Retail Trade Area Analysis

Cavalier
North Dakota

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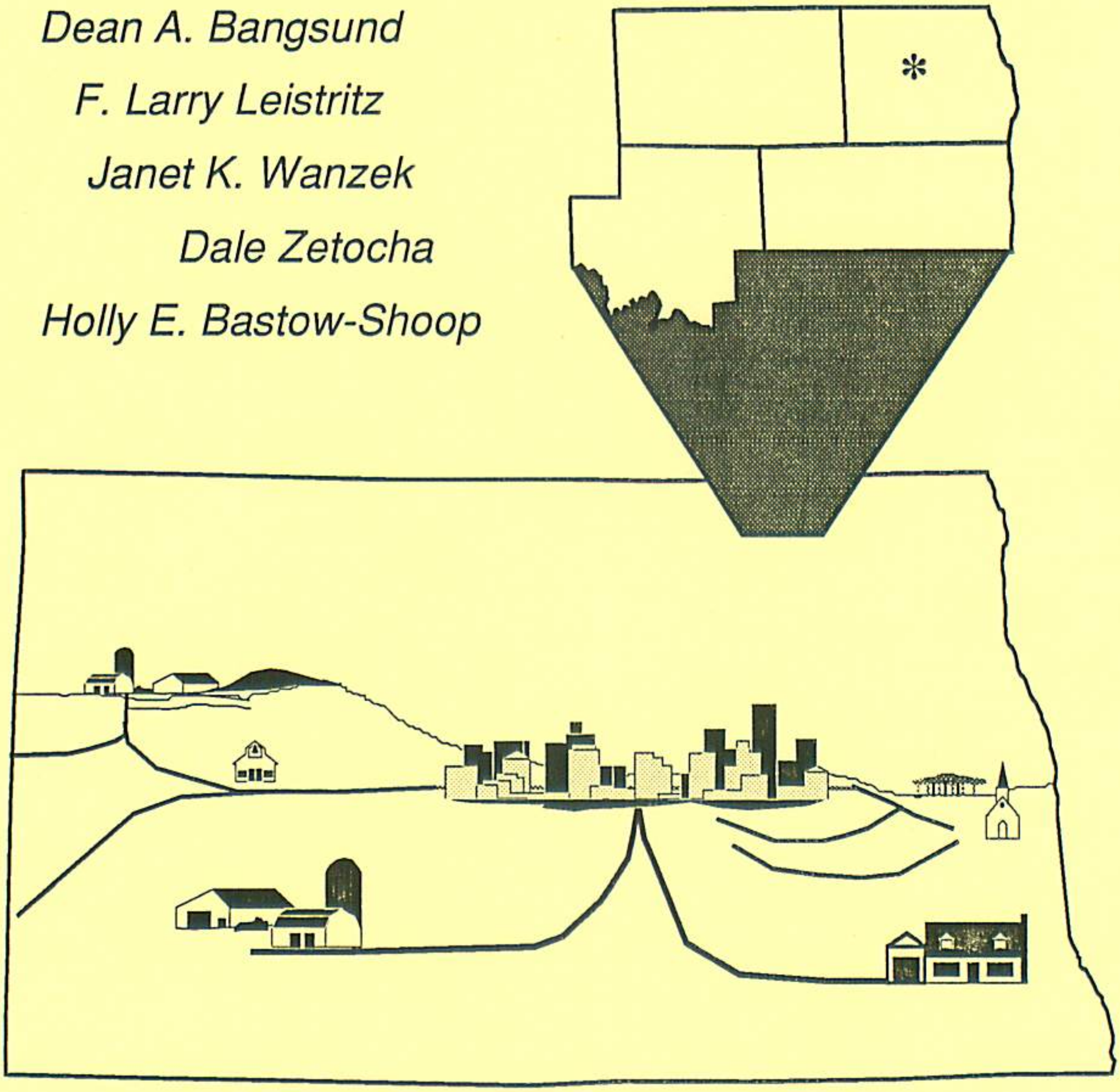

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The authors accept sole responsibility for any remaining errors or omissions.

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HIGHLIGHTS

This report is intended to provide an indepth trade area analysis of Cavalier, North Dakota. Specific analyses included determining Cavalier's main and greater trade areas, identifying the demographic profile of Cavalier shoppers, examining important and less important services for patron shoppers of Cavalier, identifying neighboring cities that area shoppers patronize, determining distances area shoppers traveled to Cavalier, and listing popular newspapers and radio stations among area residents.

Current trade area information for Cavalier was obtained from a statewide trade area survey conducted by the Department of Agricultural Economics at North Dakota State University in 1989.

Recent trends (1980 to 1989) in Cavalier population, retail sales, per capita income, and pull factors, and in Pembina County population and employment were identified and discussed. Cavalier's population and pull factors along with Pembina County per capita income increased throughout the 1980s. Although other demographic and economic measurements have decreased, Cavalier has fared as well as, if not less severe than other North Dakota cities with similar populations, and has fared favorably compared to smaller competing trade centers. The economic situation found in Cavalier and Pembina County are somewhat typical of the problems found in rural North Dakota communities in the 1980s, with the exception of Cavalier experiencing population growth and increasing its pull factor.

Cavalier's trade areas were broken down into main and greater trade areas. A main trade area (MTA) was defined as an area where the majority of township residents purchase a majority of selected goods and services in one city. A greater trade area (GTA) was defined as the area beyond the MTA where some township residents purchase some selected goods and services in one city. Cavalier's MTA decreased in size by one township, compared to MTA boundaries determined in 1973.

The typical household for survey respondents appears to be a middle-aged married couple, who have completed high school, have few children at home, primarily are employed in agriculture and professional/technical professions, and have resided in the area a large portion of their lives.

Main trade area residents traveled an average of 12.6 and 13.5 miles to Cavalier to purchase selected convenience and specialty goods and services, respectively. Nearly half (47.8 percent) of all respondents who purchased 50 percent or more of convenience and specialty goods in Cavalier traveled between 11 and 20 miles to purchase the item.

Cavalier appears to be capturing most of the potential market for most goods and services on the survey questionnaire; however, Cavalier could capture more of the available market for clothing items and selected medical services.

Grand Forks, Grafton, Walhalla, Langdon, and Hamilton were the most popular cities for the purchase of nonagricultural goods and services by Cavalier MTA residents who did not purchase a majority of the good or service in Cavalier. Neche, Hoople, Edinburg, Drayton, and Park River were popular for purchasing agricultural goods and services.

Outshopping analysis revealed some subtle demographic or socioeconomic differences between Cavalier MTA residents purchasing 50 percent or more and those purchasing less than 50 percent of selected goods and services in Cavalier. Slight differences between groups were evident in age, education, and number of dependents.

The Grand Forks Herald and The Forum (Fargo) *were the most popular daily newspapers for both Cavalier MTA and GTA residents.* Cavalier Chronicle *and the* Benson Cavalier County Republican *were the most popular weekly newspapers for Cavalier MTA and GTA residents, respectively. The most popular radio stations for Cavalier MTA residents included KXPO of Grafton, KNDK of Langdon, and KFGO of Fargo.*

Although economic times have been difficult, Cavalier appears to be doing a good job of retaining most of its past trade area and remaining an important trade center in northeastern North Dakota.

