RETAIL TRADE IN OKLAHOMA--1939

By

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TABLE OF CONTENTS

Page	Part	
1	I	INTRODUCTION Retail Trade Census--1939; Scope of study; purpose; limitations to this type of investigation; terms defined; order of presentation.
7	II	RETAIL TRADE IN OKLAHOMA--1939 Total sales figures for the eleven main retail groups; comparison of national and state per capita sales figures; explanations.
10	III	SURVEY BY COUNTIES The nine counties leading the state in retail trade; method used to compare counties; value and limitations of income tax returns as an indication of buying power; manner of approach; analysis of six specific counties: three with the highest per capita sales, and three counties with lowest sales; summary.
56	IV	SURVEY BY CITIES OF 5,000 POPULATION AND OVER Importance of the 21 major cities in Oklahoma; scope of city analysis; significant factors in explaining per capita sales differences; the development and use of a "city average"; tendencies in sales by commodity groups; detailed survey of six selected cities: cities with high per capita sales, and those with low per capita sales.
94	V	THE DETERMINATION OF TRADING AREA BOUNDARIES The value of delineation techniques to merchants and civic groups; recognition of commonly used devices; Reilly's "Law of Retail Gravitation": nature and purpose of Reilly's method, application of this "law" in setting up territorial boundaries to Oklahoma City's trading area; criticism of Reilly's "law"; newspaper circulation; personal interviews.
102	VI	A TECHNIQUE FOR MEASURING THE MOBILITY OF TRADE Problem defined; Dr. Henry A. Burd's technique for measuring trade mobility: meaning of "Sales Possibility", mechanics of the analysis; procedure used in this investigation; cities selected for study; distribution of "Sales Possibility" among the 11 retail groups; graphic presentation of results; value of trade mobility studies.
112	VII	CONCLUSIONS
		BIBLIOGRAPHY

TABLES

		Pages
Table I	Comparison of National and State Per Capita Sales Totals	8
Table II	Per Capita Sales in Main Retail Groups, 1939 (By Counties)	13
Table III	Summary of Per Capita Figures for all Groups Combined, Oklahoma 1939, By Counties, in Order of Decreasing Sales	34
	Food	35
	General Stores	36
	General Merchandise	37
	Apparel	38
	Furniture-Household, Radio	39
	Automotive	40
	Filling Stations	41
	Lumber, Building, and Hardware	42
	Eating and Drinking	43
	Drug Stores	44
	Other Stores	45
Table IV	Comparison of Oklahoma County with the State	47
Table V	Comparison of Delaware County with the State	52
Table VI	Per Capita Sales in Main Retail Groups, 1939 (By Cities with 5,000 Population and Over)	57
Table VII	Summary of Per Capita Figures for all Groups Combined, Oklahoma 1939, By Cities over 5,000 Population in Order of Decreasing Sales	70
	Food	71
	General Stores	71
	General Merchandise	72
	Apparel	72
	Furniture, Household, Radio	73
	Automotive	73
	Filling Stations	74
	Lumber, Building, and Hardware	74
	Eating and Drinking	75
	Drug Stores	75
	Other Stores	76
Table VIII	Per Capita Sales--43 Cities of More Than 5,000--1939	77
Table IX	Comparison of Woodward With "City Average"--1939	81
Table X	Comparison of Picher With "City Average"--1939	90
Table XI	Comparison by Commodity Groups--Seminole--1939	106

PLATES

		Page
Plate I	Total Per Capita Sales in the Main Retail Groups (By Counties)	12
Plate II	Total Per Capita Sales in the Main Retail Groups (By Cities of 10,000 Population and Over)	83
Plate III	Per Capita Food Sales--1939 (By Cities of 10,000 Population and Over)	84
Plate IV	Per Capita Lumber-Building-Hardware Sales--1939 (By Cities of 10,000 Population and Over)	85
Plate V	Per Capita Automobile Sales--1939 (By Cities of 10,000 Population and Over)	86
Plate VI	Delineation of Oklahoma City's Retail Trading Area--1939 (By Reilly's "Law of Retail Gravitation")	97
Plate VII	Trade Mobility (Seminole)	107
Plate VIII	Trade Mobility (Shawnee, Wewoka)	108
Plate IX	Trade Mobility (Bartlesville, Enid)	109
Plate X	Trade Mobility (Stillwater)	110

RETAIL TRADE IN OKLAHOMA--1939

PART I

INTRODUCTION

The 1939 Census of Retail Trade has been released in final form by the U. S. Department of Commerce. This retail census is the fourth of its kind in the last ten years; the first of this type was the Census of Distribution made for 1929. Similar surveys were conducted and the results published for the years 1933 and 1935. Of particular significance to those interested in such statistical data for research purposes is the increasing comprehensiveness of each succeeding report. A wealth of factual information is available concerning the number of stores, sales, proprietors, employees, payroll and inventory figures for different types of business. Sales figures and the number of stores are shown by states, by counties, and by cities and towns with populations of 5,000 and over, for eleven different retail groups.

Attention is centered in this analysis on retail trade in Oklahoma. The study is based on the calendar year 1939. Retail census figures for that period are used as a starting point with primary emphasis on sales data both by counties and by the 43 cities in Oklahoma with populations of 5,000 or more. Reports of the Oklahoma Tax Commission on the number of individual income tax returns filed for 1939 are introduced as a partial indicator of purchasing power, or the "ability-to-buy".

Finally, the 1940 population census figures have been used to reduce both sales totals and income tax returns to a per capita basis for comparison. The limited scope of this project should be recognized.

No attempt has been made to exhaust all of the possibilities for further research based on material available. For example, for all cities of over 10,000 inhabitants the census tables show an additional breakdown of the eleven main retail groups. This in itself offers an opportunity for a follow-up study of a particular market or type of business.

Primarily, the purpose of this investigation has been to show the possibilities for trading area research based on census data and upon inexpensive, commonly accepted delineation techniques, examples of which are illustrated and discussed in later chapters. An effort is made to show the practical value of such studies to merchants or to communities seeking answers to such questions as, "What areas (counties or cities) in the state enjoy relatively high per capita sales?", or "How does a certain town compare with another, perhaps competing, trade center in sales by different retail commodity groups?". Such questions can be answered. Census information, especially as a starting point, is valuable because it is reasonably reliable and deals with facts.

Still more difficult are those problems centering around the determination of trading area boundaries. How far may a particular store or community normally expect to extend its sphere of dominance or influence over consumer purchases? Parts V and VI treat methods for approximating trade territorial limits, and for measuring the mobility of retail trade. Again, it is pointed out that this investigation can only call attention to a limited few of the possibilities open to business men and civic groups in the field of trading area analysis.

A knowledge of accepted research methods and sources of market information can prove helpful to merchants in still another way. It may aid them in checking or evaluating the studies made by others. In choosing advertising media, or in sending out direct mail circulars every merchant needs to have some idea as to the nature and extent of his potential market so that he may direct his sales effort most profitably. In the past many so-called "market surveys" conducted by publishers, manufacturers, or advertising agencies have been misleading either through the injection of personal bias by those conducting the investigation or by unscientific procedure in assembling the material. The average merchant is in need of some criterion for judging these "ready-made" surveys.

In conducting trade investigations it is well to bear in mind that many limitations and restrictions are involved. Especially must care be exercised in the interpretation of findings and the drawing of conclusions. One must deal in probablities rather than in certainties. For example, population data and income tax returns are not the only factors to consider in explaining differences in sales volume. Local conditions - physical, social, and economic - make any and every market more or less unique. There is no "typical market". Frequently we work with averages because it is expedient to do so. Then too, it is very easy when using statistical tabulations to look upon final interpretation as a mere mechanical "chore". If a high degree of correlation exists between two sets of data, it is not proof of a causal relationship. Furthermore, census information is recorded only by political units (state, county, and city). This makes the estimation of sales by specific trading areas difficult because normally such areas are not coincident with political boundaries.

It can be shown, too, that the size of a community affects its loss or gain of trade more in the case of so-called "shopping goods" than in the case of "convenience goods". Obviously people will travel farther to purchase items such as furniture, millinery, automobiles, etc. than they will for staple products of everyday demand such as groceries, tobacco, soap, etc.

This progressive flow of trade from smaller to larger shopping areas is evidenced in the analysis of retail trade by cities in Part IV. The widest dispersion in per capita sales for all of the eleven retail groups will be found to exist in apparel sales as between large and small cities. Of the eleven commodity groups, apparel is probably the most representative of "shopping merchandise".

At this point there are one or two terms that need clarification. The term "trading area" has been the object of much disagreement. For purposes of this report, C. A. Kirkpatrick has given a definition of a trading area which is most nearly satisfactory: "A trading area is a geographical territory composed of two parts--a center, or central point, and a surrounding section. No one within this area normally buys the commodity in question except at the central point; and, no one outside this area normally comes into the area to buy this particular commodity."[1] (Notice that this definition applies only to specific commodities). A trading area, then, will be thought of as consisting of a "core" or trade center, and a surrounding section which may be called a "dominance area" and which is made up of consumers who usually purchase most of their goods in that area.[2]

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1 Charles A. Kirkpatrick, "An Evaluation and Criticism of Existing Trade Areas" (New York University, 1933), p. 1.

2 Perham C. Nahl, "Retail Trading Area Analysis: A Description and Evaluation of Delineation Techniques" (University of California, 1939), p. 8.

The term "breaking point" is used in connection with the delineation of trade territories; Part V is devoted in a large measure to a discussion of the determination of "breaking points". Suffice it to say here that it is thought of as an imaginary line denoting approximately where the predominant influence of one trade center leaves off and another begins.

Actually it is impossible to draw a line showing where the "shed" or flow of trade will all be in one direction or all in another. There is considerable overlapping. "Actually, we find what we may call 'zones of indifference' between areas; zones from which residents may sometimes go to one center and sometimes to another for a particular commodity."[3]

The manner of approach and the order of presentation follow quite logically. First, a general picture of total retail trade for Oklahoma is given along with similar data for all the forty-eight states combined. Per capita sales figures are compared in each of the eleven main retail groups. The balance of the survey pertains to retail trade conditions within the state. Part III takes up total sales data by counties, of which there are seventy-seven. The amount and nature of these per capita differences are discussed and an attempt made to explain them in cases where they are pronounced. In Part IV the major cities are treated in like manner. Per capita sales totals are shown along with income tax returns for the 43 cities with populations in excess of 5,000. Here the wide dispersion is a reminder that there is no "typical market"; and that in addition to population numbers there are other elements characterising any

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3 Perham C. Nahl, Ibid., p. 10.

community equally significant in determining sales opportunity. Part V takes up the problem of defining territorial boundaries to trading areas. Only one technique is discussed in detail. Reilly's "Law of Retail Gravitation" is used in establishing "breaking points" between Oklahoma City and several other competing trade centers. Part VI presents a relatively new technique for gauging or measuring the mobility of trade. It should aid merchants in a community in ascertaining how well they serve their potential customers. Finally, the findings and results of this investigation are summarized in Part VII.

PART II

RETAIL TRADE IN OKLAHOMA --1939

Oklahoma, with a population of 2,336,434 inhabitants (1940 census), shows retail sales totaling $513,091,000 for the Year 1939. This represents an increase of 19% over that of 1935. The 1939 total is 34% below the dollar volume reached in 1929; it may be explained in part by a substantial drop in the general level of consumer goods prices since 1929. Of interest is the loss in population for the state of 61,603 or 2.6 per cent, in the last ten years. A breakdown of census figures to determine just which cities in the state have grown in size and which ones have suffered a loss in population is readily possible. A study of this kind should prove valuable to retailers interested in appraising certain trading areas in the light of future business opportunity.

Retail Census Reports for 1939 are available for each of the 48 states and the District of Columbia; and a summary report is drawn up for the United States as a whole. Compared with the other 47 states, Oklahoma is found to rank 22nd in population size while its position is 24th in total volume of retail sales. The total per capita sales figure for all retail groups combined amounts to $219.60 for Oklahoma. The national per capita average is considerably higher; it amounts to $319.28. Table I presents a picture of these state and national averages for each of the eleven commodity groups. The dollar amount of Oklahoma's loss or gain may be seen as well.

TABLE I

Comparison of National and State Per Capita Sales Totals

	U.S. Average	Oklahoma Average	State Loss or Gain
Total	$319.28	$219.60	- $99.68
Food	77.20	48.01	- 29.19
General Stores	6.15	5.98	- .17
General Mdse.	43.02	27.96	- 15.06
Apparel	24.75	13.30	- 11.45
Furn.-Household-Radio	13.16	7.84	- 5.32
Automotive	42.12	41.52	- .60
Filling Stations	21.44	20.14	- 1.30
Lumber, Bldg., Hwde.	20.77	21.47	/ .70
Eating and Drinking	26.73	11.43	- 15.30
Drug Stores	11.87	11.00	- .87
Other Stores	26.55	10.94	- 15.61

Source: United Stated Department of Commerce, Bureau of Census.

In only one retail group, Lumber-Building-Hardware, does Oklahoma exceed the national per capita average. In several of the groups Oklahoma lags noticeably. The greatest discrepancy appears in the "Other Stores" group; expressed as a percentage, this deviation below the national figure amounts to 143%. Equally as glaring is the difference existing between national and state averages for the "Eating and Drinking" group.

No attempt is made here to analyze fully these differences between state and national figures. In the first place, per capita totals for the United States as a whole are of limited significance to this study. Essentially these national figures represent attempts to combine a number of heterogeneous areas in one simple average. Such an average is of limited value to a merchant in Stillwater, for example, who is primarily interested in a trade study of his own city and surrounding area. In analyzing U. S. Summary Reports one finds them heavily weighted by retail sales in certain densely populated and highly industrialized sections of the country.

The self-sufficing nature of much of the economic activity in Oklahoma is responsible in part for the state's low per capita showing. In one county in Oklahoma the per capita sales of food during 1939 amounted to only $11.76. In this same county, the per capita expenditure for apparel amounted to but $2.33. One would hardly expect to find a similar situation in areas where inhabitants are concentrated in numbers and labor is highly specialized. Under such circumstances, nearly all food consumed necessarily passes through retail channels of one sort or another. More and better clothing would probably be required.

Still other difficulties arise in trying to compare state and national per capita averages. A wide difference is seen to exist in the Eating and Drinking group. Could not a part of this difference be explained by the Oklahoma laws governing the sale of liquor within the state? In the national total, "Drinking Places" account for a considerably larger share of Eating and Drinking expenditures than in the state group total. ("Drinking Places" contribute 39% to the U. S. total; and only 28% to total sales in the Eating and Drinking group for Oklahoma.)

National data can prove helpful in many ways, however. It is quite possible to work out for different kinds of businesses various relationships between sales volume and number of employees, or sales volume and inventory carried, etc. Such information is valuable to merchants as an indicator of business operations throughout the country, and as a basis for making profitable changes in the policies of a particular business. A merchant will find ample material along these lines should he desire to make such a study.

PART III

SURVEY BY COUNTIES

There are 77 counties in the State of Oklahoma. Oklahoma County leads in stores and sales, followed closely by Tulsa County with the city of Tulsa. Next in order of sales are: Garfield County, Muskogee County, Kay County, Seminole County, Pottowatomie County, Creek County, and Payne County. Each exceeds $10,000,000 in sales, and the nine counties together account for 51% of the State total. For purposes of comparison the sales totals for all counties in the state have been reduced to a per capita basis in each of the eleven commodity groups. (Per capita averages were struck by dividing sales totals for each county by respective population figures.) Table II gives the results of this analysis in detail.

Income tax returns are likewise shown along with per capita sales figures. While income tax returns give evidence of the amount of purchasing power, there are certain limitations in their use. One must exercise care in drawing conclusions from them. In the past income tax returns have been criticized on the grounds that they do not affect a sufficiently large proportion of the total population to portray accurately the amount of buying power for a certain group or area. It is admitted that income tax returns are a more satisfactory indicator for certain types of merchandise. The demand for high-priced articles or highly styled shopping goods will be more accurately reflected in the number of income tax returns than will convenience goods of more or less universal demand. Further limitation is felt when trying to apply this criterion to the farm population. This technique will not give a true picture of the farmers' "ability-to-buy". At best, income tax returns are only partially indicative of

buying power, and they give no clues as to buying "habits". They should always be used cautiously and in conjunction with other factors.

The purpose of this breakdown by counties has been to determine first, how much difference exists in per capita sales by inhabitants of these 77 political units. Which counties show high per capita sales, and which ones are comparatively low? Finally, how can these variations be explained? Plate I presents a graphic picture of the county differences.

PLATE I

Total Per Capita Sales in the Main Retail Groups

(By Counties)

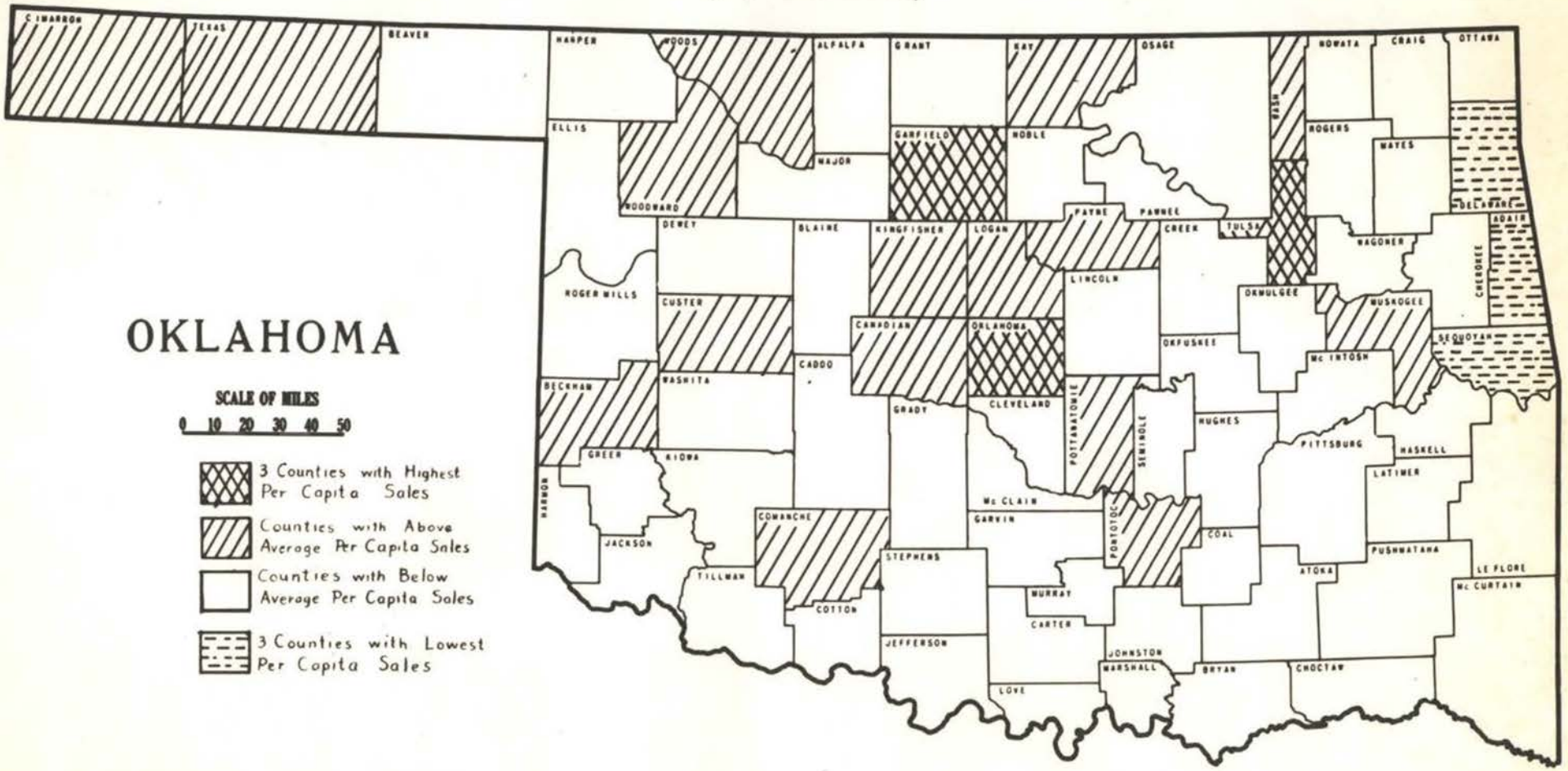

TABLE II

PER CAPITA SALES IN MAIN RETAIL GROUPS, 1939

(By Counties)

(With Income Tax Returns Per Capita)

Commodity Group	Oklahoma Average	Adair	Alfalfa	Atoka
Total	$219.60	$ 65.76	$176.80	$ 87.48
Food	48.01	16.31	39.64	28.55
General Stores	5.98	6.92	8.42	2.67
General Merchandise	27.96	7.74	14.01	11.23
Apparel	13.30	-	3.26	x
Furniture, Household, etc.	7.84	.70	.78	x
Automotive	41.52	11.17	25.19	17.38
Filling Stations	20.14	7.05	26.05	8.50
Lumber-Bldg.-Hardware	21.47	6.67	33.19	10.50
Eating and Drinking	11.43	2.29	11.61	4.60
Drug Stores	11.00	4.76	12.39	2.78
Other Stores	10.94	2.16	2.26	.37
Income Tax Returns Per Capita	.0217	.0018	.0069	.0018

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE II (Continued)

Commodity Group	Beaver	Beckham	Blaine	Bryan
Total	$112.05	$227.12	$193.22	$154.57
Food	34.69	54.67	44.71	40.67
General Stores	-	3.56	10.52	3.23
General Merchandise	3.35	36.76	16.50	23.49
Apparel	6.48	2.07	1.02	2.99
Furniture, Household, etc.	-	7.58	2.75	3.93
Automotive	16.77	36.31	34.14	36.79
Filling Stations	17.46	28.19	27.99	12.80
Lumber-Bldg.- Hardware	22.55	28.96	34.19	13.92
Eating and Drinking	4.50	10.47	9.49	5.64
Drug Stores	x	8.53	10.19	6.08
Other Stores	x	10.01	1.73	5.03
Income Tax Returns Per Capita	.0041	.0069	.0055	.0055

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE II (Continued)

