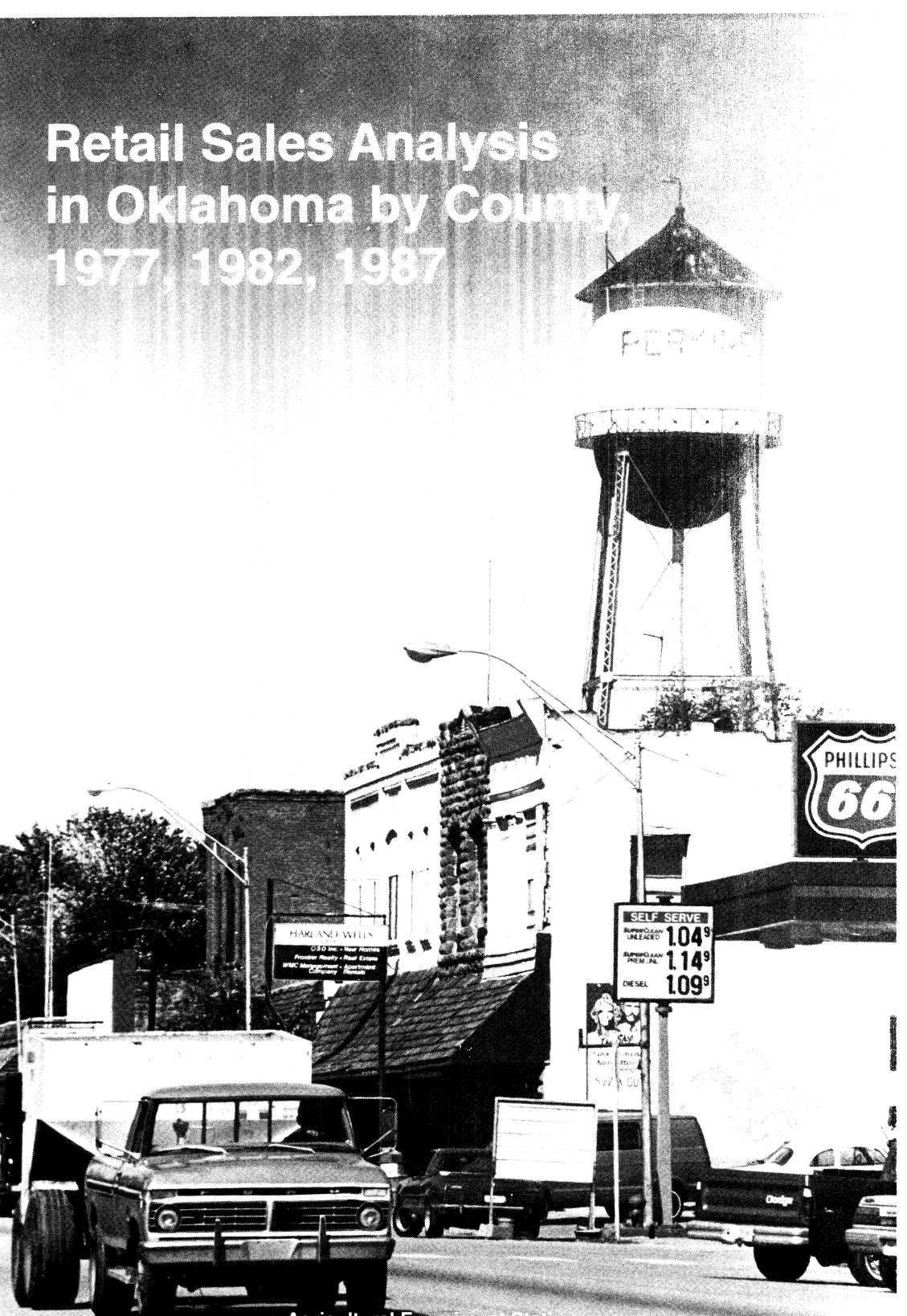
Retail Sales Analysis in Oklahoma by County, 1977, 1982, 1987



Agricultural Experiment Station
Division of Agricultural Sciences and Natural Resources • Oklahoma State Univ
Bulletin B-801 October 1991

RETAIL SALES ANALYSIS IN OKLAHOMA BY COUNTY, 1977, 1982, 1987

Mike D. Woods *

* Professor and Extension Economist, Department of Agricultural Economics, Oklahoma State University. Appreciation is extended to Gina Sposato and Priscilla Milam for data manipulation and graphics.

Research conducted under Oklahoma Experiment Station Project No. H-2011.

Table of Contents

Introduction 1
Objectives 1

Review of Retail Trade Analysis Literature 1

Methodology and Data Sources 2

Results 4
Pull Factors by County 4
Retail Trade Trends by Economic and Social Characteristics 8

Business Development Strategies 12

Summary 15

References 15

Introduction

Oklahoma has been concerned with all aspects of economic development for the past several years. Creating new jobs and additional income is of concern to rural communities and urban areas alike. Often, as Warner (1988) notes, retailing is viewed as a "service" sector dependent on the "basic" sectors such as oil, manufacturing, and agriculture. Export sectors produce goods and services which are sold outside the local or regional economy. Service sectors tend to circulate existing local dollars rather than attracting "new" outside dollars. The retail sector is important, though, as retail activity can reflect the general health of a local economy. Retail sales also produce sales tax dollars which support municipal services. Many local communities are promoting a "shop at home" campaign to keep local retail dollars in the community. It will not be possible to stop all out-of-town spending or sales leakages for a local economy. Analysis of retail trade trends will allow identification of emerging retail trade centers and areas for potential growth or decline.

