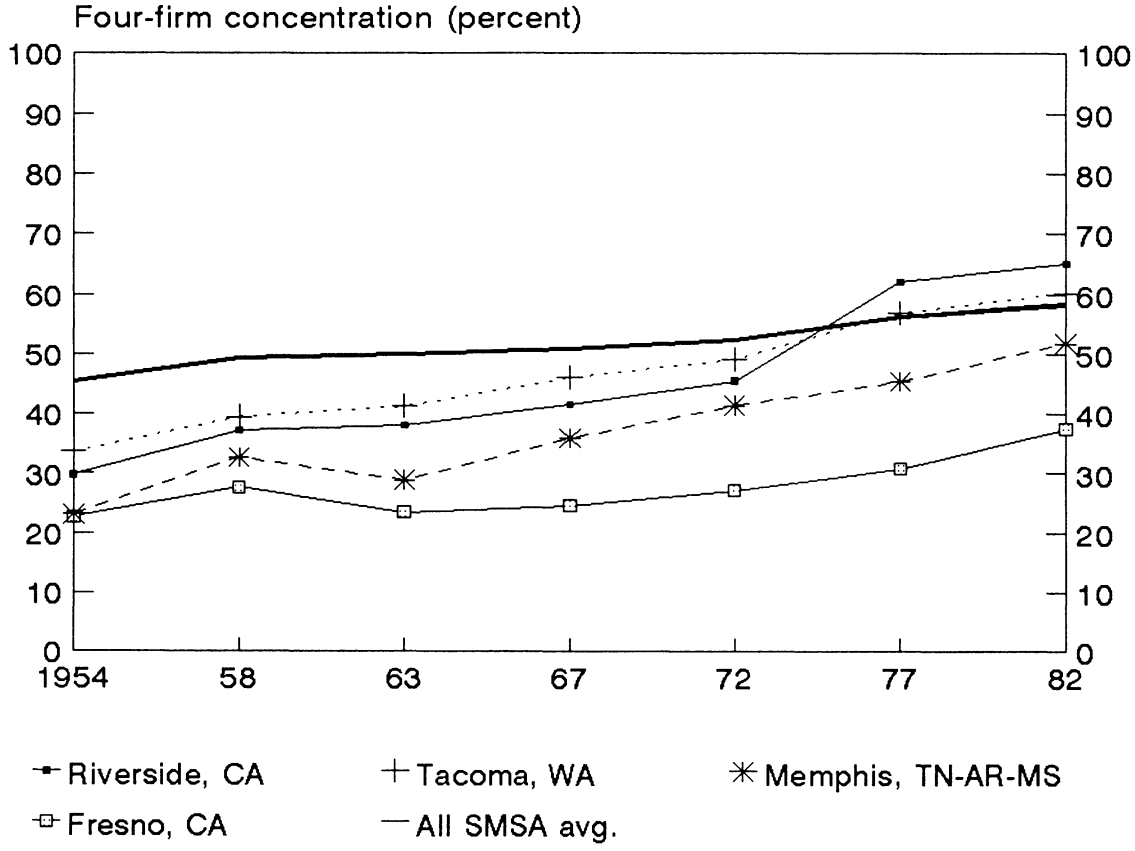


typical of variable-concentration SMSA's, the key characteristic was their frequent reversals of short-term trends compared with the all-SMSA average. Fort Wayne, IN, experienced alternating intervals of rising and falling concentration levels between census years. Other cities such as Sacramento, CA, experienced longer intervals between reversals. Concentration levels there fell from 1954 to 1963, followed by rising levels through 1972. Similarly, incremental growth in Akron, OH, took place from 1954 through 1963, amounting to a 13.6-percentage-point increase. Levels subsequently fell in 1967, and gained little in 1972. Concentration was somewhat higher in 1977, but lost ground in 1982.

A fourth group of metro areas was identified whose concentration levels varied little over the 28-year timespan. Selected examples of stable-concentration SMSA's are presented in figure 5. Stable-concentration cities were found over a wide range of the concentration spectrum between 1954 and 1982. Fort Lauderdale, FL, maintained fairly high levels, exceeding 70 percent in most census years. Relatively low levels characterized Oklahoma City, OK, throughout 1954-82, with four-firm market shares at or below 40 percent in every census year. By comparison, the all-SMSA concentration average gained 12.9 percentage points over the 28-year interval.

Figure 3

Increasing-concentration SMSA's



Selected examples of these four basic concentration change patterns above demonstrate the considerable diversity found among metro areas. These characteristics contrast with more aggregate measures of change--those most often reported. As a result, aggregate measures such as the all-SMSA concentration average gauge the net effect of the four basic directions of change outlined in this section. In order to more fully appreciate the dynamics of concentration change, one should inspect the SMSA-level time series data contained in appendix tables 1 and 2.

Figure 4

Variable-concentration SMSA's

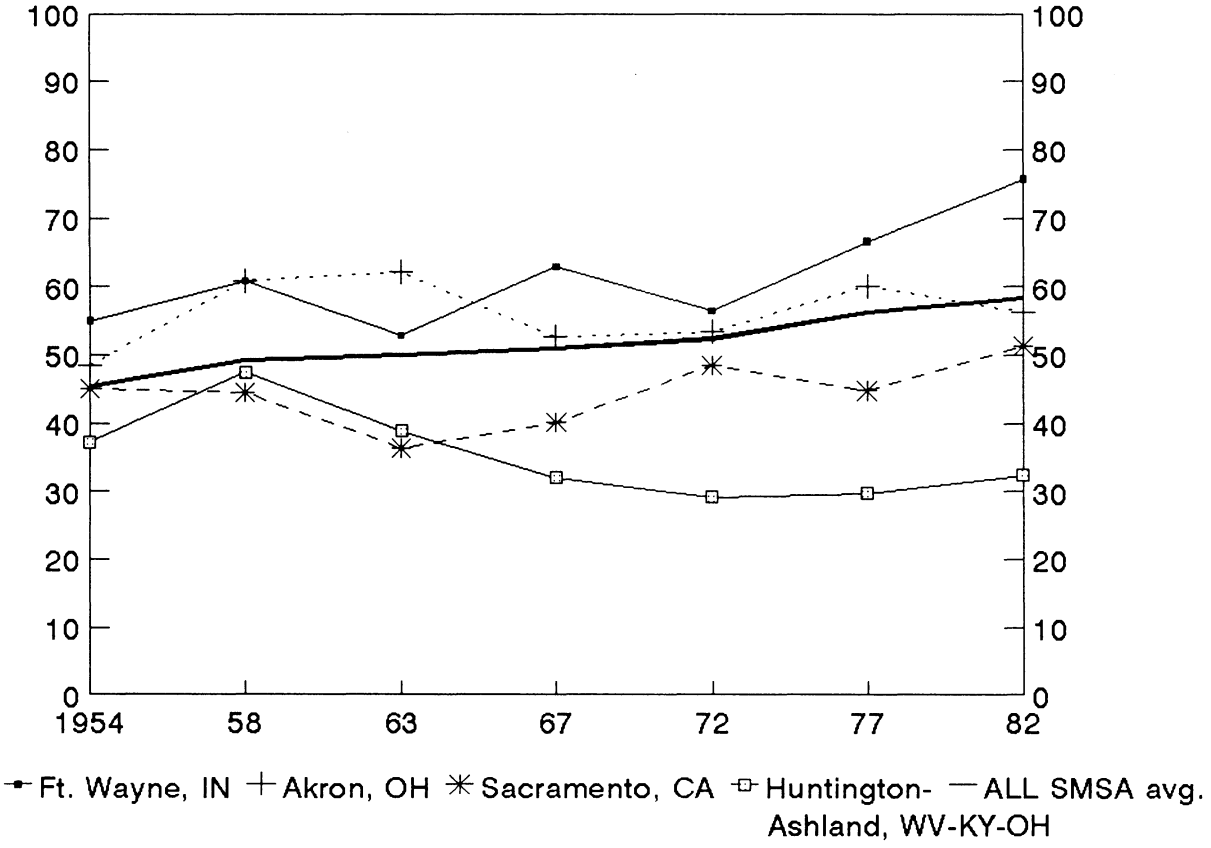
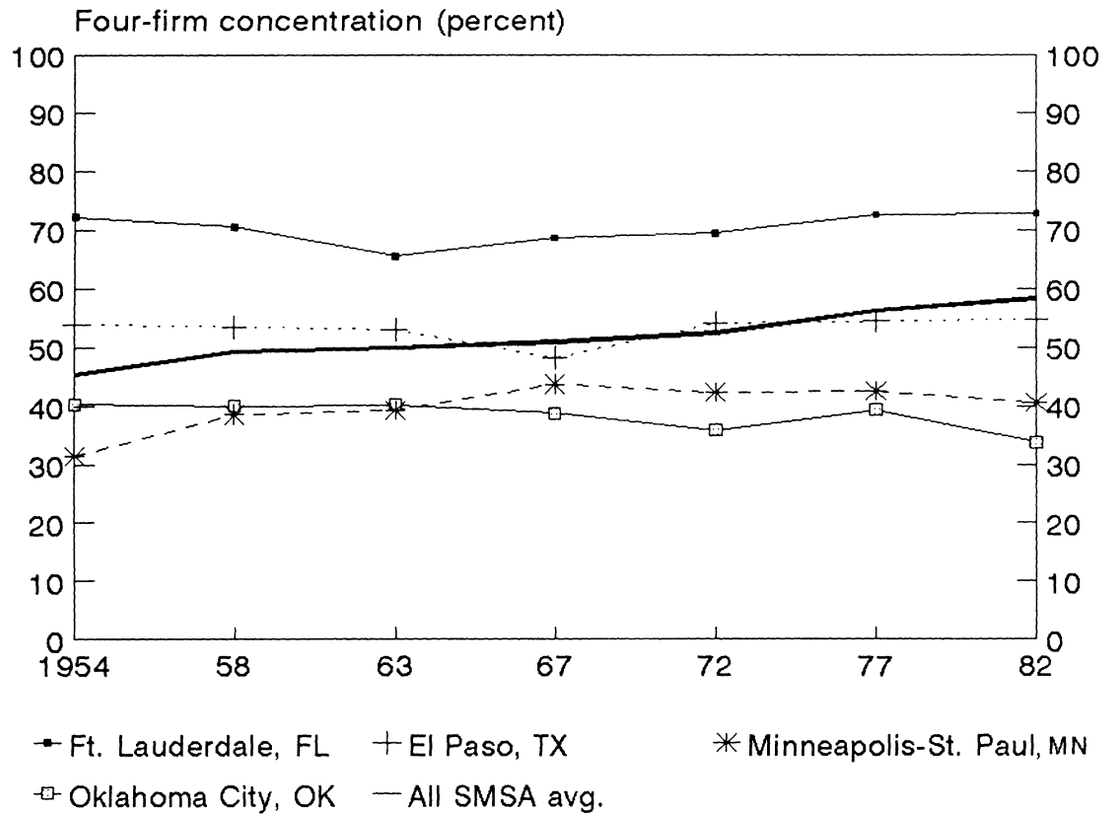