Commodity Group	Caddo	Canadian	Carter	Cherokee
Total	$168.37	$224.12	$201.90	$ 89.40
Food	44.80	52.39	51.33	20.49
General Stores	4.19	9.07	7.32	13.50
General Merchandise	13.30	20.97	33.08	5.28
Apparel	7.96	4.06	8.25	2.62
Furniture, Household, etc.	3.75	6.73	8.38	.19
Automotive	29.93	40.65	28.97	19.88
Filling Stations	23.24	29.53	17.99	8.37
Lumber-Bldg.-Hardware	23.05	28.58	18.89	6.61
Eating and Drinking	7.24	13.54	9.52	3.95
Drug Stores	7.34	9.84	11.00	4.71
Other Stores	3.58	8.74	7.18	3.80
Income Tax Returns Per Capita	.0065	.0216	.0194	.0048

For sources of figures, see bibliography

TABLE II (Continued)

Commodity Group	Choctaw	Cimarron	Cleveland	Coal
Total	$102.86	$227.15	$201.89	$110.92
Food	26.45	53.91	53.52	27.79
General Stores	12.41	x	x	27.55
General Merchandise	13.36	x	18.83	x
Apparel	3.07	x	8.48	x
Furniture, Household, etc.	2.01	-	3.68	1.56
Automotive	18.69	56.92	25.68	20.69
Filling Stations	10.47	26.82	20.48	10.93
Lumber-Bldg.-Hardware	6.45	45.70	25.43	9.13
Eating and Drinking	3.95	11.77	13.60	3.12
Drug Stores	4.37	8.48	15.65	3.28
Other Stores	1.62	9.85	x	1.87
Income Tax Returns Per Capita	.0037	.0052	.0264	.0021

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE II (Continued)

Commodity Group	Comanche	Cotton	Craig	Creek
Total	$248.53	$201.10	$176.64	$189.25
Food	49.86	32.91	30.02	52.72
General Stores	2.59	x	12.47	7.10
General Merchandise	28.68	60.62	18.07	18.94
Apparel	15.85	1.63	5.64	8.09
Furniture, Household, etc.	8.62	2.64	x	5.08
Automotive	56.97	31.12	40.98	40.92
Filling Stations	21.01	24.06	18.88	16.95
Lumber-Bldg.-Hardware	29.29	13.35	20.68	13.03
Eating and Drinking	13.06	4.19	11.34	8.95
Drug Stores	9.90	5.05	4.27	8.74
Other Stores	12.72	x	x	8.74
Income Tax Returns Per Capita	.0092	.0026	.0095	.0165

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Custer	Delaware	Dewey	Ellis
Total	$240.25	$ 61.85	$139.05	$198.56
Food	53.23	12.16	37.73	37.80
General Stores	-	10.81	7.43	6.38
General Merchandise	25.97	x	8.76	7.32
Apparel	8.11	-	-	6.50
Furniture, Household, etc.	7.93	1.29	-	3.43
Automotive	55.05	x	24.37	42.40
Filling Stations	27.31	7.91	26.63	25.75
Lumber-Bldg.-Hardware	31.65	17.48	19.70	37.09
Eating and Drinking	10.97	2.04	5.34	8.62
Drug Stores	11.18	2.10	7.01	7.68
Other Stores	8.84	.22	20.90	15.59
Income Tax Returns Per Capita	.0135	.0009	.0034	.0066

For sources of figures, see bibliography

x indicates figures withheld

- indicates no figures given

TABLE II (Continued)

Commodity Group	Garfield	Garvin	Grady	Grant
Total	$373.64	$142.79	$191.02	$189.14
Food	65.83	39.87	40.30	51.26
General Stores	.55	4.56	5.45	8.53
General Merchandise	63.80	16.44	31.98	2.89
Apparel	27.46	4.27	5.20	6.55
Furniture, Household, etc.	13.24	2.25	7.44	6.79
Automotive	65.25	22.73	36.31	22.47
Filling Stations	29.26	19.42	18.75	20.87
Lumber-Bldg.-Hardware	56.15	16.50	19.17	51.57
Eating and Drinking	16.89	5.97	10.87	7.77
Drug Stores	17.52	7.26	8.44	9.60
Other Stores	17.69	3.53	7.10	.84
Income Tax Returns Per Capita	.0303	.0053	.0146	.0099

For sources of figures, see bibliography

TABLE II (Continued)

Commodity Group	Greer	Harmon	Harper	Haskell
Total	$186.25	$120.47	$160.98	$ 92.99
Food	49.62	25.25	43.38	17.66
General Stores	x	-	x	16.10
General Merchandise	20.62	19.46	5.58	9.87
Apparel	4.12	x	7.44	x
Furniture, Household, etc.	2.68	x	x	x
Automotive	x	20.46	13.02	18.59
Filling Stations	23.30	25.05	25.26	5.95
Lumber-Bldg.-Hardware	24.12	14.17	28.51	10.10
Eating and Drinking	10.31	3.89	7.75	1.90
Drug Stores	7.49	6.69	9.76	3.87
Other Stores	5.64	3.59	14.56	3.35
Income Tax Returns Per Capita	.0049	.0023	.0048	.0023

For sources of figures, see bibliography
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TABLE II (Continued)

Commodity Group	Hughes	Jackson	Jefferson	Johnson
Total	$136.62	$189.67	$135.76	$ 81.52
Food	35.12	45.80	37.00	23.68
General Stores	4.56	x	x	8.96
General Merchandise	28.30	17.53	12.64	10.46
Apparel	3.49	10.83	3.51	x
Furniture, Household, etc.	3.56	5.50	3.41	1.88
Automotive	20.32	38.62	23.90	8.77
Filling Stations	13.36	26.42	21.65	11.84
Lumber-Bldg.-Hardware	11.96	20.92	19.26	7.14
Eating and Drinking	6.54	9.12	6.88	3.70
Drug Stores	6.99	8.32	6.22	3.63
Other Stores	2.43	x	x	x
Income Tax Returns Per Capita	.0056	.0071	.0060	.0026

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Kay	Kingfisher	Kiowa	Latimer
Total	$291.60	$224.88	$196.78	$ 91.68
Food	73.76	49.31	49.74	21.16
General Stores	x	x	x	15.83
General Merchandise	34.75	11.72	24.37	5.33
Apparel	16.54	7.68	2.50	2.18
Furniture, Household, etc.	10.15	2.31	4.82	5.33
Automotive	62.04	53.21	29.14	10.66
Filling Stations	24.89	31.70	23.54	13.33
Lumber-Bldg.-Hardware	26.25	45.27	29.98	9.10
Eating and Drinking	16.37	10.44	8.63	3.31
Drug Stores	16.69	9.47	9.90	x
Other Stores	x	x	x	x
Income Tax Returns Per Capita	.0364	.0095	.0067	.0016

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Le Flore	Lincoln	Logan	Love
Total	$102.23	$122.90	$236.99	$ 87.29
Food	25.23	28.79	50.98	33.59
General Stores	21.17	16.12	6.30	-
General Merchandise	9.92	10.63	23.89	10.15
Apparel	2.77	2.47	7.09	x
Furniture, Household, etc.	1.35	2.88	11.61	x
Automotive	17.35	22.62	47.53	3.67
Filling Stations	10.94	13.00	22.62	9.79
Lumber-Bldg.- Hardware	5.01	13.85	36.99	11.20
Eating and Drinking	4.43	5.11	9.07	7.61
Drug Stores	3.66	5.05	10.50	4.64
Other Stores	.39	2.37	10.42	3.32
Income Tax Returns Per Capita	.0039	.0083	.0174	.0020

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE II (Continued)

Commodity Group	McClain	McCurtain	McIntosh	Major
Total	$107.05	$ 83.76	$ 83.78	$144.90
Food	30.41	20.02	22.58	33.57
General Stores	9.27	16.02	13.61	3.01
General Merchandise	3.38	12.31	11.70	7.79
Apparel	4.63	1.28	x	x
Furniture, Household, etc.	1.93	1.69	1.49	x
Automotive	12.60	7.55	9.92	29.47
Filling Stations	14.94	9.32	7.47	23.10
Lumber-Bldg.-Hardware	14.48	6.70	8.67	29.72
Eating and Drinking	6.35	3.36	2.95	6.86
Drug Stores	7.03	3.34	4.77	5.78
Other Stores	2.03	2.15	x	4.10
Income Tax Returns Per Capita	.0047	.0015	.0025	.0071

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Marshall	Mayes	Murray	Muskogee
Total	$124.84	$133.79	$154.40	$226.40
Food	38.52	23.44	41.54	47.08
General Stores	x	30.88	2.17	8.84
General Merchandise	15.91	5.22	11.78	35.02
Apparel	x	.83	5.27	15.26
Furniture, Household, etc.	x	.32	6.00	8.37
Automotive	19.78	22.34	34.82	37.76
Filling Stations	11.55	14.31	17.63	20.53
Lumber-Bldg.-Hardware	17.12	8.68	13.37	16.38
Eating and Drinking	6.14	9.97	9.25	11.45
Drug Stores	6.14	7.61	9.32	12.91
Other Stores	3.39	10.20	3.25	12.77
Income Tax Returns Per Capita	.0040	.0030	.0064	.0202

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Noble	Nowata	Okfuskee	Oklahoma
Total	$210.85	$161.34	$110.47	$391.73
Food	47.28	56.04	30.25	65.85
General Stores	x	6.40	9.86	1.30
General Merchandise	16.93	7.80	15.64	57.06
Apparel	4.65	6.21	1.33	37.86
Furniture, Household, etc.	2.63	5.77	1.48	20.77
Automotive	35.95	30.18	21.77	73.81
Filling Stations	25.77	14.45	9.17	24.98
Lumber-Bldg.-Hardware	34.76	17.31	9.09	33.82
Eating and Drinking	10.66	8.43	5.90	21.91
Drug Stores	8.30	5.77	4.98	23.21
Other Stores	x	2.98	.99	31.21
Income Tax Returns Per Capita	.0148	.0166	.0056	.0526

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Okmulgee	Osage	Ottawa	Pawnee
Total	$197.71	$193.56	$203.21	$149.12
Food	52.05	56.70	57.76	43.63
General Stores	4.03	2.02	2.63	x
General Merchandise	28.40	23.13	28.14	13.34
Apparel	11.00	3.71	11.96	4.37
Furniture, Household, etc.	8.58	5.08	4.71	4.60
Automotive	39.62	42.70	30.22	22.42
Filling Stations	17.14	24.65	19.56	17.59
Lumber-Bldg.-Hardware	13.33	11.69	17.83	14.83
Eating and Drinking	7.60	9.64	13.52	9.66
Drug Stores	8.30	8.48	9.91	7.42
Other Stores	7.64	5.76	6.96	x
Income Tax Returns Per Capita	.0142	.0183	.0130	.0102

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Payne	Pittsburg	Pontotoc	Pottawatomie
Total	$283.04	$163.13	$242.35	$236.09
Food	66.45	40.03	51.52	46.29
General Stores	x	8.10	3.84	5.63
General Merchandise	34.56	25.09	28.52	41.05
Apparel	17.97	4.76	14.93	12.51
Furniture, Household, etc.	8.40	5.88	8.12	8.07
Automotive	50.34	35.64	65.44	50.04
Filling Stations	26.35	17.25	19.60	20.27
Lumber-Bldg.-Hardware	31.01	10.90	21.99	20.80
Eating and Drinking	17.72	5.35	9.62	8.28
Drug Stores	11.54	6.96	10.81	12.39
Other Stores	x	3.16	7.97	10.78
Income Tax Returns Per Capita	.0290	.0085	.0213	.0177

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Pushmataha	Roger Mills	Rogers	Seminole
Total	$ 91.90	$109.33	$147.54	$213.21
Food	20.55	27.62	40.37	51.37
General Stores	30.31	15.93	2.23	4.90
General Merchandise	4.47	6.41	27.85	15.72
Apparel	x	x	1.04	8.77
Furniture, Household, etc.	x	x	3.51	7.24
Automotive	15.10	19.42	23.20	59.64
Filling Stations	7.24	16.21	16.41	22.29
Lumber-Bldg.-Hardware	4.52	13.67	12.81	13.77
Eating and Drinking	3.03	4.71	8.02	12.09
Drug Stores	4.93	3.02	6.97	9.41
Other Stores	.92	x	5.12	8.01
Income Tax Returns Per Capita	.0030	.0013	.0080	.0193

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Sequoyah	Stephens	Texas	Tillman
Total	$ 63.23	$199.61	$296.78	$154.76
Food	11.76	49.28	57.90	40.18
General Stores	14.22	2.35	4.04	-
General Merchandise	5.53	28.88	18.90	19.61
Apparel	2.33	10.58	7.38	2.60
Furniture, Household, etc.	x	6.11	2.02	3.52
Automotive	3.15	38.37	96.10	19.66
Filling Stations	14.48	20.17	34.05	22.07
Lumber-Bldg.- Hardware	3.63	19.33	42.44	24.57
Eating and Drinking	1.64	9.58	13.54	6.94
Drug Stores	3.98	9.42	15.66	8.62
Other Stores	x	5.53	4.75	6.99
Income Tax Returns Per Capita	.0012	.0155	.0083	.0062

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE II (Continued)

Commodity Group	Tulsa	Wagoner	Washington	Washita
Total	$384.12	$ 85.34	$301.18	$137.93
Food	72.51	24.12	75.39	35.91
General Stores	.42	12.75	3.08	x
General Merchandise	53.87	4.44	41.30	17.77
Apparel	42.01	x	23.69	2.24
Furniture, Household, etc.	19.03	.97	12.57	2.78
Automotive	70.55	14.42	52.06	20.23
Filling Stations	26.01	7.86	19.76	24.73
Lumber-Bldg.-Hardware	25.91	12.66	25.43	19.44
Eating and Drinking	25.23	2.40	13.81	4.80
Drug Stores	20.47	3.97	14.40	5.25
Other Stores	28.13	x	19.70	x
Income Tax Returns Per Capita	.0649	.0029	.0642	.0030

For sources of figures, see bibliography
x indicates figures withheld

TABLE II (Continued)

Commodity Group	Woods	Woodward
Total	$264.47	$288.81
Food	61.62	62.57
General Stores	5.16	13.46
General Merchandise	21.45	20.16
Apparel	12.47	11.12
Furniture, Household, etc.	8.78	7.38
Automotive	46.33	78.49
Filling Stations	34.13	26.98
Lumber-Bldg.-Hardware	40.29	35.28
Eating and Drinking	16.69	15.24
Drug Stores	12.94	10.02
Other Stores	5.70	8.11
Income Tax Returns Per Capita	.0168	.0129

For sources of figures, see bibliography

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Table III is a regrouping of data found in Table II. pictures each of the eleven retail groups separately. Counties are arranged in order of decreasing per capita sales. Here one may find an answer to the first question raised concerning how much variation exists among the counties. The range in total per capita sales for all commodity groups combined amounts to approximately $330.00, descending from a high of $391.73 for Oklahoma County to a low of $61.85 in the case of Delaware County.

The answer to the second question raised may also be found in Table III.

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TABLE III

Summary of Per Capita Figures for All Groups Combined, Oklahoma 1939, By Counties, in Order of Decreasing Sales (With Per Capita Income Tax Returns)

No.	County	Per Capita Sales	No.	County	Income Tax Returns
1	Oklahoma	$ 391.73	1	Tulsa	.0649
2	Tulsa	384.12	2	Washington	.0642
3	Garfield	373.64	3	Oklahoma	.0526
4	Washington	301.18	4	Kay	.0364
5	Texas	296.78	5	Garfield	.0303
6	Kay	291.60	6	Payne	.0290
7	Woodward	288.81	7	Cleveland	.0264
8	Payne	283.04		STATE AVERAGE	.0217
9	Woods	265.57	8	Canadian	.0216
10	Comanche	248.53	9	Pontotoc	.0213
11	Pontotoc	242.35	10	Muskogee	.0202
12	Custer	240.25	11	Carter	.0194
13	Logan	236.99	12	Seminole	.0193
14	Pottawatomie	236.09	13	Osage	.0183
15	Cimarron	227.15	14	Pottawatomie	.0177
16	Beckham	227.12	15	Logan	.0174
17	Muskogee	226.40	16	Woods	.0168
18	Kingfisher	224.88	17	Nowata	.0166
19	Canadian	224.12	18	Creek	.0165
	STATE AVERAGE	219.60	19	Stephens	.0155
20	Seminole	213.21	20	Noble	.0148
21	Noble	210.85	21	Grady	.0146
22	Ottawa	203.21	22	Okmulgee	.0142
23	Carter	201.90	23	Custer	.0135
24	Cleveland	201.89	24	Ottawa	.0130
25	Cotton	201.10	25	Woodward	.0129
26	Stephens	199.61	26	Pawnee	.0102
27	Ellis	198.56	27	Grant	.0099
28	Okmulgee	197.71	28	Kingfisher	.0095
29	Kiowa	196.78	29	Craig	.0095
30	Osage	193.56	30	Comanche	.0092
31	Blaine	193.22	31	Pittsburg	.0085
32	Grady	191.02	32	Lincoln	.0083
33	Jackson	189.67	33	Texas	.0083
34	Creek	189.25	34	Rogers	.0080
35	Grant	189.14	35	Jackson	.0071
36	Greer	186.25	36	Major	.0071
37	Alfalfa	176.80	37	Beckman	.0069
38	Craig	176.64	38	Alfalfa	.0069
39	Caddo	168.37	39	Kiowa	.0067
40	Nowata	161.34	40	Ellis	.0066
41	Pittsburg	163.13	41	Caddo	.0065
42	Harper	160.98	42	Murray	.0064
43	Tillman	154.76	43	Tillman	.0062
44	Bryan	154.57	44	Jefferson	.0060
45	Murray	150.60	45	Comanche	.0060
46	Pawnee	149.12	46	Okfuskee	.0056
47	Rogers	147.54	47	Blaine	.0055
48	Major	144.90	48	Bryan	.0055
49	Garvin	142.79	49	Garvin	.0053
50	Dewey	139.05	50	Cimarron	.0052
51	Washita	137.93	51	Greer	.0049
52	Hughes	136.62	52	Harper	.0048
53	Jefferson	135.76	53	Cherokee	.0048
54	Mayes	133.79	54	McClain	.0047
55	Marshall	124.84	55	Beaver	.0041
56	Lincoln	122.90	56	Marshall	.0040
57	Harmon	120.47	57	LeFlore	.0039
58	Beaver	112.05	58	Choctaw	.0037
59	Coal	110.92	59	Dewey	.0034
60	Okfuskee	110.47	60	Mayes	.0030
61	Roger Mills	109.33	61	Washita	.0030
62	McClain	107.05	62	Pushmataha	.0030
63	Choctaw	102.86	63	Wagoner	.0029
64	LeFlore	102.23	64	Cotton	.0026
65	Haskell	92.99	65	Johnson	.0026
66	Pushmataha	91.90	66	McIntosh	.0025
67	Latimer	91.68	67	Harmon	.0023
68	Cherokee	89.40	68	Haskell	.0023
69	Atoka	87.48	69	Coal	.0021
70	Love	87.29	70	Love	.0020
71	Wagoner	85.34	71	Adair	.0018
72	McIntosh	83.78	72	Atoka	.0018
73	McCurtain	83.76	73	Latimer	.0016
74	Johnson	81.52	74	McCurtain	.0015
75	Adair	65.76	75	Roger Mills	.0013
76	Sequoyah	63.23	76	Sequoyah	.0012
77	Delaware	61.85	77	Delaware	.0009

Source: Table II

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

FOOD

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Washington	$ 75.59	39	Bryan	$ 40.67
2	Kay	73.76	40	Rogers	40.37
3	Tulsa	72.51	41	Grady	40.30
4	Payne	66.45	42	Tillman	40.18
5	Oklahoma	65.85	43	Pittsburg	40.03
6	Garfield	65.83	44	Garvin	39.87
7	Woodward	62.57	45	Alfalfa	39.64
8	Woods	61.62	46	Marshall	38.52
9	Texas	57.90	47	Ellis	37.80
10	Ottawa	57.76	48	Dewey	37.73
11	Osage	56.70	49	Jefferson	37.00
12	Nowata	56.04	50	Washita	35.91
13	Beckham	54.67	51	Hughes	35.12
14	Cimarron	53.91	52	Beaver	34.69
15	Cleveland	53.52	53	Love	33.59
16	Custer	53.23	54	Major	33.57
17	Creek	52.72	55	Cotton	32.91
18	Canadian	52.39	56	McClain	30.41
19	Okmulgee	52.05	57	Okfuskee	30.25
20	Pontotoc	51.52	58	Craig	30.22
21	Seminole	51.37	59	Lincoln	28.79
22	Carter	51.33	60	Atoka	28.55
23	Grant	51.26	61	Coal	27.79
24	Logan	50.98	62	Roger Mills	27.62
25	Comanche	49.86	63	Choctaw	26.45
26	Kiowa	49.74	64	Harmon	25.25
27	Greer	49.62	65	Le Flore	25.23
28	Kingfisher	49.31	66	Wagoner	24.12
29	Stephens	49.28	67	Johnston	23.68
[illegible]	STATE AVERAGE	48.01	68	Mayes	23.44
30	Noble	47.28	69	McIntosh	22.58
31	Muskogee	47.08	70	Latimer	21.16
32	Pottawatomie	46.29	71	Pushmataha	20.55
33	Jackson	45.80	72	Cherokee	20.49
34	Caddo	44.80	73	McCurtain	20.02
35	Blaine	44.71	74	Haskell	17.66
36	Pawnee	43.63	75	Adair	16.31
37	Harper	43.38	76	Delaware	12.16
38	Murray	41.54	77	Sequoyah	11.76

Source: Table II

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

GENERAL STORES

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Mayes	$ 30.88	39	Hughes	$ 4.56
2	Pushmataha	30.31	40	Caddo	4.19
3	Coal	27.55	41	Texas	4.04
4	Le Flore	21.17	42	Okmulgee	4.03
5	Lincoln	16.12	43	Pontotoc	3.84
6	Haskell	16.10	44	Beckham	3.56
7	McCurtain	16.02	45	Bryan	3.23
8	Roger Mills	15.93	46	Washington	3.08
9	Latimer	15.83	47	Major	3.01
10	Sequoyah	14.22	48	Atoka	2.67
11	McIntosh	13.61	49	Ottawa	2.63
12	Cherokee	13.50	50	Comanche	2.59
13	Woodward	13.46	51	Stephens	2.35
14	Wagoner	12.75	52	Rogers	2.23
15	Craig	12.47	53	Murray	2.17
16	Choctaw	12.41	54	Osage	2.02
17	Delaware	10.81	55	Oklahoma	1.30
18	Beckham	10.52	56	Garfield	.55
19	Okfuskee	9.86	57	Tulsa	.42
20	McClain	9.27	58	Beaver	x
21	Canadian	9.07	59	Cimarron	x
22	Johnston	8.96	60	Cleveland	x
23	Muskogee	8.84	61	Cotton	x
24	Grant	8.53	62	Custer	x
25	Alfalfa	8.42	63	Greer	x
26	Pittsburg	8.10	64	Harmon	x
27	Dewey	7.43	65	Harper	x
28	Carter	7.32	66	Jackson	x
29	Creek	7.10	67	Jefferson	x
30	Adair	6.92	68	Kay	x
31	Nowata	6.40	69	Kingfisher	x
32	Ellis	6.38	70	Kiowa	x
33	Logan	6.30	71	Love	x
	STATE AVERAGE	5.98	72	Marshall	x
34	Pottowatomie	5.93	73	Noble	x
35	Grady	5.45	74	Pawnee	x
36	Woods	5.16	75	Payne	x
37	Seminole	4.90	76	Tillman	x
38	Garvin	4.56	77	Washita	x

