

Retail Trade Area Analysis

Larimore North Dakota

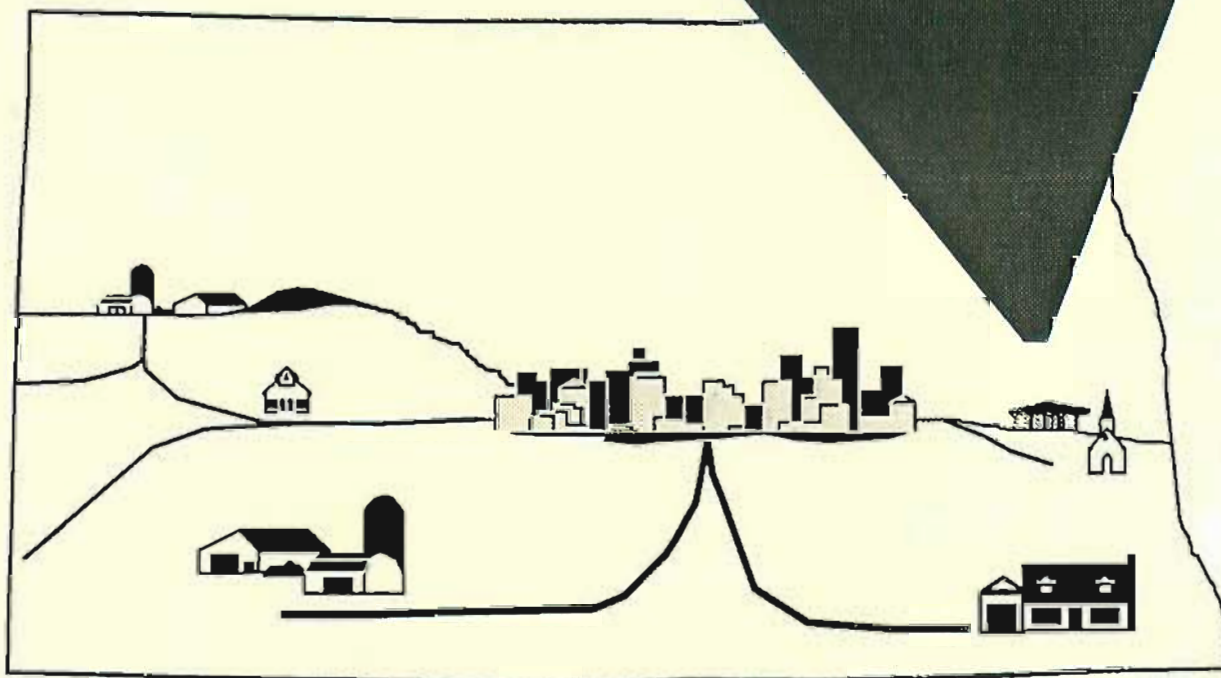
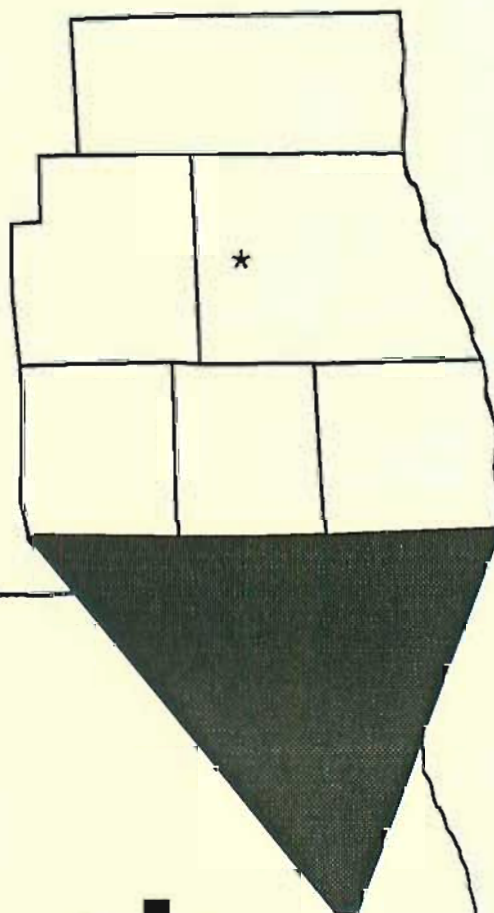
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The authors accept sole responsibility for any remaining errors or omissions.