Figure 5

Stable-concentration SMSA's



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Appendix table 1--Four-firm SMSA concentration, 1954-82

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
		Percent						
40	Abilene, TX	44.0	54.3	54.4	52.2	48.1	60.4	57.1
80	Akron, OH	48.5	60.9	62.1	52.6	53.4	60.1	56.3
120	Albany, GA	45.5	49.3	51.7	50.3	44.9	59.9	59.5
160	Albany-Schenectady-Troy, NY	39.3	47.5	47.8	44.4	53.2	61.4	67.1
200	Albuquerque, NM	49.8	60.3	68.7	69.5	66.3	69.5	61.2
220	Alexandria, LA	.	.	.	.	44.0	48.4	45.1
240	Allentown-Bethlehem-Easton, PA-NJ	49.1	54.7	52.3	51.1	40.3	52.1	55.6
280	Altoona, PA	65.9	67.8	64.2	61.3	56.4	60.8	52.8
320	Amarillo, TX	62.5	68.9	62.8	60.9	62.7	68.5	68.5
360	Anaheim-Santa Ana-Garden Grove, CA	39.6	47.1	43.2	38.6	44.1	47.6	56.7
380	Anchorage, AK	.	.	.	.	70.3	77.1	88.9
400	Anderson, IN	38.5	38.4	42.1	49.8	61.8	68.6	64.4
405	Anderson, SC	.	.	.	.	.	.	73.8
440	Ann Arbor, MI	55.5	59.7	61.0	66.0	65.2	71.2	73.2
450	Anniston, AL	.	.	.	.	.	38.7	60.1
460	Appleton-Oshkosh, WI	.	.	.	.	26.6	26.0	27.0
480	Asheville, NC	.	67.9	64.1	67.4	72.8	77.1	78.3
500	Athens, GA	.	.	.	.	.	.	54.7
520	Atlanta, GA	53.9	55.6	60.5	60.0	54.6	61.4	62.8
560	Atlantic City, NJ	57.0	62.3	56.7	58.5	63.1	61.4	61.6
600	Augusta, GA-SC	48.8	48.8	55.2	47.9	47.2	53.4	61.1
640	Austin, TX	44.6	46.1	45.6	47.2	51.8	60.1	64.0
680	Bakersfield, CA	31.1	31.4	35.8	35.5	40.7	38.7	47.4
720	Baltimore, MD	47.9	49.9	53.9	55.0	57.0	54.3	45.0
730	Bangor, ME	.	.	.	.	.	.	72.3
760	Baton Rouge, LA	52.9	61.8	61.0	45.7	47.2	45.3	41.0
780	Battle Creek, MI	.	.	.	.	52.6	70.1	71.3
800	Bay City, MI	38.3	47.9	52.2	65.0	68.0	68.7	68.8
840	Beaumont-Port Arthur-Orange, TX	37.0	41.1	41.6	38.1	34.2	43.3	36.5
860	Bellingham, WA	.	.	.	.	.	.	56.5
870	Benton Harbor, MI	.	.	.	.	.	.	36.6
880	Billings, MT	49.6	47.9	51.6	42.4	54.9	44.4	46.7

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
					Percent			
920	Biloxi-Gulfport, MS	.	.	.	60.1	51.0	60.1	56.0
960	Binghamton, NY-PA	53.8	51.4	52.0	50.6	41.8	55.0	64.0
1000	Birmingham, AL	42.1	46.1	42.0	37.7	47.7	54.3	57.5
1010	Bismarck, ND	.	.	.	.	.	.	67.8
1020	Bloomington, IN	.	.	.	.	.	54.8	60.6
1040	Bloomington-Normal, IL	.	.	.	48.6	57.0	56.2	63.8
1080	Boise City, ID	47.1	40.7	63.9	63.4	65.2	66.9	67.4
1120	Boston, MA	56.2	47.6	49.7	47.4	49.0	47.3	47.5
1140	Bradenton, FL	.	.	.	.	.	64.4	59.1
1150	Bremerton, WA	.	.	.	.	.	.	62.7
1160	Bridgeport, CT	.	56.2	52.3	45.4	43.5	38.5	45.2
1170	Bristol, CT	.	.	.	.	55.3	54.8	68.2
1200	Brockton, MA	46.0	61.8	59.0	62.0	68.5	61.6	58.0
1240	Brownsville-Harlingen-San Benito, TX	30.7	33.0	39.3	47.1	44.0	46.8	55.7
1260	Bryan-College Station, TX	.	.	.	.	57.9	79.6	72.6
1280	Buffalo, NY	59.8	56.4	46.8	41.0	38.2	38.9	41.4
1300	Burlington, NC	.	.	.	.	54.8	65.2	63.5
1305	Burlington, VT	.	.	.	.	.	.	70.2
1320	Canton, OH	30.0	39.2	39.0	33.5	33.7	34.7	33.4
1350	Casper, WY	.	.	.	.	.	.	90.1
1360	Cedar Rapids, IA	45.1	55.9	63.9	80.7	81.1	87.5	80.3
1400	Champaign-Urbana-Rantoul, IL	58.2	61.0	50.5	51.5	66.1	56.3	59.7
1440	Charleston-North Charleston, SC	28.8	35.6	35.2	33.7	26.3	36.8	36.6
1480	Charleston, WV	54.4	59.1	56.8	51.9	51.1	57.0	55.1
1520	Charlotte-Gastonia, NC	50.1	58.4	57.0	49.7	48.6	53.2	51.9
1540	Charlottesville, VA	.	.	.	.	.	.	52.1
1560	Chattanooga, TN-GA	38.2	35.6	43.8	49.3	43.9	56.4	71.9
1600	Chicago, IL	47.6	51.9	51.9	53.6	57.2	62.0	61.7
1620	Chico, CA	.	.	.	.	.	.	49.4
1640	Cincinnati, OH-KY-IN	49.7	51.4	49.0	46.7	49.9	57.2	57.7
1660	Clarksville-Hopkinsville, TN-KY	.	.	.	.	.	36.1	38.3
1680	Cleveland, OH	51.1	52.9	56.0	58.4	51.9	53.0	47.6

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
					Percent			
1720	Colorado Springs, CO	58.1	66.2	69.8	59.4	64.3	79.5	84.6
1740	Columbia, MO	.	.	.	.	45.7	54.1	47.3
1760	Columbia, SC	49.1	47.6	51.4	48.1	42.9	40.0	53.5
1800	Columbus, GA-AL	36.4	41.3	37.3	34.0	32.6	34.4	41.7
1840	Columbus, OH	54.9	56.9	53.2	52.9	50.7	58.4	52.5
1880	Corpus Christi, TX	42.9	51.8	53.4	50.7	54.3	57.1	66.8
1900	Cumberland, MD-WV	.	.	.	.	.	.	58.8
1910	Dallas, TX	53.1	47.1	45.7	41.9	.	.	.
1920	Dallas-Fort Worth, TX	.	.	.	.	46.6	50.2	49.6
1930	Danbury, CT	.	.	.	.	55.3	47.3	50.9
1950	Danville, VA	.	.	.	.	.	.	48.4
1960	Davenport-Rock Island-Moline, IA-IL	50.2	55.1	54.1	57.2	67.0	74.0	68.1
2000	Dayton, OH	45.9	45.2	43.2	37.0	40.8	47.6	46.0
2020	Daytona Beach, FL	.	.	.	.	65.4	73.2	70.8
2040	Decatur, IL	54.1	64.5	63.2	63.3	73.6	70.0	69.3
2080	Denver-Boulder, CO	67.1	66.9	70.4	66.0	80.5	84.9	86.2
2120	Des Moines, IA	36.9	41.4	33.9	44.4	69.4	75.1	67.3
2160	Detroit, MI	38.5	49.9	52.1	49.4	49.8	59.6	54.3
2200	Dubuque, IA	43.8	54.7	65.5	57.7	69.4	75.8	82.0
2240	Duluth-Superior, MN-WI	28.1	33.3	34.5	34.4	43.2	43.6	45.0
2260	Durham, NC	48.9	55.9	64.3	45.1	.	.	.
2290	Eau Claire, WI	.	.	.	.	.	41.0	47.9
2320	El Paso, TX	53.9	53.5	53.0	48.1	54.1	54.4	54.8
2330	Elkhart, IN	.	.	.	.	46.5	56.1	74.1
2335	Elmira, NY	.	.	.	.	.	.	64.3
2340	Enid, OK	.	.	.	.	.	.	74.2
2360	Erie, PA	51.9	58.2	49.3	48.0	43.9	36.5	59.5
2400	Eugene-Springfield, OR	39.0	54.7	64.9	55.3	46.9	51.5	52.1
2440	Evansville, IN-KY	42.4	43.8	42.6	40.1	41.4	46.4	47.2
2480	Fall River, MA-RI	53.7	54.6	56.4	61.2	57.9	60.0	62.3
2520	Fargo-Moorhead, ND-MN	42.1	44.1	49.9	55.2	53.6	78.8	80.1
2560	Fayetteville, NC	.	.	.	56.4	48.9	58.8	49.7