Objectives

Oklahoma's economic situation has changed in the 1980s and some counties have improved in retail trade activity while others have lost ground. The general objective of this study is to analyze retail sales trends in Oklahoma by county. Specifically, the study will:

1. Analyze Oklahoma counties in terms of retail trade trends and separate county retail trade trends by sources of basic economic activity; and

2. Review retail trade activities and small business development strategies available to local communities.

Review of Retail Trade Analysis Literature

Regional economists have recently begun analyzing the retail trade sector in new and different ways. No single analytical technique can provide all the answers for all community concerns. *Outshoppers*, consumers buying out of the area, or sales leakages, are described by Anderson and Kaminsky (1985) from a regional perspective using survey data. Joint efforts by local merchants are presented as one possible solution to the loss of sales by outshoppers. Fisher and Woods (1987) describe a survey approach to identify sales leakages and opportunities for improvement. Often, however, surveys are time-consuming or cost-prohibitive.

Analysis of secondary data provides a useful alternative and/or supple-

mentary technique to surveys. Early work by Husteddle, Shaffer, and Pulver (1984), and Stone and McConnon (1984), utilized secondary sales tax, population and income data to analyze local (city and/or county) retail trade trends. *Trade area capture* (see page 3) estimates were calculated to tell how many customers were drawn to a community (or county) to shop for retail goods in general or to shop for specific types of products. *Pull factors* are additional estimates describing the level or portion of customers a community/county draws from outside its boundaries. These retail trends can be analyzed over time and comparisons presented by city/county size, location, etc.

Since the initial work by Husteddle, et al. and Stone and McConnon, several agricultural economics departments have produced statewide trade area capture and pull factor estimates by city or county. For example, Harris (1985) developed pull factors for Nevada counties to demonstrate the necessary calculations; Mortensen and Leistritz (1988) compared trends in retail sales and pull factors over the period 1980 to 1986 in North Dakota, and Deller and McConnon (1989) analyzed trade area capture figures for Maine counties in 1982 and 1988. Similar analysis has not been conducted for Oklahoma and, if completed, would add to the knowledge base regarding economic development options and retail trade trends in Oklahoma. The following section of this report describes the methodology utilized in analyzing Oklahoma retail trade trends.

Methodology and Data Sources

A trade area analysis model frequently used is "trade area capture" (Harris, Deller and McConnon, Husteddle, et al.). Trade area capture is calculated by dividing a county's actual retail sales by state per capita retail sales. The figure is adjusted by income differences between state and county. The specific equation is:

$$TAC_c = \frac{RS_c}{\frac{RS_s}{P_s} \times \frac{PCI_c}{PCI_s}}$$

Where:

TAC_c=Trade Area Capture by County,
RS_c=Actual Retail Sales by County,
RS_s=Actual Retail Sales for the State,
P_s=State Population,
PCI_c=Per Capita Income by County, and
PCI_s=Per Capita Income for the State.

Trade area capture estimates incorporate both income and expenditure factors which may be influencing retail trade trends. An underlying assumption of the trade area capture estimate is that local tastes and preferences are similar to that of the state as a whole. If a trade area capture estimate is larger than county population, then two explanations are possible: 1) the county is attracting customers from outside its boundaries or 2) residents of the county are spending more than the state average.

Trade area capture estimates can be utilized to estimate the amount of sales going to outside consumers. To do this, a pull factor is derived using trade area capture and county population:

$$PF_c = \frac{TAC_c}{P_c}$$

Where:

PFc=County Pull Factor, and
Pc=County Population.

A pull factor of 1.0 means the county is drawing all its customers from within its boundaries but none from the outside. A pull factor of 1.50 means the county is drawing non-local customers equal to 50 percent of the town population. A pull factor of less than one means the town is not capturing the shoppers within its boundaries or they are spending relatively less than the state average.

Pull factors were calculated for 1977, 1982, and 1987 for Oklahoma counties. Data used were retail sales as reported by the Census of Retail Trade. Population data were obtained from the Oklahoma Employment Security Commission and were consistent with census data. Income data were taken from Bureau of Economic Analysis estimates for counties.

County retail trade trends are influenced greatly by economic and social characteristics existing in the county. Pull factors were grouped by county social/economic characteristics in order to analyze retail trends influenced by specific economic factors. The county classification scheme utilized in this study is from data files developed by Economic Research Service, U.S. Department of Agriculture (Ross and Green). Several national reports have been published utilizing this economic, social and demographic data. Non-metropolitan counties across the U.S. were classified and analyzed by policy-relevant variables. The following non-metropolitan groups emerged from the study (Bender, et al.):

Farming-Dependent Counties. Farming (production activity) contributed a weighted annual average of 20 percent or more of total labor and proprietor income over the years 1975-1979.

Manufacturing-Dependent Counties. Manufacturing contributed 30 percent or more of total labor and proprietor income in 1979.

Mining-Dependent Counties. Mining contributed 20 percent or more to total labor and proprietor income in 1979.