Source: Table II

x indicates figures withheld

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

GENERAL MERCHANDISE

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Garfield	$ 63.80	39	Blaine	$ 16.50
2	Cotton	60.62	40	Garvin	16.44
3	Oklahoma	57.06	41	Marshall	15.91
4	Tulsa	53.87	42	Seminole	15.72
5	Washita	41.30	43	Okfuskee	15.64
6	Pottawatomie	41.05	44	Alfalfa	14.01
7	Beckham	36.76	45	Choctaw	13.36
8	Muskogee	35.02	46	Pawnee	13.34
9	Kay	34.75	47	Caddo	13.30
10	Payne	34.56	48	Jefferson	12.64
11	Carter	33.08	49	McCurtain	12.31
12	Grady	31.98	50	Murray	11.78
13	Stephens	28.88	51	Kingfisher	11.72
14	Comanche	28.68	52	McIntosh	11.70
15	Pontotoc	28.52	53	Atoka	11.23
16	Okmulgee	28.40	54	Lincoln	10.63
17	Hughes	28.30	55	Johnson	10.46
18	Ottawa	28.14	56	Love	10.15
	STATE AVERAGE	27.96	57	Le Flore	9.92
19	Rogers	27.85	58	Haskell	9.87
20	Custer	25.97	59	Dewey	8.76
21	Pittsburg	25.09	60	Nowata	7.80
22	Kiowa	24.37	61	Major	7.79
23	Logan	23.89	62	Adair	7.74
24	Bryan	23.49	63	Ellis	7.32
25	Osage	23.13	64	Roger Mills	6.41
26	Woods	21.45	65	Harper	5.58
27	Canadian	20.97	66	Sequoyah	5.53
28	Greer	20.62	67	Latimer	5.33
29	Woodward	20.16	68	Cherokee	5.28
30	Tillman	19.61	69	Mayes	5.22
31	Harmon	19.46	70	Pushmataha	4.47
32	Creek	18.94	71	Wagoner	4.44
33	Texas	18.90	72	McClain	3.38
34	Cleveland	18.83	73	Beaver	3.35
35	Craig	18.07	74	Grant	2.89
36	Washita	17.77	75	Cimarron	x
37	Jackson	17.53	76	Coal	x
38	Noble	16.93	77	Delaware	x

Source: Table II
x indicates figures withheld

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

APPAREL

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Tulsa	$ 42.01	39	Greer	$ 4.12
2	Oklahoma	37.86	40	Canadian	4.06
3	Garfield	27.46	41	Osage	3.71
4	Washington	23.69	42	Jefferson	3.51
5	Payne	17.97	43	Hughes	3.49
6	Kay	16.54	44	Alfalfa	3.26
7	Comanche	15.85	45	Choctaw	3.07
8	Muskogee	15.26	46	Bryan	2.99
9	Pontotoc	14.93	47	Le Flore	2.77
	STATE AVERAGE	13.30	48	Cherokee	2.62
10	Pottawatomie	12.51	49	Tillman	2.60
11	Woods	12.47	50	Kiowa	2.50
12	Ottawa	11.96	51	Lincoln	2.47
13	Woodward	11.12	52	Sequoyah	2.33
14	Okmulgee	11.00	53	Washita	2.24
15	Jackson	10.83	54	Latimer	2.18
16	Stephens	10.58	55	Beckham	2.07
17	Seminole	8.77	56	Cotton	1.63
18	Cleveland	8.48	57	Okfuskee	1.33
19	Carter	8.25	58	McCurtain	1.28
20	Custer	8.11	59	Rogers	1.04
21	Creek	8.09	60	Blaine	1.02
22	Caddo	7.96	61	Mayes	.83
23	Kingfisher	7.68	62	Adair	x
24	Harper	7.44	63	Atoka	x
25	Texas	7.38	64	Cimarron	x
26	Logan	7.09	65	Coal	x
27	Grant	6.55	66	Delaware	x
28	Ellis	6.50	67	Dewey	x
29	Beaver	6.48	68	Harmon	x
30	Nowata	6.21	69	Haskell	x
31	Craig	5.64	70	Johnston	x
32	Murray	5.27	71	Love	x
33	Grady	5.20	72	McIntosh	x
34	Pittsburg	4.76	73	Major	x
35	Noble	4.65	74	Marshall	x
36	McClain	4.63	75	Pushmataha	x
37	Pawnee	4.37	76	Roger Mills	x
38	Garvin	4.27	77	Wagoner	x

Source: Table II

x indicates figures withheld

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

FURNITURE, HOUSEHOLD, RADIO

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Oklahoma	$ 20.77	39	Ellis	$ 3.43
2	Tulsa	19.03	40	Jefferson	3.41
3	Garfield	13.24	41	Lincoln	2.88
4	Washington	12.57	42	Washita	2.78
5	Logan	11.61	43	Blaine	2.75
6	Kay	10.15	44	Greer	2.68
7	Woods	8.78	45	Cotton	2.64
8	Comanche	8.62	46	Noble	2.63
9	Okmulgee	8.58	47	Kingfisher	2.31
10	Payne	8.40	48	Garvin	2.25
11	Carter	8.38	49	Texas	2.02
12	Muskogee	8.37	50	Choctaw	2.01
13	Pontotoc	8.12	51	McClain	1.93
14	Pottawatomie	8.07	52	Johnston	1.88
15	Custer	7.93	53	McCurtain	1.69
	STATE AVERAGE	7.84	54	Coal	1.56
16	Beckham	7.58	55	McIntosh	1.49
17	Grady	7.44	56	Okfuskee	1.48
18	Woodward	7.38	57	Le Flore	1.35
19	Seminole	7.24	58	Delaware	1.29
20	Grant	6.79	59	Wagoner	.97
21	Canadian	6.73	60	Alfalfa	.78
22	Stephens	6.11	61	Adair	.70
23	Murray-	6.00	62	Mayes	.32
24	Pittsburg	5.88	63	Cherokee	.19
25	Nowata	5.77	64	Atoka	x
26	Jackson	5.50	65	Beaver	x
27	Latimer	5.33	66	Cimarron	x
28	Osage	5.08	67	Craig	x
29	Creek	5.08	68	Dewey	x
30	Kiowa	4.82	69	Harmon	x
31	Ottawa	4.71	70	Harper	x
32	Pawnee	4.60	71	Haskell	x
33	Bryan	3.93	72	Love	x
34	Caddo	3.75	73	Major	x
35	Cleveland	3.68	74	Marshall	x
36	Hughes	3.56	75	Pushmataha	x
37	Tillman	3.52	76	Roger Mills	x
38	Rogers	3.51	77	Sequoyah	x

Source: Table II
x indicates figures withheld

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

AUTOMOTIVE

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Texas	$ 96.10	39	Cherokee	$ 28.97
2	Woodward	78.49	40	Cleveland	25.68
3	Oklahoma	73.81	41	Alfalfa	25.19
4	Tulsa	70.55	42	Dewey	24.37
5	Pontotoc	65.44	43	Jefferson	23.90
6	Garfield	65.25	44	Rogers	23.20
7	Kay	62.04	45	Lincoln	22.62
8	Seminole	59.64	46	Pawnee	22.42
9	Comanche	56.97	47	Mayes	22.34
10	Cimarron	56.92	48	Okfuskee	21.77
11	Custer	55.05	49	Coal	20.69
12	Kingfisher	53.21	50	Harmon	20.46
13	Washington	52.06	51	Hughes	20.32
14	Payne	50.34	52	Washita	20.23
15	Pottawatomie	50.04	53	Carter	19.88
16	Logan	47.53	54	Marshall	19.78
17	Woods	46.33	55	Tillman	19.66
18	Osage	42.70	56	Roger Mills	19.42
19	Ellis	42.40	57	Choctaw	18.69
	STATE AVERAGE	41.52	58	Haskell	18.59
20	Craig	40.98	59	Atoka	17.38
21	Creek	40.92	60	Le Flore	17.35
22	Canadian	40.61	61	Beaver	16.77
23	Okmulgee	39.62	62	Pushmataha	15.10
24	Jackson	38.62	63	Wagoner	14.42
25	Stephens	38.37	64	Harper	13.02
26	Muskogee	37.76	65	McClain	12.60
27	Bryan	36.79	66	Adair	11.17
28	Beckham	36.31	67	Latimer	10.66
29	Noble	35.95	68	McIntosh	9.92
30	Pittsburg	35.64	69	Johnston	8.77
31	Murray	34.82	70	McCurtain	7.55
32	Blaine	34.14	71	Love	3.67
33	Cotton	31.12	72	Sequoyah	3.15
34	Ottawa	30.22	73	Delaware	x
35	Nowata	30.18	74	Garvin	x
36	Caddo	29.93	75	Grady	x
37	Major	29.47	76	Grant	x
38	Kiowa	29.14	77	Greer	x

Source: Table II

x indicates figures withheld

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

FILLING STATIONS

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Woods	$ 34.13	39	Washington	$ 19.76
2	Texas	34.05	40	Pontotoc	19.60
3	Kingfisher	31.70	41	Ottawa	19.56
4	Canadian	29.53	42	Garvin	19.42
5	Garfield	29.26	43	Craig	18.88
6	Beckham	28.19	44	Grady	18.75
7	Blaine	27.99	45	Carter	17.99
8	Custer	27.31	46	Murray	17.63
9	Woodward	26.98	47	Pawnee	17.59
10	Cimarron	26.82	48	Beaver	17.46
11	Dewey	26.63	49	Pittsburg	17.25
12	Jackson	26.42	50	Okmulgee	17.14
13	Payne	26.35	51	Creek	16.95
14	Alfalfa	26.05	52	Rogers	16.41
15	Tulsa	26.01	53	Roger Mills	16.21
16	Noble	25.77	54	McClain	14.74
17	Ellis	25.75	55	Sequoyah	14.48
18	Harper	25.26	56	Nowata	14.45
19	Harmon	25.05	57	Mayes	14.31
20	Oklahoma	24.98	58	Hughes	13.36
21	Kay	24.89	59	Latimer	13.33
22	Washita	24.73	60	Lincoln	13.00
23	Osage	24.65	61	Bryan	12.80
24	Cotton	24.06	62	Johnston	11.84
25	Kiowa	23.54	63	Marshall	11.55
26	Greer	23.30	64	Le Flore	10.94
27	Caddo	23.24	65	Coal	10.93
28	Major	23.10	66	Choctaw	10.47
29	Logan	22.62	67	Love	9.79
30	Seminole	22.29	68	McCurtain	9.32
31	Tillman	22.07	69	Okfuskee	9.17
32	Jefferson	21.65	70	Atoka	8.50
33	Comanche	21.01	71	Cherokee	8.37
34	Grant	20.87	72	Delaware	7.91
35	Muskogee	20.53	73	Wagoner	7.86
36	Cleveland	20.48	74	McIntosh	7.47
37	Pottawatomie	20.27	75	Pushmataha	7.24
38	Stephens	20.17	76	Adair	7.05
	STATE AVERAGE	20.14	77	Haskell	5.95

Source: Table II

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

LUMBER AND BUILDING

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Garfield	$56.15	39	Custer	$18.89
2	Grant	51.57	40	Ottawa	17.83
3	Cimarron	45.70	41	Delaware	17.48
4	Kingfisher	45.27	42	Nowata	17.31
5	Texas	42.44	43	Marshall	17.12
6	Woods	40.29	44	Garvin	16.50
7	Ellis	37.09	45	Muskogee	16.38
8	Logan	36.99	46	Pawnee	14.83
9	Woodward	35.28	47	McClain	14.48
10	Noble	34.76	48	Harmon	14.17
11	Blaine	34.19	49	Bryan	13.92
12	Oklahoma	33.82	50	Lincoln	13.85
13	Alfalfa	33.19	51	Seminole	13.77
14	Custer	31.65	52	Roger Mills	13.67
15	Payne	31.01	53	Murray	13.37
16	Kiowa	29.98	54	Cotton	13.35
17	Major	29.72	55	Okmulgee	13.33
18	Comanche	29.29	56	Creek	13.03
19	Beckham	28.96	57	Rogers	12.81
20	Canadian	28.58	58	Wagoner	12.66
21	Haskell	28.51	59	Hughes	11.96
22	Kay	26.25	60	Osage	11.69
23	Tulsa	25.91	61	Love	11.20
24	Cleveland	25.43	62	Pittsburg	10.90
25	Washington	25.43	63	Atoka	10.50
26	Tillman	24.57	64	Haskell	10.10
27	Greer	24.12	65	Coal	9.13
28	Caddo	23.05	66	Latimer	9.10
29	Beaver	22.55	67	Okfuskee	9.09
30	Pontotoc	21.99	68	Mayes	8.68
	STATE AVERAGE	21.47	69	McIntosh	8.67
31	Jackson	20.92	70	Johnston	7.14
32	Pottawatomie	20.80	71	McCurtain	6.70
33	Craig	20.68	72	Adair	6.67
34	Dewey	19.70	73	Cherokee	6.61
35	Washita	19.44	74	Choctaw	6.45
36	Stephens	19.33	75	Le Flore	5.01
37	Jefferson	19.26	76	Pushmataha	4.52
38	Grady	19.17	77	Sequoyah	3.63

Source: Table II

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

EATING AND DRINKING

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Tulsa	$ 25.23	39	Pottawatomie	$ 8.28
2	Oklahoma	21.91	40	Rogers	8.02
3	Payne	17.72	41	Grant	7.77
4	Garfield	16.89	42	Harper	7.75
5	Woods	16.69	43	Love	7.61
6	Kay	16.37	44	Okmulgee	7.60
7	Woodward	15.24	45	Caddo	7.24
8	Washington	13.81	46	Tillman	6.94
9	Cleveland	13.60	47	Jefferson	6.88
10	Canadian	13.54	48	Major	6.86
11	Texas	13.54	49	Hughes	6.54
12	Ottawa	13.52	50	McClain	6.35
13	Comanche	13.06	51	Marshall	6.14
14	Seminole	12.09	52	Garvin	5.97
15	Cimarron	11.77	53	Okfuskee	5.90
16	Alfalfa	11.61	54	Bryan	5.64
17	Muskogee	11.45	55	Pittsburg	5.35
	STATE AVERAGE	11.43	56	Dewey	5.34
18	Craig	11.34	57	Lincoln	5.11
19	Grady	10.87	58	Washita	4.80
20	Custer	10.77	59	Roger Mills	4.71
21	Noble	10.66	60	Atoka	4.60
22	Beckham	10.47	61	Beaver	4.50
23	Kingfisher	10.44	62	Le Flore	4.43
24	Greer	10.31	63	Cotton	4.19
25	Mayes	9.97	64	Coal	3.12
26	Pawnee	9.66	65	Cherokee	3.95
27	Osage	9.64	66	Choctaw	3.95
28	Pontotoc	9.62	67	Harmon	3.89
29	Stephens	9.58	68	Johnston	3.70
30	Carter	9.52	69	McCurtain	3.36
31	Blaine	9.49	70	Latimer	3.31
32	Murray	9.25	71	Pushmataha	3.03
33	Jackson	9.12	72	McIntosh	2.95
34	Logan	9.07	73	Wagoner	2.40
35	Creek	8.95	74	Adair	2.29
36	Kiowa	8.63	75	Delaware	2.04
37	Ellis	8.62	76	Haskell	1.90
38	Nowata	8.43	77	Sequoyah	1.64

Source: Table II

ARRAY BY COUNTIES, ORDER OF DECREASING SALES

DRUGS

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Oklahoma	$ 23.21	39	Mayes	$ 7.61
2	Tulsa	20.47	40	Greer	7.49
3	Garfield	17.52	41	Pawnee	7.42
4	Kay	16.69	42	Caddo	7.34
5	Texas	15.66	43	Garvin	7.26
6	Cleveland	15.65	44	McClain	7.03
7	Washington	14.40	45	Dewey	7.01
8	Woods	12.94	46	Hughes	6.99
9	Muskogee	12.91	47	Rogers	6.97
10	Alfalfa	12.39	48	Pittsburg	6.96
11	Pottawatomie	12.39	49	Harmon	6.69
12	Payne	11.54	50	Jefferson	6.22
13	Custer	11.18	51	Marshall	6.14
14	Carter	11.00	52	Bryan	6.08
	STATE AVERAGE	11.00	53	Major	5.78
15	Pontotoc	10.81	54	Nowata	5.77
16	Logan	10.50	55	Washita	5.25
17	Blaine	10.19	56	Cotton	5.05
18	Woodward	10.02	57	Lincoln	5.05
19	Ottawa	9.91	58	Okfuskee	4.98
20	Comanche	9.90	59	Pushmataha	4.93
21	Kiowa	9.90	60	McIntosh	4.77
22	Canadian	9.84	61	Adair	4.76
23	Harper	9.76	62	Cherokee	4.71
24	Grant	9.60	63	Love	4.64
25	Kingfisher	9.47	64	Choctaw	4.37
26	Stephens	9.42	65	Craig	4.27
27	Seminole	9.41	66	Sequoyah	3.98
28	Murray	9.32	67	Wagoner	3.97
29	Creek	8.74	68	Haskell	3.87
30	Tillman	8.62	69	Le Flore	3.66
31	Beckham	8.53	70	Johnston	3.63
32	Cimarron	8.48	71	McCurtain	3.34
33	Osage	8.48	72	Coal	3.28
34	Grady	8.44	73	Roger Mills	3.02
35	Jackson	8.32	74	Atoka	2.78
36	Noble	8.30	75	Delaware	2.10
37	Okmulgee	8.30	76	Beaver	x
38	Ellis	7.68	77	Latimer	x

Source: Table II

x indicates figures withheld

ARRAY OF COUNTIES, ORDER OF DECREASING SALES

OTHER STORES

No.	County	Per Capita Sales	No.	County	Per Capita Sales
1	Oklahoma	$ 31.21	39	Haskell	$ 3.35
2	Tulsa	28.13	40	Love	3.32
3	Dewey	20.90	41	Murray	3.25
4	Washington	19.70	42	Pittsburg	3.16
5	Garfield	17.69	43	Nowata	2.98
6	Ellis	15.59	44	Hughes	2.43
7	Harper	14.56	45	Lincoln	2.37
8	Muskogee	12.77	46	Alfalfa	2.26
9	Comanche	12.72	47	Adair	2.16
	STATE AVERAGE	10.94	48	McCurtain	2.15
10	Pottawatomie	10.78	49	McClain	2.03
11	Logan	10.42	50	Coal	1.87
12	Mayes	10.20	51	Blaine	1.73
13	Beckham	10.01	52	Choctaw	1.62
14	Cimarron	9.85	53	Okfuskee	1.99
15	Custer	8.84	54	Pushmataha	.92
16	Canadian	8.74	55	Grant	.84
17	Creek	8.74	56	Le Flore	.39
18	Woodward	8.11	57	Atoka	.37
19	Seminole	8.01	58	Delaware	.22
20	Pontotoc	7.97	59	Beaver	x
21	Okmulgee	7.64	60	Cleveland	x
22	Carter	7.18	61	Cotton	x
23	Grady	7.10	62	Craig	x
24	Tillman	6.99	63	Jackson	x
25	Ottawa	6.96	64	Jefferson	x
26	Osage	5.76	65	Johnston	x
27	Woods	5.70	66	Kay	x
28	Greer	5.64	67	Kingfisher	x
29	Stephens	5.53	68	Kiowa	x
30	Rogers	5.12	69	Latimer	x
31	Bryan	5.03	70	McIntosh	x
32	Texas	4.75	71	Noble	x
33	Major	4.10	72	Pawnee	x
34	Cherokee	3.80	73	Payne	x
35	Harmon	3.59	74	Roger Mills	x
36	Caddo	3.58	75	Sequoyah	x
37	Garvin	3.53	76	Wagoner	x
38	Marshall	3.39	77	Washita	x

Source: Table II

x indicates figures withheld

It is interesting to note that the three counties with the highest per capita sales are separated from the rest by a considerable margin. Likewise, the three counties with the lowest rating are similarly grouped at the other extreme. A brief discussion of the three high counties the the three with low ratings follows. Throughout the analysis, an effort is made to explain these relative differences in per capita sales.

COUNTIES WITH HIGH PER CAPITA SALES

The three counties with the highest per capita sales are as follows:

Oklahoma County	$391.73
Tulsa County	384.12
Garfield County	373.64

Each of the above mentioned counties has within its political boundaries one of the major cities in the state. Oklahoma City and Tulsa are the two primary shopping centers, with Enid (Garfield County) holding third place of importance. Though the 1940 Census shows Muskogee as slightly larger than Enid in population, the latter is the more significant trade center if we are to judge on a basis of total sales volume.

That these cities play a predominant role in bringing "trade advantage" to their respective counties is beyond question. The relationship between size of a city and its pulling power has already been mentioned. Oklahoma County will be discussed first.

OKLAHOMA COUNTY

Table IV permits comparison of Oklahoma County with the state in per capita sales. The analysis compares total figures, as well as the relationships existing in each of the eleven main retail groups. Dollar loss or dollar gain by the County is also shown in detail.

TABLE IV

COMPARISON OF OKLAHOMA COUNTY WITH THE STATE

Commodity Group	State Per Capita Sales	County Per Capita Sales		County Loss or Gain
Total	$219.60	$391.73	/	$172.13
General Stores	5.98	1.30	-	4.68
General Merchandise	27.96	57.06	/	29.10
Food	48.01	65.85	/	17.84
Apparel	13.30	37.86	/	24.56
Furniture, Household, Radio	7.84	20.77	/	12.93
Automotive	41.52	73.81	/	32.29
Filling Stations	20.14	24.98	/	4.84
Lumber-Bldg.- Hardware	21.47	33.82	/	12.35
Eating and Drinking	11.43	21.91	/	10.48
Drug Stores	11.00	23.21	/	12.21
Other Stores	10.94	31.21	/	20.27

Source: Table II

Total per capita sales for Oklahoma County lead the state average by $172.13. The greatest gain was realized in the Automotive group. There is also a strong favorable trade balance evidenced for General Merchandise, and Apparel lines. Several factors must be reckoned with in attempting to explain Oklahoma County's favorable position.