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
					Percent			
2580	Fayetteville-Springdale, AR	.	.	.	.	42.2	48.8	51.6
2600	Fitchburg-Leominster, MA	.	41.6	37.0	42.4	44.4	69.9	83.1
2640	Flint, MI	43.4	53.6	53.0	60.6	45.5	55.5	49.3
2650	Florence, AL	.	.	.	.	41.4	42.1	49.3
2655	Florence, SC	.	.	.	.	.	.	38.4
2670	Fort Collins, CO	.	.	.	.	.	80.0	77.2
2680	Fort Lauderdale-Hollywood, FL	72.2	70.5	65.5	68.6	69.4	72.6	72.8
2700	Fort Myers-Cape Coral, FL	.	.	.	.	62.8	62.4	60.3
2720	Fort Smith, AR-OK	39.1	48.3	34.6	43.8	39.5	35.4	36.3
2750	Fort Walton Beach, FL	.	.	.	.	.	.	52.8
2760	Fort Wayne, IN	55.0	60.8	52.8	62.9	56.5	66.6	75.7
2780	Ft. Worth, TX	49.6	46.4	37.1	60.0	.	.	.
2840	Fresno, CA	22.7	27.7	23.5	24.6	27.2	30.8	37.5
2880	Gadsden, AL	35.8	44.6	37.5	38.9	44.8	64.1	68.3
2900	Gainesville, FL	.	.	.	.	61.8	64.3	64.2
2920	Galveston-Texas City, TX	27.0	34.2	40.3	37.7	44.2	44.5	47.5
2960	Gary-Hammond-East Chicago, IN	38.9	34.4	29.3	33.9	35.8	38.3	33.6
2975	Glens Falls, NY	.	.	.	.	.	.	77.2
2985	Grand Forks, ND-MN	.	.	.	.	.	75.3	76.9
3000	Grand Rapids, MI	40.3	44.9	44.0	51.9	67.8	42.3	48.1
3040	Great Falls, MT	48.4	63.0	75.6	69.1	67.6	77.2	75.5
3060	Greeley, CO	.	.	.	.	.	61.3	60.6
3080	Green Bay, WI	45.2	50.1	56.4	57.6	67.2	51.8	57.9
3110	Greensboro-High Point, NC	45.8	45.8	48.4	.	.	.	.
3120	Greensboro-Winston-Salem-High Point, NC	.	.	.	37.9	36.5	39.0	42.0
3160	Greenville-Spartanburg, SC	49.1	57.7	55.6	57.9	63.4	67.3	66.8
3180	Hagerstown, MD	.	.	.	.	.	.	67.9
3200	Hamilton-Middletown, OH	37.6	55.0	50.5	46.5	51.6	60.8	67.6
3240	Harrisburg, PA	49.7	48.1	50.9	56.0	51.1	52.9	56.5
3280	Hartford, CT	.	48.6	48.4	47.9	40.9	39.3	44.3
3290	Hickory, NC	.	.	.	.	.	.	52.0
3320	Honolulu, HI	29.7	37.8	44.3	48.5	53.6	65.2	63.2

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
					Percent			
3360	Houston, TX	35.5	33.2	35.1	32.2	34.7	40.3	43.0
3400	Huntington-Ashland, WV-KY-OH	37.2	47.5	38.8	32.0	29.2	29.7	32.4
3440	Huntsville, AL	30.8	34.3	49.9	55.4	48.6	48.2	57.6
3480	Indianapolis, IN	48.5	55.6	60.0	59.3	52.7	59.4	59.9
3500	Iowa City, IA	.	.	.	.	.	.	90.6
3520	Jackson, MI	46.8	54.0	52.5	56.8	63.0	65.4	54.3
3560	Jackson, MS	51.5	48.9	55.9	51.8	55.9	60.8	56.2
3600	Jacksonville, FL	51.9	62.7	61.3	61.0	56.2	63.5	69.7
3605	Jacksonville, NC	.	.	.	.	.	.	41.1
3620	Janesville-Beloit, WI	.	.	.	.	.	.	61.5
3640	Jersey City, NJ	54.2	52.0	44.3	43.2	44.2	51.2	45.5
3660	Johnson City-Kingsport-Bristol, TN-VA	.	.	.	.	.	39.5	49.2
3680	Johnstown, PA	.	55.8	56.8	56.3	53.4	55.7	50.5
3710	Joplin, MO	.	.	.	.	.	.	67.1
3720	Kalamazoo-Portage, MI	33.4	41.9	56.7	72.2	64.9	46.8	45.0
3740	Kankakee, IL	.	.	.	.	.	74.3	67.9
3760	Kansas City, MO-KS	48.1	49.8	49.1	41.8	49.3	51.8	38.8
3800	Kenosha, WI	45.3	44.6	44.1	46.5	54.5	60.9	62.5
3810	Killeen-Temple, TX	.	.	.	.	40.1	53.2	55.1
3820	Kingsport-Bristol, TN	.	.	.	.	.	35.6	.
3840	Knoxville, TN	48.3	55.5	60.1	56.2	53.9	63.9	56.4
3850	Kokomo, IN	.	.	.	.	.	67.9	71.9
3870	La Crosse, WI	.	.	.	.	47.7	44.9	73.4
3880	Lafayette, LA	38.1	52.2	55.7	52.3	41.0	44.5	39.7
3920	Lafayette-West Lafayette, IN	.	.	.	56.9	72.1	84.7	85.9
3960	Lake Charles, LA	33.4	44.9	41.7	50.8	44.9	45.4	49.5
3980	Lakeland-Winter Haven, FL	.	.	.	.	57.5	57.3	62.9
4000	Lancaster, PA	42.4	45.7	48.0	49.2	45.8	48.3	43.3
4040	Lansing-East Lansing, MI	48.2	36.1	32.1	41.1	42.8	36.5	37.9
4080	Laredo, TX	48.5	48.8	45.1	53.3	56.6	61.6	71.0
4100	Las Cruces, NM	.	.	.	.	.	.	69.1
4120	Las Vegas, NV	46.3	46.6	52.8	61.2	57.5	62.1	58.8

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
					Percent			
4150	Lawrence, KS	.	.	.	.	.	81.9	78.4
4160	Lawrence-Haverhill, MA-NH	43.0	46.6	43.0	51.7	55.7	63.3	70.7
4200	Lawton, OK	54.0	48.9	50.0	52.0	58.9	63.5	65.6
4240	Lewiston-Auburn, ME	.	30.8	33.0	38.9	60.1	69.3	72.2
4280	Lexington-Fayette, KY	47.1	54.9	61.2	59.0	60.4	52.8	54.2
4320	Lima, OH	50.4	52.2	72.1	56.4	52.1	49.0	45.8
4360	Lincoln, NE	44.2	50.8	54.2	51.9	57.3	66.9	51.0
4400	Little Rock-North Little Rock, AR	51.4	.	55.1	62.7	61.8	71.3	67.1
4410	Long Branch-Asbury Park, NJ	.	.	.	.	53.4	55.5	59.1
4420	Longview-Marshall, TX	.	.	.	.	.	66.7	56.7
4440	Lorain-Elyria, OH	44.5	54.6	53.9	45.6	42.5	58.3	55.2
4480	Los Angeles-Long Beach, CA	29.6	24.6	30.3	28.5	35.6	38.3	46.3
4520	Louisville, KY-IN	51.2	57.7	60.3	55.8	54.8	57.3	52.1
4560	Lowell, MA-NH	40.0	38.7	37.2	58.5	71.6	72.4	76.9
4600	Lubbock, TX	58.0	60.1	62.7	64.5	69.4	70.8	79.0
4640	Lynchburg, VA	38.7	39.5	40.8	39.3	40.9	62.3	62.6
4680	Macon, GA	38.0	43.1	47.6	48.8	50.3	65.3	60.4
4720	Madison, WI	41.4	43.2	40.6	40.4	47.4	52.1	47.1
4760	Manchester, NH	41.6	46.3	43.7	47.1	33.5	45.6	54.6
4800	Mansfield, OH	.	.	.	54.6	50.8	58.1	54.1
4880	Mcallen-Pharr-Edinburg, TX	.	.	.	37.9	41.7	49.3	52.0
4890	Medford, OR	.	.	.	.	.	.	52.1
4900	Melbourne-Titusville-Cocoa, FL	.	.	.	.	79.0	84.1	69.8
4920	Memphis, TN-AR-MS	23.1	32.7	28.9	35.9	41.4	45.4	51.8
4960	Meriden, CT	57.4	60.8	67.1	68.2	67.5	66.8	72.0
5000	Miami, FL	55.5	62.6	53.3	60.5	62.8	66.6	65.8
5040	Midland, TX	51.0	49.9	56.5	50.6	63.6	72.5	71.5
5080	Milwaukee, WI	42.6	46.7	39.9	31.6	57.4	59.5	59.2
5120	Minneapolis-St. Paul, MN-WI	31.4	38.5	39.3	43.7	42.3	42.5	40.5
5160	Mobile, AL	43.6	48.0	46.2	50.6	42.0	48.7	56.4
5170	Modesto, CA	.	.	.	.	42.5	44.6	56.4
5200	Monroe, LA	37.5	39.1	55.0	51.0	46.6	55.6	55.3