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HIGHLIGHTS

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

Current trade area information for Larimore 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 Larimore population, retail sales, per capita income, pull factors, and Grand Forks County population and employment were identified and discussed. Larimore's population, retail sales, and pull factor have all decreased throughout the 1980s, even though Grand Forks County population and average annual employment have increased during the same time period. Although Larimore's demographic and economic measurements have decreased, Larimore has fared as well as other North Dakota cities with similar population, and has fared favorably compared to smaller competing trade centers. The economic situation found in Larimore in the 1980s is somewhat typical of the problems found in rural North Dakota communities located close to large retail trade centers.

Larimore's trade areas were broken down into main and greater trade areas. A main trade area (MTA) was defined as an area where 35 percent or more of the 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. Larimore'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, are primarily employed in agriculture, professional/technical, sales/service professions, or retired, and have resided in the area a large portion of their lives.

Main trade area residents traveled an average of 7.7 and 7.4 miles to Larimore to purchase selected convenience and specialty goods and services, respectively. Over three-fifths (63.8 percent) of the respondents who purchased 50 percent or more of convenience and specialty goods in Larimore traveled between 6 to 15 miles to purchase the item.

Larimore appears to be an important source of many goods and services for those who shop in Larimore; however, Larimore could

capture much more of the available market for two-thirds of the nonagricultural and all of the agricultural goods and services listed on the survey questionnaire. Larimore's problems with market capture are mostly caused by its close proximity to Grand Forks, and Larimore may find it difficult to compete with Grand Forks for the delivery of most specialty and high ticket items.

Grand Forks, Northwood, Niagara, and McCanna were the most popular cities for the purchase of nonagricultural goods and services by Larimore MTA residents who did not purchase a majority of the good or service in Larimore. Northwood, Gilby, Fordville, Honeyford, McCanna, and Grand Forks were popular for purchasing agricultural goods and services.

Outshopping analysis revealed no substantial demographic or socioeconomic differences between Larimore MTA residents purchasing 50 percent or more and those purchasing less than 50 percent of selected goods and services in Larimore. Subtle differences were noted between the groups purchasing farm fuel and lubricants. Slight differences between groups for all four items were evident only in miles traveled.

The Grand Forks Herald was the most popular daily newspaper for both Larimore MTA and GTA residents. The Larimore Leader was the most popular weekly newspaper for both Larimore MTA and GTA residents. The most popular radio stations for Larimore MTA residents included KNOX of Grand Forks, KKXL of Grand Forks, KYCK of Crookston, and KFGO of Fargo.

Although economic times have been difficult, Larimore appears to be doing a good job of retaining most of its past trade area. Much of Larimore's problems with market capture, reduced taxable sales, and lower pull factors can be attributed to the increased economic influence of Grand Forks. Although Grand Forks has increased its retail influence during the 1980s, Larimore should remain an important trade center for residents in western Grand Forks County and the surrounding area.

RETAIL TRADE AREA ANALYSIS: LARIMORE, NORTH DAKOTA

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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 Larimore trade area.

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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.

This report will describe Larimore's main and greater trade areas, provide information on the demographic characteristics of Larimore area shoppers, and identify essential and nonessential services Larimore 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, the material presented in this report primarily covers the Larimore trade area.

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

LARIMORE 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 Larimore population, retail sales, market share, per capita income, pull factors, and Grand Forks 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 1988 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.

Larimore's population declined about 6.2 percent from 1980 to 1988 (Table 1). Of the North Dakota cities in the population range 1,500 to 2,500, only five had population increases from 1980 to 1988. If Hazen, the population of which increased almost 42 percent, was removed from the group, population of the size category would have decreased almost 7 percent. Larimore's trade area population decreased only 0.2 percent from 1980 to 1988, the smallest decrease for any town in the category. The population of Larimore's competing trade centers and their trade area populations also decreased, except for Grand Forks and the Northwood trade area.

Since Larimore's trade areas cover parts of counties other than Grand Forks County, population, average annual employment, and per capita income have been identified for surrounding counties (Table 2). Population in Grand Forks County increased 6.7 percent from 1980 to 1988. All surrounding counties lost population during the same time period.