Oklahoma County is centrally located and is served by a network of good highways reaching out in all directions. U. S. Highway # 66

has special significance in that it is one of the principal trans-continental routes. In the course of a year, hundreds of families and tourists will find Oklahoma City a convenient stopping point en route to their destination. Oklahoma City gives the County the largest trade center in the state, while excellent roads and transportation facilities make shopping there readily possible for those living well beyond county boundaries. The state capital is located in Oklahoma City. A sizable flow of purchasing power is created every year through state payrolls to clerical and staff workers. Many people coming to the capital on official business have found it expedient to avail themselves of the shopping facilities there in the City.

Oil production in and around Oklahoma City places considerable wealth in the hands of inhabitants of the County. Undoubtedly this was more of a factor in 1939 than it is today. Income tax returns reported for the County for 1939, when placed on a per capita basis, give Oklahoma County a relative position of third highest in the state (see Table II). What about the general farm conditions in the County? A study of the various levels of living for thirteen Southern States was made in 1936 by Dr. Morris M. Blair.[4] It includes a Farm Index, a Non-Farm Index, and a General Index. The Farm Index for Oklahoma County shows its relative position as 14th among the 77 counties in the state. But Oklahoma County's farm trade is not confined to the political boundaries of the county. Some concept of the extent of Oklahoma City's "dominance area" can be gained from Part V.

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4 Morris M. Blair, Indices of Level of Living for the Thirteen Southern States by Counties, 1930 (Stillwater, 1939), p. 49.

TULSA COUNTY

Tulsa County is second largest in the state with respect to population. The City of Tulsa is the "core" of the second primary trading area in the state. Geographically, Tulsa County is not so ideally located as is Oklahoma County. Tulsa is served by a similar network of hard surface roads; however, these roads are quite rough and crooked. In approaching the City from the West on Highway #33, considerable time is lost as it is necessary to pass through Sand Springs and parts of West Tulsa. The approach on U. S. Highway # 66 from the Southwest is also a "slow drive"; speed is restricted all the way in from Sapulpa by heavy traffic and winding roads. While all this does not limit trade from the immediate surrounding area, it does act as a strong limiting force on any attempt to extend Tulsa's sphere of influence to more distant counties. Illustration of this tendency is found in Part V. Much of the Southwestern part of the state is in effect excluded from Tulsa's "dominance area" because of a series of mountain ranges which have thus far prevented direct highway connections to such points.

Tulsa has long been a center of activity in the oil industry. This holds true for production, refining, and marketing of oil products. There are over two hundred oil producing companies in Tulsa, as well as innumerable oil well supply and equipment houses, royalty brokers, and associated businesses. There is a considerable amount of wealth concentrated in Tulsa County. On the basis of number of income tax returns, Tulsa County ranks first in the state. Other industries have made their appearance in the City of Tulsa in recent years. The Spartan Airplane Company and associated flying school is outstanding nationally. The oil refineries and cotton mills in Sand Springs and West Tulsa contribute materially to the volume of business enjoyed by Tulsa merchants.

GARFIELD COUNTY

Enid is the trade center for Garfield County. Table III shows Garfield County's relative position in each of the main retail groups. The County leads the state in per capita sales for two of these commodity groups: General Merchandise, and Lumber-Building-Hardware.

Geographic location has much to do with the County's trade advantage. Garfield and surrounding counties are well known for wheat production. 1939 was a better than average wheat year with a crop approximating 46 million bushels.[5] That the farm trade gravitating to Enid is a vital factor in the County's position is evidenced by reference again to the Farm Index worked out by Dr. Blair.[6] The level of living for the farm inhabitants of this County ranks highest in Oklahoma for the period covered by the survey. Other counties which normally fall within Enid's trading area also show strong ratings in the Index.

Geographic location favors Garfield County in another way. Enid enjoys a wide dominance area; the relative freedom from the competition of other shopping centers is one of the chief factors responsible. In this respect, those counties to the north and west are particularly significant. There are practically no trade centers of comparable size as far west as Amarillo, Texas, and as far northwest as Denver, Colorado.

Enid is one of the chief points in the state for the concentration and storage of small grain. The Pillsbury Company controls large elevators there. For many years Enid has received a sizable flow of

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5 G. P. Collins, Interview.

6 Op. Cit., p. 49.

wealth from the oil industry. Several large independent oil companies have headquarters in Enid; Champlain Oil Company and Eson Oils are two notable examples. Garfield County ranks well with the leaders in per capita income tax returns; it occupies 5th place in the state. Finally, a good system of highways serves the County and surrounding territory so that gravitation of trade to the City of Enid is readily possible.

COUNTIES WITH LOW PER CAPITA SALES

The three counties with the lowest per capita sales are:

Delaware County	$ 61.85
Sequoyah County	63.23
Adair County	65.76

The geographic location of these three counties is best shown in Plate I. Grouped together in the extreme eastern part of the state, Adair, Sequoyah, and Delaware Counties are characteristically similar in many respects. The combined population of the group totals slightly more than 57,000 inhabitants; a large percentage of these residents are Indians. Much of the land is untillable. There are no cities of any size; industrial activity is at a minimum.

DELAWARE COUNTY

The poorest showing in the state was made by Delaware County with average per capita sales for all groups combined of only $61.85. Table V gives per capita figures for the County along with those for the state as a whole, for comparison purposes.

TABLE V

COMPARISON OF DELAWARE COUNTY WITH THE STATE--1939

Commodity Group	State Per Capita Sales	County Per Capita Sales		County Loss or Gain
Total	$219.60	$ 61.85	-	$157.75
Food	48.01	12.16	-	35.85
General Stores	5.98	10.81	/	4.83
General Merchandise	27.96	x		
Apparel	13.30	-		
Furniture, Household, Radio	7.84	1.29	-	6.55
Automotive	41.52	x		
Filling Stations	20.14	7.91	-	12.23
Lumber-Bldg.- Hardware	21.47	17.48	-	3.99
Eating and Drinking	11.43	2.04	-	9.39
Drug Stores	11.00	2.10	-	8.90
Other Stores	10.94	.22	-	10.72

Source: Table II
x indicates figures withheld
- indicates no figures given

Total per capita sales in Delaware County fall below the state average by $157.75. In only one of the retail groups does there appear a "gain"; sales through General Stores do exceed the state average. Lowest ranking in the state goes to Delaware County in two of the eleven retail groups, namely: Durg Stores, and Other Stores.

In attempting to understand Delaware County's retail trade situation it is necessary to focus attention on several different factors.

A self-sufficing economy seems to prevail; purchasing power is low when compared with most counties in the state. Income tax returns have been cited as partial evidence of the amount of buying power. For 1939, Delaware County is found to have the lowest per capita income tax return in the state. Much of the terrain is extremely hilly, wooded, and rocky; agricultural efforts yield little more than a bare living.

There are no major trade centers in the County. This precludes the possibility that trade from other neighboring political units can be drawn to Delaware County, and gives good reason for expecting even the loss of home trade for "shopping goods" items. Grove is the largest town; it has only about 1,000 in habitants. Joplin, Missouri is located near enough to draw considerable trade from counties in this general area. The recent completion of Grand River Dam and associated activity may have brought about some changes in the retail trade situation in that section since 1939. It is not the purpose of this investigation to analyze the nature and extent of such a possibility.

SEQUOYAH COUNTY

In many respects Sequoyah and Delaware Counties are similar. Both of them show per capita sales well below the state average with the exception of sales by General Stores.[7] Sequoyah County shows lowest per capita sales in the state for four of the eleven groups: Food; Automotive; Lumber-Building-Hardware; and Eating and Drinking.

Again, here is another county with relatively low purchasing power. There is almost no industrial activity except for a few participants in the beverage business. The little farming carried on is of a self-

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7 "General Stores"--stores in which food constitutes a substantial proportion of total sales.

sufficing nature.[8] In number of income tax returns, only Delaware County has a lower rating.

There are no sizable cities with shopping opportunities to attract trade. Sallisaw is the largest town; the last census reports a population for this community of less than 2,500. Undoubtedly one reason why cities in this area have failed to grow and develop has been the presence of a strong trade center just across the state line. Fort Smith, Arkansas has a population of some 36,000 inhabitants. A city of this size can be expected to dominate a considerable surrounding area.

ADAIR COUNTY

Adair County with its 15,755 inhabitants is wedged in between Delaware and Sequoyah Counties (see Plate I). There is more open country here. Vineyards and truck farms characterize the area. There seems to be good reason for higher per capita sales here than in either of the above-mentioned counties.

This general section of the state has already been reasonably well described for purposes of this investigation. Adair County's relative position as indicated by the number of income tax returns is stronger than for either Delaware or Sequoyah Counties. Stilwell is the largest city in the County, yet it has less than 2,000 inhabitants. Both Joplin, Missouri, and Fort Smith, Arkansas are in a position to bid for the shopping trade in this area.

In summary, the three counties--Delaware, Sequoyah, and Adair--have much in common which will account for their relatively low per capita sales. They appear to have neither the industrial, agricultural, or mineral activities so necessary to bolster income and provide

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8 Peter Nelson, Geographical Variation in Types of Farming in Oklahoma (Stillwater, 1936), p. 4.

the buying power evidenced in other Oklahoma Counties. Geographic location is a decided handicap; these counties do not serve as connecting links between key cities either for highway or rail traffic. There are no cities of more than 2,500 inhabitants. A more or less self-sufficing type of economy prevails. Finally, two strong shopping centers nearby have tended to curtail expansion of retail trade in the "home markets". Since the entire analysis is on a comparative basis, it is to be expected that these counties will not make a strong showing when competing with the more highly industrialized and productive sections of the state.

PART IV

SURVEY BY CITIES

There are 43 cities in Oklahoma with populations in excess of 5,000. These form the basis for the comparative study to follow. It is well to bear in mind that considerably more detailed information is given in the Retail Census Report than is here used. There are 21 cities in the state with populations of 10,000 or more; for each city in this class, a separate summary table is available in the census bulletin. These 21 cities account for 27% of the population, 36% of all stores, and 57% of all retail sales made in the state during 1939. Merchants in such major cities have an advantage in that a more detailed report on business activity may be had. Sales data are broken down into many more separate and distinct retail classifications than in the case of smaller cities.

Emphasis in this investigation is placed on retail sales data for the 43 cities, though other associated information may prove equally valuable for other types of research. Unfortunately, for our purposes, sales totals in certain instances have been withheld. Such data have been omitted on the grounds that if disclosed they might injure individual operations. Such omissions are confined, for the most part, to the smaller cities where there are perhaps only one or two merchants doing business in a particular retail field. This is one of the reasons for limiting the analysis to those cities of more than 5,000 inhabitants.

Basically, the method of study here is similar to that used to compare county sales data in Part III. Sales totals for the 43 cities have been reduced to a per capita basis in each of the eleven main

TABLE VI

PER CAPITA SALES IN MAIN RETAIL GROUPS, 1939

(By Cities with 5,000 Population and Over)

(With Income Tax Returns Per Capita)

Commodity Group	City Average	Ada	Altus	Alva
Total	$452.19	$535.16	$379.38	$582.38
Food	87.66	100.51	75.76	129.97
General Stores	.76	x	-	x
General Merchandise	67.86	x	41.31	54.99
Apparel	37.84	x	28.63	x
Furniture, Household, etc.	20.25	x	x	x
Automotive	94.10	163.90	x	98.51
Filling Stations	30.46	33.81	24.67	64.09
Lumber-Bldg.-Hardware	39.17	43.06	49.11	91.59
Eating and Drinking	23.91	18.09	20.71	38.77
Drug Stores	22.34	22.25	18.39	27.30
Other Stores	26.57	17.43	7.56	15.03
Income Tax Returns Per Capita	.054	.0468	.0173	.0356

For sources of figures, see bibliography

x indicates figures withheld in order not to disclose individual operations

- indicates no figures given

TABLE VI (Continued)

Commodity Group	Anadarko	Ardmore	Bartlesville	Blackwell
Total	$473.74	$400.92	$504.82	$363.24
Food	132.99	91.44	122.83	98.98
General Stores	-	-	-	-
General Merchandise	51.08	78.88	x	51.07
Apparel	36.22	x	x	19.21
Furniture, Household, etc.	17.74	15.81	23.61	5.74
Automotive	92.13	69.58	x	83.64
Filling Stations	40.51	29.14	25.45	14.88
Lumber-Bldg.- Hardware	45.17	39.80	35.90	31.98
Eating and Drinking	24.74	17.35	20.47	24.25
Drug Stores	18.28	22.62	22.50	22.61
Other Stores	14.88	x	35.84	10.89
Income Tax Returns Per Capita	.0212	.0374	.1135	.0298

For sources of figures, see bibliography

x indicates figures withheld in order not to disclose individual operations

- indicates no figures given

TABLE VI (Continued)

Commodity Group	Bristow	Chickasha	Clinton	Cushing
Total	$432.89	$422.15	$407.66	$463.71
Food	102.64	84.54	79.28	103.34
General Stores	x	-	-	-
General Merchandise	53.55	88.73	50.33	91.00
Apparel	27.60	x	22.57	13.24
Furniture, Household, etc.	x	x	20.19	x
Automotive	114.71	86.17	107.04	109.05
Filling Stations	29.09	26.58	37.11	38.30
Lumber-Bldg.- Hardware	31.24	38.62	35.18	39.08
Eating and Drinking	24.30	26.65	19.00	23.11
Drug Stores	18.35	17.58	19.45	17.11
Other Stores	18.02	18.28	17.52	x
Income Tax Returns Per Capita	.0337	.0372	.0282	.0327

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE VI (Continued)

Commodity Groups	Durant	Duncan	Elk City	El Reno
Total	$480.30	$467.67	$480.38	$413.57
Food	105.02	100.68	108.34	113.22
General Stores	-	-	-	-
General Merchandise	79.68	83.09	85.04	x
Apparel	11.37	x	x	x
Furniture, Household, etc.	x	16.40	18.92	x
Automotive	139.92	101.12	79.67	76.90
Filling Stations	34.71	33.02	43.02	38.70
Lumber-Bldg.-Hardware	41.09	45.40	64.93	44.16
Eating and Drinking	18.55	21.40	22.70	25.80
Drug Stores	18.75	23.03	13.74	21.43
Other Stores	x	x	x	12.90
Income Tax Returns Per Capita	.0195	.0428	.0169	.0485

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE VI (Continued)

Commodity Group	Enid	Frederick	Guthrie	Henryetta
Total	$524.30	$402.23	$455.98	$411.15
Food	87.57	91.60	97.52	102.39
General Stores	-	-	-	-
General Merchandise	101.85	62.44	58.20	34.03
Apparel	x	x	17.87	32.15
Furniture, Household, etc.	x	14.29	23.56	x
Automotive	94.19	62.44	101.72	x
Filling Stations	28.35	44.04	26.55	39.25
Lumber-Bldg.- Hardware	71.29	55.78	70.87	21.14
Eating and Drinking	22.61	17.42	15.47	16.36
Drug Stores	25.78	19.77	19.46	17.81
Other Stores	27.60	x	24.76	21.43
Income Tax Returns Per Capita	.0453	x	.0320	.0196

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE VI (Continued)

Commodity Group	Hobart	Holdenville	Hugo	Lawton
Total	$490.63	$386.76	$355.39	$456.05
Food	92.91	104.79	71.59	83.80
General Stores	-	-	x	-
General Merchandise	83.25	76.75	54.49	61.04
Apparel	x	x	14.72	31.29
Furniture, Household, etc.	19.12	12.36	9.65	18.61
Automotive	100.83	x	89.69	117.64
Filling Stations	22.59	28.95	33.17	26.53
Lumber-Bldg.-Hardware	74.56	29.55	25.05	57.44
Eating and Drinking	19.32	18.24	15.57	20.60
Drug Stores	22.79	19.60	16.25	18.83
Other Stores	x	8.76	x	20.27
Income Tax Returns Per Capita	x	.0191	.0164	.0183

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE VI (Continued)

Commodity Group	McAlester	Miami	Muskogee	Norman
Total	$464.16	$483.02	$399.02	$418.15
Food	90.31	94.22	83.91	104.73
General Stores	-	-	-	-
General Merchandise	86.93	91.72	70.24	44.97
Apparel	x	43.12	x	19.60
Furniture, Household, etc.	x	16.57	x	x
Automotive	123.86	117.09	72.99	53.55
Filling Station	43.06	19.30	29.04	35.34
Lumber-Bldg.-Hardware	31.21	35.02	28.21	52.32
Eating and Drinking	12.74	20.37	19.70	30.27
Drug Stores	19.35	24.66	22.11	34.04
Other Stores	12.34	20.96	25.33	x
Income Tax Returns Per Capita	.283	.0352	.0397	.0606

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE VI (Continued)

Commodity Group	Oklahoma City	Okmulgee	Pauls Valley	Pawhuska
Total	$449.28	$362.28	$423.98	$538.49
Food	73.53	81.86	90.91	131.36
General Stores	.76	x	-	-
General Merchandise	67.52	70.15	57.80	54.20
Apparel	x	20.25	21.94	16.53
Furniture, Household, etc.	x	15.51	12.15	29.21
Automotive	84.40	78.87	84.84	145.88
Filling Stations	27.27	20.31	50.94	44.28
Lumber-Bldg.-Hardware	37.67	26.17	55.05	33.25
Eating and Drinking	24.92	11.03	21.36	31.78
Drug Stores	27.16	15.14	14.89	24.07
Other Stores	36.20	x	14.11	27.93
Income Tax Returns Per Capita	.0610	.0333	x	.0445

For sources of figures, see bibliography

x indicates figures withheld

- indicates no figures given

TABLE VI (Continued)

Commodity Group	Perry	Picher	Ponca City	Sand Springs
Total	$448.17	$229.14	$443.61	$234.32
Food	95.34	95.07	104.26	104.29
General Stores	x	-	-	-
General Merchandise	x	31.12	63.53	18.09
Apparel	13.68	8.89	33.46	x
Furniture, Household, etc.	x	x	20.01	5.21
Automotive	x	x	101.58	30.47
Filling Stations	40.63	16.59	25.96	19.55
Lumber-Bldg.- Hardware	58.47	19.32	34.00	x
Eating and Drinking	26.36	22.40	19.47	17.76
Drug Stores	18.24	14.02	26.08	12.87
Other Stores	x	7.87	15.24	x
Income Tax Returns Per Capita	x	.0113	.0727	.0385

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE VI (Continued)

Commodity Group	Sapulpa	Seminole	Shawnee	Stillwater
Total	$330.64	$558.15	$463.15	$546.50
Food	88.17	110.76	77.72	115.38
General Stores	-	-	x	-
General Merchandise	44.82	43.99	93.82	48.53
Apparel	x	25.46	26.89	54.07
Furniture, Household, etc.	12.49	25.81	26.89	16.34
Automotive	78.29	190.96	120.21	88.05
Filling Stations	24.57	45.12	31.51	41.20
Lumber-Bldg.-Hardware	15.10	33.86	36.91	66.75
Eating and Drinking	13.63	31.87	16.51	37.73
Drug Stores	15.51	26.59	22.90	21.99
Other Stores	x	23.73	x	x
Income Tax Returns Per Capita	.0292	.0639	.0352	.0705

For sources of figures, see bibliography
x indicates figures withheld
- indicates no figures given

TABLE VI (Continued)

Commodity Group	Tulsa	Vinita	Wewoka	Woodward
Total	$476.98	$544.94	$363.74	$688.68
Food	82.13	85.84	76.10	166.85
General Stores	x	x	x	-
General Merchandise	69.74	67.02	29.67	x
Apparel	56.71	20.93	x	x
Furniture, Household, etc.	24.95	x	x	x
Automotive	90.32	151.98	109.65	187.94
Filling Stations	30.66	47.85	34.71	54.38
Lumber-Bldg.-Hardware	30.62	58.05	22.98	87.31
Eating and Drinking	30.90	35.53	19.29	33.48
Drug Stores	26.11	x	14.35	22.38
Other Stores	x	22.34	13.86	22.20
Income Tax Returns Per Capita	.0849	x	.0269	.0318

For sources of figures, see bibliography

x indicates figures withheld

- indicates no figures given

retail groups. Per capita averages were computed by dividing sales totals for each city by its respective population figure. Table VI shows the results of this breakdown in detail.

The order of presentation is, again, similar to that for the counties. It is found that cities show a wide variance in per capita sales. Table VII shows this relationship for each commodity group. Cities are arranged in order of decreasing sales; one can determine at a glance which cities show high per capita sales, and which are relatively low. Income tax returns appear in Table VII to facilitate a study of relationships.

City size, geographic location, types of industry, highways and transportation facilities are among the foremost factors to be considered in an attempt to explain per capita sales differences. Another vital factor, though difficult to measure, is the amount of purchasing power in evidence. This concept must not be confied to the "ability to buy" of local residents, but of even more importance is the strength of buying power characterizing the hundreds of families living within the dominance area but outside the city limits. Per capita averages measure sales for the entire trading area. With the ever increasing mobility of trade, stimulated in part by the growing emphasis on "style", and made possible by improved roads along with more rapid transportation and communication facilities, merchants and civic groups are concentrating attention on a more intense cultivation of outlying areas.

The range in total per capita sales for all retail groups combined amounts to $459.54. Table VII shows the City of Woodward in first place with an average of $688.68. This is more than one hundred dollars higher than the nearest contestant. Alva ranks second with per capita sales of $582.38. Of interest is the fact that both of these cities are relatively small, less than 10,000 population. Among those cities with low per capita sales, Picher, Oklahoma is first mentioned with an average per capita sales of only $229.14 in all commodity groups.

In the study of sales by counties reference was consistently made to the "state average" as a basis for aiding comparisons. This state figure has little value when retail sales by cities are under observation. In all commodity groups the state average would fall decidedly below that for most of the cities. In order to provide some measuring stick of similar nature, a "city average" has been computed for each retail group. This is not an "average of averages"; rather, total sales for the 43 cities have been divided by the aggregate total population. A word of caution in respect to the use of this "city average" is necessary. Tulsa and Oklahoma City comprise nearly 45% of the total population for the entire group; consequently, these two cities strongly influence or weight this average. In cases where sales data for one or more cities have been withheld, the "city average" is computed in the same way except that such cities are necessarily excluded from the calculations. Table VIII summarizes these "city averages".