Specialized Government Counties. Government activities contributed 25 percent or more to total labor and proprietor income in 1970.

Persistent-Poverty Counties. Per capita family income in the county was in the lowest range of all counties studied in each of the years 1950, 1959, 1969, and 1979.

Federal Lands Counties. Federal land was 33 percent or more of the land area in a county in 1979.

Destination Retirement Counties. For the 1970-1980 time period, net immigration rates of people aged 60 or over were 15 percent or more of the expected 1980 population aged 60 or over.

Results

Pull Factors by County

Pull factors for all Oklahoma counties for the years 1977, 1982, and 1987 are shown in Table 1. These are the three most current years for which census of retail trade data are available. The six largest pull factors for 1987 are for Washington, Oklahoma, Tulsa, Garfield, Cimarron, and Kay counties. The pull factor of 2.032 for Washington County can be interpreted to mean Washington County draws non-local customers equal to twice the county population. The sizes of the Oklahoma, Tulsa, and Washington counties pull factors are not surprising, since these are major metropolitan areas of the state. Garfield, Cimarron, and Kay counties all seem to be successful in capturing outside customers, although Cimarron County's market share has grown since 1977, while Garfield County's share has remained relatively stable. The value of Kay County's pull factors has actually declined.

Figures 1, 2, and 3 present county pull factors for the years 1977, 1982, and 1987, respectively. Counties are coded on the map by the size of pull factor. In general, a few metropolitan counties (Oklahoma, Tulsa, and Washington) are consistently greater than 1.5. Other counties ranging from 1.0 to 1.5 appear to be good candidates for market centers to the surrounding rural counties.

TABLE 1: Oklahoma Pull Factors by County 1977, 1982, 1987

COUNTY	PULL FACTOR		
	1977	1982	1987
Adair	0.267	0.195	0.199
Alfalfa	0.469	0.915	0.692
Atoka	0.268	0.417	0.419
Beaver	0.491	0.374	0.388
Beckham	1.155	1.292	0.931
Blaine	0.652	0.756	0.478
Bryan	0.553	0.526	0.513
Caddo	0.531	0.642	0.471
Canadian	1.131	1.073	0.829
Carter	0.955	1.001	0.980
Cherokee	0.455	0.409	0.452
Choctaw	0.417	0.358	0.412
Cimarron	0.623	1.139	1.228
Cleveland	0.809	1.164	1.014
Coal	0.194	0.218	0.219
Comanche	0.623	0.657	0.833
Cotton	0.597	0.589	0.421
Craig	0.828	0.799	0.828
Creek	0.584	0.612	0.493
Custer	0.981	1.305	1.041
Delaware	0.374	0.301	0.449
Dewey	0.469	0.495	0.377
Ellis	0.743	0.715	0.560
Garfield	1.290	1.283	1.294
Garvin	0.704	0.814	0.649
Grady	0.701	0.720	0.656
Grant	0.484	0.828	0.576
Greer	0.395	0.343	0.329
Harmon	0.319	0.329	0.408
Harper	0.666	0.659	0.530
Haskell	0.483	0.513	0.470
Hughes	0.400	0.397	0.335
Jackson	0.628	0.798	0.883
Jefferson	0.498	0.410	0.366
Johnston	0.247	0.170	0.192
Kay	1.236	1.209	1.199
Kingfisher	0.840	1.054	0.774
Kiowa	0.605	0.664	0.630

TABLE 1 (continued)

COUNTY	PULL FACTOR		
	1977	1982	1987
Latimer	0.288	0.262	0.248
LeFlore	0.396	0.351	0.369
Lincoln	0.584	0.126	0.365
Logan	0.500	0.514	0.443
Love	0.346	0.337	0.507
Major	0.837	0.957	0.779
Marshall	0.597	0.594	0.449
Mayes	0.656	0.532	0.533
McClain	0.600	0.455	0.666
McCurtain	0.466	0.409	0.587
McIntosh	0.498	0.537	0.603
Murray	0.745	0.714	0.690
Muskogee	0.908	0.771	0.842
Noble	0.970	0.696	0.615
Nowata	0.459	0.410	0.385
Okfuskee	0.300	0.302	0.310
Oklahoma	1.596	1.682	1.667
Okmulgee	0.614	0.544	0.510
Osage	0.412	0.320	0.286
Ottawa	0.709	0.619	0.660
Pawnee	0.662	0.614	0.740
Payne	0.656	0.667	0.734
Pittsburg	0.573	0.563	1.005
Pontotoc	0.866	0.855	0.795
Pottawatomie	0.797	0.870	0.841
Pushmataha	0.375	0.265	0.355
Roger Mills	0.444	0.181	0.292
Rogers	0.708	0.593	0.553
Seminole	0.536	0.631	0.494
Sequoyah	0.405	0.347	0.424
Stephens	1.174	0.984	1.001
Texas	0.787	0.953	1.077
Tillman	0.539	0.421	0.423
Tulsa	1.867	1.642	1.606
Wagoner	0.265	0.244	0.229
Washington	1.829	1.493	2.032
Washita	0.409	0.493	0.334
Woods	0.887	1.129	1.023
Woodward	1.600	1.542	1.184

FIGURE 1. Oklahoma (County pull factors from 1977 census data)