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

City	County	City Population		Percent Change	Trade Area Population ^a		Percent Change
		1980	1988	1980-88	1980	1988	1980-88
Population over 10,000							
Grand Forks	Grand Forks	43,765	48,430	10.66	*	*	*
Group Total		253,628	274,280	8.14	--	--	--
Population 2,500 to 10,000							
Group Total		43,813	45,650	4.19	9,602	9,579	2.52
Population 1,500 to 2,500							
Larimore	Grand Forks	1,524	1,430	-6.17	3,055	3,050	-0.16
Mayville	Trail	2,255	1,950	-13.53	4,512	4,160	-7.80
Group Total		39,095	37,540	-3.98	--	--	--
Population 1,000 to 1,500							
Northwood	Grand Forks	1,240	1,160	-6.45	2,115	2,120	0.24
Group Total		29,622	27,540	-7.03	--	--	--
Population 500 to 1,000							
Emerado	Grand Forks	596	580	-2.68	*	*	*
Finley	Steele	718	620	-13.65	1,548	1,380	-10.85
Lakota	Nelson	963	880	-8.62	2,659	2,290	-13.88
McVillie	Nelson	626	540	-13.74	2,222	2,040	-8.19
Portland	Trail	627	570	-9.09	853	800	-6.21
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	--	--	--

^aTrade areas were based on previous work by North Dakota State University Extension Service.

SOURCE: Leistritz et al. 1990.

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

County	1980	1982	1984	1986	1988	1989	Percent Change 1980-88/89	
----- Population -----								
Grand Forks	66,100	67,100	69,100	69,800	70,500	---	6.66	
Surrounding Counties								
Griggs	3,714	3,600	3,700	3,600	3,500	---	-5.76	
Nelson	5,233	5,000	5,100	4,900	4,700	---	-10.19	
Steele	3,106	2,900	3,000	2,800	2,800	---	-9.85	
Traill	9,624	9,600	9,600	9,200	9,000	---	-6.48	
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 -----								
Grand Forks	24,911	24,958	31,414	33,866	34,726	35,181	41.23	
Surrounding Counties								
Griggs	1,642	1,619	1,542	1,510	1,504	1,523	-7.25	
Nelson	2,534	2,549	2,058	1,979	1,843	1,837	-27.51	
Steele	1,361	1,353	1,259	1,154	1,102	1,076	-20.94	
Traill	4,338	4,480	4,344	4,368	4,276	4,243	-2.19	
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 -----								
	<u>1979^c</u>		<u>1987</u>					Percent Change <u>1979 to 1987</u>
Grand Forks	\$10,200		\$9,957					-2.4
Surrounding Counties								
Griggs	9,047		8,435					-6.8
Nelson	8,651		8,089					-6.5
Steele	10,826		11,130					2.8
Traill	10,183		9,525					-6.5
Walsh	8,154		8,682					6.5
North Dakota	10,041		9,641					-4.0

^aJob Service North Dakota. Various Issues. North Dakota Labor Force by County, by Region. Bismarck.

^bU.S. Department of Commerce, Bureau of the Census, "Current Population Reports," Series P-26 (Spring 1990).

^cReal 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.

Average annual employment in Grand Forks County increased 41.2 percent from 1980 to 1989, the second largest increase in the state. Employment declined in all counties surrounding Grand Forks County. Although population and employment increased in Grand Forks County during 1980 to 1988, real per capita income

(i.e., adjusted for inflation) decreased from 1979 to 1987, while per capita income increased in two of the surrounding counties.

Larimore's deflated taxable sales (i.e., adjusted for inflation) decreased 43.1 and 26.1 percent from 1980 to 1989 and 1987 to 1989, respectively (Table 3). Larimore fared about average compared to other cities in the same population category, with average taxable sales for the group decreasing 45.56 and 10.06 percent from 1980 to 1989 and 1987 to 1989, respectively. Competing cities also suffered large decreases in their adjusted taxable sales for the same time periods, except Emerado and Grand Forks, which increased their taxable sales (1980 to 1989). Statewide, taxable sales decreased 17.77 and 0.24 percent from 1980 to 1989 and 1987 to 1989, respectively.

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

TABLE 3. DEFLATED TAXABLE SALES AND PURCHASES FOR LARIMORE 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					
Grand Forks	345,823,249	417,195,195	432,857,077	25.17	3.75
Group Total	2,578,781,160	2,337,648,605	2,396,999,678	-7.05	2.54
Population 2,500 to 10,000					
Group Total	398,731,612	315,496,552	298,875,168	-25.04	-5.27
Population 1,500 to 2,500					
Larimore	7,065,247	5,441,009	4,020,338	-43.10	-26.11
Mayville	16,481,639	12,116,595	11,216,517	-31.95	-7.43
Group Total	415,612,668	251,583,986	226,276,758	-45.56	-10.06
Population 1,000 to 1,500					
Northwood	16,172,391	9,655,663	10,978,981	-32.11	13.71
Group Total	222,752,746	141,859,953	130,721,134	-41.32	-7.85
Population 500 to 1,000					
Emerado	1,870,718	3,150,037	2,561,599	36.93	-18.68
Finley	4,087,935	2,726,246	2,717,158	-33.53	-0.33
Lakota	5,947,534	4,005,941	3,614,685	-39.22	-9.77
McVille	4,355,387	3,003,687	2,682,962	-38.40	-10.68
Portland	2,300,364	1,589,489	1,535,509	-33.25	-3.40
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.