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
					Percent			
5240	Montgomery, AL	49.9	62.5	53.7	55.8	56.0	45.8	60.2
5280	Muncie, IN	39.4	60.3	44.6	61.0	68.2	84.0	89.1
5320	Muskegon-Norton Shores-Muskegon Hts, MI	40.1	47.5	49.7	60.2	56.6	48.8	45.2
5350	Nashua, NH	.	.	.	.	51.8	52.4	55.8
5360	Nashville-Davidson, TN	50.4	59.0	52.1	58.2	47.5	46.7	50.0
5380	Nassau-Suffolk, NY	.	.	.	.	45.7	50.7	58.0
5400	New Bedford, MA	38.4	44.0	40.5	51.5	60.2	69.1	70.5
5440	New Britain, CT	51.8	46.4	50.6	47.8	44.2	38.1	58.9
5460	New Brunswick-Perth Amboy-Sayreville, NJ	.	.	.	.	45.9	44.0	51.1
5480	New Haven-West Haven, CT	38.4	44.0	48.2	54.4	51.3	50.0	56.7
5520	New London-Norwich, CT-RI	.	.	53.8	58.1	51.2	47.6	46.2
5560	New Orleans, LA	35.9	44.8	52.0	54.4	59.6	60.5	57.8
5600	New York, NY-NJ	41.1	36.7	34.5	33.0	30.9	32.4	32.1
5640	Newark, NJ	52.8	47.9	40.2	42.5	44.2	48.4	52.1
5645	Newark, OH	.	.	.	.	.	.	67.0
5660	Newburgh-Middletown, NY	.	.	.	.	.	.	78.7
5680	Newport News-Hampton, VA	62.0	63.6	60.1	60.5	56.7	48.7	58.7
5720	Norfolk-Virginia Beach-Portsmouth, VA-NC	48.7	39.1	46.1	51.6	48.7	50.9	52.5
5745	Northeast Pennsylvania	.	.	.	.	53.0	51.0	45.8
5760	Norwalk, CT	.	.	65.0	59.4	56.9	50.1	59.2
5790	Ocala, FL	.	.	.	.	.	.	49.2
5800	Odessa, TX	50.2	49.8	51.8	52.1	47.2	55.3	57.9
5820	Ogden, UT	52.0	61.5	60.2	.	.	.	.
5880	Oklahoma City, OK	40.3	40.0	40.2	38.8	35.8	39.3	33.8
5910	Olympia, WA	.	.	.	.	.	.	59.4
5920	Omaha, NE-IA	38.9	45.0	53.5	55.7	62.0	71.4	53.7
5960	Orlando, FL	63.2	62.5	63.8	61.0	65.7	59.7	64.4
5990	Owensboro, KY	.	.	.	.	54.7	61.5	59.7
6000	Oxnard-Simi Valley-Ventura, CA	.	.	.	46.4	46.4	55.9	59.6
6015	Panama City, FL	.	.	.	.	.	66.4	65.4
6020	Parkersburg-Marietta, WV-OH	.	.	.	.	45.6	47.1	54.3
6025	Pascagoula-Moss Point, MS	.	.	.	.	.	51.6	53.8

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
		Percent						
6040	Paterson-Clifton-Passaic, NJ	64.2	60.6	48.6	51.1	46.6	46.2	54.9
6080	Pensacola, FL	37.4	49.7	43.1	42.7	40.4	40.8	51.5
6120	Peoria, IL	38.4	45.7	37.9	36.2	36.7	47.5	50.9
6140	Petersburg-Colonial Heights-Hopewell, VA	.	.	.	.	50.2	55.0	45.3
6160	Philadelphia, PA-NJ	52.6	60.3	60.7	59.8	54.1	54.8	50.2
6200	Phoenix, AZ	45.4	46.0	46.6	39.8	47.9	51.1	57.3
6240	Pine Bluff, AR	39.7	48.7	43.5	58.6	58.0	76.2	67.1
6280	Pittsburgh, PA	45.0	53.2	51.7	45.0	43.4	48.2	37.9
6320	Pittsfield, MA	57.5	61.3	69.7	66.7	61.9	79.1	81.1
6400	Portland, ME	43.1	41.2	44.0	40.1	50.1	55.5	67.9
6440	Portland, OR-WA	39.6	43.1	35.3	40.7	53.7	39.1	35.0
6450	Portsmouth-Dover-Rochester, NH-ME	.	.	.	.	.	.	51.2
6460	Poughkeepsie, NY	.	.	.	.	73.0	74.1	67.2
6480	Providence-Warwick-Pawtucket, RI-MA	48.7	48.9	50.9	58.5	59.1	60.3	59.5
6520	Provo-Orem, UT	40.6	39.4	49.8	50.3	51.3	49.7	45.6
6560	Pueblo, CO	50.1	53.4	62.0	60.2	70.3	71.3	75.7
6600	Racine, WI	38.5	51.2	52.9	43.0	51.9	57.5	63.8
6630	Raleigh, NC	47.9	56.8	58.8	61.1	.	.	.
6640	Raleigh-Durham, NC	.	.	.	.	63.5	61.6	54.2
6680	Reading, PA	46.9	44.8	48.0	46.7	42.5	43.9	48.4
6690	Redding, CA	.	.	.	.	.	.	58.2
6720	Reno, NV	48.2	54.4	65.6	76.1	59.7	73.4	76.0
6740	Richland-Kennewick-Pasco, WA	.	.	.	.	57.1	61.9	56.2
6760	Richmond, VA	50.5	47.9	49.9	50.4	45.2	52.7	55.3
6780	Riverside-San Bernardino-Ontario, CA	29.8	37.2	38.1	41.6	45.5	62.1	65.1
6800	Roanoke, VA	58.8	62.7	66.8	69.2	62.9	68.7	65.5
6820	Rochester, MN	.	.	.	.	76.6	76.9	68.5
6840	Rochester, NY	58.4	65.6	55.5	56.2	59.3	65.0	71.2
6880	Rockford, IL	43.9	50.8	41.0	42.1	50.7	62.1	66.0
6885	Rock Hill, SC	.	.	.	.	.	.	49.3
6920	Sacramento, CA	45.1	44.5	36.3	40.1	48.5	44.8	51.3
6960	Saginaw, MI	29.9	37.0	46.9	51.3	58.3	56.3	49.0

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
					Percent			
6980	St. Cloud, MN	.	.	.	.	40.6	48.6	53.0
7000	St. Joseph, MO	42.7	45.8	51.7	50.6	51.2	49.4	41.7
7040	St. Louis, MO-IL	34.6	42.7	42.9	39.3	46.2	51.1	62.9
7080	Salem, OR	.	.	.	50.2	53.4	48.5	51.8
7120	Salinas-Seaside-Monterey, CA	.	.	.	42.4	47.4	59.0	59.8
7140	Salisbury-Concord, NC	.	.	.	.	.	.	64.0
7150	Salt Lake City, UT	37.4	42.2	50.3	54.5	.	.	.
7160	Salt Lake City-Ogden, UT	.	.	.	.	59.2	59.1	58.3
7200	San Angelo, TX	65.5	66.3	59.8	56.2	58.6	60.1	57.7
7240	San Antonio, TX	50.0	47.9	54.4	53.5	55.1	55.0	63.0
7320	San Diego, CA	41.0	40.6	52.5	51.0	55.2	64.9	67.6
7360	San Francisco-Oakland, CA	27.1	28.6	33.0	40.4	46.9	49.4	55.5
7400	San Jose, CA	28.4	30.7	33.9	37.8	46.0	47.9	56.6
7480	Santa Barbara-Santa Maria-Lompoc, CA	46.9	45.7	52.6	60.0	62.0	55.5	58.1
7485	Santa Cruz, CA	.	.	.	.	49.5	52.3	46.4
7500	Santa Rosa, CA	.	.	.	.	51.7	52.8	48.8
7510	Sarasota, FL	.	.	.	.	73.2	73.2	74.5
7520	Savannah, GA	33.7	32.1	34.7	41.2	42.3	43.0	53.6
7560	Scranton, PA	50.2	47.6	50.6	55.2	.	.	.
7600	Seattle-Everett, WA	39.7	38.4	41.1	41.5	49.0	54.7	54.2
7610	Sharon, PA	.	.	.	.	.	.	46.0
7620	Sheboygan, WI	.	.	.	.	.	.	75.0
7640	Sherman-Denison, TX	.	.	.	50.5	57.7	61.0	63.3
7680	Shreveport, LA	48.6	57.1	54.4	51.8	45.5	44.9	45.9
7720	Sioux City, IA-NE	42.7	46.3	44.1	49.3	45.9	49.4	63.7
7760	Sioux Falls, SD	67.2	62.3	70.9	72.3	79.4	73.5	71.1
7800	South Bend, IN	41.2	46.6	44.3	46.7	47.3	46.1	55.6
7840	Spokane, WA	38.4	47.0	54.7	56.3	62.4	64.3	62.1
7880	Springfield, IL	46.5	51.7	47.2	49.4	55.6	61.1	62.4
7920	Springfield, MO	46.3	50.4	54.8	60.5	58.8	61.4	71.9
7960	Springfield, OH	50.5	58.9	49.6	56.6	44.2	58.9	65.6
8000	Springfield-Chicopee-Holyoke, MA-CT	45.2	45.4	43.5	44.4	47.0	58.0	62.4