TABLE VII

Summary of Per Capita Figures for All Groups Combined,

Oklahoma, 1939, By Cities Over 5,000 Population

In Order of Decreasing Sales

(With Per Capita Income Tax Returns)

No.	City	Per Capita Sales	No.	City	Income Tax Returns
1	Woodward	$ 638.68	1	Bartlesville	.1135
2	Alva	582.38	2	Tulsa	.0849
3	Seminole	558.15	3	Ponca City	.0727
4	Stillwater	546.50	4	Stillwater	.0705
5	Vinita	544.94	5	Seminole	.0639
6	Pawhuska	538.49	6	Oklahoma City	.0610
7	Ada	535.16	7	Norman	.0606
8	Enid	524.30	8	El Reno	.0485
9	Bartlesville	504.82	9	Ada	.0468
10	Hobart	490.63	10	Enid	.0453
11	Miami	483.02	11	Pawhuska	.0445
12	Elk City	480.38	12	Duncan	.0428
13	Durant	480.30	13	Muskogee	.0397
14	Tulsa	476.98	14	Sand Springs	.0385
15	Anadarko	473.74	15	Ardmore	.0374
16	Duncan	467.67	16	Chickasha	.0372
17	McAlester	464.16	17	Alva	.0356
18	Cushing	463.71	18	Miami	.0352
19	Shawnee	463.15	19	Shawnee	.0352
20	Lawton	456.05	20	Bristow	.0337
21	Guthrie	455.98	21	Okmulgee	.0333
	CITY AVERAGE	452.19	22	Cushing	.0327
22	Oklahoma City	449.28	23	Guthrie	.0320
23	Perry	448.17	24	Woodward	.0318
24	Ponca City	443.61	25	Blackwell	.0298
25	Bristow	432.89	26	Sapulpa	.0292
26	Pauls Valley	423.98	27	McAlester	.0283
27	Chickasha	422.15	28	Clinton	.0282
28	Norman	418.15	29	Wewoka	.0269
29	El Reno	413.57	30	Anadarko	.0212
30	Henryetta	411.15	31	Henryetta	.0196
31	Clinton	407.66	32	Durant	.0195
32	Frederick	402.23	33	Holdenville	.0191
33	Ardmore	400.92	34	Lawton	.0183
34	Muskogee	399.02	35	Altus	.0173
35	Holdenville	386.76	36	Elk City	.0169
36	Altus	379.38	37	Hugo	.0164
37	Wewoka	363.74	38	Picher	.0113
38	Blackwell	363.24	39	Perry	x
39	Okmulgee	362.28	40	Pauls Valley	x
40	Hugo	355.39	41	Hobart	x
41	Sapulpa	330.64	42	Frederick	x
42	Sand Springs	234.32	43	Vinita	x
43	Picher	229.14			

ARRAY OF CITIES, ORDER OF DECREASING SALES

No.	City	Per Capita Sales	No.	City	Per Capita Sales
	FOOD			GENERAL STORES	
1	Woodward	$ 166.85	1	Oklahoma City	$ .76
2	Anadarko	132.29			
3	Pawhuska	131.36		(All other cities not disclosing figures)	
4	Alva	129.97			
5	Bartlesville	122.83			
6	Stillwater	115.38			
7	El Reno	113.22			
8	Seminole	110.76			
9	Elk City	108.34			
10	Durant	105.02			
11	Holdenville	104.79			
12	Norman	104.73			
13	Sand Springs	104.29			
14	Ponca City	104.26			
15	Cushing	103.34			
16	Bristow	102.64			
17	Henryetta	102.39			
18	Duncan	100.68			
19	Ada	100.51			
20	Blackwell	98.98			
21	Guthrie	97.52			
22	Perry	95.34			
23	Picher	95.07			
24	Miami	94.22			
25	Hobart	92.91			
26	Frederick	91.60			
27	Ardmore	91.44			
28	Pauls Valley	90.91			
29	McAlester	90.31			
30	Sapulpa	88.17			
	CITY AVERAGE	87.66			
31	Enid	87.57			
32	Vinita	85.84			
33	Chickasha	84.54			
34	Muskogee	83.91			
35	Lawton	83.80			
36	Tulsa	82.13			
37	Okmulgee	81.86			
38	Clinton	79.28			
39	Shawnee	77.72			
40	Wewoka	76.10			
41	Altus	75.76			
42	Oklahoma City	73.53			
43	Hugo	71.59			

Source: Table VI

ARRAY OF CITIES, ORDER OF DECREASING SALES

No.	City	Per Capita Sales	No.	City	Per Capita Sales
	GENERAL MERCHANDISE			APPAREL	
1	Enid	$ 101.85	1	Tulsa	$56.71
2	Shawnee	93.82	2	Stillwater	54.07
3	Miami	91.72	3	Miami	43.12
4	Cushing	91.00		CITY AVERAGE	37.84
5	Chickasha	88.73	4	Anadarko	36.22
6	McAlester	86.93	5	Ponca City	33.46
7	Elk City	85.04	6	Henryetta	32.15
8	Hobart	83.25	7	Lawton	31.29
9	Duncan	83.09	8	Altus	28.63
10	Durant	79.68	9	Bristow	27.60
11	Ardmore	78.88	10	Shawnee	26.89
12	Holdenville	76.75	11	Seminole	25.46
13	Muskogee	70.24	12	Clinton	22.57
14	Okmulgee	70.15	13	Pauls Valley	21.94
15	Tulsa	69.74	14	Vinita	20.93
	CITY AVERAGE	67.86	15	Okmulgee	20.25
16	Oklahoma City	67.52	16	Norman	19.60
17	Vinita	67.02	17	Blackwell	19.21
18	Ponca City	63.53	18	Guthrie	17.37
19	Frederick	62.44	19	Pawhuska	16.53
20	Lawton	61.04	20	Hugo	14.72
21	Guthrie	58.20	21	Perry	13.68
22	Pauls Valley	57.80	22	Cushing	13.24
23	Alva	54.99	23	Durant	11.37
24	Hugo	54.49	24	Picher	8.89
25	Pawhuska	54.20	25	Oklahoma City	x
26	Bristow	53.55	26	Muskogee	x
27	Anadarko	51.08	27	Enid	x
28	Blackwell	51.07	28	Ardmore	x
29	Clinton	50.33	29	Bartlesville	x
30	Stillwater	48.53	30	Ada	x
31	Norman	44.97	31	Chickasha	x
32	Sapulpa	44.82	32	McAlester	x
33	Seminole	43.99	33	Sapulpa	x
34	Altus	41.31	34	Wewoka	x
35	Henryetta	34.03	35	El Reno	x
36	Picher	31.12	36	Alva	x
37	Wewoka	29.67	37	Duncan	x
38	Sand Springs	18.09	38	Elk City	x
39	Bartlesville	x	39	Frederick	x
40	Ada	x	40	Hobart	x
41	El Reno	x	41	Holdenville	x
42	Perry	x	42	Sand Springs	x
43	Woodward	x	43	Woodward	x

Source: Table VI
x indicates figures withheld

ARRAY OF CITIES, ORDER OF DECREASING SALES

No.	City	Per Capita Sales	No.	City	Per Capita Sales
	FURNITURE, HOUSEHOLD, ETC.			AUTOMOTIVE	
1	Pawhuska	$ 29.21	1	Seminole	$190.96
2	Shawnee	26.89	2	Woodward	187.94
3	Seminole	25.81	3	Ada	163.90
4	Tulsa	24.95	4	Vinita	151.98
5	Bartlesville	23.61	5	Pawhuska	145.88
6	Guthrie	23.56	6	Durant	139.92
	CITY AVERAGE	20.25	7	McAlester	123.86
7	Clinton	20.19	8	Shawnee	120.21
8	Ponca City	20.01	9	Lawton	117.64
9	Hobart	19.12	10	Miami	117.09
10	Elk City	18.92	11	Bristow	114.71
11	Lawton	18.61	12	Wewoka	109.65
12	Anadarko	17.74	13	Cushing	109.05
13	Miami	16.57	14	Clinton	107.04
14	Duncan	16.40	15	Guthrie	101.72
15	Stillwater	16.34	16	Ponca City	101.58
16	Ardmore	15.81	17	Duncan	101.12
17	Okmulgee	15.51	18	Hobart	100.83
18	Frederick	14.29	19	Alva	98.51
19	Sapulpa	12.49	20	Enid	94.19
20	Holdenville	12.36		CITY AVERAGE	94.10
21	Pauls Valley	12.15	21	Anadarko	92.13
22	Hugo	9.65	22	Tulsa	90.32
23	Blackwell	5.74	23	Hugo	89.69
24	Sand Springs	5.21	24	Stillwater	88.05
25	Oklahoma City	x	25	Chickasha	86.17
26	Muskogee	x	26	Pauls Valley	84.84
27	Enid	x	27	Oklahoma City	84.40
28	Chickasha	x	28	Blackwell	83.64
29	Ada	x	29	Elk City	79.67
30	McAlester	x	30	Okmulgee	78.87
31	Norman	x	31	Sapulpa	78.29
32	Wewoka	x	32	El Reno	76.90
33	El Reno	x	33	Muskogee	72.99
34	Durant	x	34	Ardmore	69.58
35	Altus	x	35	Frederick	62.44
36	Alva	x	36	Norman	53.55
37	Bristow	x	37	Sand Springs	30.47
38	Cushing	x	38	Bartlesville	x
39	Henryetta	x	39	Altus	x
40	Perry	x	40	Henryetta	x
41	Picher	x	41	Holdenville	x
42	Vinita	x	42	Perry	x
43	Woodward	x	43	Picher	x

Source: Table VI
x indicates figures withheld

ARRAY OF CITIES, ORDER OF DECREASING SALES

No.	City	Per Capita Sales	No.	City	Per Capita Sales
	FILLING STATIONS			LUMBER-BLDG.-HARDWARE	
1	Alva	$ 64.09	1	Alva	$ 91.59
2	Woodward	54.38	2	Woodward	87.31
3	Pauls Valley	50.94	3	Hobart	74.56
4	Vinita	47.85	4	Enid	71.29
5	Seminole	45.12	5	Guthrie	70.87
6	Pawhuska	44.28	6	Stillwater	66.75
7	Frederick	44.04	7	Elk City	64.93
8	McAlester	43.06	8	Perry	58.47
9	Elk City	43.02	9	Vinita	58.05
10	Stillwater	41.20	10	Lawton	57.44
11	Perry	40.63	11	Frederick	55.78
12	Anadarko	40.51	12	Pauls Valley	55.05
13	Henryetta	39.25	13	Norman	52.32
14	El Reno	38.70	14	Altus	49.11
15	Cushing	38.30	15	Duncan	45.40
16	Clinton	37.11	16	Anadarko	45.17
17	Norman	35.34	17	El Reno	44.16
18	Wewoka	34.71	18	Ada	43.96
19	Durant	34.71	19	Durant	41.09
20	Ada	33.81	20	Ardmore	39.80
21	Hugo	33.17		CITY AVERAGE	39.17
22	Duncan	33.02	21	Cushing	39.08
23	Shawnee	31.51	22	Chickasha	38.62
24	Tulsa	30.66	23	Oklahoma City	37.67
	CITY AVERAGE	30.46	24	Shawnee	36.91
25	Ardmore	29.14	25	Bartlesville	35.90
26	Bristow	29.09	26	Clinton	35.18
27	Muskogee	29.04	27	Miami	35.02
28	Holdenville	28.95	28	Ponca City	34.00
29	Enid	28.35	29	Seminole	33.86
30	Oklahoma City	27.27	30	Pawhuska	33.25
31	Chickasha	26.58	31	Blackwell	31.98
32	Guthrie	26.55	32	Bristow	31.24
33	Lawton	26.53	33	McAlester	31.21
34	Ponca City	25.96	34	Tulsa	30.62
35	Bartlesville	25.45	35	Holdenville	29.55
36	Altus	24.67	36	Muskogee	28.21
37	Sapulpa	24.57	37	Okmulgee	26.17
38	Hobart	22.59	38	Hugo	25.05
39	Okmulgee	20.31	39	Wewoka	22.98
40	Sand Springs	19.55	40	Henryetta	21.14
41	Miami	19.30	41	Picher	19.32
42	Picher	16.59	42	Sapulpa	15.10
43	Blackwell	14.88	43	Sand Springs	x

Source: Table VI

x indicates figures withheld

ARRAY BY CITIES, ORDER OF DECREASING SALES

No.	City	Per Capita Sales	No.	City	Per Capita Sales
	EATING AND DRINKING			DRUG STORES	
1	Alva	$ 38.77	1	Norman	$ 30.04
2	Stillwater-	37.73	2	Alva	27.30
3	Vinita	35.53	3	Oklahoma City	27.16
4	Woodward	33.48	4	Seminole	26.59
5	Seminole	31.87	5	Tulsa	26.11
6	Pawhuska	31.78	6	Ponca City	26.08
7	Tulsa	30.90	7	Enid	25.78
8	Norman	30.27	8	Miami	24.66
9	Chickasha	26.65	9	Pawhuska	24.07
10	Perry	26.36		CITY AVERAGE	23.57
11	El Reno	25.80	10	Duncan	23.03
12	Oklahoma City	24.92	11	Shawnee	22.90
13	Anadarko	24.74	12	Hobart	22.79
14	Bristow	24.30	13	Ardmore	22.62
15	Blackwell	24.25	14	Blackwell	22.61
	CITY AVERAGE	23.91	15	Bartlesville	22.50
16	Cushing	23.11	16	Woodward	22.38
17	Elk City	22.70	17	Vinita	22.34
18	Enid	22.61	18	Ada	22.25
19	Picher	22.40	19	Muskogee	22.11
20	Duncan	21.40	20	Stillwater	21.99
21	Pauls Valley	21.36	21	El Reno	21.43
22	Altus	20.71	22	Frederick	19.77
23	Lawton	20.60	23	Holdenville	19.60
24	Bartlesville	20.47	24	Guthrie	19.46
25	Miami	20.37	25	Clinton	19.45
26	Muskogee	19.70	26	McAlester	19.35
27	Ponca City	19.47	27	Lawton	18.83
28	Hobart	19.32	28	Durant	18.75
29	Wewoka	19.29	29	Altus	18.39
30	Clinton	19.00	30	Bristow	18.35
31	Durant	18.55	31	Anadarko	18.28
32	Holdenville	18.24	32	Perry	18.24
33	Ada	18.09	33	Henryetta	17.81
34	Sand Springs	17.76	34	Chickasha	17.58
35	Frederick	17.42	35	Cushing	17.11
36	Ardmore	17.35	36	Hugo	16.25
37	Shawnee	16.51	37	Sapulpa	15.51
38	Henryetta	16.36	38	Okmulgee	15.14
39	Hugo	15.57	39	Pauls Valley	14.89
40	Guthrie	15.47	40	Wewoka	14.35
41	Sapulpa	13.63	41	Picher	14.02
42	McAlester	12.74	42	Elk City	13.74
43	Okmulgee	11.03	43	Sand Springs	12.87

Source: Table VI

ARRAY OF CITIES, ORDER OF DECREASING SALES

No.	City	Per Capita Sales
	OTHER STORES	
1	Oklahoma City	$ 36.20
2	Bartlesville	35.84
3	Pawhuska	27.93
4	Enid	27.60
5	CITY AVERAGE	26.57
5	Muskogee	25.33
6	Guthrie	24.76
7	Seminole	23.73
8	Vinita	22.34
9	Woodward	22.20
10	Henryetta	21.43
11	Miami	20.96
12	Lawton	20.27
13	Chickasha	18.28
14	Bristow	18.02
15	Clinton	17.52
16	Ada	17.43
17	Ponca City	15.24
18	Alva	15.03
19	Anadarko	14.88
20	Pauls Valley	14.11
21	Wewoka	13.86
22	El Reno	12.90
23	McAlester	12.34
24	Blackwell	10.89
25	Holdenville	8.76
26	Picher	7.87
27	Altus	7.56
28	Tulsa	x
29	Shawnee	x
30	Ardmore	x
31	Okmulgee	x
32	Sapulpa	x
33	Norman	x
34	Stillwater	x
35	Durant	x
36	Cushing	x
37	Duncan	x
38	Elk City	x
39	Frederick	x
40	Hobart	x
41	Hugo	x
42	Perry	x
43	Sand Springs	x

Source: Table VI

x indicates figures withheld

TABLE VIII

PER CAPITA SALES --43 CITIES OF MORE THAN 5,000--1939

Commodity Group	"City Average" Per Capita	Number of Cities Included
Total	$ 452.19	43
Food	87.66	43
General Stores	.76	1
General Merchandise	76.75	38
Apparel	37.84	24
Furniture, Household, etc.	20.25	24
Automotive	94.10	37
Filling Stations	30.46	43
Lumber-Bldg.-Hardware	39.17	42
Eating and Drinking	23.91	43
Drug Stores	22.34	43
Other Stores	26.57	27

Source: Table VI

In analyzing sales by commodity groups some points of interest can be observed. Correlation between city size and per capita sales for most retail groups is small. A positive relationship seems highly probable, however, in sales by "Other Stores" and the Apparel groups. Data in these two classifications have been withheld for so many cities that generalization from such a small sample is difficult. In any event, sweeping conclusions cannot be drawn from a study of only 43 cases.

The tendency for trade to gravitate to the larger shopping centers for certain types of goods has been recognized earlier. Large cities are in a better position to offer a greater variety in style and specialty merchandise. In Oklahoma, Tulsa leads the field (as shown by Table VII) in per capita Apparel sales. It is not possible to compare Oklahoma City's relative position because sales data in this case have been withheld.

It is difficult to characterize the Furniture-Household-etc. group tendencies because analysis is limited to the study of only 25 cities. In general, furniture and household commodities can be regarded as "shopping goods". As such, they tend to attract trade to the larger cities where a greater variety has been assembled. Tulsa ranks 4th in per capita sales; Oklahoma City's position is not discernable because sales figures have been withheld.

Automobile trade is subject to wide per capita variance among the 43 cities. Apparently city size has little to do with the relative positions of rank. Tulsa is in 23rd position. Ordinarily, dealers in the smaller cities can offer the same stock as can large city agencies, and many times small dealers can undersell the larger competitors. The franchise policies of some automobile manufacturers curtail the bidding for business outside certain set sales territories. Finally, the desire for service tends to restrict purchases to local firms.

Gasoline sales per capita show no correlation with city size. Other factors take the spotlight; convenience of the service is no doubt a primary factor.

Lumber-Building-Hardware sales show no relationship to the size of the trade center if we may judge from the census data for 1939. Nor is there a strong positive correlation even in the case of those cities in Oklahoma that have shown a rapid growth during the past ten years. The City of Lawton shows a population increase for the ten year period of 48%; yet its per capita ranking in the Lumber-Building-Hardware group is 10th. Durant shows a similar expansion of 34% for the same period, and is only 19th in per capita sales for this group.

Eating and Drinking places apparently follow no set rule in the amount of sales volume realized. Both Tulsa and Oklahoma City are, however, above the "City Average" in this case.

There appears to be some correlation between city size and per capita expenditures in Drug Stores. Of the first seven ranking cities in the Drug group, six have populations in excess of 10,000. Oklahoma City is 3rd; Tulsa ranks 5th. Perhaps this can be explained in part by the different functions performed by the drug store in large and in small cities. The metropolitan drug store of today is a veritable super-market which handles everything from men's hose to 6-bottom plows. The difficulty then, is one of classification.

A study of the relationship of per capita sales for the 21 cities with 10,000 populations and over is shown graphically in Plates II, III, IV, and V for selected commodity groups.

Particular stress and emphasis is again laid on the necessity of realizing that influences and tendencies observed in connection with certain trade centers cannot be unconditionally applied to new or different situations. Each city and each trading area are more or less unique; an arbitrary deduction based merely on a similar case study will not tell all the story.

Six cities have been selected for detailed analysis; three are cities with low per capita sales, while the others are typical of the other extreme.

CITIES WITH HIGH PER CAPITA SALES

The three cities with highest total per capita sales for 1939 are:

Woodward	$ 688.68
Alva	582.38
Seminole	558.15

CITY OF WOODWARD

Woodward is a city of 5,406 inhabitants located in the northwestern part of the state. Woodward's per capita total of $688.68 is more than one hundred dollars greater than that for the next high competing city. Table IX breaks the data into commodity groups and contrasts Woodward with "city average" per capita figures in each case.

Total per capita sales for Woodward lead the "city average" by $236.49. This community appears to enjoy its greatest trade advantage in the Food and Automotive groups; per capita sales in Food are highest in the state. Unfortunately, data for three of the principal commodity groups have been withheld. No businesses of the "General Store" classification were reported.

Geographic location is essentially the chief factor responsible for Woodward's relative position. Agricultural activity in the County is notably productive; this particular section of the state is good wheat country. Woodward County along with Woods, Major, Alfalfa, Grant, Garfield, Kay, and Noble Counties produce more than one-third of the state's total wheat acreage.[9]

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1 K. D. Blood and M. L. Hill, Wheat Production in Oklahoma (Stillwater, 1941), p. 6.

TABLE IX

COMPARISON OF WOODWARD WITH THE "CITY AVERAGE"--1939

Commodity Group	"City Average" Per Capita	Woodward Per Capita		Woodward Loss or Gain
Total	$ 452.19	$ 688.68	/	$ 236.49
Food	87.66	166.85	/	79.19
General Stores	.76	-		
General Merchandise	76.75	x		
Apparel	37.84	x		
Furniture, Household, etc.	20.25	x		
Automotive	94.10	187.94	/	93.84
Filling Stations	30.46	54.38	/	23.92
Lumber-Bldg.-Hardware	39.17	87.31	/	48.14
Eating and Drinking	23.91	33.48	/	9.57
Drug Stores	22.34	22.38	/	.04
Other Stores	26.57	22.20	-	4.37

Source: Table VI
x indicates figures withheld
- indicates no figures given

Other good wheat producing counties are Beaver, Ellis, and Harper; all three are just west of Woodward County. Wheat production for the state during 1939 was above average with some 46 million bushels reported.[10]

It is doubtful if there is another city of comparable size in the state that enjoys such a large and productive dominance area. Woodward's potential trading area includes seven counties wherein there are no

10 G. P. Collins, op. cit.

cities of 5,000 or more inhabitants. Enid and Oklahoma City are distant enough that they do not interfere with Woodward's normal flow of trade. One of two counties across the Texas Line are near enough to find Woodward a convenient shopping center. That Woodward's trade advantage arises out of its ability to dominate a wide surrounding area rather than because of unusually high buying power of the immediate community is evidenced in the comparative number of income tax returns filed for 1939. On a per capita basis, Woodward ranks 24th in number of returns.