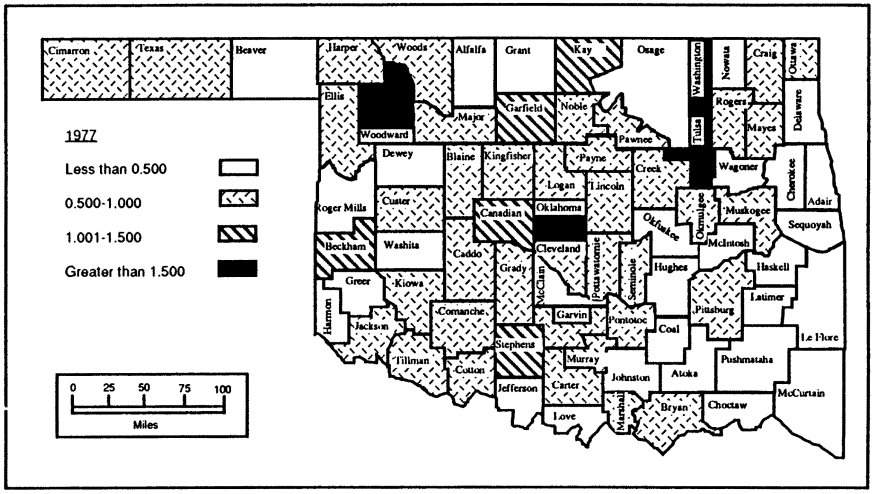


FIGURE 2. Oklahoma (County pull factors from 1982 census data)

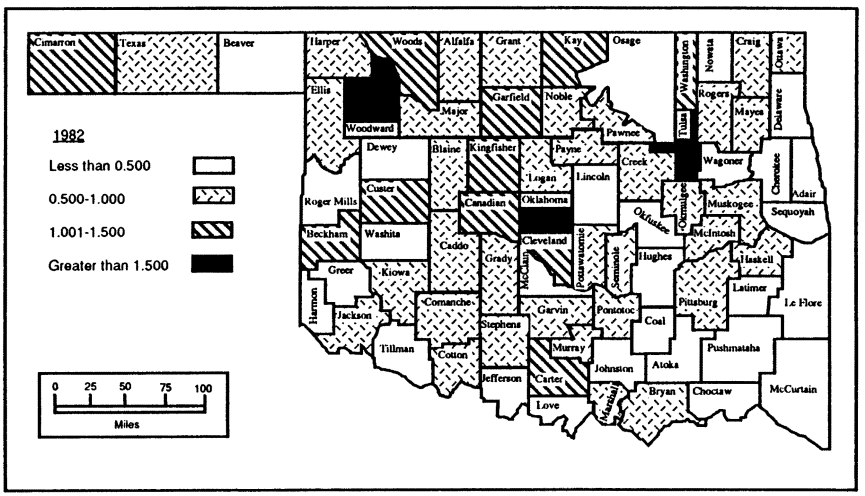


FIGURE 3. Oklahoma (County pull factors from 1987 census data)

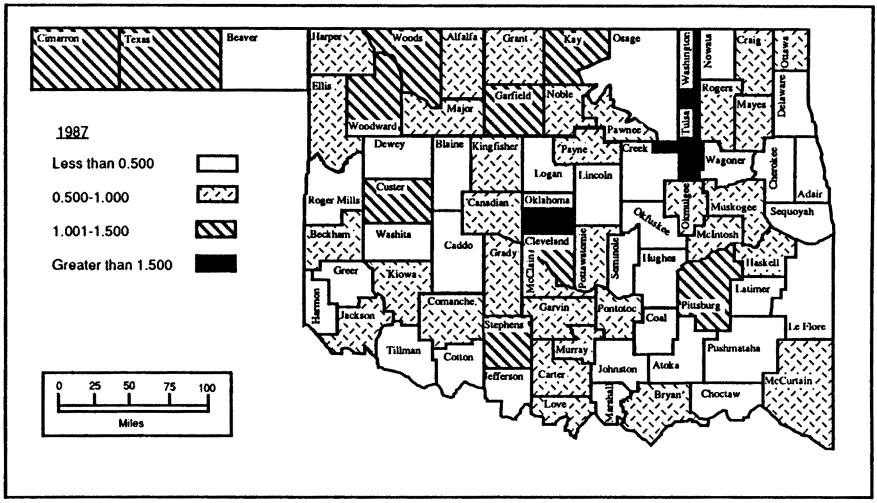


Figure 4 presents a very different picture of retail trade trends. Several southeastern counties have relatively low pull factors, but have had positive growth from 1977 to 1987. On the other hand, western counties tended to have specific counties gain in relative position while some with high pull factors are losing ground.