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.

Larimore's pull factor decreased almost 26 percent from 1980 to 1989 (Table 4). Only four cities in the population group 1,500 to 2,500, increased their pull factor from 1980 to 1989. Larimore's pull factor is well below the group average, indicating the community captures much less of its trade area purchasing power than most of the cities with similar population. Pull factors for competing cities decreased substantially from 1980 to 1989, except Finley, which increased its pull factor. Pull factors in 1989 for cities competing with Larimore were generally higher than Larimore's pull factor, suggesting Larimore does not capture as much of its available market compared to neighboring cities.

Competing cities and surrounding counties' populations have declined in the geographic area near Larimore. Grand Forks and Grand Forks County both increased in population from 1980 to 1989. Larimore's pull factor and deflated taxable sales decreased in the 1980s; however, average annual employment and

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

City	Pull Factor			Percent Change		
	1980	1987	1989	1980-87	1980-89	1987-89
Population over 10,000						
Grand Forks	*	*	*	*	*	*
Group Average	1.12	0.96	1.01	-14.20	-9.63	5.32
Population 2,500 to 10,000						
Group Average	0.79	0.73	0.64	-8.40	-19.82	-12.47
Population 1,500 to 2,500						
Larimore	0.37	0.36	0.27	-2.71	-25.76	-23.69
Mayville	0.58	0.56	0.54	-2.95	-6.83	-4.00
Group Average	0.89	0.65	0.52	-26.93	-42.26	-20.99
Population 1,000 to 1,500						
Northwood	1.22	0.91	1.08	-25.69	-11.78	18.72
Group Average	0.65	0.53	0.43	-18.35	-34.55	-19.84
Population 500 to 1,000						
Emerado	*	*	*	*	*	*
Finley	0.40	0.33	0.46	-17.36	15.08	39.25
Lakota	0.41	0.39	0.27	-5.98	-34.95	-30.81
McVilleville	0.36	0.34	0.22	-4.23	-38.15	-35.42
Portland	0.42	0.41	0.38	-4.51	-10.17	-5.92
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.

population in Grand Forks County have increased in the 1980s. Although real per capita income in Grand Forks County decreased from 1979 to 1987, the area has remained one of North Dakota's economically vibrant counties. Changes in economic activity and population for Larimore have been similar to other North Dakota cities in the 1,500 to 2,500 population range, suggesting Larimore is no worse off than other cities of comparable size.

Although Larimore suffers from decreased economic activity and population declines, the city is doing better compared to its smaller competing cities. Smaller cities and towns competing with Larimore also face tough economic pressures; however, they appear to be suffering more economic decline than is evident in larger cities. Economic pressures and population declines found in Larimore are somewhat overshadowed by the strong economic base of Grand Forks. Much of the decrease in Larimore's taxable sales and reduced pull factors can be attributable to the increased economic influence of Grand Forks. The economic strain on Larimore is somewhat typical of the problems found in rural North Dakota communities located close to large retail trade centers.

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 Larimore.

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.

Larimore was classified as a minimum convenience 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 goods 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
Gas and diesel service	Hardware

Specialty Goods and Services

Plumber

Agricultural Goods and Services

Farm fuel and lubricant	Crop consultant
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The main trade area for Larimore was defined by townships where 35 percent or more of the residents purchased 50 percent or more of the selected mix of goods and services in Larimore. 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 Larimore.

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.

Larimore's MTA lies mostly to the north of the city. The GTA extends only to a limited number of townships beyond the MTA, which can be anticipated, considering Larimore's proximity to Grand Forks (Figure 1). The Larimore GTA has a relatively even influence on the townships beyond the MTA, exhibiting no particular strength in any direction. Larimore's ability to attract customers appears limited due to competition from the Grand Forks trade center.

CHARACTERISTICS OF LARIMORE AREA RESIDENTS

Business people and community leaders usually are interested in the characteristics of local shoppers and shopping patterns. The characteristics of Larimore shoppers were analyzed, using 118 survey responses from the Larimore MTA. Other analyses included examination of important and less important services for patron shoppers of Larimore, identification of neighboring cities area shoppers patronize, determination of distances area shoppers traveled to Larimore, and listing popular newspapers and radio stations among area residents.