RETAIL TRADE AREA ANALYSIS: CAVALIER, NORTH DAKOTA

Dean A. Bangsund, F. Larry Leistritz, Janet K. Wanzek, Dale Zetocha, and Holly E. Bastow-Shoop*

INTRODUCTION

North Dakota has witnessed considerable demographic and economic change in the 1980s. Rural population in North Dakota has continued to decline, due, in part, to instate migration to larger cities and outmigration of state residents. The economic base for many of North Dakota's smaller cities has continued to decline due to economic stress in both the farm sector and the energy industries. The combination of rural economic stress and reduced population has had significant impacts on retail trade for most geographic areas of North Dakota.

In addition to demographic and economic influences on retail activity in North Dakota, relative income levels, improved transportation, and changes in consumer tastes and preferences contribute to changes in retail trade patterns. The number and severity of factors influencing retail activity in North Dakota during the 1980s make trade area information crucial to concerned businesses and policymakers interested in developing effective strategies to cope with changing economic conditions. Dissemination of trade area information to rural cities and towns can help communities meet the challenges of the 1990s.

Purpose

The Department of Agricultural Economics at North Dakota State University has prepared two levels of trade area reports. An indepth report was prepared discussing previous trade area work, outlining the methods and procedures used to determine trade areas for all cities in North Dakota, determining trade areas for the 11 largest North Dakota cities, and comparing purchases of services by patrons of different sized trade centers within the state (Bangsund et al. 1991). Other reports have been prepared to disseminate specific trade area information for individual cities.[1] The purpose of this report is to provide specific information about the Cavalier trade area.

This report will describe Cavalier's main and greater trade areas, provide information on the demographic characteristics of

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[1] Copies of individual city reports can be obtained from the Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota, 58105, (701) 237-7441.

Cavalier area shoppers, and identify essential and nonessential services Cavalier businesses provide.

Methods and Scope

The data for this report were obtained from a statewide trade area survey which the Department of Agricultural Economics at NDSU conducted in 1989. The NDSU Extension Service and the North Dakota Agricultural Experiment Station, through their respective Rural Development Center projects, partially financed the study.

The survey was designed to obtain information about geographic shopping preferences for 37 nonagricultural and 12 agricultural goods and services and selected demographic characteristics of those responding. Although the survey provided information on all North Dakota cities and towns where people purchase goods and services, material presented in this report primarily covers the Cavalier trade area.

This report is organized into four sections: (1) population and other demographic information about Cavalier, (2) trade area delineation criteria and boundaries, (3) trade patterns of Cavalier area shoppers, and (4) summary and conclusions.

CAVALIER AND SURROUNDING AREA PROFILE

Understanding changes in population and economic activity is helpful to businesses and community planners. Much of the prosperity of rural trade areas hinges on the population base. The following briefly highlights the patterns and trends from 1980 to 1989 in Cavalier population, retail sales, market share, per capita income, pull factors, and Pembina County population and employment.

Population figures presented in this section are based on the 1980 Decennial Census count, with population estimates for years 1981 through 1989 reflecting adjustments to the 1980 Census count. Population figures from the 1990 Decennial Census count were not available for use in this report. Trade area information in this section is based on trade area boundaries which were determined in the 1970s. Although population and trade area information in this section was not adjusted for current findings (i.e., 1990 Census numbers and new trade area boundaries), the economic information used was current and the general condition of rural communities can be described using this information.

Cavalier's population increased about 3 percent from 1980 to 1988 (Table 1). Of the North Dakota cities in the population range 1,500 to 2,500, only five out of 21 cities had population increases from 1980 to 1988. If Hazen, the population of which increased almost 42 percent, was removed from the group, the size category would have a 6.9 percent population growth decline.

TABLE 1. CITY AND TRADE AREA POPULATION FOR CAVALIER AND SELECTED CITIES, NORTH DAKOTA, 1980 AND 1988

		City Population		Percent Change	Trade Area Population[a]		Percent Change
City	County	1980	1988	1980-88	1980	1988	1980-88
Population over 10,000							
Group Total		253,628	274,280	8.14	--	--	--
Population 2,500 to 10,000							
Grafton	Walsh	5,293	4,770	-9.88	11,374	11,080	-2.58
Group Total		43,813	45,650	4.19	9,602	9,579	2.52
Population 1,500 to 2,500							
Cavalier	Pembina	1,505	1,550	2.99	5,568	5,520	-0.86
Langdon	Cavalier	2,335	2,360	1.07	6,348	5,382	-15.22
Park River	Walsh	1,844	1,620	-12.15	4,682	4,300	-8.16
Group Total		39,095	37,540	-3.98	--	--	--
Population 1,000 to 1,500							
Drayton	Pembina	1,082	1,140	5.36	1,677	1,730	3.16
Walhalla	Pembina	1,429	1,350	-5.53	2,284	2,160	-5.43
Group Total		29,622	27,540	-7.03	--	--	--
Population 500 to 1,000							
Pembina	Pembina	673	680	1.04	1,701	1,670	-1.82
St. Thomas	Pembina	528	540	2.27	.	.	.
Group Total		32,154	31,200	-2.97	- -	- -	- -
Population 200 to 500							
Group Total		28,746	27,373	-4.78	--	--	--
All Population Categories							
State Total		427,058	443,583	3.87	--	--	--

[a]Trade areas were based on previous work by North Dakota State University Extension Service.

SOURCE: Leistritz et al. 1990.

Cavalier's trade area population decreased about 1 percent from 1980 to 1988, the third smallest decrease for any town in the category. The population of Cavalier's competing trade centers and their trade area populations all decreased, except for Langdon and Drayton and Drayton's trade area.

Since Cavalier's trade area covers parts of counties other than Pembina County, population, average annual employment, and per capita income have been identified for surrounding counties (Table 2). Population in Pembina County decreased (1980 to 1988) substantially less than in surrounding counties, although they too lost population during the same time period, except for Ramsey County.

Average annual employment in Pembina County decreased 6.5 percent from 1980 to 1988. Only Cavalier County had a greater decrease in average annual employment during the same time period. Although population and employment declined in Pembina County during 1980 to 1988, real per capita income (i.e., adjusted for inflation) actually increased from 1979 to 1987. The only neighboring county having decreased per capita income was Ramsey County.

TABLE 2. POPULATION, AVERAGE ANNUAL EMPLOYMENT, AND PER CAPITA INCOME FOR PEMBINA AND SURROUNDING COUNTIES, NORTH DAKOTA, 1980 TO 1989

County	1980	1982	1984	1986	1988	1989	Percent Change 1980-88/89
			Population				
Pembina	10,399	10,200	10,300	10,300	10,300	---	-0.95
Surrounding Counties							
Cavalier	7,636	7,300	7,100	6,700	6,400	---	-16.19
Ramsey	13,048	13,000	13,000	13,100	13,100	---	0.40
Walsh	15,371	15,600	15,800	15,000	14,600	---	-5.02
North Dakota	652,717	672,000	687,000	679,000	667,000	---	2.19
			Average Annual Employment[a]				
Pembina	5,333	5,390	4,879	4,848	4,950	4,983	-6.56
Surrounding Counties							
Cavalier	3,305	3,265	2,631	2,617	2,516	2,487	-24.75
Ramsey	6,180	6,114	6,135	6,255	6,302	6,446	4.30
Walsh	7,444	7,817	7,431	7,797	7,681	7,390	-0.73
North Dakota	288,002	297,002	310,953	313,001	316,000	317,000	10.07

	Per Capita Income[b] 1979[c]	1987	Percent Change 1979 to 1987
Pembina	$9,551	$9,690	1.5
Surrounding Counties			
Cavalier	9,556	10,346	8.3
Ramsey	9,931	9,649	-2.8
Walsh	8,154	8,682	6.5
North Dakota	10,041	9,641	-4.0

[a]Job Service North Dakota. Various Issues. North Dakota Labor Force by County, by Region. Bismarck.