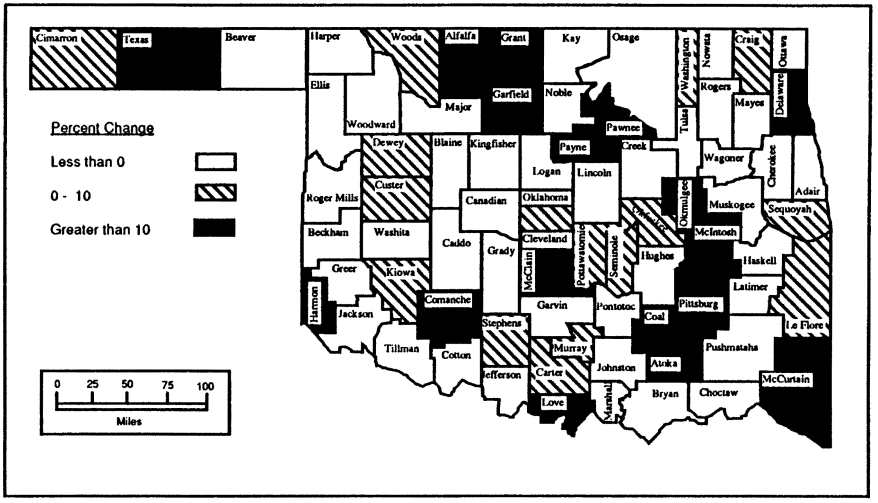
Retail Trade Trends By Economic and Social Characteristics

The seven county groups in the USDA study (Bender, et al.)included all but 370 of the 2,443 non-metropolitan counties in the U.S. (metro status is based on 1974 Office of Management and Budget designation). Nationwide there are 702 farming-dependent counties, 678 manufacturing-dependent counties, 200 mining-dependent counties, 315 specialized government counties, 242 persistent-poverty counties, 247 federal lands counties, 515 destination retirement counties, and 370 ungrouped counties. Overlaps were allowed and 22 percent of the counties fell in two of the seven groups, with six percent in three or more groups. Fifty-seven percent of the counties belong exclusively to only one group. Further detail regarding methodology and data sources is available in the references cited.

Farming-dependent counties in Oklahoma as defined by the USDA include Alfalfa, Beaver, Cimarron, Cotton, Dewey, Grant, Harmon, Harper, Jefferson, Kiowa, Roger Mills, Texas, Tillman, Washita, and Woods.

Counties designated as mining dependent are Beckham, Ellis, Garvin, Haskell, Kingfisher, Major, Nowata, Roger Mills, Seminole, Washington,

FIGURE 4. Oklahoma (Percentage change in pull factors, 1977-1987, from census data.)



and Woodward. Mining activity includes oil, natural gas, and other mineral extraction such as gravel. Manufacturing dependent counties in Oklahoma include Adair, Kay, McCurtain, Ottawa, and Stephens.

Oklahoma counties categorized in the USDA study as experiencing persistent poverty are Adair, Atoka, Coal, Delaware, Johnston, Latimer, McCurtain, McIntosh, Okfuskee, and Pushmataha.

Government counties depend upon some activity such as a university or military base for a large portion of income. These counties in Oklahoma include Atoka, Cherokee, Greer, Jackson, Johnston, Latimer, McIntosh, Murray, Okfuskee, Payne, Pittsburg, and Pushmataha.

Retirement counties are Adair, Blaine, Bryan, Cherokee, Coal, Delaware, Haskell, Johnston, Latimer, Lincoln, Logan, Love, Marshall, McIntosh, Nowata, Okfuskee, and Pushmataha. There were no Federal Lands counties in Oklahoma as defined by the USDA study.

The county pull factors were grouped by the USDA non-metropolitan county classification scheme. The Oklahoma county categories include farming, mining, manufacturing, persistent poverty, government, retirement destination, and ungrouped. Broad classifications, including all metropolitan and non-metropolitan, were also used. The average pull factor across the various categories is charted in Figure 5 through Figure 8. Figure 5 charts pull factors for metropolitan and non-metropolitan counties. Non-metropolitan counties demonstrate lower pull factors and thus lower outside consumer attraction.

Mining and farm dependent counties are highlighted in Figure 6. The sharp drop since 1982, for mining counties reflects the decline in oil prices and the resulting "oil patch bust". Note that farm dependent counties matched non-metropolitan counties in 1982, but have lost ground since. Also, despite the decline shown in mining dependent counties, their retail trade attraction is still greater than non-metropolitan counties in general.

Figure 7 presents major non-metropolitan county groups based on source of economic base. As noted before, mining counties pull factors are larger on average, although losing ground. Manufacturing dependent counties appear to have caught up with ungrouped counties. Note that ungrouped counties could be considered diversified with no single major source of employment or income. Falling below non-metropolitan counties in general are government dependent counties. However, these counties appear to be gaining ground.

The final Figure (8) includes all categories of counties. Poverty counties are included and are shown to trail all groups. The next smallest group is retirement destination counties, although both groups show slight increases. This is the same trend shown in Figure 4, since many of the poverty and retirement counties are in southeast Oklahoma.

One implication of these results is that the economic base of a county (and the related social characteristics) does affect the retail trade patterns in that county. Often, the best strategy to improve retail trade might be to strengthen the overall basic sectors of the economy. There will be specific opportunities for cities and towns within various counties, however. Also,