Finally, Woodward is an important link in the main route from Oklahoma City to the Northwest--U. S. Highway # 183 and 270.

CITY OF ALVA

Alva, like Woodward, is located in the northwestern part of the state, only about 20 miles from the Kansas Line. The city ranks second high in per capita sales among the 43 cities being studied; total per capita sales for 1939 amounted to $582.38.

In analyzing Alva's retail sales by different commodity groups it is found that per capita averages are high in three out of the eleven classifications. These groups are: Filling Stations; Lumber-Building-Hardware; and Eating and Drinking Places. Alva falls below the "city average" in sales reported for "Other Stores", and General Merchandise. Figures on Apparel sales have been withheld.

Alva is located northeast of Woodward about 65 miles; with respect to agricultural productivity, Alva is even more ideally located than Woodward. Concentration of wealth is not in evidence from a study of income tax returns. There are 16 cities in the state with higher per capita income tax returns reported for 1939.

PLATE II

Total Per Capita Sales in the Main Retail Groups

(By Cities of 10,000 Population and Over)

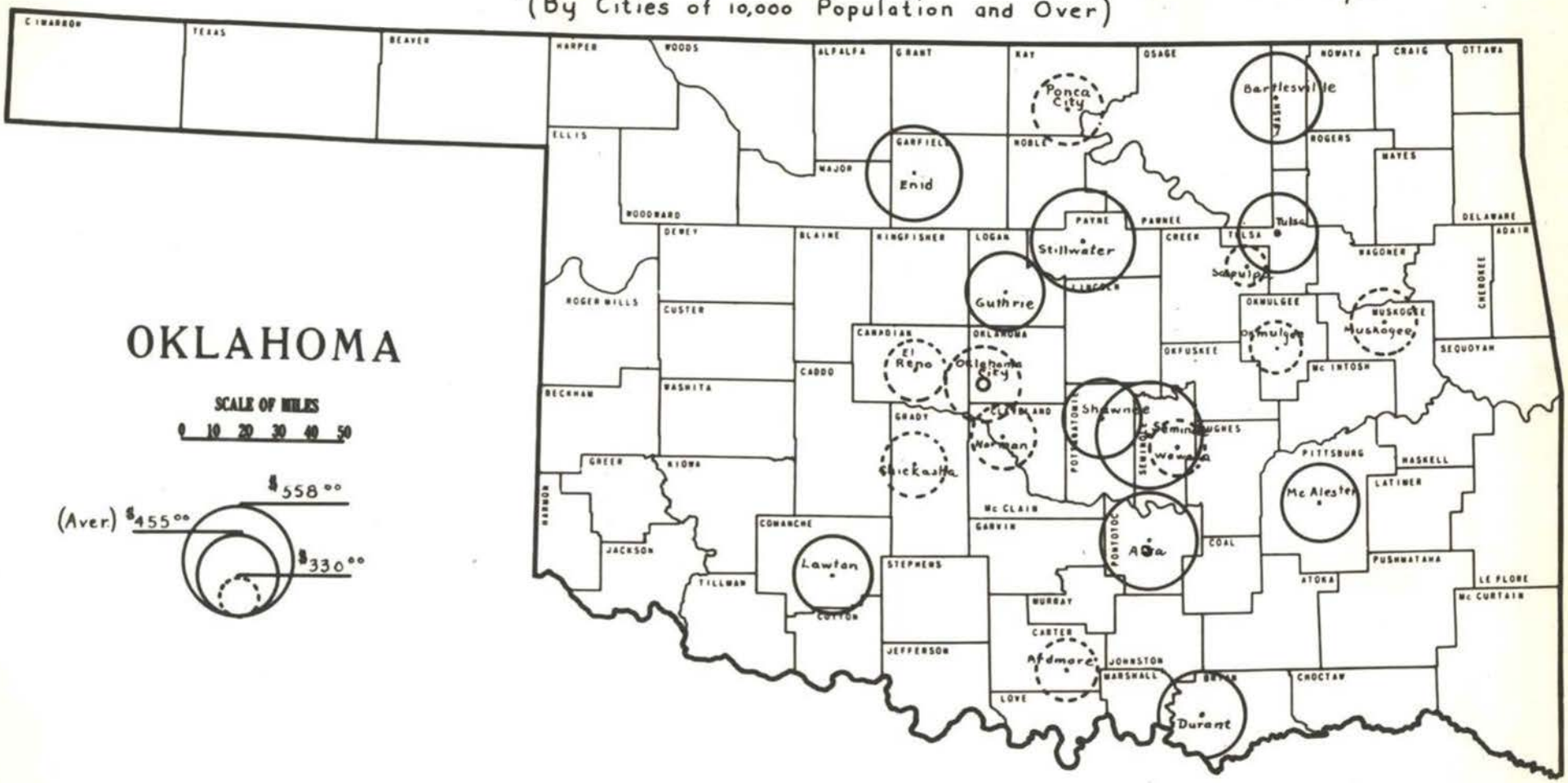


PLATE III

Per Capita Food Sales – 1939

(By Cities of 10,000 Population and Over)

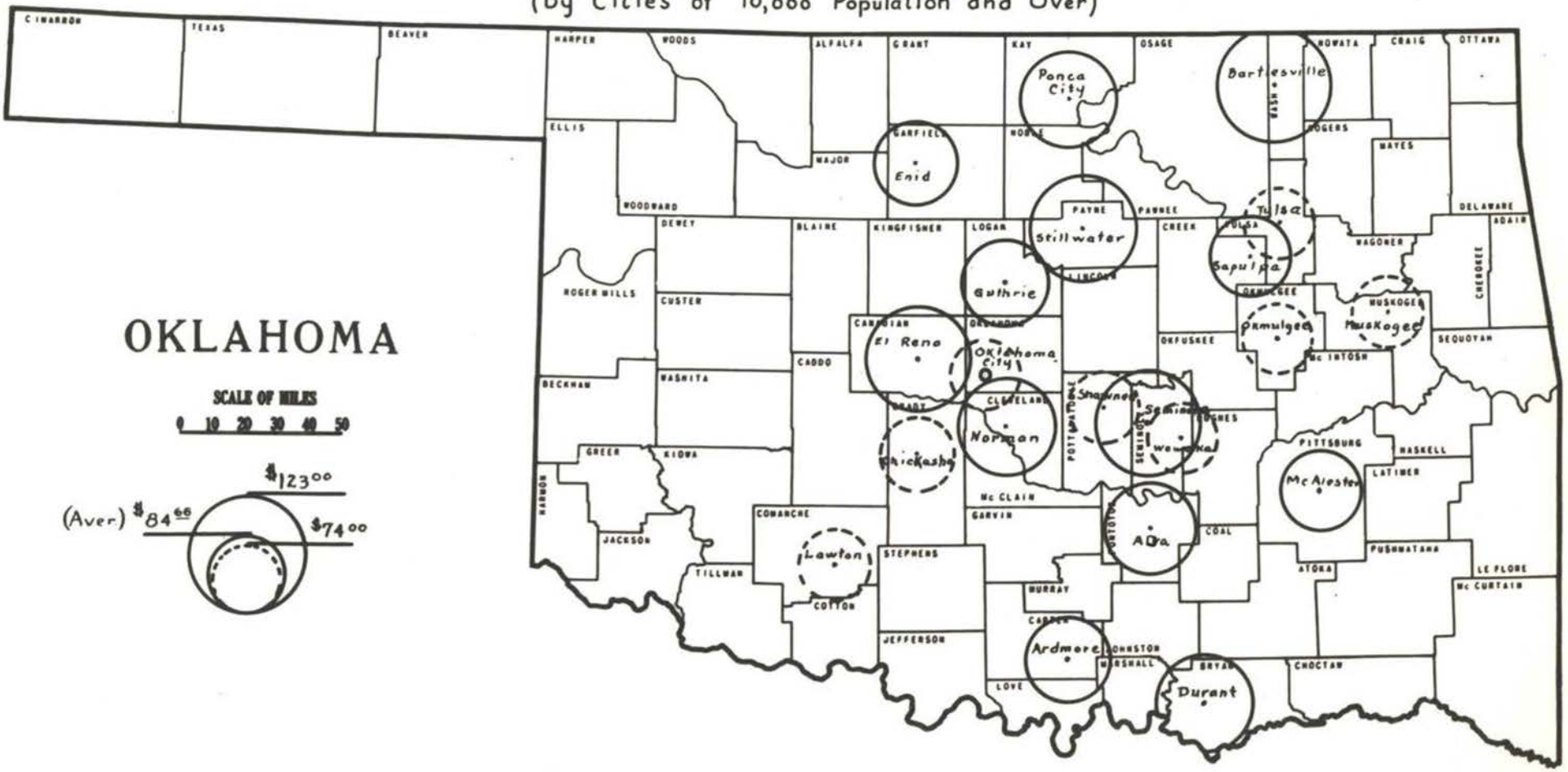


PLATE IV

Per Capita Lumber-Building-Hardware Sales - 1939

(By Cities of 10,000 Population and Over)

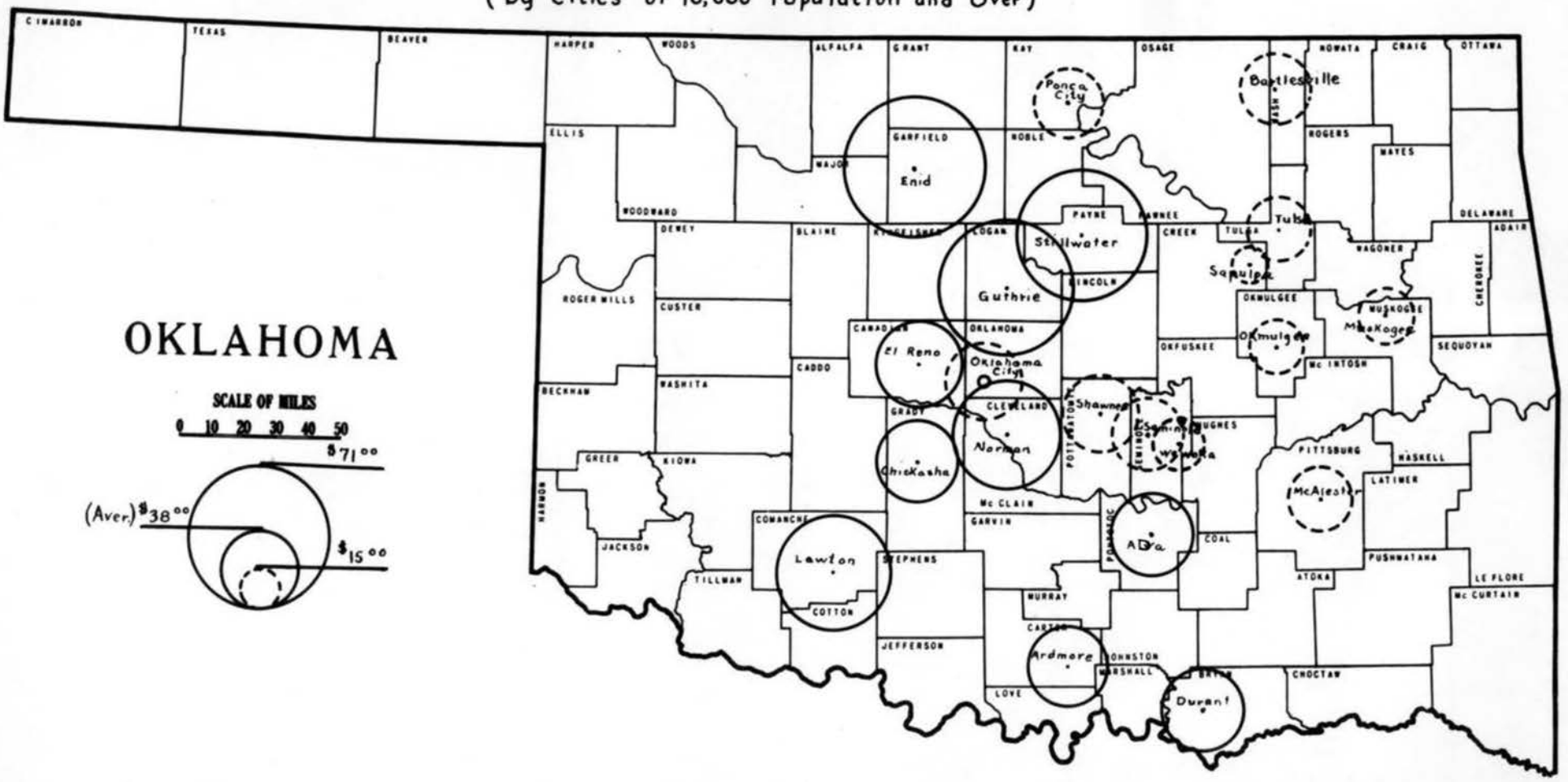
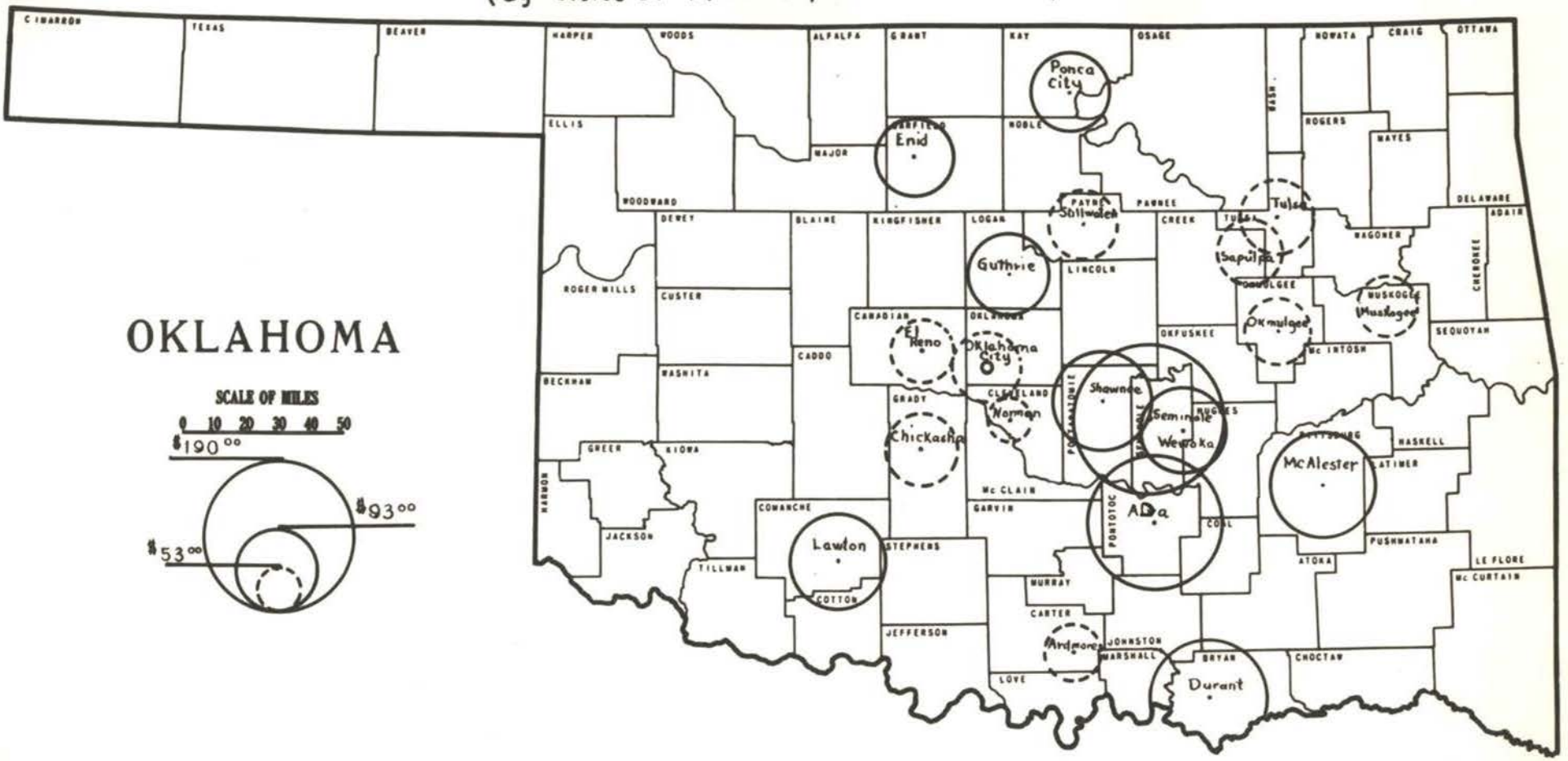


PLATE V

Per Capita Automobile Sales - 1939

(By Cities of 10,000 Population and Over)



Another factor worth mentioning is the location of Northwestern State College at Alva. This supplements local purchasing power. Alva claims the lowest illiteracy rating in the United States--less than one-half of one percent. There are no negroes in the county.[11]

U. S. Highway # 64 is one of the key routes across the state. Alva is also well served by another all weather highway from the north and south, and a score of connecting roads that are passable the year around. Transportation facilities include two railroads and convenient bus connections. No doubt there are other factors that have some bearing on the flow of retail trade to Alva. This investigation can only hope to point out a few of the more important influences.

CITY OF SEMINOLE

Seminole, a city of 11,547 inhabitants, ranks third in total per capita sales, with an average expenditure per person of $558.15. In the Automotive group, Seminole occupies the leading position in the state with a per capita expenditure of more than twice the "city average" for this product. Seminole falls below the normal for the 43 cities in four of the groups: General Merchandise; Apparel; Lumber-Building-Hardware; and Other Stores.

One industry is primarily responsible for Seminole's favorable trade balance. The Seminole Oil Field ranked 4th in importance in the United States for the production of crude oil during 1939.[12] In describing the general situation in Oklahoma's oil production for 1939, the Minerals Year Book makes this report, "The performance in the Seminole District was about the only encouraging feature of

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11 Alva Chamber of Commerce, Correspondence of May 15, 1941.

12 H.H. Hughes, Minerals Yearbook, U.S. Bureau of Mines (Washington, 1940), p. 962.

production in Oklahoma."[13] The Seminole Field includes the City of Seminole, Bowlegs, Earlsboro, and Saint Louis-Pearson areas.

The relatively high purchasing power among consumers in Seminole's trade territory is most significant. The wage scale in the producing phase of the oil industry is substantially above that for most industries. Per capita income tax returns for Seminole give the City a ranking of 5th in the state. Seminole's per capita expenditure in the Automotive group is also significant; it is the highest in the state (see Table VII). Dr. Henry A. Burd of the University of Washington, Seattle, Washington, contends that "The automobile is about the best measure of individual and family buying power."[14]

Agriculture contributes little to Seminole's relative position in retail trade. Mr. F. L. Yates of the Seminole Chamber of Commerce writes, "We do not depend much on farm trade".[15] To begin with, the soil and general topography are not well suited to farming. With the discovery of oil in this area, the amount of farming activity declined still further. "Generally, where oil comes in, agriculture is abandoned. In such cases land owners move to town and live from the income from oil leases and royalty."[16]

Seminole is a major center for the oil field supply business. There are some sixty firms which handle oil field equipment and kindred lines.

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13 Ibid., p. 963

14 Correspondence, May 2, 1941

15 Correspondence, May 5, 1941

16 J. O. Ellsworth, Types of Farming in Oklahoma (Stillwater, 1929), p. 15.

Seminole does not dominate a wide trade territory. To the southwest about 12 miles is the City of Wewoka. Shawnee, a city of 22,000 inhabitants, is only 18 miles away. Oklahoma City is less than 60 miles distant by all weather highway. Also, Holdenville and Ada are located within a radius of a few miles. Seminole's sphere of trade dominance is largely confined to the oil workers and their families in the immediate surrounding territory.

CITIES WITH LOW PER CAPITA SALES

The following cities show lowest per capita sales for 1939:

Picher- - - - - - - - - - - - - - - - - - - -	$ 229.14
Sand Springs- - - - - - - - - - - - - - - - -	234.32
Sapulpa - - - - - - - - - - - - - - - - - - -	330.64

Although three cities are here discussed, only two stand out strikingly as representative of the lowest total per capita sales. Picher and Sand Springs are both approximately one hundred dollars below Sapulpa's total per capita figure.

CITY OF PICHER

Picher, a city of 5,848 inhabitants, is located in the extreme northeastern corner of the state. Of the 43 cities with populations of 5,000 or more, Picher is decidedly low in per capita sales for 1939. In Table X a comparison is made between Picher and the "city average" for each of the commodity groups.

Sizable deviations appear in all but two of the retail groups; in one case, however,--Food sales--Picher surpasses the "city average". The greatest dollar difference exists in the General Merchandise group; this is readily understandable in view of Picher's close proximity to several superior shopping centers.

TABLE X

COMPARISON OF PICHER WITH THE "CITY AVERAGE"--1939

Commodity Group	"City average" Per Capita	Picher Per Capita		Picher Loss or Gain
Total	$ 452.19	$ 229.14	-	$ 223.05
Food	87.66	95.07	+	7.41
General Stores	.76	-		
General Merchandise	76.75	31.12	-	45.63
Apparel	37.84	8.89	-	28.95
Furniture, Household, etc.	20.25	x		
Automotive	94.10	x		
Filling Stations	30.46	16.59	-	13.87
Lumber-Bldg.-Hardware	39.17	19.32	-	19.85
Eating and Drinking	23.91	22.40	-	1.51
Drug Stores	22.34	14.02	-	8.32
Other Stores	26.57	7.87	-	18.70

Source: Table VI
x indicates figures withheld
- indicates no figures given

Picher is located in the heart of the Tri-State Mining District, which is the chief source of lead and zinc in the United States. The inhabitants of this region are largely mine workers and their families. The wage scale is comparatively low in contrast to the oil industry, for example. Picher has the lowest per capita income tax return rating in the state. Mining activity in 1939 was normal; there was

no urgent need yet for United States zinc in Europe.[17] The mines in the Commerce Area were operating only part of the time.

There is almost no agricultural activity in this section of the state; the farming that is carried on is largely of a self-sufficing nature.[18]

Picher's sphere of trade influence is restricted by the presence of two larger shopping centers within a radius of 40 miles. Nine miles south is the City of Miami, while Joplin, Missouri is located less than 40 miles away. Picher suffers additional competition in "convenience goods" lines from a host of smaller towns in the district; among them are such communities as Commerce and Quapaw.

In summary, Picher suffers first of all from the low buying power of the mine workers in the Tri-State District. The extent of Picher's trade dominance is limited to the immediate territory because of the superior shopping centers located nearby. Even the loss of home trade is evidenced by sales in the General Merchandise group (see Table X).