[b]U.S. Department of Commerce, Bureau of the Census, "Current Population Reports," Series P-26 (Spring 1990).

[c]Real Dollars, 1979 dollars inflated to 1987 dollars using Consumer Price Index inflators (U.S. Department of Labor, Bureau of Labor Statistics).

SOURCE: Leistritz et al. 1990.

Cavalier's deflated taxable sales (i.e., adjusted for inflation) decreased from 1980 to 1989; however, deflated taxable sales increased from 1987 to 1989 (Table 3). Cavalier had the only increase (0.31 percent) in taxable sales of any city in the population range 1,500 to 2,500 from 1987 to 1989. Although Cavalier fared favorably compared to other cities in the samepopulation category, average taxable sales for the group decreased about 10.1 percent (1987 to 1989). Competing cities also suffered large decreases in their adjusted taxable sales for the same time periods, except Pembina, which experienced a substantial increase in taxable sales. Statewide, taxable sales decreased 17.77 and 0.24 percent from 1980 to 1989 and 1987 to 1989, respectively.

TABLE 3. DEFLATED TAXABLE SALES AND PURCHASES FOR CAVALIER AND SELECTED CITIES, NORTH DAKOTA, 1980 TO 1989

City	Deflated Taxable Sales and Purchases (1989 Dollars)			Percent Change	
	1980	1987	1989	1980-89	1987-89
	---------- dollars ----------				
Population over 10,000					
Group Total	2,578,781,160	2,337,648,605	2,396,999,678	-7.05	2.54
Population 2,500 to 10,000					
Grafton	49,064,196	44,218,845	42,582,528	-13.21	-3.70
Group Total	398,731,612	315,496,552	298,875,168	-25.04	-5.27
Population 1,500 to 2,500					
Cavalier	19,471,384	17,158,747	17,211,421	-11.61	0.31
Langdon	26,352,679	19,015,503	17,544,619	-33.42	-7.74
Park River	12,803,271	8,660,013	7,755,265	-39.43	-10.45
Group Total	415,612,668	251,583,986	226,276,758	-45.56	-10.06
Population 1,000 to 1,500					
Drayton	5,162,669	5,148,886	4,568,724	-11.50	-11.27
Walhalla	6,234,193	5,305,575	5,261,024	-15.61	-0.84
Group Total	222,752,746	141,859,953	130,721,134	-41.32	-7.85
Population 500 to 1,000					
Pembina	1,911,203	2,092,190	2,605,187	36.31	24.52
St. Thomas	824,206	816,820	619,555	-24.83	-24.15
Group Total	197,005,522	124,426,751	123,454,776	-37.33	-0.78
Population 200 to 500					
Group Total	150,696,574	96,258,478	83,084,913	-44.87	-13.69
All Population Categories					
State Total	3,963,580,282	3,267,274,325	3,259,412,427	-17.77	-0.24

SOURCE: Leistritz et al. 1990.

Pull factors measure a community's success in capturing the potential purchasing power of residents in its trade area. Pull factors greater than 1.0 mean a community's retail sales are greater than the purchasing power of its trade area, suggesting the community may be "pulling" customers from outside its normal trade area. Conversely, if a pull factor is less than 1.0, the community is not capturing its share of the purchasing power in its trade area.

Cavalier's pull factor increased about 9.6 percent from 1980 to 1989 (Table 4). Only three other cities, Hillsboro, Langdon, and Lisbon, in the population group 1,500 to 2,500, increased their pull factors from 1980 to 1989. Cavalier's pull factor is above the group average, indicating the community captures a greater percent of its trade area purchasing power than most of the cities with similar population. Only two competing cities had decreased pull factors from 1980 to 1989. Pull factors in 1989 for cities competing with Cavalier were generally smaller than Cavalier's pull factor, suggesting Cavalier does a better job of capturing its available market than do neighboring cities.

TABLE 4. PULL FACTORS FOR CAVALIER AND SELECTED CITIES, NORTH DAKOTA, 1980 TO 1989

	Pull Factor			Percent Change		
City	1980	1987	1989	1980-87	1980-89	1987-89
Population over 10,000						
Group Average	1.12	0.96	1.01	-14.20	-9.63	5.32
Population 2,500 to 10,000						
Grafton	0.84	0.86	0.70	2.69	-16.60	-18.78
Group Average	0.79	0.73	0.64	-8.40	-19.82	-12.47
Population 1,500 to 2,500						
Cavalier	0.58	0.62	0.63	8.23	9.62	1.28
Langdon	0.68	0.63	0.70	-8.31	2.82	12.14
Park River	0.53	0.43	0.33	-17.84	-38.26	-24.85
Group Average	0.89	0.65	0.52	-26.93	-42.26	-20.99
Population 1,000 to 1,500						
Drayton	0.51	0.59	0.53	15.91	5.46	-9.02
Walhalla	0.45	0.48	0.49	5.85	9.71	3.65
Group Average	0.65	0.53	0.43	-18.35	-34.55	-19.84
Population 500 to 1,000						
Pembina	0.18	0.25	0.32	36.83	70.69	24.75
St. Thomas	*	*	*	*	*	*
Group Average	0.60	0.49	0.42	-18.94	-29.78	-13.38
Population 200 to 500						
Group Average	0.41	0.35	0.28	-14.30	-30.65	-19.07

SOURCE: Leistritz et al. 1990.

The geographic area near Cavalier has experienced both increases and decreases in city and county populations. Deflated taxable sales in Cavalier and average annual employment in Pembina County have decreased in the 1980s. Real per capita income in Pembina County increased from 1979 to 1987, and Cavalier's pull factor has continued to increase (1980 to 1989). Changes in economic activity and population for Cavalier have been positive, when compared to other North Dakota cities in the 1,500 to 2,500 population range, suggesting Cavalier is in better condition economically and demographically than other cities of comparable size.

Although Cavalier suffers from decreased taxable sales, the city is doing better compared to its smaller competing cities. Smaller cities and towns competing with Cavalier have also faced tough economic pressures; however, they appear to have suffered more economic decline than is evident in larger cities. Economic pressures found in Cavalier and Pembina County are somewhat typical of the economic problems found in rural North Dakota communities in the 1980s; however, Cavalier is fortunate to have experienced population growth and increased its pull factor.

TRADE AREA DELINEATION

A trade area can be loosely defined as the geographic area from which a business or city draws its customers. Determining a trade area depends heavily on the city size, location of the city with respect to other trade centers, and the criteria used to distinguish the trade area boundaries. Trade area criteria can vary according to trade center classification and type of trade area, and these trade areas can be broken down into primary and secondary trade areas.

Generally, primary (main) trade areas (MTAs) are those geographic regions where a trade center draws a significant portion of its retail activity. Secondary (greater) trade areas (GTAs) are geographic areas outside of the primary trade area where the trade center still extends some retail influence; however, only limited retail or service activity is generated from this region.

A primary trade area (main) was defined as an area where the majority of the people purchase a majority of their goods and services at one location. A secondary trade area (greater) was defined as an area where some of the people purchase some of their goods and services at one location.