FIGURE 5. PULL FACTORS FOR OKLAHOMA COUNTIES

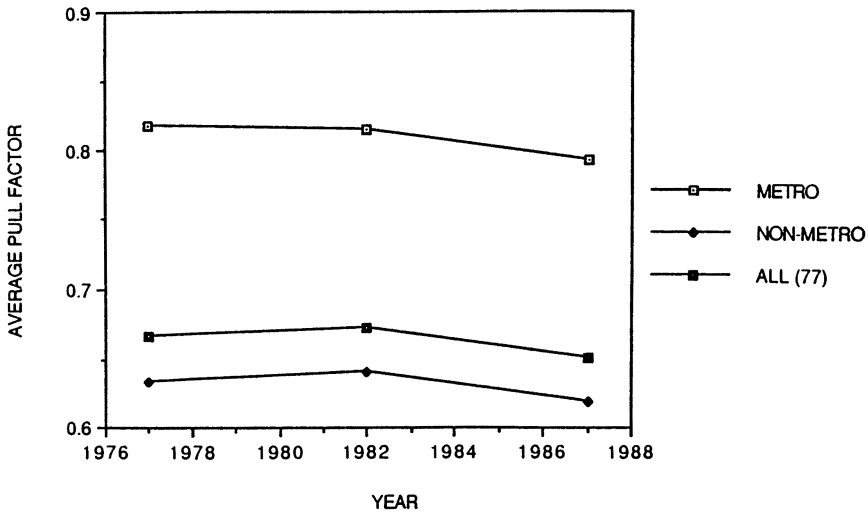


FIGURE 6. PULL FACTORS FOR OKLAHOMA COUNTIES

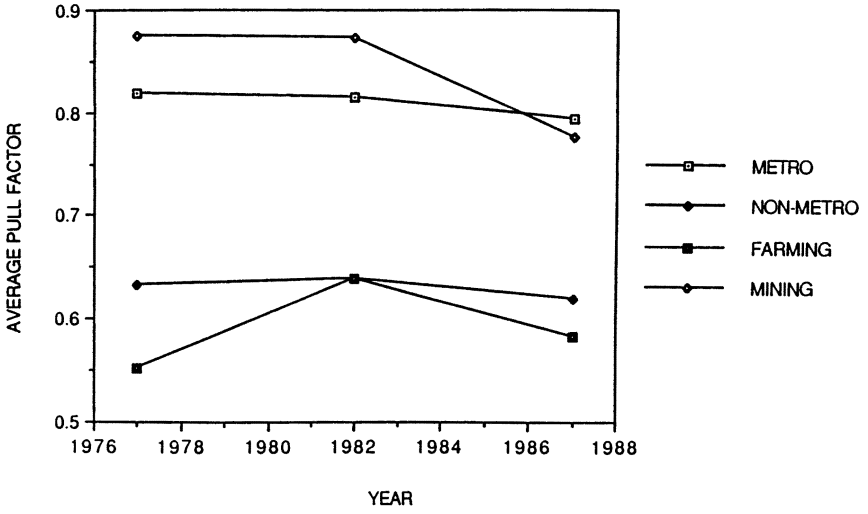


FIGURE 7. PULL FACTORS FOR OKLAHOMA COUNTIES

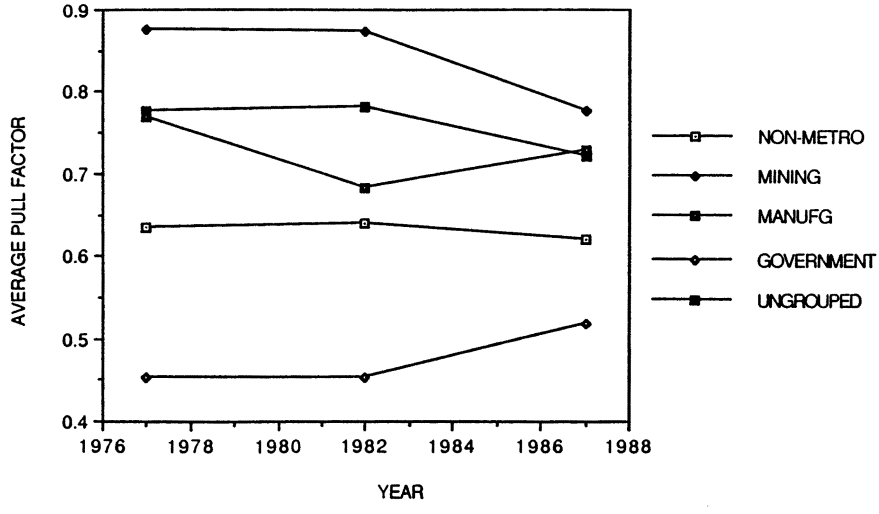
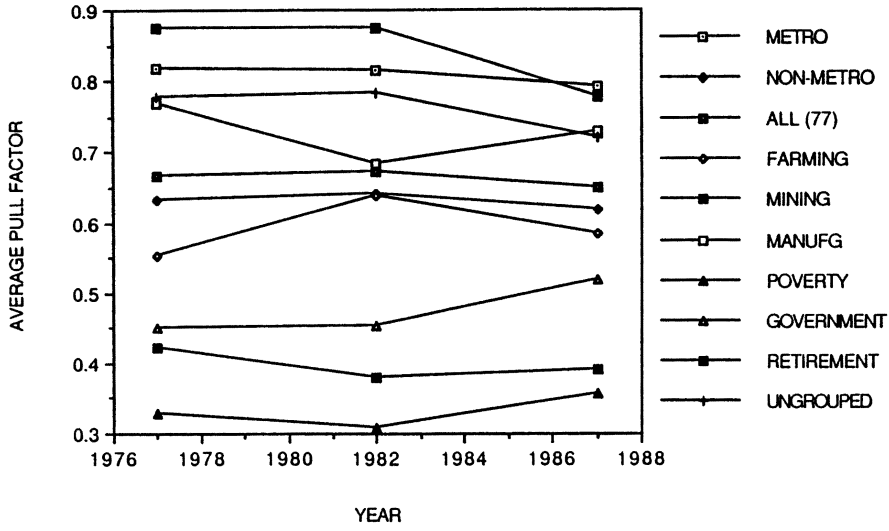


FIGURE 8. PULL FACTORS FOR OKLAHOMA COUNTIES



just because overall retail trade lags does not mean specific goods or services will not be successful.