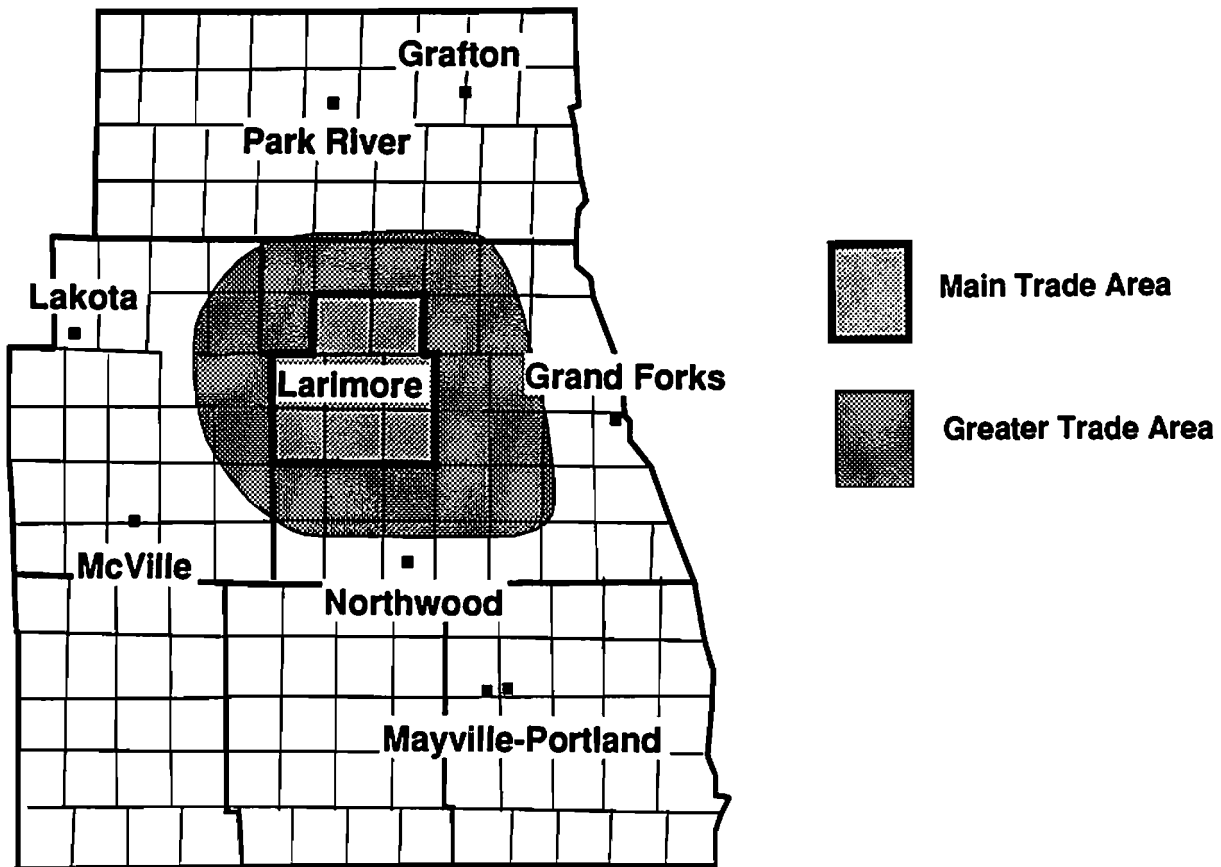


Figure 1. Main and Greater Trade Areas for Larimore, North Dakota, 1989

Demographic Profile of Shoppers in Larimore Main Trade Area

Demographic characteristics of the survey respondents for the Larimore 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 about equally employed in agriculture, professional, technical, sales, and service professions, or are retired, and have resided in the area a large portion of their lives.