Two major criteria were used in determining trade areas in North Dakota. The first criterion was to classify each trade center according to the level of retail activity and use the trade center classification to determine a mix of goods and services, and the second criterion determined how townships were included in the main trade area and greater trade area (Bangsund et al. 1991). The scope of this report does not permit the detailed discussion of all the procedures involved in determining a city's main and greater trade area; however, a brief synopsis is included of the trade area criteria used for Cavalier.

North Dakota cities were put in seven size classifications, and the types of services expected to be provided by each size classification were outlined (Bangsund et al. 1991). Each size of trade center was expected to provide a different number of goods and services and different amounts of similar services across trade center sizes. Thus, trade area boundaries were defined by using a mix of goods and services most appropriately provided by a city of that size.

Cavalier was classified as a partial shopping center based on average retail sales from 1987 to 1989. The mix included some convenience, specialty, and agricultural goods and services. Convenience goods and services are those that typically have a small unit value, are frequently purchased with a minimum of effort, and are purchased soon after the idea of the purchase enters the buyer's mind. Specialty items are those nonstandardized goods and services that typically have a large unit value, are purchased only after comparing price, quality, features, and type among stores, and customers are willing to travel and exert more energy to secure the good or service than convenience items.

Convenience Goods and Services

Banking and savings	Groceries
Eating places	Hardware
Gas and diesel service	Prescription drugs

Specialty Goods and Services

Auto repair	Legal services
Beautician	Men's clothing
Furniture	Radios, TVs, VCRs
Hospital	Sporting goods

Agricultural Goods and Services

Farm machinery	Farm supplies

The main trade area for Cavalier was defined by townships where 50 percent or more of the residents purchased 50 percent or more of the selected mix of goods and services in Cavalier. The greater trade area was defined by townships where 10 percent or more of the residents purchased at least 10 percent of a selected mix of goods and services in Cavalier.

Several problems arise when trying to define trade areas using survey information. The most common problems were lack of usable responses from some townships and unclear distinction of purchase behavior in some townships, i.e., respondents diversified their shopping equally among several trade centers. Bangsund et al. (1991) discussed the procedures and criteria for handling townships which did not clearly meet the requirements for the main and greater trade areas.

Cavalier's MTA and GTA capture a relatively even distribution of townships around the city (Figure 1). The Cavalier GTA has more influence on townships located to the southwest of town. Cavalier's ability to attract customers from the west and south appears limited due to competition from other trade centers, primarily Langdon and Grafton.

CHARACTERISTICS OF CAVALIER AREA RESIDENTS

Business people and community leaders usually are interested in the characteristics of local shoppers and shopping patterns. The characteristics of Cavalier shoppers were analyzed, using 211 survey responses from the Cavalier MTA. Other analyses included examination of important and less important services for patron shoppers of Cavalier, identification of neighboring cities area shoppers patronize, determination of distances area shoppers traveled to Cavalier, and listing popular newspapers and radio stations among area residents.

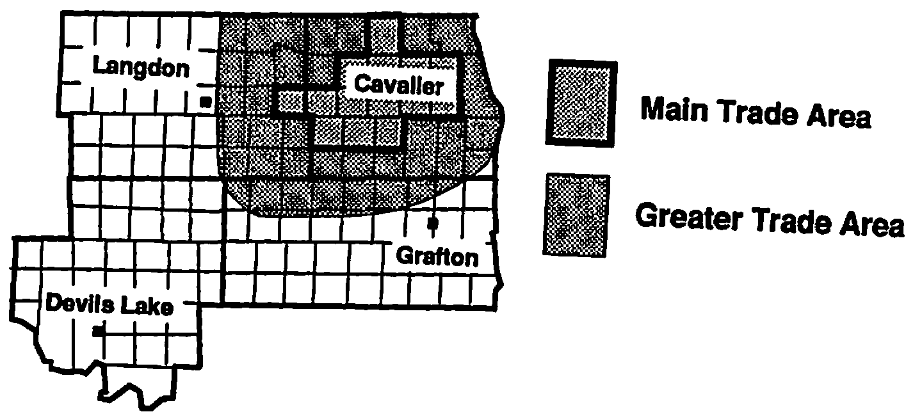

Figure 1. Main and Greater Trade Areas for Cavalier, North Dakota, 1989

Demographic Profile of Shoppers in Cavalier Main Trade Area

Demographic characteristics of the survey respondents for the Cavalier MTA were identified (Table 5). The typical household for survey respondents appears to be a middle-aged married couple who have completed high school, have few children at home, are primarily employed in agriculture and professional/technical professions, and have resided in the area a large portion of their lives.

Distance Traveled by Cavalier Area Shoppers

Average distances that area residents traveled to Cavalier were determined for each convenience and specialty good or service in the 16-item goods and services mix (Table 6). Distances were determined by averaging respondents' estimated miles between Cavalier and their home residence. Cavalier residents and any respondents who lived one mile or less from Cavalier were not included in the analysis. Once the average distance was determined for each township, the number of respondents purchasing 50 percent or more of the item in Cavalier was multiplied by the average distance to determine total miles of travel for that township (for the specific good or service).

TABLE 5. DEMOGRAPHIC PROFILE OF RESPONDENTS IN MAIN TRADE AREA, CAVALIER, NORTH DAKOTA, 1989

Demographic Characteristic	Average of Survey Responses	
Age (Years)	51.6	
Education (Years)	12.5	
Lived in County (Years)	42.4	
Household Size (People)	2.8	
Average Household Income	$26,003	
Occupation	Respondent	Spouse
	---%---	---%---
Farming	35.6	25.3
Retired	23.4	17.1
Tech/Sales/Admin	12.2	15.1
Service Jobs	9.0	12.3
Professional	8.0	12.3
Craft/Repair	4.8	5.5
Equipment Operator	3.7	6.8
Housewife	2.7	4.8
Other	0.6	0.8
Martial Status	--- % ---	
Single	4.8	
Separated/Divorced	5.8	
Married	81.3	
Widowed	8.2	
Male	60.6	
Female	39.4	

Townships included in the distance analysis were not limited to those in the MTA; instead distances traveled were included for anyone (living in surrounding counties) who purchased 50 percent or more of the selected good or service in Cavalier. Total miles of travel were summed for all townships for that good or service and divided by the total number of respondents who purchased 50 percent or more of that item in Cavalier.

The average distance traveled to Cavalier to purchase convenience goods and services was less than that traveled for specialty goods and services for all respondents (regardless of residence location). The average distance traveled to purchase convenience goods and services was less than that traveled for specialty goods and services for respondents in the MTA who purchased 50 percent or more of the item in Cavalier. For those respondents living in the MTA, the average distance traveled for both types of goods and services was nearly identical.

TABLE 6. AVERAGE DISTANCE TRAVELED BY AREA RESIDENTS WHO PURCHASED 50 PERCENT OR MORE OF SELECTED SERVICES IN CAVALIER, NORTH DAKOTA, 1989[a]

All Respondents Purchasing 50 Percent or More of the Service in Cavalier

Convenience Items		Specialty Items	
Goods and Services	Average Miles Traveled	Goods and Services	Average Miles Traveled
Gas & Diesel Stations	10.1	Auto Repair	10.6
Groceries	11.0	Beautician	11.8
Eating Places	9.6	Radios, TVs, VCRs	9.5
Banking and Savings	11.2	Sporting Goods	13.7
Hardware	12.7	Men's Clothing	14.2
Prescription Drugs	16.3	Hospital	17.4
		Legal Services	12.8
		Furniture	11.7
Average	12.6	Average	13.5

MTA Respondents Only Who Purchase 50 Percent or More of the Service in Cavalier

Convenience Items		Specialty tems	
Goods and Services	Average Miles Traveled	Goods and Services	Average Miles Traveled
Gas & Diesel Stations	9.6	Radios, TVs, VCRs	9.7
Eating Places	8.5	Auto Repair	9.8
Prescription Drugs	10.6	Furniture	8.6
Groceries	9.7	Beautician	9.5
Banking and Savings	9.4	Legal Services	10.2
Hardware	10.4	Hospital	10.9
		Men's Clothing	9.9
		Sporting Goods	9.7
Average	9.8		10.0

[a]One-way distance to Cavalier only.