SAND SPRINGS

Total per capita sales for Sand Springs is approximately the same as for Picher. Of particular significance is the extent to which per capita sales in the General Merchandise group drop below the "city average". Unfortunately it is not possible to compare figures for Apparel Stores since such information has been withheld. Even so, the fact that Sand Springs shows the lowest per capita sales in the state for General Merchandise, Furniture-Household,etc, and Automotive groups is indicative of the tendency for "shopping goods" trade to gravitate to the larger "core area"--Tulsa.

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17 H. H. Hughes, op cit., p. 305.

18 Peter Nelson, op cit., p. 4.

In contrast to the situation in Picher, Sand Springs apparently does not suffer so great a loss of trade from a lack of buying power. On the basis of number of income tax returns per capita, Picher was the low city in the state, while Sand Springs is in 14th place. Activity of the oil refineries and textile mills located in Sand Springs provide a sizable flow of income to residents of the City.

The chief causal factor in Sand Springs' abnormally low per capita retail sales is its close proximity to Tulsa. Regular bus and electric transportation facilities make it possible to commute between these two cities as easily and quickly as between many outlying and downtown areas in Tulsa.

SAPULPA

The City of Sapulpa is located in Creek County, 15 miles southwest of Tulsa on U. S. Highway # 66. It is a city of 12,249 inhabitants. Of interest is the fact that the City experienced a decline in population of 9% between 1920 and 1930, while an increase of 16% is reported during the last ten year period. The decline during the 20's can be attributed largely to the loss of the railroad shops formerly located there. In recent years, the glass industry has come to occupy a position of prominence in Sapulpa.

Sapulpa has the lowest per capita sales in the state for the Lumber-Building-Hardware group. Except for the Food sales, Sapulpa's ranking in all the product lines is substantially below the "city average". "Ability-to-buy" is weak if one judges on a basis of income tax returns; Sapulpa is in 26th place among the 43 cities.

Creek County is ill-adapted to intensive farming. "It is an area of generally poor soil."[19] The development of oil production in this region caused further decline in agricultural activity.

Sapulpa as a shopping center is overshadowed by the influence of the Tulsa stores. Tulsa's trade dominance is most pronounced in the "shopping goods" lines (see Table VII). Food sales for Sapulpa are above the normal for the 43 cities, which suggests that most of such purchases are made in Sapulpa. Excellent transportation facilities between Sapulpa and Tulsa further add to the strength of the latter's influence. Modern, comfortable buses carry out-of-town shoppers to and from the downtown Tulsa area at almost any hour of the day.

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19 Peter Nelson, op. cit., p. 4.

PART V

THE DETERMINATION OF TRADING AREA BOUNDARIES

Every merchant will normally be interested in knowing the approximate boundaries to his trade territory. This should include full information as to the extent of his potential market as well as a verification of that area now served. Such knowledge is necessary to the most effective and profitable planning of sales effort.

There are several methods commonly used to measure the boundaries to a particular city's trade dominance. Familiarity with these techniques can be most helpful to merchants in either planning and executing a survey of their own, or in evaluating the results of some "ready-made" study conducted by an outside organization. In this investigation only one method is discussed in detail; Reilly's "Law of Retail Gravitation" has been applied in an effort to determine Oklahoma City's retail trading area.[20] The application of Reilly's "law" does not preclude the use of other techniques along with this analysis. Such a plan is to be recommended, though such a detailed study is beyond the scope of this investigation. Any one method has its limitations; the use of several acts as a cross-check, and reveals additional information about a given market. Other devices frequently used to delineate trade territories are: newspaper circulation, mail questionnaire, personal interview, traffic flow, retail delivery areas, etc.

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20 William J. Reilly, The Law of Retail Gravitation (New York, 1931).

REILLY'S LAW OF RETAIL GRAVITATION

It is generally recognized that there is a tendency for retail trade to gravitate from the smaller communities and towns to the larger cities, particularly for certain types of merchandise. That this flow of trade takes place according to a definite "law" was the conclusion of William J. Reilly after a three year nation-wide study of consumer buying habits.[21] Reilly's "Law of Retail Gravitation" is discussed here because it is widely used and is one of the most easily understood devices yet worked out for setting approximate limits to retail trade territories.

Reilly's "law" states that "two cities attract retail trade from any intermediate city or town in the vicinity of the breaking point, approximately in direct proportion to the population of the two cities, and in inverse proportion to the square of the distances from these cities to the intermediate town."[22]

Distance is calculated via the most direct improved automobile highway. A "breaking point" between two cities is defined in Part I of this analysis as "A point up to which one city exercises the dominating retail trade influence, and beyond which the other city dominates." It should be kept in mind, also, that this "law" recognizes that the primary basis for the attraction of trade is the retail service offered in connection with style and specialty goods. However, the purchase of staple merchandise is frequently involved as incidental to the purchase of "shopping goods."

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21 Ibid.

22 Ibid., p. 9.

The following paragraphs are devoted to a study of the application of Reilly's "law" to the Oklahoma City area. Breaking points have been computed as between Oklahoma City and the following cities: Tulsa; Enid; Wichita Falls, Texas; and Amarillo, Texas. Plate VI shows this analysis graphically. The formula for setting the breaking point between two cities is:

$$\text{Breaking Point (miles from B)} = \frac{\text{Miles between A and B}}{1 + \sqrt{\frac{\text{Population of A}}{\text{Population of B}}}}$$ [23]

Thus, if Oklahoma City (city B) has a population of 204,000 and is 125 miles from Tulsa (city A) which has a population of 142,000, the dividing line (breaking point) between their respective trading areas will fall approximately 67 miles from Oklahoma City. Stroud, Oklahoma is in the vicinity of this breaking point on U. S. Highway # 66; on highway # 33 the dividing line falls west of Cushing.

One of the weaknesses of Reilly's "law" is that it considers only the quantitative factors of population and distance. An interesting illustration of this limitation is shown by the relationship between Cushing's location and its shopping center preference. The breaking point between Tulsa and Oklahoma City places Cushing in the trade territory dominated by Tulsa. Actually, residents of Cushing express a preference for Oklahoma City. The Cushing Chamber of Commerce acknowledges the tendency. In this case, the nature and condition of the highway between Cushing and Tulsa is more important than distance. Highway # 33 into Tulsa is crooked, hilly, and rough. In any event, shopping trips by Cushing residents will normally be made to both Oklahoma City and Tulsa.

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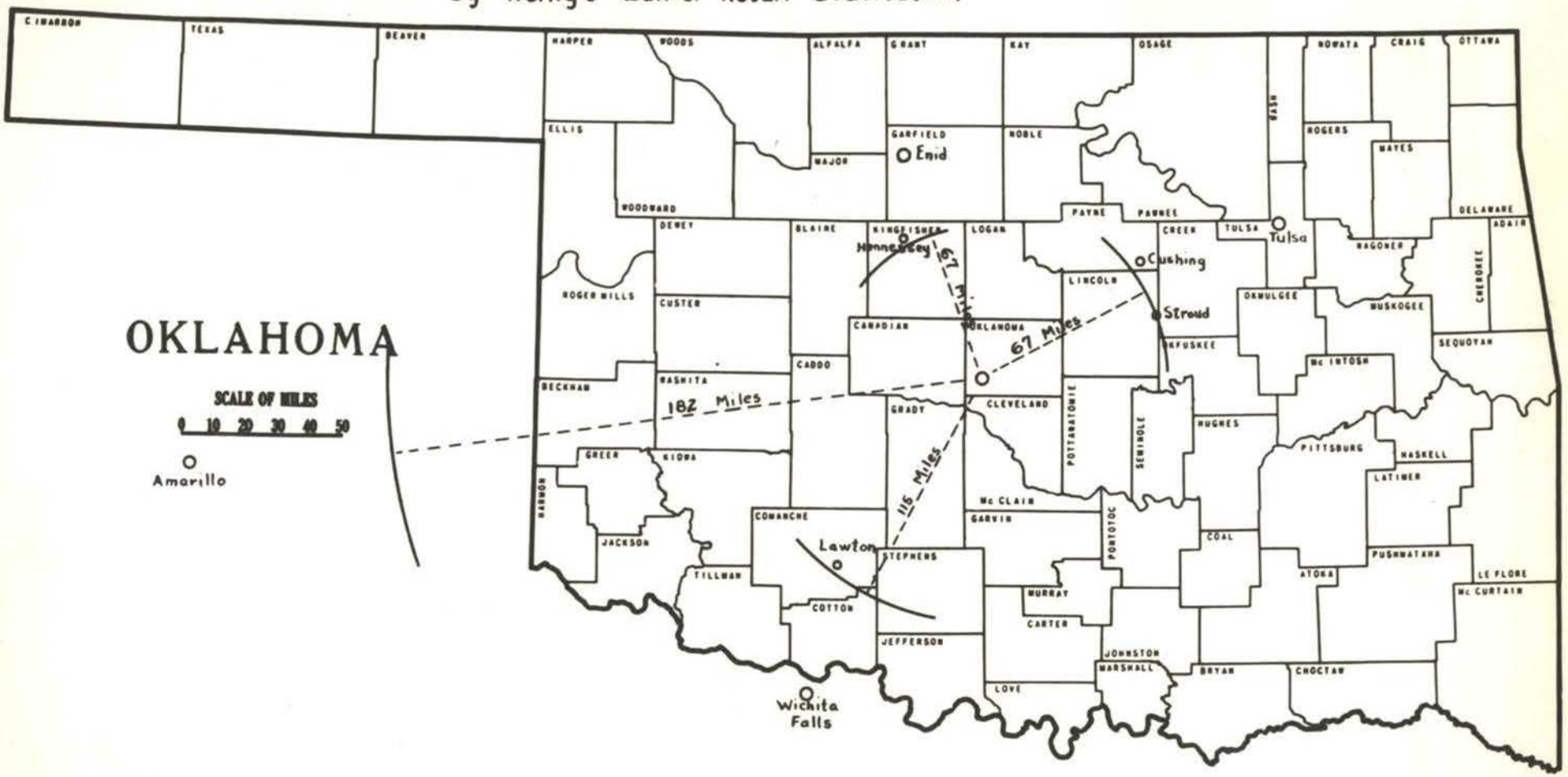
23 Paul D. Converse, Elements of Marketing (New York, 1935), p. 792.

PLATE VI

Delineation of Oklahoma City's Retail Trading Area - 1939

By Reilly's "Law of Retail Gravitation"



The breaking point between Oklahoma City and Enid occurs about 67 miles from the former, or just south of Hennessey on U. S. Highway # 81. Hennessey is but 21 miles from Enid, and is considered a part of Enid's trade territory. Verification of this was received from Mr. Cashion of the First National Bank in Hennessey. Mr. Cashion estimates out-of-town shopping by residents of Hennessey as: Enid--65%; Oklahoma City--25%; and Tulsa, Wichita, etc.--10%.[24]

As between Oklahoma City and Wichita Falls, Texas, the approximate boundary line falls just south of Lawton. Mr. Ralph Spangler of Harbour-Longmire in Oklahoma City reports a good business from Lawton in household furnishings.[25]

In computing the breaking point between Oklahoma City and Amarillo, Texas, it is interesting to note that this imaginary line falls in the State of Texas at a point 128 miles from Oklahoma City. This is quite possible since ordinarily trade does not follow political boundaries; although freedom in the exchange of goods across state lines may be restricted by artificial barriers set up through legislative action.

The above cities were chosen because they have sufficient population and are so located that they are in a position to compete with Oklahoma City in style and specialty lines. In any attempt to determine the extent of a particular trade center's sphere of influence it is principally the market for "shopping goods" that is measured. There are other specific limitations to the use of Reilly's "law". Delineation is based on only two factors--population and distance. There is little doubt but what distance and population are normally primary factors, but they are by no means the only ones. One may

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24 Interview of May 1, 1941.

25 Letter of April 27, 1941.

question the reliability of a technique based on population except when current census data are available. The use of "distance" in Reilly's formula is also subject to limitations. "In those situations where railway and bus traffic are important, perhaps too much weight is given the 'shortest distance by improved highway'".[26]

Reilly's formula only approximates breaking points. Trade territories overlap. "We cannot draw a line to show where the influence of one city stops and another beings."[27] Furthermore, this "law" only describes the cities in the vicinity of the breaking point.

If properly used, the "Law of Retail Gravitation" is a valuable device. Its simplicity is an asset; one weakness of many market research studies is that frequently they are made unscientific through the use of highly complicated yet meaningless procedures. Attention is called to the fact that Dr. Reilly speaks of his formula as a "law". While this is open to question, it is true that the technique arose out of a series of specific case studies. Before the final results were written up, a total of 132 cities had been carefully studied.

If used in the light of the above limitations, and in conjunction with other tested delineation techniques, Reilly's "law" can be a valuable aid in the measurement of retail trading areas.

Two such methods of particular worth have already been mentioned. Newspaper circulation may be used to trace the flow of trade; Dr. Reilly suggests the use of this as a means of checking on trade territories which have been tentatively set up through analysis of charge accounts.[28]

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26 Perham C. Nahl, op. cit., p. 225.

27 William J. Reilly, The Law of Retail Gravitation (New York, 1931), p. 59.

28 William J. Reilly, Methods for the Measurement of Retail Trade Territories, (Austin, 1928), pp. 6-7.

Circulation figures are readily available and at small expense. Best results are obtained when cities of approximately the same rank are observed; it is much more difficult to use newspaper circulation figures to study suburban areas because it is often impossible to get the data broken down by such small units. Then there is some question as to whether newspaper patronage follows trade dominance, or whether trade dominance is the result of newspaper influence. In either event, if the two are more or less coincident, then the use of newspaper circulation to describe trade territories is a valuable technique.

Another method of special significance is that of sponsoring a series of personal interviews in the field. A greater amount of information can be obtained in this way. The trained interviewer can find out many things about the consumers in a given area through observation and skillful questioning. There are definite limitations, however. The high cost is perhaps the chief difficulty. Then too, considerable preparation is necessary: Questionnaires must be drawn up, skilled interviewers and supervisors must be obtained, and a plan for reliable sampling must be worked out. In this respect the application of the "Law of Retail Gravitation" may be a valuable preliminary step; the most profitable concentration of calls will logically be made in the vicinity of "breaking points".

The personal interview technique may be criticized on the grounds that the answers received to the questions asked may be subject to bias of either consumer or person conducting the interview. Furthermore, replies received may be strongly weighted by opinions and judgments which render the data unreliable. In either case, the fault is not with the method, but in its application. A scientific approach is essential to success. The personal interview remains the most direct

and reliable means for securing market information of this nature. "The superiority of this technique over all others, in the delineation of trade areas for a particular center, is evident."[29]

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29 Perham C. Nahl, op. cit., p. 232.

PART VI

MOBILITY OF TRADE

A brief study has already been made of trading area delineation. The tendency for people to go to the larger shopping centers for shoes, clothing, furniture and the like, and to go the greatest distances for specialty products of high unit cost has also been reviewed. Another fundamental problem closely related to the determination of trade territorial boundaries is the attempt to measure the amount of business lost or gained by a particular city through "trade mobility". Techniques for this type of research are woefully lacking. One of the most recent solutions proposed is that worked out by Dr. Henry A, Burd, Professor of Marketing at the University of Washington Seattle, Washington.[30] Dr. Burd begins his analysis by setting up for a group of cities a series of "normal" or "standard" sales estimates on the theory that if one can determine the amount of retail business to which a city is entitled, then a comparison with actual performance will show the extent of loss or gain.

The "normal" which is set up is referred to as the "Sales Possibility", and is derived by comparing a given city with the state as a whole in strength of buying power.[31] Buying power is measured by an index based on three factors: Individual income tax returns, home telephones, and automobile registrations. This technique, with certain modifications, has been used here to study the mobility of trade for certain cities in Oklahoma. Income tax returns and the number of home

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30 Dr. Henry A. Burd, "Mobility of Retail Trade in the State of Washington," Proceedings of the Second Retailers' Institute, University of Washington, 1939, p. 10.

31 Ibid, p. 11.

telephones are both retained for purposes of constructing an index of purchasing power. Income tax returns reflect the financial status not only of local residents within the corporate limits but also all those people giving the city as a post office address. The home telephone is another factor that is widely used in quantitative market research. "The Literary Digest, who for years used the home telephone as the single basis for its estimate of buying power, contended that the home with a telephone was the best market for 95% of the products sold at retail."[32]

The third basic factor in the index used here is "the number of retail stores".

Thus, income tax returns give evidence of "ability-to-buy"; home telephones indicate that a certain amount has been spent; while, the number of retail stores in a city shows the places where purchasing power may be transformed into sales.

The procedure in the application of this method in determining trade mobility for certain Oklahoma cities is described briefly as follows. Thirty-eight cities with 5,000 inhabitants or more were chosen as a starting point. All data used pertain to the Year 1939. The average per capita sales for the aggregate group of cities amounts to $451.78 (total sales ÷ total population); this will be referred to as the "group average". Similarly, "group averages" (per capita) were computed for each of the three index factors. It may be summarized as follows:

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32 Ibid, p. 11.

	Per Capita "Group Average"
Total per capita sales	$ 451.78
Number of income tax returns	.0544093
Number of home phones	.1522011
Number of retail stores	.0166927

Then, from the list of 38 cities, the following were chosen for specific consideration: Seminole, Shawnee, Wewoka, Bartlesville, Enid, and Stillwater. In each case, individual per capita averages were computed for the 3 index factors. For example, the results for Seminole, Oklahoma appears as follows:

	Per Capita
Number of income tax returns	.063913
Number of home telephones	.079787
Number of retail stores	.020265

City per capita figures were then compared with the "group averages", and a percentage relationship established. For instance, in number of income tax returns per capita Seminole exceeds the group by 17.47%. In number of retail stores, Seminole is again high by 21.4%, but falls below the group in number of home telephones by 51.29%.

In order that all factors will be weighted the same, the three percentages are brought together in one simple average. For Seminole, this amounts to approximately 4% below the combined average for the 38 cities. This signifies that Seminole's "Sales Possibility" (per capita) is less than for the average city in the group. Seminole can reasonably expect total per capita sales of nearly 4% less than the $451.78. When the resultant dollar figure is multiplied by Seminole's population, the City is found to have a total "Sales Possibility" of $5,001,000 for 1939. Actual retail sales as revealed in the Census were $6,445,000 for the same period. It is an increase of 29%.

The retail merchants in Seminole enjoyed in 1939, 29% more volume than the "Sales Possibility" indicates. This answers, in part, the question as to how great a trade loss or gain has been realized by a given city.

Distribution of the total figure among the various types of stores also is made in this investigation. The basis for such a breakdown by commodity groups is found in the relationships between actual sales in these groups as seen in the Retail Census reports. For example, Food sales for the State amounted to 21.9% of total sales in 1939. Sales in the General Merchandise group accounted for 12.7%, etc. By applying these percentages to the total "Sales Possibility" figure, it is readily possible to allocate the proper amounts to each commodity group. Table XI compares "actual" and "Sales Possibility" figures for the eleven types of business found in the Retail Census.

The charts which follow (Plates 7, 8, 9, and 10) show graphically the application of the "Sales Possibility" technique to the five specific cities chosen for investigation. Two charts are presented for Seminole, one showing dollar sales, the other expressing the same relationship in terms of percentages (see Plate 7). For the other four cities, only the percentage charts are included.

How nearly these charts present an accurate picture of conditions in the six cities is not a matter that can be settled by formula or mere mechanical tabulation. It is believed that reliability might have been increased in this particular analysis had it been possible to use as a part of the buying power index the number of passenger automobiles. (Unfortunately, in Oklahoma Automobile registrations are not filed by cities). By increasing the size of the index base or sample, minor variations in any one factor would have tended to more nearly balance

TABLE XI

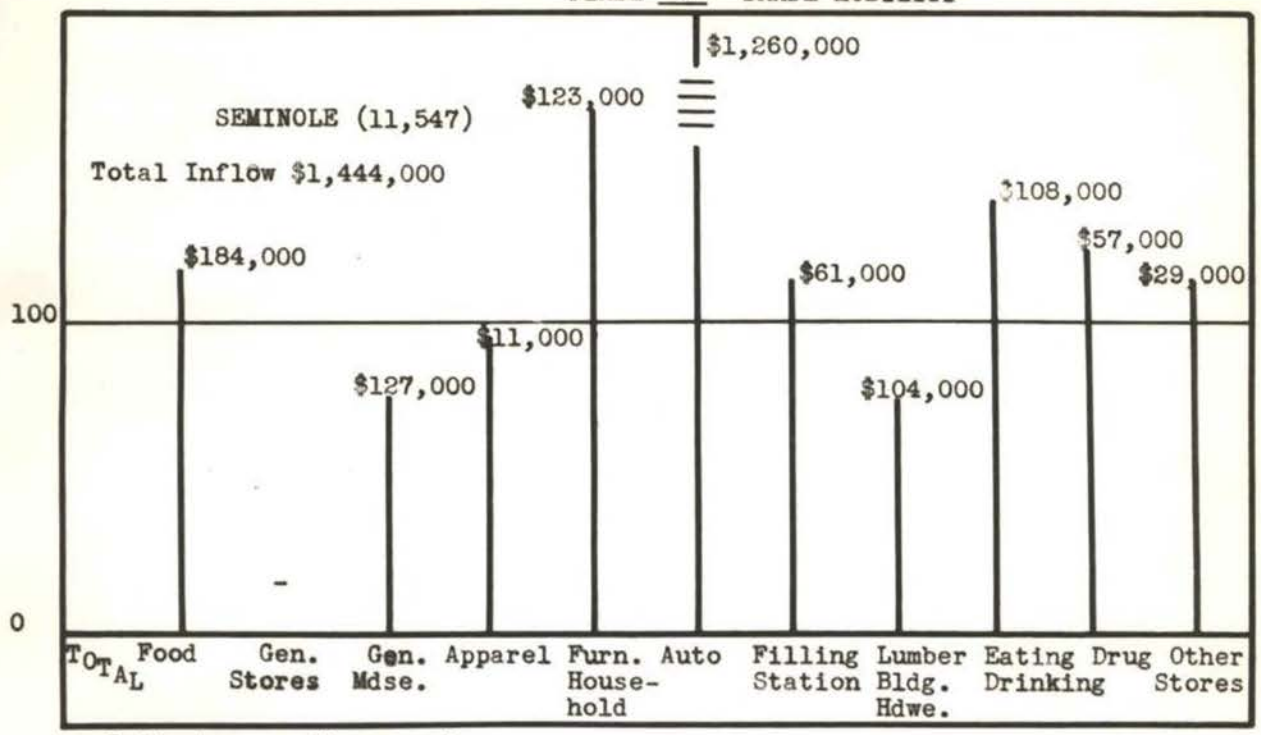
COMPARISON BY COMMODITY GROUPS--SEMINOLE--1939

Commodity Group	(I) Actual Sales	(II) "Sales Possibility"	I ÷ II (%)
Food	$1,279,000	$1,095,000	117%
General Stores	-		
General Merchandise	508,000	635,000	80%
Apparel	294,000	305,000	96%
Furniture, Household, etc.	298,000	175,000	170%
Automotive	2,205,000	945,000	233%
Filling Stations	521,000	460,000	113%
Lumber-Bldg.-Hardware	391,000	495,000	79%
Eating and Drinking	368,000	260,000	142%
Drug Stores	307,000	250,000	123%
Other Stores	247,000	245,000	112%

- Indicates no figures given

out. The weakness of the index used can be seen in further reference to Seminole. Seminole dropped below the "group average" irrespective of the fact that a very favorable showing was made in two out of the three indicators used. Unusually low per capita rating for "number of home phones" overpowered the other two factors. Here, however, the small per capita showing in number of phones does not reflect so much a lack of purchasing power as it does the general nature of the area. If such is not the case, then it is difficult to explain the fact that Seminole had the highest per capita sales in the Automotive group for the state.