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
					Percent			
8040	Stamford, CT	53.8	59.8	45.9	46.2	43.4	44.3	47.9
8050	State College, PA	.	.	.	.	.	.	79.6
8080	Steubenville-Weirton, OH-WV	.	59.5	55.2	57.3	43.2	49.0	46.2
8120	Stockton, CA	23.8	25.4	26.1	28.3	34.0	33.5	37.9
8160	Syracuse, NY	39.5	42.7	40.2	33.8	29.9	37.7	50.5
8200	Tacoma, WA	33.7	39.5	41.3	46.0	49.1	56.9	60.2
8240	Tallahassee, FL	.	.	.	63.1	70.7	63.2	63.9
8280	Tampa-St. Petersburg, FL	51.1	60.4	62.3	63.1	63.5	63.9	62.4
8320	Terre Haute, IN	60.5	60.9	52.5	54.2	56.1	60.2	67.8
8360	Texarkana, TX-Texarkana, AR	27.3	47.9	41.0	39.4	41.1	51.7	49.1
8400	Toledo, OH-MI	47.8	52.6	59.4	62.5	55.0	52.0	59.3
8440	Topeka, KS	31.5	32.5	32.3	49.3	35.7	45.6	55.0
8480	Trenton, NJ	63.9	61.3	59.9	53.6	50.1	43.1	50.8
8520	Tucson, AZ	53.6	54.8	48.6	48.4	45.8	55.8	57.6
8560	Tulsa, OK	45.4	46.3	47.8	50.6	52.5	48.4	45.9
8600	Tuscaloosa, AL	36.1	41.7	39.3	45.7	65.6	57.5	55.7
8640	Tyler, TX	40.0	47.5	61.3	57.4	67.0	79.0	74.2
8680	Utica-Rome, NY	37.5	42.3	38.3	41.4	39.4	57.5	65.8
8720	Vallejo-Fairfield-Napa, CA	.	.	36.9	41.6	49.4	56.4	53.9
8750	Victoria, TX	.	.	.	.	.	.	55.7
8760	Vineland-Millville-Bridgeton, NJ	.	.	.	64.1	62.3	48.8	56.7
8780	Visalia-Tulare-Porterville, CA	.	.	.	.	.	.	30.4
8800	Waco, TX	42.4	50.4	48.8	48.3	61.6	71.2	63.0
8840	Washington, DC-MD-VA	56.0	59.7	67.3	70.3	76.3	79.6	77.1
8880	Waterbury, CT	39.0	39.9	46.0	50.6	46.8	44.6	44.7
8920	Waterloo-Cedar Falls, IA	42.6	38.5	42.9	48.7	65.0	68.9	69.2
8940	Wausau, WI	.	.	.	.	.	.	57.2
8960	West Palm Beach-Boca Raton, FL	63.6	61.2	66.3	63.1	64.7	70.7	72.1
9000	Wheeling, WV-OH	.	56.4	56.6	54.8	46.1	47.7	50.8
9010	Wheeling-Steubenville, WV	46.64	.	.	.	.	.	.
9040	Wichita, KS	52.7	47.5	41.9	42.4	40.5	51.9	58.4
9080	Wichita Falls, TX	52.2	52.8	57.5	55.4	65.8	62.1	59.5

See note at end of table.

Continued--

Appendix table 1--Four-firm SMSA concentration, 1954-82--Continued

SMSA code	SMSA	Four-firm market concentration level						
		1954	1958	1963	1967	1972	1977	1982
					Percent			
9120	Wilkes Barre-Hazleton, PA	49.1	54.9	55.8	58.5	.	.	.
9140	Williamsport, PA	.	.	.	.	73.7	75.1	69.6
9160	Wilmington, DE-NJ-MD	59.6	63.7	66.1	68.4	63.9	68.9	62.2
9200	Wilmington, NC	.	.	.	54.3	52.3	51.2	58.2
9220	Winston Salem, NC	39.2	46.2	49.9	.	.	.	.
9240	Worcester, MA	42.2	39.6	27.0	30.9	32.9	35.7	43.8
9260	Yakima, WA	.	.	.	.	44.5	48.4	54.2
9280	York, PA	36.1	45.8	44.3	47.1	44.4	45.1	49.8
9320	Youngstown-Warren, OH	44.0	50.1	51.8	43.9	32.1	40.0	38.6
9340	Yuba City, CA	.	.	.	.	.	.	66.2

. = SMSA not designated.

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
		Percent						
1	Iowa City, IA	90.6	.	.	.	.	.	.
2	Casper, WY	90.1	.	.	.	.	.	.
3	Muncie, IN	89.1	84.0	68.2	61.0	44.6	60.3	39.4
4	Anchorage, AL	88.9	77.1	70.3	.	.	.	.
5	Denver-Boulder, CO	86.2	84.9	80.5	66.0	70.4	66.9	67.1
6	Lafayette-West Lafayette, IN	85.9	84.7	72.1	56.9	.	.	.
7	Colorado Springs, CO	84.6	79.5	64.3	59.4	69.8	66.2	58.1
8	Fitchburg-Leominster, MA	83.1	69.9	44.4	42.4	37.0	41.6	.
9	Dubuque, IA	82.0	75.8	69.4	57.7	65.5	54.7	43.8
10	Pittsfield, MA	81.1	79.1	61.9	66.7	69.7	61.3	57.5
11	Cedar Rapids, IA	80.3	87.5	81.1	80.7	63.9	55.9	45.1
12	Fargo-Moorhead, ND-MN	80.1	78.8	53.6	55.2	49.9	44.1	42.1
13	State College, PA	79.6	.	.	.	.	.	.
14	Lubbock, TX	79.0	70.8	69.4	64.5	62.7	60.1	58.0
15	Newburgh-Middletown, NY	78.7	.	.	.	.	.	.
16	Lawrence, KS	78.4	81.9	.	.	.	.	.
17	Asheville, NC	78.3	77.1	72.8	67.4	64.1	67.9	.
18	Fort Collins, CO	77.2	80.0	.	.	.	.	.
18	Glens Falls, NY	77.2	.	.	.	.	.	.
19	Washington, DC-MD-VA	77.1	79.6	76.3	70.3	67.3	59.7	56.0
20	Lowell, MA-NH	76.9	72.4	71.6	58.5	37.2	38.7	40.0
20	Grand Forks, ND-MN	76.9	75.3	.	.	.	.	.
21	Reno, NV	76.0	73.4	59.7	76.1	65.6	54.4	48.2
22	Pueblo, CO	75.7	71.3	70.3	60.2	62.0	53.4	50.1
22	Fort Wayne, IN	75.7	66.6	56.5	62.9	52.8	60.8	55.0
23	Great Falls, MT	75.5	77.2	67.6	69.1	75.6	63.0	48.4
24	Sheboygan, WI	75.0	.	.	.	.	.	.
25	Sarasota, FL	74.5	73.2	73.2	.	.	.	.
26	Tyler, TX	74.2	79.0	67.0	57.4	61.3	47.5	40.0
26	Enid, OK	74.2	.	.	.	.	.	.
27	Elkhart, IN	74.1	56.1	46.5	.	.	.	.
28	Anderson, SC	73.8	.	.	.	.	.	.

See footnote at end of table.

Continued--

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]--Continued

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
					Percent			
29	La Crosse, WI	73.4	44.9	47.7	.	.	.	.
30	Ann Arbor, MI	73.2	71.2	65.2	66.0	61.0	59.7	55.5
31	Fort Lauderdale-Hollywood, FL	72.8	72.6	69.4	68.6	65.5	70.5	72.2
32	Bryan-College Station, TX	72.6	79.6	57.9	.	.	.	.
33	Bangor, ME	72.3	.	.	.	.	.	.
34	Lewiston-Auburn, ME	72.2	69.3	60.1	38.9	33.0	30.8	.
35	West Palm Beach-Boca Raton, FL	72.1	70.7	64.7	63.1	66.3	61.2	63.6
36	Meriden, CT	72.0	66.8	67.5	68.2	67.1	60.8	57.4
37	Kokomo, IN	71.9	67.9	.	.	.	.	.
37	Springfield, MO	71.9	61.4	58.8	60.5	54.8	50.4	46.3
37	Chattanooga, TN-GA	71.9	56.4	43.9	49.3	43.8	35.6	38.2
38	Midland, TX	71.5	72.5	63.6	50.6	56.5	49.9	51.0
39	Battle Creek, MI	71.3	70.1	52.6	.	.	.	.
40	Rochester, NY	71.2	65.0	59.3	56.2	55.5	65.6	58.4
41	Sioux Falls, SD	71.1	73.5	79.4	72.3	70.9	62.3	67.2
42	Laredo, TX	71.0	61.6	56.6	53.3	45.1	48.8	48.5
43	Daytona Beach, FL	70.8	73.2	65.4	.	.	.	.
44	Lawrence-Haverhill, MA-NH	70.7	63.3	55.7	51.7	43.0	46.6	43.0
45	New Bedford, MA	70.5	69.1	60.2	51.5	40.5	44.0	38.4
46	Burlington, VT	70.2	.	.	.	.	.	.
47	Melbourne-Titusville-Cocoa, FL	69.8	84.1	79.0	.	.	.	.
48	Jacksonville, FL	69.7	63.5	56.2	61.0	61.3	62.7	51.9
49	Williamsport, PA	69.6	75.1	73.7	.	.	.	.
50	Decatur, IL	69.3	70.0	73.6	63.3	63.2	64.5	54.1
51	Waterloo-Cedar Falls, IA	69.2	68.9	65.0	48.7	42.9	38.5	42.6
52	Las Cruces, NM	69.1	.	.	.	.	.	.
53	Bay City, MI	68.8	68.7	68.0	65.0	52.2	47.9	38.3
54	Amarillo, TX	68.5	68.5	62.7	60.9	62.8	68.9	62.5
54	Rochester, MN	68.5	76.9	76.6	.	.	.	.
55	Gadsden, AL	68.3	64.1	44.8	38.9	7.5	44.6	35.8
56	Bristol, CT	68.2	54.8	55.3	.	.	.	.