Distance traveled by type of good or service (convenience and specialty) was broken down into distance categories. Nearly half (47.8 percent) of the respondents (regardless of residence location) who purchased 50 percent or more of a convenience and specialty good or service travelled between 11 and 20 miles to purchase the item in Cavalier (Table 7). For those living in the MTA, both the number of respondents per distance category and most common distance traveled were nearly identical.

TABLE 7. MILEAGE BREAKDOWN FOR AREA SHOPPERS PURCHASING 50 PERCENT OR MORE OF A CONVENIENCE AND SPECIALTY SERVICE IN CAVALIER, NORTH DAKOTA, 1989

	Convenience Goods		Specialty Goods	
Distance (Miles)[a]	Number	Percent	Number	Percent
All Respondents Purchasing 50 Percent or More of a Service in Cavalier				
1 to 5	31	13.2	31	12.3
6 to 10	31	13.2	31	12.3
11 to 15	54	23.1	53	20.9
16 to 20	67	28.6	59	23.3
21 to 25	17	7.3	29	11.5
over 25	34	14.5	50	19.8
MTA Respondents Only Who Purchase 50 Percent or More of a Service in Cavalier				
1 to 5	28	22.4	28	22.4
6 to 10	31	24.8	31	24.8
11 to 15	40	32.0	41	32.8
16 to 20	20	16.0	20	16.0
21 to 25	6	4.8	5	4.0
over 25	--	--	--	--

[a]Those living in Cavalier or traveling less than one mile to Cavalier were not included in the analysis.

Area Shoppers' Utilization of Goods and Services Provided in Cavalier

The importance of Cavalier as a trade center for those who shop in Cavalier and the ability of Cavalier to capture the MTA market for selected goods and services as determined (Table 8). The importance of shopping in Cavalier was determined by examining the number of respondents who purchased some of their goods and services in Cavalier and comparing those responses to the number who purchased a majority of their goods and services in Cavalier. A high percentage meant if respondents shopped in Cavalier, they likely would purchase a majority of those goods and services in Cavalier. A low percentage meant that, although some of the goods and services were purchased in Cavalier, the majority of the goods and services was purchased elsewhere.

Goods and services that appear to be most utilized by those shopping in Cavalier include mortician, veterinarian (small animals), florist, family doctor, prescription drugs, hospital, heating fuel and propane, plumber, accounting services, computers, barber, commercial services, veterinary services, and livestock marketing (services where 95 percent of those buying the service in Cavalier purchase a majority of the service in

TABLE 8. RELATIVE IMPORTANCE OF CAVALIER TO SHOPPERS PURCHASING SOME GOODS AND SERVICES AND FOR THOSE PURCHASING A MAJORITY OF THEIR GOODS AND SERVICES IN CAVALIER, NORTH DAKOTA, 1989

Goods and Services	Purchase the Goods & Services Somewhere	Responses in Cavalier Main Trade Area				
		Purchase Some of the Goods & Services in Cavalier		Purchase Majority of the Goods & Services in Cavalier		Measure of Market Capture
		No.	%[a]	No.	%[b]	%[c]
Mortician	168	152	90.5	152	100.0	90.5
Veterinarian (Sm Animals)	130	3	2.3	3	100.0	2.3
Florist	186	180	96.8	177	98.3	95.2
Family Doctor	208	196	94.2	192	98.0	92.3
Prescription Drugs	206	196	95.1	189	96.4	91.7
Hospital	208	192	92.3	185	96.4	88.9
Heating Fuel/Propane	173	153	88.4	147	96.1	85.0
Plumber	170	149	87.6	143	96.0	84.1
Accounting Services	138	95	68.8	91	95.8	65.9
Computers	57	23	40.4	22	95.7	38.6
Barber	161	133	82.6	127	95.5	78.9
Auto Sales	192	169	88.0	159	94.1	82.8
Major Appliances	190	167	87.9	156	93.4	82.1
Hardware	202	193	95.5	180	93.3	89.1
Building Supplies	192	177	92.2	165	93.2	85.9
Gas/Diesel Service	205	189	92.2	175	92.6	85.4
Dentist	196	121	61.7	112	92.6	57.1
Appliance/Elec Repair	174	147	84.5	136	92.5	78.2
Auto Repair	201	180	89.6	164	91.1	81.6
Groceries	207	200	96.6	178	89.0	86.0
Nursery (Plants)	183	163	89.1	145	89.0	79.2
Legal Service	187	132	70.6	117	88.6	62.6
Radios, TVs, VCRs	196	155	79.1	137	88.4	69.9
Beautician	183	149	81.4	131	87.9	71.6
Banking and Savings	208	165	79.3	145	87.9	69.7
Chiropractor	95	54	56.8	47	87.0	49.5
Optometrist	204	100	49.0	87	87.0	42.6
Drinking Places	98	80	81.6	63	78.8	64.3
Eating Places	200	178	89.0	137	77.0	68.5
Jewelry	157	140	89.2	106	75.7	67.5
Sporting Goods	142	110	77.5	79	71.8	55.6
Furniture	187	109	58.3	68	62.4	36.4
Shoes	201	126	62.7	76	60.3	37.8
Men's Clothing	190	147	77.4	76	51.7	40.0
Women's Clothing	191	144	75.4	59	41.0	30.9
Teenage Clothing	68	46	67.6	18	39.1	26.5
Women's Coats	175	52	29.7	19	36.5	10.9
Agricultural Goods and Services						
Commercial Feeds	24	16	66.7	16	100.0	66.7
Veterinary Services	34	1	2.9	1	100.0	2.9
Livestock Marketing	20	1	5.0	1	100.0	5.0
Crop Consultants	30	19	63.3	18	94.7	60.0
Farm Mach Repair/Parts	63	60	95.2	55	91.7	87.3
Other Farm Supplies	52	46	88.5	42	91.3	80.8
Farm Machinery	62	58	93.5	51	87.9	82.3
Farm Fuel & Lubricant	64	48	75.0	41	85.4	64.1
Crop Seeds	57	36	63.2	30	83.3	52.6
Other Farm Chemicals	62	46	74.2	37	80.4	59.7
Fertilizer	62	44	71.0	34	77.3	54.8
Grain Marketing	62	42	67.7	28	66.7	45.2

[a]Determined by dividing number of responses of those who purchase some of the service in Cavalier by the number who purchase some of the service anywhere. Number indicates how many buyers of the service are willing to purchase some of the service in Cavalier.

[b]Determined by dividing number of responses of those who purchase majority of the service in Cavalier by the number who purchase some of the service in Cavalier. Number is proxy for relative importance of Cavalier as a provider of the service for those purchasing the item.

[c]Determined by dividing number of responses who purchase majority of the service in Cavalier by the number who purchase some of the service anywhere. Number is proxy for ability of Cavalier to capture potential market for that service.