Business Development Strategies

Retail trade trends reflect the overall health of a local economy. All outshopping or sales leakages cannot be stopped. Often, larger economic trends (State-National-Global) overwhelm retail opportunities. There are programs and actions which can assist retail trade activities, however.

Concerned leaders and business persons can focus on business development by forming a business assistance committee to begin implementing some of the assistance activities or working with the existing chamber of commerce. The following activities can improve the climate for business and show the community's commitment to support local business. They were in part developed by the Tennessee Valley Authority [3] and can be the foundation for a retail trade improvement program:

Analyze the local business sector to identify needs and opportunities to be pursued by the program. Businesses often do not have the resources to study the economy (local, regional, and national) and how they fit in. They need practical data and analysis that will help in their individual business decision making. In particular, economic analysis can identify voids in the local or regional market that can possibly be filled by expanding

or by new business. Examples of an analysis include the pull factor analysis reported here and consumer surveys to identify needs and opportunities.

In addition to economic analysis, information is useful on the needs or problems of individual businesses and of the business district as a whole. As needs are identified, action can be taken to improve the situation. For example, a business may need help in preparing a plan to qualify for financing. Perhaps the appearance of buildings and vacant lots is detrimental to attracting people to the business district, or perhaps poorly coordinated store hours is a hindrance. Once these needs are identified, a business development program can initiate action. A periodic survey of local business needs can form the basis of a business development program workplan.

Provide management assistance and counseling to improve the efficiency and profitability of local businesses. Many local businesses are owner-operated, earn low profits, and have difficulty obtaining financing. Businessmen often need additional education and training in improving business management skills like accounting, finance, planning, marketing, customer relations, merchandising, personnel management, or tax procedures. This assistance and counseling can be provided through seminars and one-to-one aid. Sources of assistance include the Service Corps of Retired Executives (SCORE), the Small Business Development Center program sponsored by the Small Business Administration, universities, vocational-technical centers, and the Cooperative Extension Service. The intent is to aid small businesses in becoming more competitive.

Assist new business start-up and entrepreneurial activity by analyzing potential markets and local skills and matching entrepreneurs with technical and financial resources. Establishing a business incubator is another way to assist new businesses. An incubator is a building with shared space or service requirements that reduce start-up costs for new businesses. Incubators have been successful in many locations, but are not the right answer for every town. A successful incubator must have long-range planning, specific goals, and good management in order to identify markets and entrepreneurs.

Promote the development of home-based enterprises. Home-based work by individuals is increasing because of the flexibility offered, and because in some areas it may be the most realistic alternative. Home-based enterprises can include a variety of full or part-time occupations such as food processing, quilting, weaving, crafts, clothing assembly, mail order processing, or assembling various goods.

Provide assistance in identifying and obtaining financing. Small businesses often have difficulty obtaining long-term bank financing for expansion because they lack assets to mortgage, cannot obtain affordable terms or rates, or cannot present a strong business plan. A business development program can identify public loan programs and package them with private loans to make projects feasible.

Provide assistance in undertaking joint projects such as:

- improving appearance
- improving management of the commercial area
- building renovation
- preparation of design standards
- joint promotions and marketing
- organizing independent merchants
- special activities and events
- fund raising
- improving customer relations
- uniform hours of operation

Undertaking these projects requires cooperation, organization, and efficient management. These projects can improve a business district's competitive position and attract new customers. The Oklahoma Main Street Program provides many good examples of towns working together for economic revitalization. The Main Street Program developed by the National Trust for Historic Preservation, is built around the four points of organization, design, promotion, and economic restructuring.

Develop a one-stop permit center. There is great deal of red tape involved in starting a business including registering a name, choosing a legal form, and determining what licenses, permits, or bonds are needed. Other concerns include internal revenue service requirements, unemployment insurance, sales tax permits, and state withholding taxes. Having this type of information available in one location will make life easier for potential businesses. The Oklahoma Department of Commerce publishes **A Guide for Small Business** which addresses many of these issues.

Involve active local organizations and the media. Groups such as the chamber of commerce, civic clubs, etc. can encourage a healthy business climate. The local media can also support small business and aid in developing awareness of the importance of local business.

Summary

Retail trade trends vary across Oklahoma counties. Some counties are increasing market share while others are losing. Often, economic forces are at work which are beyond the control of main street businesses. There are business development strategies which can be pursued locally to strengthen the retail sector of the economy. Future research activity in the area of retail trade analysis should include analysis by community as well as by county. Also, retail trade trends and market share analysis for specific retail goods and services will yield useful information for existing or potential businesses.

References

Anderson, Carol H. and Mary Kaminsky. "The Outshopper Problem: A Group Approach for Small Business Retailers," *American Journal of Small Business,* Volume 9, Number 4, Spring, 1985, pp. 34-35.