See footnote at end of table.

Continued--

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]--Continued

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
		Percent						
57	Davenport-Rock Island-Moline, IA-IL	68.1	74.0	67.0	57.2	54.1	55.1	50.2
58	Hagerstown, MD	67.9	.	.	.	.	.	.
58	Kankakee, IL	67.9	74.3	.	.	.	.	.
58	Portland, ME	67.9	55.5	50.1	40.1	44.0	41.2	43.1
59	Terre Haute, IN	67.8	60.2	56.1	54.2	52.5	60.9	60.5
59	Bismarck, ND	67.8	.	.	.	.	.	.
60	San Diego, CA	67.6	64.9	55.2	51.0	52.5	40.6	41.0
60	Hamilton-Middletown, OH	67.6	60.8	51.6	46.5	50.5	55.0	37.6
61	Boise City, ID	67.4	66.9	65.2	63.4	63.9	40.7	47.1
62	Des Moines, IA	67.3	75.1	69.4	44.4	33.9	41.4	36.9
63	Poughkeepsie, NY	67.2	74.1	73.0	.	.	.	.
64	Albany-Schenectady-Troy, NY	67.1	61.4	53.2	44.4	47.8	47.5	39.3
64	Joplin, MO	67.1	.	.	.	.	.	.
64	Little Rock-North Little Rock, AR	67.1	71.3	61.8	62.7	55.1	.	51.4
64	Pine Bluff, AR	67.1	76.2	58.0	58.6	43.5	48.7	39.7
65	Newark, OH	67.0	.	.	.	.	.	.
66	Corpus Christi, TX	66.8	57.1	54.3	50.7	53.4	51.8	42.9
66	Greenville-Spartanburg, SC	66.8	67.3	63.4	57.9	55.6	57.7	49.1
67	Yuba City, CA	66.2	.	.	.	.	.	.
68	Rockford, IL	66.0	62.1	50.7	42.1	41.0	50.8	43.9
69	Utica-Rome, NY	65.8	57.5	39.4	41.4	38.3	42.3	37.5
69	Miami, FL	65.8	66.6	62.8	60.5	53.3	62.6	55.5
70	Lawton, OK	65.6	63.5	58.9	52.0	50.0	48.9	54.0
70	Springfield, OH	65.6	58.9	44.2	56.6	49.6	58.9	50.5
71	Roanoke, VA	65.5	68.7	62.9	69.2	66.8	62.7	58.8
72	Panama City, FL	65.4	66.4	.	.	.	.	.
73	Riverside-San Bernardino-Ontario, CA	65.1	62.1	45.5	41.6	38.1	37.2	29.8
74	Orlando, FL	64.4	59.7	65.7	61.0	63.8	62.5	63.2
74	Anderson, IN	64.4	68.6	61.8	49.8	42.1	38.4	38.5
75	Elmira, NY	64.3	.	.	.	.	.	.
76	Gainesville, FL	64.2	64.3	61.8	.	.	.	.
77	Austin, TX	64.0	60.1	51.8	47.2	45.6	46.1	44.6

See footnote at end of table.

Continued--

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]--Continued

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
		Percent						
77	Binghamton, NY-PA	64.0	55.0	41.8	50.6	52.0	51.4	53.8
77	Salisbury-Concord, NC	64.0	.	.	.	.	.	.
78	Tallahassee, FL	63.9	63.2	70.7	63.1	.	.	.
79	Bloomington-Normal, IL	63.8	56.2	57.0	48.6	.	.	.
79	Racine, WI	63.8	57.5	51.9	43.0	52.9	51.2	38.5
80	Sioux City, IA-NE	63.7	49.4	45.9	49.3	44.1	46.3	42.7
81	Burlington, NC	63.5	65.2	54.8	.	.	.	.
82	Sherman-Denison, TX	63.3	61.0	57.7	50.5	.	.	.
83	Honolulu, HI	63.2	65.2	53.6	48.5	44.3	37.8	29.7
84	Waco, TX	63.0	71.2	61.6	48.3	48.8	50.4	42.4
84	San Antonio, TX	63.0	55.0	55.1	53.5	54.4	47.9	50.0
85	St. Louis, MO-IL	62.9	51.1	46.2	39.3	42.9	42.7	34.6
85	Lakeland-Winter Haven, FL	62.9	57.3	57.5	.	.	.	.
86	Atlanta, GA	62.8	61.4	54.6	60.0	60.5	55.6	53.9
87	Bremerton, WA	62.7	.	.	.	.	.	.
88	Lynchburg, VA	62.6	62.3	40.9	39.3	40.8	39.5	38.7
89	Kenosha, WI	62.5	60.9	54.5	46.5	44.1	44.6	45.3
90	Springfield, IL	62.4	61.1	55.6	49.4	47.2	51.7	46.5
90	Tampa-St. Petersburg, FL	62.4	63.9	63.5	63.1	62.3	60.4	51.1
90	Springfield-Chicopee-Holyoke, MA-CT	62.4	58.0	47.0	44.4	43.5	45.4	45.2
91	Fall River, MA-RI	62.3	60.0	57.9	61.2	56.4	54.6	53.7
92	Wilmington, DE-NJ-MD	62.2	68.9	63.9	68.4	66.1	63.7	59.6
93	Spokane, WA	62.1	64.3	62.4	56.3	54.7	47.0	38.4
94	Chicago, IL	61.7	62.0	57.2	53.6	51.9	51.9	47.6
95	Atlantic City, NJ	61.6	61.4	63.1	58.5	56.7	62.3	57.0
96	Janesville-Beloit, WI	61.5	.	.	.	.	.	.
97	Albuquerque, NM	61.2	69.5	66.3	69.5	68.7	60.3	49.8
98	Augusta, GA-SC	61.1	53.4	47.2	47.9	55.2	48.8	48.8
99	Bloomington, IN	60.6	54.8	.	.	.	.	.
99	Greeley, CO	60.6	61.3	.	.	.	.	.
100	Macon, GA	60.4	65.3	50.3	48.8	47.6	43.1	38.0
101	Fort Myers-Cape Coral, FL	60.3	62.4	62.8	.	.	.	.

See footnote at end of table.

Continued--

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]--Continued

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
		Percent						
102	Montgomery, AL	60.2	45.8	56.0	55.8	53.7	62.5	49.9
102	Tacoma, WA	60.2	56.9	49.1	46.0	41.3	39.5	33.7
103	Anniston, AL	60.1	38.7	.	.	.	.	.
104	Indianapolis, IN	59.9	59.4	52.7	59.3	60.0	55.6	48.5
105	Salinas-Seaside-Monterey, CA	59.8	59.0	47.4	42.4	.	.	.
106	Champaign-Urbana-Rantoul, IL	59.7	56.3	66.1	51.5	50.5	61.0	58.2
106	Owensboro, KY	59.7	61.5	54.7	.	.	.	.
107	Oxnard-Simi Valley-Ventura, CA	59.6	55.9	46.4	46.4	.	.	.
108	Erie, PA	59.5	36.5	43.9	48.0	49.3	58.2	51.9
108	Providence-Warwick-Pawtucket, RI-MA	59.5	60.3	59.1	58.5	50.9	48.9	48.7
108	Albany, GA	59.5	59.9	44.9	50.3	51.7	49.3	45.5
108	Wichita Falls, TX	59.5	62.1	65.8	55.4	57.5	52.8	52.2
109	Olympia, WA	59.4	.	.	.	.	.	.
110	Toledo, OH-MI	59.3	52.0	55.0	62.5	59.4	52.6	47.8
111	Milwaukee, WI	59.2	59.5	57.4	31.6	39.9	46.7	42.6
111	Norwalk, CT	59.2	50.1	56.9	59.4	65.0	.	.
112	Long Branch-Asbury Park, NJ	59.1	55.5	53.4	.	.	.	.
112	Bradenton, FL	59.1	64.4	.	.	.	.	.
113	New Britain, CT	58.9	38.1	44.2	47.8	50.6	46.4	51.8
114	Cumberland, MD-WV	58.8	.	.	.	.	.	.
114	Las Vegas, NV	58.8	62.1	57.5	61.2	52.8	46.6	46.3
115	Newport News-Hampton, VA	58.7	48.7	56.7	60.5	60.1	63.6	62.0
116	Wichita, KS	58.4	51.9	40.5	42.4	41.9	47.5	52.7
117	Salt Lake City-Ogden, UT	58.3	59.1	59.2	.	.	.	.
118	Redding, CA	58.2	.	.	.	.	.	.
118	Wilmington, NC	58.2	51.2	52.3	54.3	.	.	.
119	Santa Barbara-Santa Maria-Lompoc, CA	58.1	55.5	62.0	60.0	52.6	45.7	46.9
120	Nassau-Suffolk, NY	58.0	50.7	45.7	.	.	.	.
120	Brockton, MA	58.0	61.6	68.5	62.0	59.0	61.8	46.0
121	Green Bay, WI	57.9	51.8	67.2	57.6	56.4	50.1	45.2
121	Odessa, TX	57.9	55.3	47.2	52.1	51.8	49.8	50.2
122	New Orleans, LA	57.8	60.5	59.6	54.4	52.0	44.8	35.9

See footnote at end of table.