Cavalier). The goods and services that people are less likely to purchase a majority of in Cavalier include women's clothing and coats, teenage clothing, men's clothing, shoes, furniture, and grain marketing.

The ability of Cavalier to capture the potential market within the MTA was determined by comparing those who purchase the good or service (not necessarily in Cavalier) to the number of respondents who purchase a majority of the good or service in Cavalier. A high percentage meant that Cavalier captures a large amount of the potential market for the good or service. A low percentage meant that Cavalier does not capture much of the market for that good or service.

Goods and services for which Cavalier is capturing a large amount of the potential market (90 percent or more) within the MTA include florist, family doctor, prescription drugs, and mortician. Goods and services for which Cavalier does not capture the existing market (less than 50 percent) include veterinarian (small animals), women's coats and clothing, teenage clothing, furniture, shoes, computers, men's clothing, optometrist, chiropractor, veterinary services, livestock marketing, and grain marketing.

Goods and services that are important to Cavalier shoppers and those for which Cavalier is capturing a large percentage of the market include florist, family doctor, prescription drugs, and mortician. Veterinarian (small animals), barber, chiropractor, and optometrist services are important to shoppers in Cavalier's MTA, but very few of the potential buyers purchase a majority of those goods and services in Cavalier. This suggests some loyalty for those shopping in Cavalier yet a large portion of the market has not been captured. Most of the goods and services for which Cavalier is capturing much of the potential market are also important to Cavalier shoppers, suggesting that most of the potential shoppers (within the MTA) feel Cavalier is an important source for most of their services.

Where Services Are Purchased When Not Purchased In Cavalier

For most of the goods and services listed in the survey, some respondents did not purchase any of the good or service in Cavalier or purchased more of the good or service in other cities. For people living in the Cavalier MTA and not purchasing a majority of the services in Cavalier, the cities where the majority of those services were purchased were identified (Table 9). Grand Forks was the most popular choice for services purchased outside of the Cavalier MTA. Other popular cities included Grafton, Walhalla, Langdon, and Hamilton. Neche, Hoople, Edinburg, Drayton, and Park River were popular for purchasing agricultural goods and services.

TABLE 9. MOST POPULAR CITIES FOR THE PURCHASE OF GOODS AND SERVICES BY CAVALIER MAIN TRADE AREA RESIDENTS WHO DID NOT PURCHASE A MAJORITY OF THE GOOD OR SERVICE IN CAVALIER, NORTH DAKOTA, 1989

Goods and Services	Most Popular Cities	Responses Per City	Percent Purchased
Grocery	Grand Forks	7	59.3
	Walhalla	4	82.0
Drinking Places	Mountain	6	76.6
	Neche	5	61.0
	Grand Forks	5	54.0
Women's Clothing	Grand Forks	99	67.6
	Grafton	19	68.4
	Fargo	5	54.0
Women's Coats	Grand Forks	126	79.5
	Grafton	16	62.5
	Fargo	7	66.4
Jewelry	Grand Forks	36	67.2
	Grafton	6	61.7
Major Appliance Rpr	Grand Forks	13	79.2
	Walhalla	9	60.0
	Grafton	5	74.0
	Crystal	5	68.0
Auto Sales	Grand Forks	9	73.4
	Grafton	7	70.0
	Langdon	4	68.8
Furniture	Grand Forks	80	75.4
	Grafton	20	64.8
	Langdon	12	76.3
Auto Repair	Walhalla	9	81.1
	Langdon	5	62.0
	Grand Forks	5	60.0
Heating Fuel/Propane	Neche	6	93.3
	Park River	4	72.5
	Edinburg	3	83.3
Beautician	Grand Forks	16	80.9
	Mountain	8	84.4
	St. Thomas	7	87.1
	Grafton	4	82.5
Optometrist	Hallock, Mn	38	93.0
	Grand Forks	34	93.9
	Grafton	13	89.1
	Park River	9	93.3
	Langdon	7	85.7
Computers	Grand Forks	23	81.1
Major Appliance	Grand Forks	26	77.1
	Langdon	3	68.3
Chiropractor	Grafton	17	95.0
	Langdon	9	88.9
	Altona, Mn	7	92.9
	Grand Forks	4	94.5
Dentist	Park River	37	90.5
	Hallock, Mn	9	96.7
	Grafton	7	90.0
	Langdon	6	71.7
Prescription Drugs	Out of State	4	92.5
	Grand Forks	4	77.5
	Grafton	3	86.7
Vet (Small Animals)	Park River	124	96.7
Sporting Goods	Grand Forks	49	69.0
	Grafton	7	55.7
Farm Machinery Rpr	Langdon	3	76.7
	Grafton	2	40.0
Farm Fuel	Neche	7	92.9
	Hoople	5	78.0
	Drayton	3	81.7
Commercial Feed	Edinburg	3	88.3
	Walhalla	2	100.0
Farm Chemical	Neche	4	92.5
	Hoople	4	70.0
	Edinburg	3	100.0
	Joliette	3	71.7
Livestock Marketing	Fargo	10	89.1
	Rugby	5	85.0
Veterinary Services	Park River	31	98.1

Goods and Services	Most Popular Cities	Responses Per City	Percent Purchased
Eating Places	Grand Forks	20	64.9
	Grafton	11	53.6
	Hamilton	5	75.0
Men's Clothing	Grand Forks	82	71.5
	Grafton	20	64.0
	Fargo	4	56.3
Teen Clothing	Grand Forks	36	75.3
	Grafton	7	72.9
Shoes	Grand Forks	85	74.8
	Grafton	25	63.2
	Fargo	6	53.3
Radios, TVs, VCRs	Grand Forks	36	71.9
	Walhalla	8	88.8
	Grafton	6	81.7
Florist	Walhalla	4	73.8
Gas Station	Neche	6	82.5
	Edinburg	5	68.0
	Walhalla	4	86.3
Plumber	Drayton	5	92.0
	Grafton	4	87.5
Nursery (Plants)	Neche	22	80.0
	Walhalla	4	91.3
Legal Service	Hamilton	43	96.0
	Grafton	5	86.0
	Walhalla	4	87.5
Accounting Service	Hamilton	14	97.7
	Walhalla	8	95.0
	Grafton	6	98.3
Barber	Grand Forks	7	92.2
	Grafton	5	90.0
	Edinburg	4	95.0
	Walhalla	4	93.8
Family Doctor	Grand Forks	4	90.0
	Grafton	3	96.7
Banking and Services	Hamilton	26	83.3
	Grafton	11	88.2
	Neche	7	92.9
	Walhalla	7	86.4
Building Supplies	Crystal	9	72.8
	Grand Forks	6	78.3
	Walhalla	6	86.4
Mortician	Edinburg	4	100.0
	Grafton	4	100.0
	Walhalla	3	100.0
Hospital	Grand Forks	10	78.5
	Fargo	5	80.0
	Grafton	3	71.7
Hardware	Grand Forks	8	63.8
	Edinburg	3	56.7
Farm Machinery	Edinburg	3	63.3
	Grafton	3	50.0
Crop Consultant	Bathgate	5	96.0
	Edinburg	2	100.0
	Park River	2	65.0
Fertilizer	Hoople	5	94.0
	Joliette	5	81.0
	Neche	4	77.5
Crop Seeds	Drayton	6	68.2
	Edinburg	5	74.0
	Neche	4	95.0
Grain Marketing	Hoople	6	79.2
	Hensel	6	77.5
	Joliette	5	74.0
	Edinburg	5	67.6
Farm Supplies	Grand Forks	5	66.0
	Grafton	2	60.0
	Edinburg	2	55.0

Cavalier will always lose some shoppers to surrounding cities and towns for several reasons. First, many shoppers in the Cavalier MTA live close to other towns where it may be more convenient to shop for some goods and services (e.g., some agricultural services and convenience items). Second, Grand Forks, and to a lesser extent other larger neighboring cities, because of their size, will have an image of greater variety and more favorable prices for many goods and services. Thus, many people will travel to those cities to shop even if the same merchandise is available locally and is competitively priced. Third, some towns have businesses which have a reputation for providing excellent service and/or quality products, often drawing customers from areas not normally considered within its trade area. Finally, when people travel to other towns, primarily for reasons other than shopping, they likely may spend some time shopping (e.g., when parents/students travel to a state basketball tournament in Bismarck, Fargo, Minot, etc., they are likely to shop while in town; also trips to larger trade centers to see medical specialists or attend recreational events can result in considerable outshopping).