Bender, L. D., B. L. Green, T. F. Hady, J. A. Kuehn, M. K. Nelson, L. B. Perkinson, and P. J. Ross. *The Diverse Social and Economic Structure of Non-metropolitan America.* U.S. Department of Agriculture, Economic Research Service, Rural Development Research Report Number 49, September, 1985.

Deller, Steven C. and James C. McConnon, Jr. "Trade Area Analysis of Maine," *The Main Business Research Report.* Volume 1, Number 2, September, 1989.

Fisher, Dennis and Mike D. Woods. "Consumer Opinion Surveys and Sales Leakage Data: Effective Community Development Tools," *Journal of the Community Development Society*, Volume 18, Number 2, 1987, pp. 69-80.

Harris, Thomas R. "Commercial Sector Development in Rural Communities: Trade Area Analysis." *Hard Times: Communities in Transition.* Western Rural Development Center, WREP 90, September, 1985.

Husteddle, R., R. Shaffer, and G. Pulver, *Community Economic Analysis: A How-To Manual.* Ames, Iowa. North Central Regional Center for Rural Development, 1984.

Mortensen, Timothy and F. Larry Leistritz. "Changes in Retail Sales, Population, and Pull Factors, 1980 and 1986." North Dakota State University, March, 1988.

Oklahoma Employment Security Commission, Office of Economic Analysis. *Population Estimates, April 1, 1980-July 1, 1987.* September, 1988.

Stone, K. and J. C. McConnon, Jr. "Trade Area Analysis Extension Program: A Catalyst for Community Development," *Proceedings of Realizing Your Potential as an Agricultural Economist in Extension*. Ithaca, New York, August, 1984.

Tennessee Valley Authority. "Focus on the Future," Workbook provided at RedArk Development Authority Symposium on Economic Development Leadership, Ada, Oklahoma, June, 1986.

U.S. Department of Commerce, Bureau of the Census, **1977 Census of Retail Trade**. Geographic Area Series, Oklahoma, RC77-A-37, October, 1979.

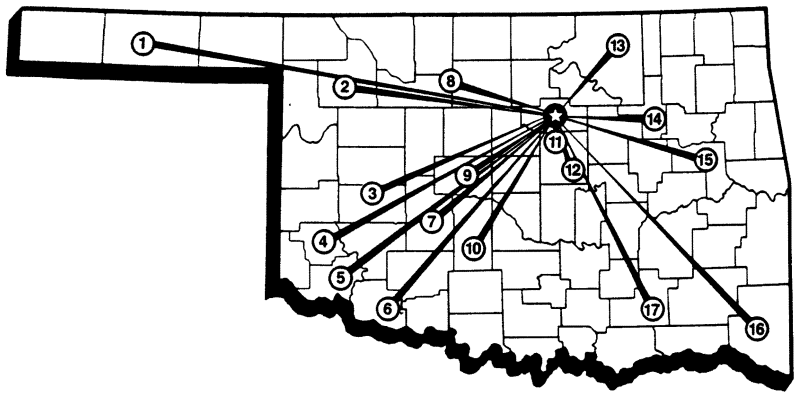
U.S. Department of Commerce, Bureau of the Census. *1982 Census of Retail Trade*. Geographic Area Series, Oklahoma, RC82-A-37, October, 1984.

U.S. Department of Commerce, Bureau of the Census. *1987 Census of Retail Trade*. Geographic Area Series, Oklahoma, RC87-A-37, August, 1989.

U.S. Department of Commerce, Bureau of Economic Analysis. "Personal Income by Major Source and Earnings by Major Industry," Regional Economic Information System, 1977, 1982, 1987.

Warner, L. "Retailing, Public Policy, and Economic Growth," *State Policy and Economic Development in Oklahoma: 1988*. Oklahoma 2000, Inc., Oklahoma City, Oklahoma, January, 1988, pp. 51-57.

THE OKLAHOMA
AGRICULTURAL EXPERIMENT STATION
System Covers the State



Main Station – ***Stillwater and Lake Carl Blackwell***

1. **Panhandle Research Station** – ***Goodwell***
2. **Southern Great Plains Field Station** – ***Woodward***
3. **Marvin Klemme Range Research Station** – ***Bessie***
4. **Sandyland Research Station** – ***Mangum***
5. **Irrigation Research Station** – ***Altus***
6. **Southwest Agronomy Research Station** – ***Tipton***
7. **Caddo Research Station** – ***Ft. Cobb***
8. **North Central Research Station** – ***Lahoma***
9. **Forage and Livestock Research Laboratory** – ***El Reno***
10. **South Central Research Station** – ***Chickasha***
11. **Agronomy Research Station** – ***Perkins***
    Fruit Research Station – ***Perkins***
12. **Pecan Research Station** – ***Sparks***
13. **Pawhuska Research Station** – ***Pawhuska***
14. **Vegetable Research Station** – ***Bixby***
15. **Eastern Research Station** – ***Haskell***
16. **Kiamichi Forestry Research Station** – ***Idabel***
17. **Wes Watkins Agricultural Research and Extension Center** – ***Lane***

Reports of Oklahoma Agricultural Experiment Station serve people of all ages, socio-economic levels, race, color, sex, religion and national origin. This publication is printed and issued by Oklahoma State University as authorized by the Dean of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of $352.85 for 400 copies. #1035 1091 FC.