PLATE VII TRADE MOBILITY



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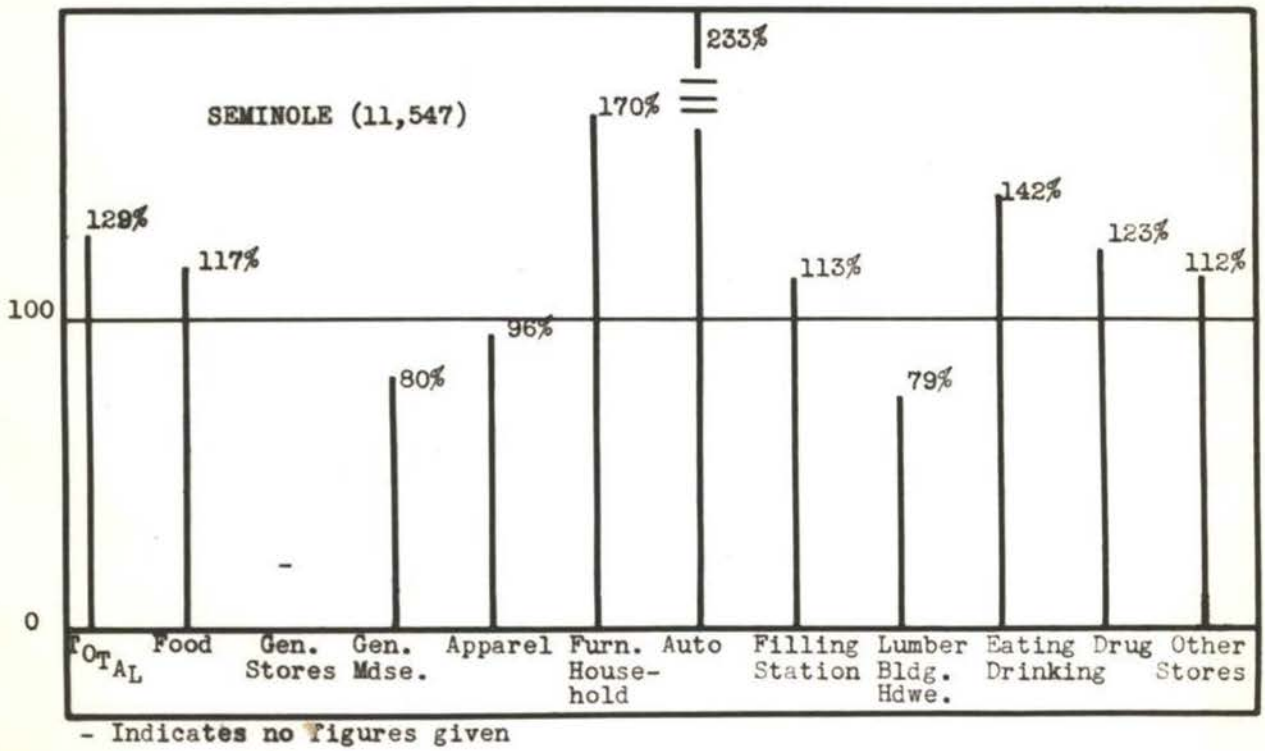

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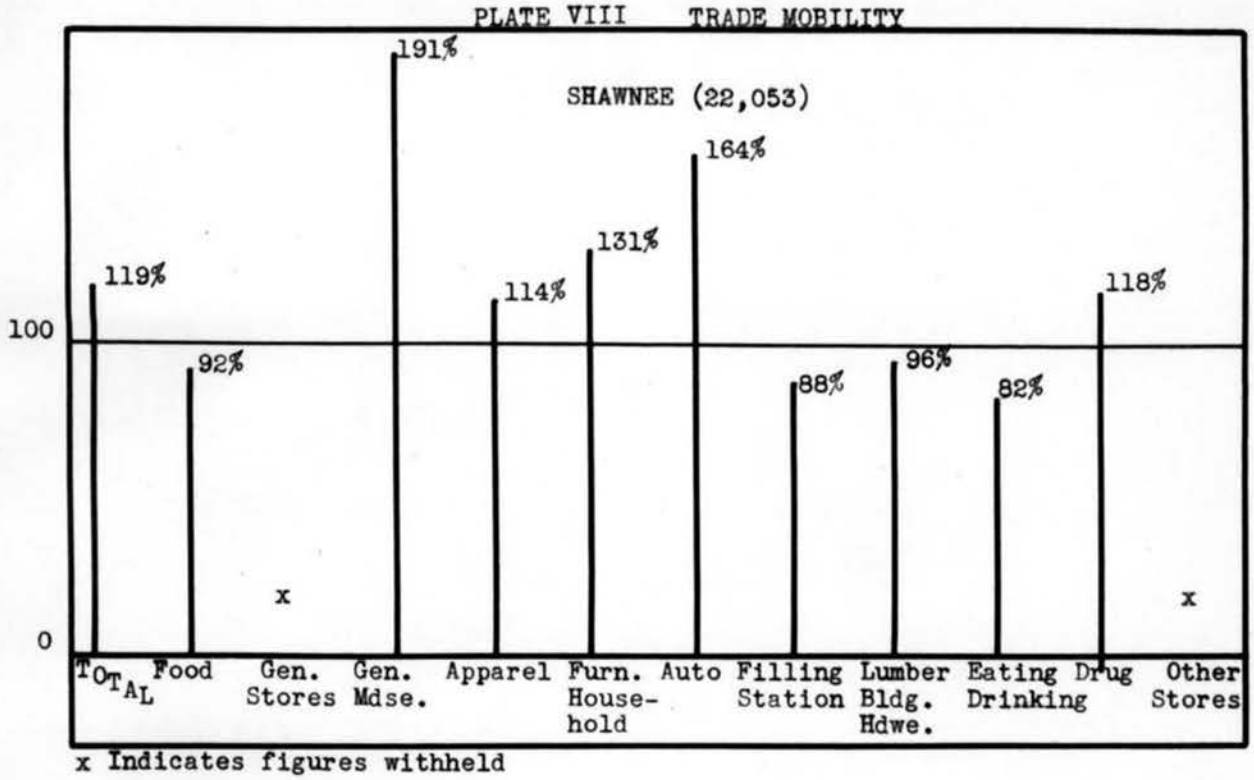
Source: Table XI

PLATE VIII TRADE MOBILITY



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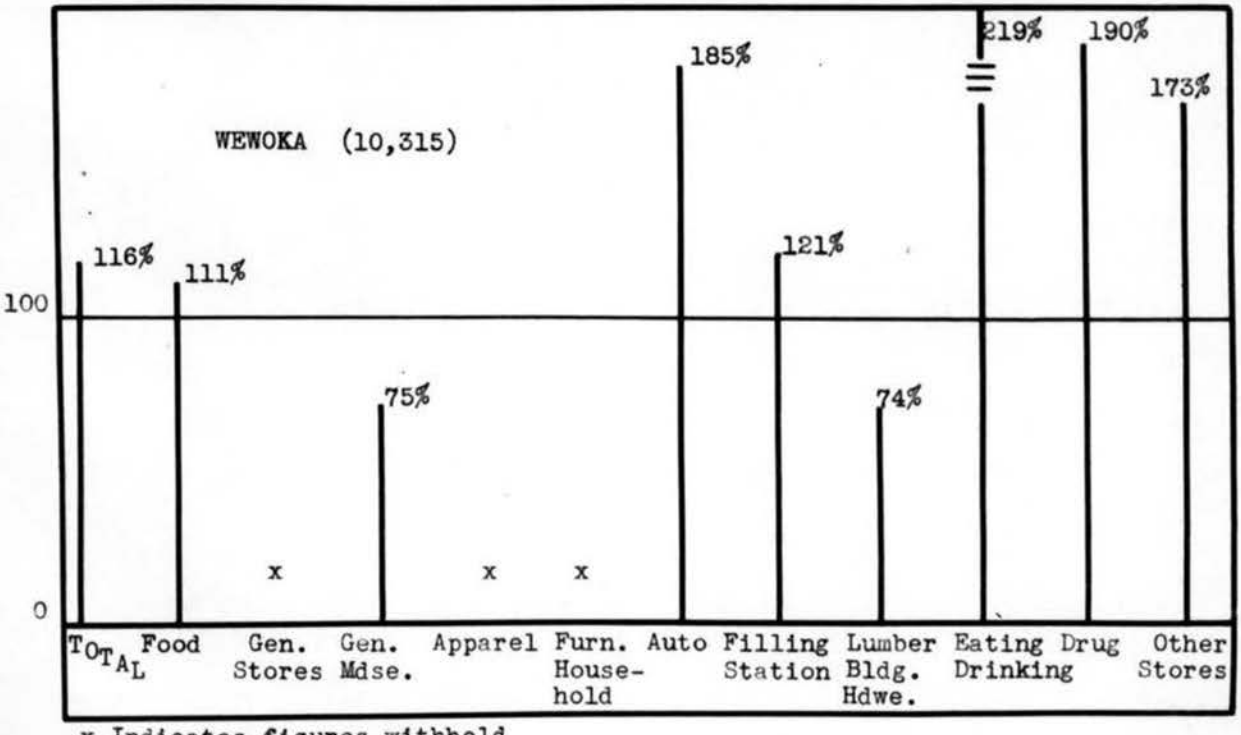

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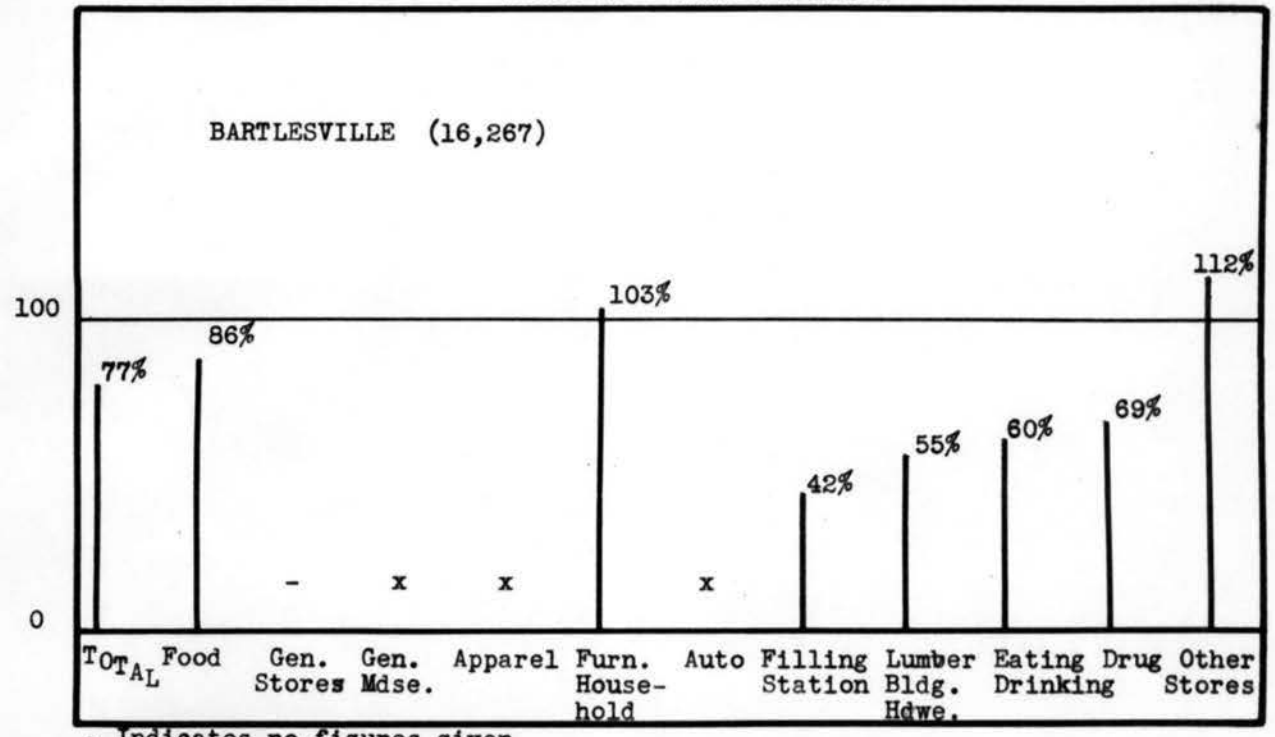
PLATE IX TRADE MOBILITY



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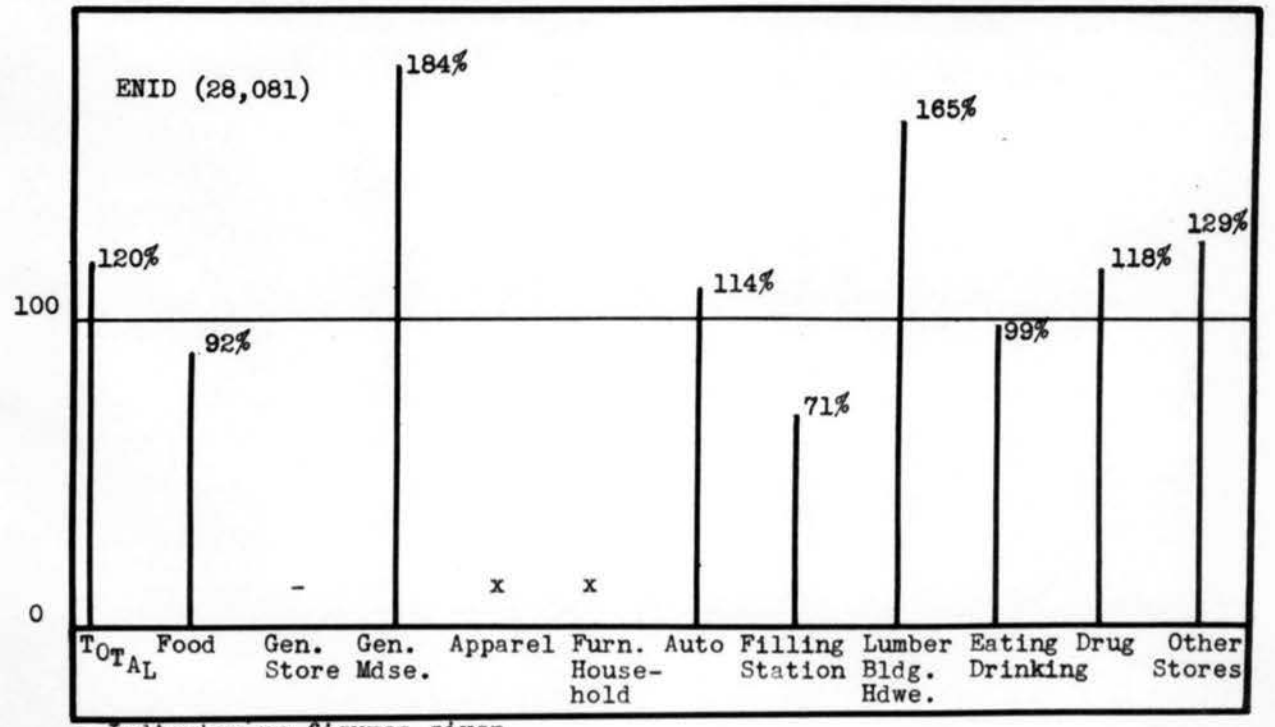

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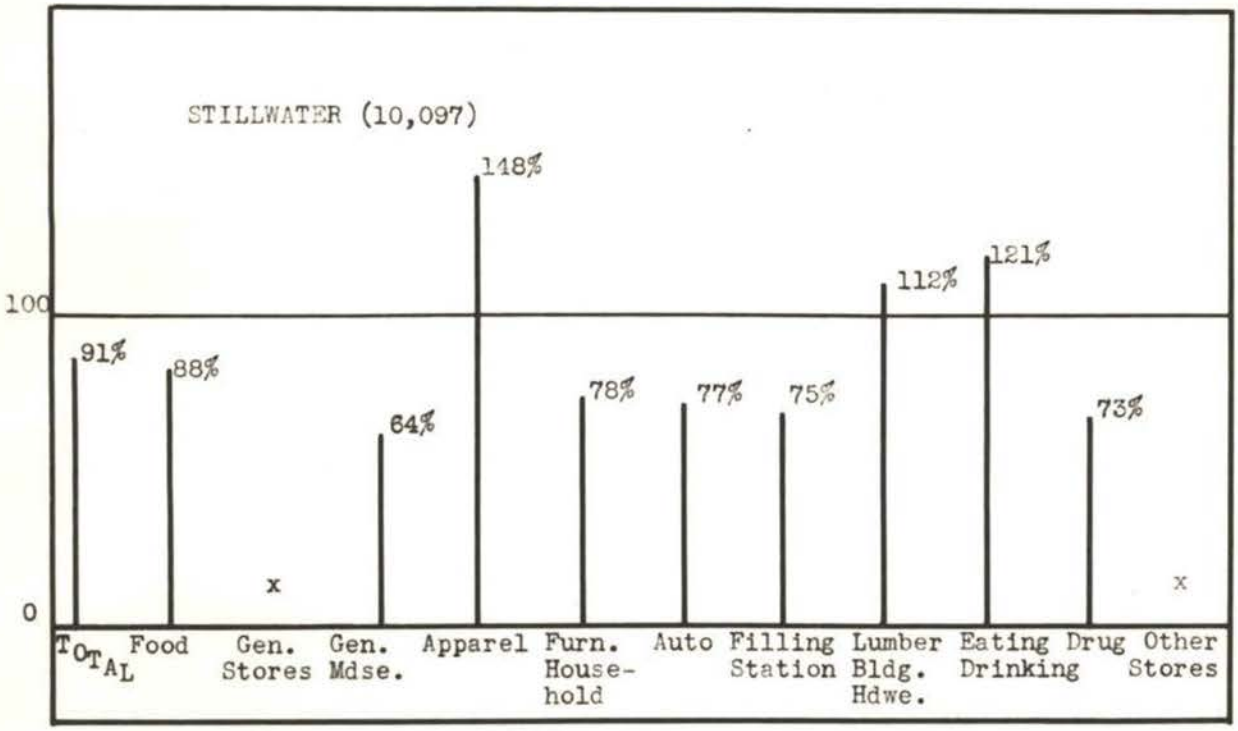
PLATE X TRADE MOBILITY



x indicates figures are withheld

Perhaps for the hundreds of transient oil laborers and their families in the Seminole Oil Field the automobile has partially taken the place of the telephone. At least a more accurate picture of the true situation would have been presented had the index base been expanded to include number of automobile registrations. The amount of census information available is steadily increasing from year to year. As more data are assembled and made public, research techniques can be expected to show real progress.

If merchants or civic groups in any one of the six cities selected for analysis find, upon examination, that the charts do reveal conditions as they exist, then this type of investigation can perhaps be helpful to them in planning future activities.

PART VII

CONCLUSIONS

In the investigation an attempt has been made to survey retail trade in Oklahoma as of 1939. Two primary trading centers were found to dominate the state--Oklahoma City, and Tulsa. These two cities account for 15% of the population and approximately 31% of total retail sales volume. Enid is the most important secondary shopping center in the state.

The survey has been limited to a breakdown of sales data, for the most part. However, additional opportunities for the profitable use of other census information were cited. Emphasis rests on trade analysis methods, for the purpose of showing what may be done along the lines of market research with the information that is available.

A breakdown of sales data by counties, and by cities of 5,000 population and over has been made. Per capita sales averages were computed in order to facilitate comparisons. Income tax returns were shown to give a partial indication of the relative purchasing power in observed areas. Specific counties and cities were chosen for more detailed study. Wide differences were found to exist among the various political units (cities and counties), both in total per capita sales and in sales by particular types of business. The tendency for trade to flow from the smaller to the larger cities for the purchase of style goods and high-priced specialty products was in evidence in the General Merchandise and Apparel groups. The fact that sales data in so many instances are not disclosed proves to be a serious handicap to interpretation and generalization.

Limitations to the methodology used have been made known along with the values to be gained. All along it has been the author's intention to use an approach which would best acquaint merchants and civic groups with the opportunities for and values of retail trade research. The justification for any survey of this kind lies in its contribution to more effective and profitable business management.

The field of trading area delineation was explored in a brief way with the illustration of Reilly's "Law of Retail Gravitation" through its application to Oklahoma City's trade territory. The merchant who is able to define his profitable trade territory, who is cognizant of population shifts, and who is familiar with the general trade situation in his own and neighboring shopping centers has a marked advantage in an increasingly complex and competitive business world. Such knowledge enables him to coordinate advertising and other sales promotion efforts, and to direct them to maximum advantage. He may find it wise to withdraw sales effort from certain areas which are found to be more effectively served by other trade centers. Or, a study of a particular district may reveal new potential customers not previously considered in the sales campaign.

Attempts to measure the mobility of trade introduce something rather new in the field of trade analysis. Irrespective of the criticism of preliminary techniques employed, it is a progressive development, and one which will increase in value as accepted procedures replace trial and error tactics.

Trade studies by civic groups are worthwhile. When certain weaknesses are disclosed in the local trade situation, concerted action by the group can be beneficial to everyone. The trade territory for any

city is determined by the combined influence of all merchants. The strengthening of one business may well add profits to many more.

In conclusion the author wishes to leave this reminder--that the field of merchandising is subject to constant change. Fashions move rapidly, populations shift, and the amount and nature of competition fluctuates. The retail merchant of today must make periodic checks on his relative position in the marketing area so that he may continually adjust his business to meet the changing needs of a dynamic economic order.

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