Analysis of Outshoppers in Cavalier Main Trade Area

Responses were analyzed to determine if those who bought 50 percent or more of selected goods and services in Cavalier differed from those who bought less than 50 percent. Differences between the two groups also were analyzed by convenience and specialty goods and services.

According to selected demographic characteristics, little difference exists between those who purchase a majority of their goods and services in Cavalier and those who purchase a majority of their goods and services elsewhere (Table 10).

The number of years lived in the county were higher for three of the four services for the group purchasing 50 percent or more of the services in Cavalier than for the group purchasing less than 50 percent. The group purchasing less than 50 percent of the four goods and services in Cavalier traveled farther (for each of the services) than the group purchasing 50 percent or more of the same goods and services in Cavalier.

Slight differences were evident with age, education, and number of dependents between the two main groups. It appears that those not purchasing 50 percent or more of the goods or services in Cavalier are younger individuals with more children. No substantial differences in income were evident between those purchasing 50 percent or more and those purchasing less than 50 percent of the goods and services in Cavalier.

TABLE 10. DEMOGRAPHIC CHARACTERISTICS FOR PEOPLE IN THE MAIN TRADE AREA WHO PURCHASE LESS THAN 50 PERCENT AND THOSE WHO PURCHASE MORE THAN 50 PERCENT OF THEIR SERVICES IN CAVALIER, NORTH DAKOTA, 1989

	Group Purchasing 50 Percent or More of Goods in Cavalier				Group Purchasing Less Than 50 Percent of Goods in Cavalier			
Attribute	Groceries	Gas Station	Building Supplies	Major Appliances	Groceries	Gas Station	Building Supplies	Major Appliances
Age	51.6	51.5	50.7	52.0	50.5	51.1	45.4	47.5
Education	12.6	12.6	12.7	12.6	11.7	11.6	11.9	12.5
Years Lived In County	42.5	42.2	41.2	44.4	41.1	42.4	36.6	34.0
Number in Household	2.8	2.8	2.8	2.7	2.7	2.9	3.2	3.1
Number in Grade School	0.6	0.7	0.6	0.6	0.8	0.6	1.0	0.8
Number in High School	0.3	0.3	0.3	0.3	0.3	0.2	0.5	0.3
Average Miles Traveled[a]	9.7	9.5	9.5	9.9	21.9	12.9	19.4	44.0
Household Income	$26,083	$26,129	$26,926	$26,259	$24,677	$26,094	$27,037	$26,284

[a]Those living in Cavalier and those traveling less than one mile to Cavalier were not included in the analysis.

Newspaper Subscriptions of Cavalier Area Residents

Newspaper subscriptions of respondents in the Cavalier main and greater trade areas were identified (Table 11). Newspaper subscriptions were divided into daily and weekly papers for both main and greater trade area respondents. The most popular daily newspapers for both the main and greater trade areas were *The Grand Forks Herald* and *The Forum* (Fargo). The most popular weekly papers for the main and greater trade areas were the *Cavalier Chronicle* and *Cavalier County Republican*, respectively. Other popular weekly newspapers for respondents included *Grafton Record*, *Walhalla Mountaineer*, *Walsh County Press*, and the *Pembina New Era*.

Radio Stations of Cavalier Area Residents

The most popular radio stations that respondents in Cavalier's main trade area listened to were KXPO of Grafton, followed by KNDK of Langdon and KFGO of Fargo (Table 12).

TABLE 11. NEWSPAPER SUBSCRIPTIONS FOR MAIN AND GREATER TRADE AREA RESPONDENTS, CAVALIER, NORTH DAKOTA, 1989

Main Trade Area			Greater Trade Area		
Newspaper	Numbers of Respondents	Percent	Newspaper	Number of Respondents	Percent
Daily Newspapers					
Grand Forks Herald	130	92.2	Grand Forks Herald	199	92.1
Fargo Forum	8	5.7	Fargo Forum	12	5.6
Others	3	2.1	Wall Street Journal	3	1.4
			Others	2	2.4
Total	141[a]		Total	216[b]	
Weekly Newspapers					
Cavalier Chronicle	126	59.1	Cavalier County Rep.	72	20.5
Cavalier County Rep.	43	20.2	Cavalier Chronicle	58	16.5
Grand Forks Herald	10	4.7	Grafton Record	56	15.6
Grafton Record	7	3.3	Walhalla Mountaineer	47	14.5
Walhalla Mountaineer	7	3.3	Walsh County Press	32	9.9
AgWeek-Grand Forks	4	1.9	New Era-Pembina	27	8.2
Others[c]	18	7.5	AgWeek-Grand Forks	12	6.5
			Valley News & Views	10	2.5
			Grand Forks Herald	9	2.6
			Others	28	
Total	213[d]		Total	351[e]	

[a]135 respondents subscribe to a daily paper with 6 respondents subscribing to more than one paper.
[b]209 respondents subscribe to a daily paper with 7 respondents subscribing to more than one paper.
[c]Edgeley Mail, LaMoure Chronicle, Fargo Forum (Sunday), Science News, Roseau Times Register, Badger Enterprise, Golden Valley News, Bottineau Courant, Towner County Reporter, Griggs County Sentinel, Adams Standard, The Express, Larimore Leader, Hillsboro Banner, Kulm Messenger, LaMoure Chronicle, Lakota American, Benson County Farmer, Turtle Mountain Star, Mountrail County Record, Adams County Record.
[d]174 respondents subscribe to a weekly paper with 39 respondents subscribing to more than one paper.
[e]244 respondents subscribe to a weekly paper with 107 respondents subscribing to more than one paper.

TABLE 12. MOST POPULAR RADIO STATIONS FOR RESPONDENTS IN THE MAIN TRADE AREA, CAVALIER, NORTH DAKOTA, 1989

Radio Station	Number of Respondents	Percent
KXPO-Grafton	85	60.8
KNDK-Langdon	10	7.1
KFGO-Fargo	8	5.7
KNOX-Grand Forks	5	3.6
KFNW-Fargo	4	2.9
Others	25	14.5

Comparison of Current and Previous Cavalier Trade Area Boundaries

Vangsness (1973) discussed general information on retail trade and identified both main and greater trade areas for Cavalier. Information from the past Cavalier retail trade report was based on a different questionnaire; however, some comparisons to information in this report can be made. Probably the most valid and worthwhile comparison is to examine changes in Cavalier's main and greater trade areas. Although trade area delineation criteria used in the previous Cavalier trade area report differ, enough similarity exists to make comparisons with the trade area boundaries determined in this report.