Continued--

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]--Continued

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
		Percent						
123	San Angelo, TX	57.7	60.1	58.6	56.2	59.8	66.3	65.5
123	Cincinnati, OH-KY-IN	57.7	57.2	49.9	46.7	49.0	51.4	49.7
124	Tucson, AZ	57.6	55.8	45.8	48.4	48.6	54.8	53.6
124	Huntsville, AL	57.6	48.2	48.6	55.4	49.9	34.3	30.8
125	Birmingham, AL	57.5	54.3	47.7	37.7	42.0	46.1	42.1
126	Phoenix, AZ	57.3	51.1	47.9	39.8	46.6	46.0	45.4
127	Wausau, WI	57.2	.	.	.	.	.	.
128	Abilene, TX	57.1	60.4	48.1	52.2	54.4	54.3	44.0
129	Longview-Marshall, TX	56.7	66.7	.	.	.	.	.
129	New Haven-West Haven, CT	56.7	50.0	51.3	54.4	48.2	44.0	38.4
129	Anaheim-Santa Ana-Garden Grove, CA	56.7	47.6	44.1	38.6	43.2	47.1	39.6
129	Vineland-Millville-Bridgeton, NJ	56.7	48.8	62.3	64.1	.	.	.
130	San Jose, CA	56.6	47.9	46.0	37.8	33.9	30.7	28.4
131	Bellingham, WA	56.5	.	.	.	.	.	.
131	Harrisburg, PA	56.5	52.9	51.1	56.0	50.9	48.1	49.7
132	Mobile, AL	56.4	48.7	42.0	50.6	46.2	48.0	43.6
132	Knoxville, TN	56.4	63.9	53.9	56.2	60.1	55.5	48.3
132	Modesto, CA	56.4	44.6	42.5	.	.	.	.
133	Akron, OH	56.3	60.1	53.4	52.6	62.1	60.9	48.5
134	Jackson, MS	56.2	60.8	55.9	51.8	55.9	48.9	51.5
134	Richland-Kennewick-Pasco, WA	56.2	61.9	57.1	.	.	.	.
135	Biloxi-Gulfport, MS	56.0	60.1	51.0	60.1	.	.	.
136	Nashua, NH	55.8	52.4	51.8	.	.	.	.
137	Tuscaloosa, AL	55.7	57.5	65.6	45.7	39.3	41.7	36.1
137	Victoria, TX	55.7	.	.	.	.	.	.
137	Brownsville-Harlingen-San Benito, TX	55.7	46.8	44.0	47.1	39.3	33.0	30.7
138	South Bend, IN	55.6	46.1	47.3	46.7	44.3	46.6	41.2
138	Allentown-Bethlehem-Easton, PA-NJ	55.6	52.1	40.3	51.1	52.3	54.7	49.1
139	San Francisco-Oakland, CA	55.5	49.4	46.9	40.4	33.0	28.6	27.1
140	Monroe, LA	55.3	55.6	46.6	51.0	55.0	39.1	37.5
140	Richmond, VA	55.3	52.7	45.2	50.4	49.9	47.9	50.5
141	Lorain-Elyria, OH	55.2	58.3	42.5	45.6	53.9	54.6	44.5

See footnote at end of table.

Continued--

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]--Continued

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
					Percent			
142	Charleston, WV	55.1	57.0	51.1	51.9	56.8	59.1	54.4
142	Killeen-Temple, TX	55.1	53.2	40.1	.	.	.	.
143	Topeka, KS	55.0	45.6	35.7	49.3	32.3	32.5	31.5
144	Paterson-Clifton-Passaic, NJ	54.9	46.2	46.6	51.1	48.6	60.6	64.2
145	El Paso, TX	54.8	54.4	54.1	48.1	53.0	53.5	53.9
146	Athens, GA	54.7	.	.	.	.	.	.
147	Manchester, NH	54.6	45.6	33.5	47.1	43.7	46.3	41.6
148	Jackson, MI	54.3	65.4	63.0	56.8	52.5	54.0	46.8
148	Parkersburg-Marietta, WV-OH	54.3	.	.	.	.	.	.
148	Detroit, MI	54.3	59.6	49.8	49.4	52.1	49.9	38.5
149	Yakima, WA	54.2	48.4	44.5	.	.	.	.
149	Raleigh-Durham, NC	54.2	61.6	63.5	.	.	.	.
149	Lexington-Fayette, KY	54.2	52.8	60.4	59.0	61.2	54.9	47.1
149	Seattle-Everett, WA	54.2	54.7	49.0	41.5	41.1	38.4	39.7
150	Mansfield, OH	54.1	58.1	50.8	54.6	.	.	.
151	Vallejo-Fairfield-Napa, CA	53.9	56.4	49.4	41.6	36.9	.	.
152	Pascagoula-Moss Point, MS	53.8	47.1	45.6	.	.	.	.
153	Omaha, NE-IA	53.7	71.4	62.0	55.7	53.5	45.0	38.9
154	Savannah, GA	53.6	43.0	42.3	41.2	34.7	32.1	33.7
155	Columbia, SC	53.5	40.0	42.9	48.1	51.4	47.6	49.1
156	St. Cloud, MN	53.0	48.6	40.6	.	.	.	.
157	Altoona, PA	52.8	60.8	56.4	61.3	64.2	67.8	65.9
157	Fort Walton Beach, FL	52.8	.	.	.	.	.	.
158	Norfolk-Virginia Beach-Portsmouth, VA-NC	52.5	50.9	48.7	51.6	46.1	39.1	48.7
158	Columbus, OH	52.5	58.4	50.7	52.9	53.2	56.9	54.9
159	Medford, OR	52.1	.	.	.	.	.	.
159	Newark, NJ	52.1	48.4	44.2	42.5	40.2	47.9	52.8
159	Charlottesville, VA	52.1	.	.	.	.	.	.
159	Louisville, KY-IN	52.1	57.3	54.8	55.8	60.3	57.7	51.2
159	Eugene-Springfield, OR	52.1	51.5	46.9	55.3	64.9	54.7	39.0
160	Hickory, NC	52.0	.	.	.	.	.	.
160	Mcallen-Pharr-Edinburg, TX	52.0	49.3	41.7	37.9	.	.	.

See footnote at end of table.

Continued--

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]--Continued

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
					Percent			
161	Charlotte-Gastonia, NC	51.9	53.2	48.6	49.7	57.0	58.4	50.1
162	Salem, OR	51.8	48.5	53.4	50.2	.	.	.
162	Memphis, TN-AR-MS	51.8	45.4	41.4	35.9	28.9	32.7	23.1
163	Fayetteville-Springdale, AR	51.6	48.8	42.2	.	.	.	.
164	Pensacola, FL	51.5	40.8	40.4	42.7	43.1	89.7	37.4
165	Sacramento, CA	51.3	44.8	48.5	40.1	36.3	44.5	45.1
166	Portsmouth-Dover-Rochester, NH-ME	51.2	.	.	.	.	.	.
167	New Brunswick-Perth Amboy-Sayreville, NJ	51.1	44.0	45.9	.	.	.	.
168	Lincoln, NE	51.0	66.9	57.3	51.9	54.2	50.8	44.2
169	Peoria, IL	50.9	47.5	36.7	36.2	37.9	45.7	38.4
169	Danbury, CT	50.9	47.3	55.3	.	.	.	.
170	Wheeling, WV-OH	50.8	47.7	46.1	54.8	56.6	56.4	.
170	Trenton, NJ	50.8	43.1	50.1	53.6	59.9	61.3	63.9
171	Johnstown, PA	50.5	55.7	53.4	56.3	56.8	55.8	.
171	Syracuse, NY	50.5	37.7	29.9	33.8	40.2	42.7	39.5
172	Philadelphia, PA-NJ	50.2	54.8	54.1	59.8	60.7	60.3	52.6
173	Nashville-Davidson, TN	50.0	56.7	47.5	58.2	52.1	59.0	50.4
174	York, PA	49.8	45.1	44.4	47.1	44.3	45.8	36.1
175	Fayetteville, NC	49.7	58.8	48.9	56.4	.	.	.
176	Dallas-Fort Worth, TX	49.6	50.2	46.6	.	.	.	.
177	Lake Charles, LA	49.5	45.4	44.9	50.8	41.7	44.9	33.4
178	Chico, CA	49.4	.	.	.	.	.	.
179	Rock Hill, SC	49.3	.	.	.	.	.	.
179	Florence, AL	49.3	42.1	41.4	.	.	.	.
179	Flint, MI	49.3	55.5	45.5	60.6	53.0	53.6	43.4
180	Johnson City-Kingsport-Bristol, TN-VA	49.2	39.5	.	.	.	.	.
180	Ocala, FL	49.2	.	.	.	.	.	.
181	Texarkana, TX-Texarkana, AR	49.1	51.7	41.1	39.4	41.0	47.9	27.3
182	Saginaw, MI	49.0	56.3	58.3	51.3	46.9	37.0	29.9
183	Santa Rosa, CA	48.8	52.8	51.7	.	.	.	.
184	Danville, VA	48.4	.	.	.	.	.	.
184	Reading, PA	48.4	43.9	42.5	46.7	48.0	44.8	46.9

See footnote at end of table.