The main trade area for Cavalier has changed little from 1973. Cavalier lost one township each to Neche, Pembina, and Edinburg. Cavalier gained one township each from Walhalla and Langdon for an overall decrease in the MTA of one township since the early 1970s. The greater trade area appears to have remained unchanged from the early 1970s.

SUMMARY AND CONCLUSIONS

Trade area analysis was conducted for Cavalier based on a statewide trade area survey which the Department of Agricultural Economics at NDSU conducted in 1989. The demographic and economic profile for Cavalier was discussed. Cavalier has suffered in the 1980s from decreased taxable sales, lower county population, and average annual employment; however, Cavalier was one of the few North Dakota cites to experience population growth and increases in its pull factor during the 1980s. Changes in economic activity Cavalier have been similar, if not less severe than other North Dakota cities in the 1,500 to 2,500 population range. The depressed economic conditions found in Pembina County in the 1980s were common to most areas in North Dakota.

Main and greater trade areas were defined for Cavalier, using several delineation criteria. Townships where the majority of the respondents purchased 50 percent or more of a mix of goods and services in Cavalier were included in the main trade area. Townships where 10 percent of the respondents purchased at least 10 percent of the goods and services mix in Cavalier were included in the greater trade area (not including main trade area townships). The goods and services mix contained six convenience, eight specialty, and two agricultural goods and services.

Cavalier's main trade area appears to have decreased only slightly since 1973. Cavalier lost three townships to neighboring cities but gained two townships, for an overall reduction in MTA size of one township. The greater trade area has remained unchanged since 1973. The shape of the greater trade area appears to reflect competition from Grafton and Langdon.

Cavalier appears to be doing a good job of capturing most of the available market (those respondents who purchase a majority of the service in Cavalier divided by the total number of respondents in the Cavalier main trade area who purchase the service) for most of the services listed on the survey questionnaire. Also, Cavalier appears to be an important source of services for those shopping in Cavalier (i.e., of those shopping in Cavalier, most individuals will purchase a majority of the item from Cavalier retailers).

Grand Forks, Grafton, Walhalla, Langdon, and Hamilton provide most of the shopping locations for area residents who do not purchase the good or service in Cavalier. Subtle differences were found with age, number of dependents, and distance traveled for those purchasing less than 50 percent and those purchasing more than 50 percent of selected convenience and specialty goods and services in Cavalier. Those purchasing 50 percent or more of one or more convenience or specialty goods or services in Cavalier traveled an average distance of about 13 miles to purchase the items in Cavalier.

Even though the 1980s have been difficult for rural North Dakota cities, Cavalier appears to have fared better than cities of comparable size and better than smaller neighboring towns. Cavalier is fortunate to have experienced population growth and increased its pull factor during a period when few North Dakota cites experienced growth or increases in any economic or demographic measure. Cavalier appears to be doing a good job of retaining most of its past trade area and remaining an important trade center in northeastern North Dakota, considering competition from neighboring trade centers, primarily Langdon and Grafton.

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APPENDIX

TRADE AREA STUDY

CONFIDENTIAL

- Please fill out both sides of the page.
- Any adult in your household may complete the survey.

BEGIN HERE...

LOCATION OF RESIDENCE

Town: ______________________

Township Name (or range #):
(township information is critical to the survey; please enter)

____

County: ______________________

To what *daily* newspapers do you subscribe?

____

____

____

To what *weekly* newspapers do you subscribe?

____

____

____

What are the call letters of the radio station you listen to most for weather, news, and other information?

________ in ______________
(town)

DIRECTIONS:

For each item below indicate up to three towns where you do a great deal of shopping and the percentage of spending made at each town by your household. Totals do not have to add up to 100% across each category.

	TOWN NAME	%	[illegible]	TOWN NAME	%	[illegible]	TOWN NAME	%	[illegible]
#. EXAMPLE: Groceries	Carson	60		Bismarck	15		Mandan	10	
1. Groceries									
2. Eating places									
3. Drinking places (alcoholic)									
4. Men's clothing									
5. Women's clothing									
6. Women's coats									
7. Teenage clothing									
8. Shoes									
9. Jewelery									
10. Major appliances									
11. Radios, TVs, VCRs									
12. Appliance/electronic repair									
13. Florist									
14. Nursery (plants)									
15. Furniture									
16. Auto sales									
17. Auto repair									
18. Gas or diesel service sta.									
19. Heating fuel/propane									
20. Plumber									
21. Barber									
22. Beautician									
23. Legal services									
24. Accounting services									
25. Computers									
26. Eye doctor									
27. Family doctor									
28. Chiropractor									
29. Dentist									
30. Hospital									
31. Mortician (funeral home)									

Please continue on the next page →

Please continue here

	TOWN NAME	%	TOWN NAME	%	TOWN NAME	%
32. Prescription drugs						
33. Veterinarian (sm. animal)						
34. Banking & savings						
35. Building supplies						
36. Hardware						
37. Sporting goods						

38. Overall, what are your three main trading centers and the distance to each from your residence?

Town Name	Miles

39. What town do you consider to be your main trade center? ________

40. Are you...
- ☐ single, never married
- ☐ married
- ☐ separated or divorced
- ☐ widowed

41. What is your age? ________

42. What is your gender? ☐ male ☐ female

43. How many years of formal education have you had? ________

44. How many years have you lived in the county? ________

45. If employed (other than farming), in what town do you work? ________

46a. How many people live in your household, including yourself? ________

b. How many of these people are in grade school? ________

c. How many of these people are in high school? ________

Please continue with question 47 →

47. Please check the category that best fits your occupation (and your spouse's):

Respondent	Spouse	
☐	☐	farming (also forestry, fishing)
☐	☐	professional/management (e.g., teachers, registered nurses)
☐	☐	technical, sales, or administrative support (e.g., office workers, salespersons, nurses--LPNs, mail carriers, health care support jobs)
☐	☐	service jobs (e.g., health care aides, policemen, firemen, cooks, barbers, janitors)
☐	☐	precision production, craft, and repair jobs (e.g., mechanics, welders, construction trades)
☐	☐	equipment operators and fabricators (e.g., bus/truck drivers, laborers)
☐	☐	other *(explain)* ________

48. What was your total family net income before taxes last year?

- ☐ under $5,000
- ☐ $5,000-$10,000
- ☐ $10,001-$15,000
- ☐ $15,001-$20,000
- ☐ $20,001-$25,000
- ☐ $25,001-$30,000
- ☐ $30,001-$35,000
- ☐ $35,001-$40,000
- ☐ $40,001-$45,000
- ☐ over $45,000

← IF YOU ARE A FARMER, PLEASE COMPLETE QUESTIONS 49-60 TO THE LEFT

If you are a farm operator (not strictly a landlord), please continue with question 49 below.

	TOWN NAME	%	TOWN NAME	%	TOWN NAME	%
49. Farm machinery						
50. Farm mach. repair/parts						
51. Farm fuel & lubricants						
52. Commercial feeds						
53. Crop seeds						
54. Crop consultants						
55. Fertilizer						
56. Other farm chemicals						
57. Veterinary services						
58. Other farm supplies						

WHERE ARE YOUR FARM PRODUCTS MARKETED?

	TOWN NAME	%	TOWN NAME	%	TOWN NAME	%
59. Grain						
60. Livestock						