Continued--

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]--Continued

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
		Percent						
185	Grand Rapids, MI	48.1	42.3	67.8	51.9	44.0	44.9	40.3
186	Stamford, CT	47.9	44.3	43.4	46.2	45.9	59.8	53.8
186	Eau Claire, WI	47.9	41.0	.	.	.	.	.
187	Cleveland, OH	47.6	53.0	51.9	58.4	56.0	52.9	51.1
188	Galveston-Texas City, TX	47.5	44.5	44.2	37.7	40.3	34.2	27.0
188	Boston, MA	47.5	47.3	49.0	47.4	49.7	47.6	56.2
189	Bakersfield, CA	47.4	38.7	40.7	35.5	35.8	31.4	31.1
190	Columbia, MO	47.3	54.1	45.7	.	.	.	.
191	Evansville, IN-KY	47.2	46.4	41.4	40.1	42.6	43.8	42.4
192	Madison, WI	47.1	52.1	47.4	40.4	40.6	43.2	41.4
193	Billings, MT	46.7	44.4	54.9	42.4	51.6	47.9	49.6
194	Santa Cruz, CA	46.4	52.3	49.5	.	.	.	.
195	Los Angeles-Long Beach, CA	46.3	38.3	35.6	28.5	30.3	24.6	29.6
196	Steubenville-Weirton, OH-WV	46.2	49.0	43.2	57.3	55.2	59.5	.
196	New London-Norwich, CT-RI	46.2	47.6	51.2	58.1	53.8	.	.
197	Sharon, PA	46.0	.	.	.	.	.	.
197	Dayton, OH	46.0	47.6	40.8	37.0	43.2	45.2	45.9
198	Tulsa, OK	45.9	48.4	52.5	50.6	47.8	46.3	45.4
198	Shreveport, LA	45.9	44.9	45.5	51.8	54.4	57.1	48.6
199	Northeast PA	45.8	51.0	53.0	.	.	.	.
199	Lima, OH	45.8	49.0	52.1	56.4	72.1	52.2	50.4
200	Provo-Orem, UT	45.6	49.7	51.3	50.3	49.8	39.4	40.6
201	Jersey City, NJ	45.5	51.2	44.2	43.2	44.3	52.0	54.2
202	Petersburg-Colonial Heights-Hopewell, VA	45.3	55.0	50.2	.	.	.	.
203	Muskegon-Norton Shores-Muskegon Hts, MI	45.2	48.8	56.6	60.2	49.7	47.5	40.1
203	Bridgeport, CT	45.2	38.5	43.5	45.4	52.3	56.2	.
204	Alexandria, LA	45.1	48.4	44.0	.	.	.	.
205	Baltimore, MD	45.0	54.3	57.0	55.0	53.9	49.9	47.9
205	Duluth-Superior, MN-WI	45.0	43.6	43.2	34.4	34.5	33.3	28.1
205	Kalamazoo-Portage, MI	45.0	46.8	64.9	72.2	56.7	41.9	33.4
206	Waterbury, CT	44.7	44.6	46.8	50.6	46.0	39.9	39.0
207	Hartford, CT	44.3	39.3	40.9	47.9	48.4	48.6	.

See footnote at end of table.

Continued--

Appendix table 2--SMSA concentration, 1954-82, by concentration rank, 1982[1]--Continued

Concentration rank, 1982	SMSA	Four-firm market concentration						
		1982	1977	1972	1967	1963	1958	1954
		Percent						
208	Worcester, MA	43.8	35.7	32.9	30.9	27.0	39.6	42.2
209	Lancaster, PA	43.3	48.3	45.8	49.2	48.0	45.7	42.4
210	Houston, TX	43.0	40.3	34.7	32.2	35.1	33.2	35.5
211	Greensboro-Winston-Salem-High Point, NC	42.0	39.0	36.5	37.9	.	.	.
212	Columbus, GA-AL	41.7	34.4	32.6	34.0	37.3	41.3	36.4
212	St. Joseph, MO	41.7	49.4	51.2	50.6	51.7	45.8	42.7
213	Buffalo, NY	41.4	38.9	38.2	41.0	46.8	56.4	59.8
214	Jacksonville, NC	41.1	.	.	.	.	.	.
215	Baton Rouge, LA	41.0	45.3	47.2	45.7	61.0	61.8	52.9
216	Minneapolis-St. Paul, MN-WI	40.5	42.5	42.3	43.7	39.3	38.5	31.4
217	Lafayette, LA	39.7	44.5	41.0	52.3	55.7	52.2	38.1
218	Kansas City, MO-KS	38.8	51.8	49.3	41.8	49.1	49.8	48.1
219	Youngstown-Warren, OH	38.6	40.0	32.1	43.9	51.8	50.1	44.0
220	Florence, SC	38.4	.	.	.	.	.	.
221	Clarksville-Hopkinsville, TN-KY	38.3	36.1	.	.	.	.	.
222	Stockton, CA	37.9	33.5	34.0	28.3	26.1	25.4	23.8
222	Pittsburgh, PA	37.9	48.2	43.4	45.0	51.7	53.2	45.0
222	Lansing-East Lansing, MI	37.9	36.5	42.8	41.1	32.1	36.1	48.2
223	Fresno, CA	37.5	30.8	27.2	24.6	23.5	27.7	22.7
224	Charleston-North Charleston, SC	36.6	36.8	26.3	33.7	35.2	35.6	28.8
224	Benton Harbor, MI	36.6	.	.	.	.	.	.
225	Beaumont-Port Arthur-Orange, TX	36.5	43.3	34.2	38.1	41.6	41.1	37.0
226	Fort Smith, AK-OK	36.3	35.4	39.5	43.8	34.6	48.3	39.1
227	Portland, OR-WA	35.0	39.1	53.7	40.7	35.3	43.1	39.6
228	Oklahoma City, OK	33.8	39.3	35.8	38.8	40.2	40.0	40.3
229	Gary-Hammond-East Chicago, IN	33.6	38.3	35.8	33.9	29.3	34.4	38.9
230	Canton, OH	33.4	34.7	33.7	33.5	39.0	39.2	30.0
231	Huntington-Ashland, WV-KY-OH	32.4	29.7	29.2	32.0	38.8	47.5	37.2
232	New York, NY-NJ	32.1	32.4	30.9	33.0	34.5	36.7	41.1
233	Visalia-Tulare-Porterville, CA	30.4	.	.	.	.	.	.
234	Appleton-Oshkosh, WI	27.0	26.0	26.6	.	.	.	.

. = SMSA not designated.

[1]Concentration ranking is less than the number of SMSA's in 1982 due to multi-city ties.

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SUMMARY OF REPORT

1992 Retail Food Price Increase Was Lowest in 25 Years

Number 14, April 1993

Contact: Denis Dunham, 202/219-0870

Food prices in 1992, as measured by the Consumer Price Index (CPI), averaged 1.2 percent above those in 1991, less than half the 1991 price increase of 2.9 percent. Moreover, the 1992 increase was the lowest since 1967.

Why did the rise in retail food prices slow so dramatically in 1992? How much of the consumer food dollar went to the farmer and how much to food processors and marketers? Because of great interest in these questions, Congress directed the U.S. Department of Agriculture (USDA) to research them and report its findings. *Food Costs. . .From Farm to Retail,* from USDA's Economic Research Service, provides the answers.

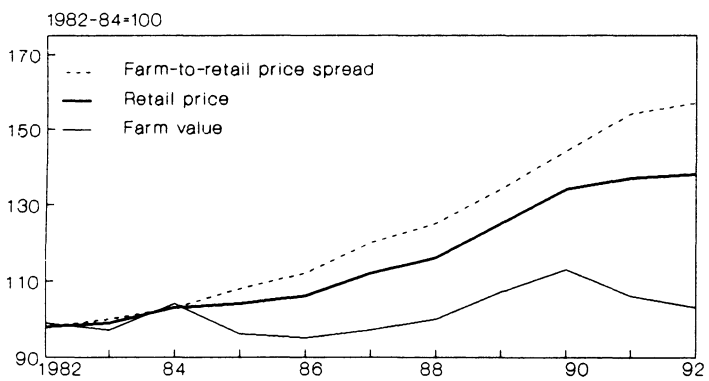
For the second consecutive year, food prices in 1992 rose less at grocery stores than at eating places. Food prices in grocery stores rose only 0.7 percent, and prices for restaurant meals were up 2 percent. In both cases, prices increased much less than they had the year before. While prices were up slightly overall, grocery store prices of some foods in 1992 were lower than those in the year before. These foods included meats, poultry, and eggs. Price hikes were largest for cereals and bakery products and for dairy products.

A variety of factors kept food price increases small in 1992. Changing consumer spending habits, lower inflation, and larger supplies of food played important roles. Slow growth in consumers' real income and low consumer confidence in the economy held down food spending, particularly for high-value, high-priced products and restaurant meals. The 1991 recession, followed by the slow pace of economic recovery in 1992, increasingly drove consumers to shop for the best price deals.

The marketing spread, the difference between the farm value and retail price of food, consistently affects food price increases more than do volatile farm prices. Higher costs for labor, packaging, energy, and other marketing inputs widen the spread nearly every year. The 1992 rise in the farm-to-retail price spread was only 2 percent, substantially smaller than that in recent years. This small rise can be attributed partly to a lower general inflation rate. Inflation in 1992 averaged 3 percent, down from 4.2 percent the year before.

Food price components

Farm value of food products dropped for the second consecutive year, making the 1992 value only 4 percent higher than the value a decade earlier.



Retail prices based on the Consumer Price Index for food eaten at home. Farm value based on prices received by farmers. Price spread represents processing and distributing charges.

To Order This Report...

The information presented here is excerpted from ***Food Costs. . .From Farm to Retail,*** AIB-669, by Denis Dunham. The cost is $6.00.

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