Distance Traveled by Larimore Area Shoppers

Average distances that area residents traveled to Larimore were determined for each good or service in the 7-item goods and services mix (Table 6). Distances were determined by averaging respondents' estimated miles between Larimore and their home residence. Larimore residents and any respondents who lived one mile or less from Larimore were not included in the analysis. Once the average distance was determined for each township, the

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

Demographic Characteristic	Average of Survey Responses	
Age (Years)	52.8	
Education (Years)	12.8	
Lived in County (Years)	38.0	
Household Size (People)	2.9	
Average Household Income	\$26,010	
Occupation	Respondent	Spouse
	---%---	---%---
Retired	28.8	22.0
Farming	14.4	9.8
Tech/Sales/Admin	11.7	18.3
Service Jobs	10.8	7.3
Craft/Repair	10.8	11.0
Professional	9.9	13.4
Equipment Operator	5.4	3.7
Housewife	3.6	11.0
Other	4.5	3.7
Martial Status	--- % ---	
Single	9.5	
Separated/Divorced	6.0	
Married	74.1	
Widowed	10.3	
Male	60.7	
Female	39.3	

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

<u>All Respondents Purchasing 50 Percent or More of the Service in Larimore</u>			
<u>Convenience Items</u>		<u>Other Items</u>	
<u>Goods and Services</u>	<u>Average Miles Traveled</u>	<u>Goods and Services</u>	<u>Average Miles Traveled</u>
Gas & Diesel Stations	9.0	Plumber	7.9
Groceries	9.7	Farm Fuel	7.5
Banking and Savings	10.9	Crop Consultant	10.0
Hardware	9.3		
Average	<u>9.9</u>	Average	<u>7.9</u>
<u>MTA Respondents Only Who Purchase 50 Percent or More of the Service in Larimore</u>			
<u>Convenience Items</u>		<u>Other Items</u>	
<u>Goods and Services</u>	<u>Average Miles Traveled</u>	<u>Goods and Services</u>	<u>Average Miles Traveled</u>
Gas & Diesel Stations	7.2	Plumber	7.1
Groceries	7.1	Farm Fuel	7.6
Banking and Savings	8.7	Crop Consultant	11.5
Hardware	7.1		
Average	<u>7.7</u>	Average	<u>7.4</u>

^aOne-way distance to Larimore only.

number of respondents purchasing 50 percent or more of the item in Larimore was multiplied by the average distance to determine total miles of travel for that township (for the specific good or service).

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 Larimore. 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 Larimore.

The average distance traveled to Larimore to purchase convenience goods and services was more 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 slightly more than that traveled for specialty goods and services for respondents in the MTA who purchased 50 percent or more of the item in Larimore.

For those respondents living in the MTA, the average distance traveled for both types of goods and services was similar.

Distance traveled by type of good or service (convenience and specialty) was broken down into distance categories. Over three-fifths (63.8 percent) of the respondents (regardless of residence location) who purchase 50 percent or more of a convenience and specialty good or service traveled between 6 to 15 miles to purchase the item in Larimore (Table 7). For those living in the MTA, almost three-fourths (70.7 percent) of the MTA residents traveled 10 miles or less to purchase items in Larimore.

Area Shoppers' Utilization of Goods and Services Provided in Larimore

The importance of Larimore as a trade center for those who shop in Larimore and the ability of Larimore to capture the MTA market for selected goods and services were determined (Table 8). The importance of shopping in Larimore was determined by

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

<u>All Respondents Purchasing 50 Percent or More of a Service in Larimore</u>				
Distance (Miles) ^a	<u>Convenience Goods</u>		<u>Other Goods</u>	
	Number	Percent	Number	Percent
1 to 5	13	17.1	11	27.5
6 to 10	25	32.9	19	47.5
11 to 15	22	28.9	8	20.0
16 to 20	11	14.5	2	5.0
21 to 25	5	6.6	--	--
over 25	--	--	--	--

<u>MTA Respondents Only Who Purchase 50 Percent or More of a Service in Larimore</u>				
Distance (Miles) ^a	<u>Convenience Goods</u>		<u>Other Goods</u>	
	Number	Percent	Number	Percent
1 to 5	13	28.3	11	37.9
6 to 10	17	37.0	12	41.4
11 to 15	13	28.3	5	17.2
16 to 20	3	6.5	1	3.4
21 to 25	--	--	--	--
over 25	--	--	--	--

^aThose living in Larimore or traveling less than one mile to Larimore were not included in the analysis.

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

Goods and Services	Responses in Larimore Main Trade Area					
	Purchase the Goods & Services Somewhere	Purchase Some of the Goods & Services in Larimore		Purchase Majority of the Goods & Services in Larimore		Measure of Market Capture
		No.	% ^a	No.	% ^b	
Chiropractor	58	46	79.3	46	100.0	79.3
Computers	24	5	20.8	5	100.0	20.8
Mortician	82	76	92.7	75	98.7	91.5
Plumber	85	74	87.1	73	98.6	85.9
Dentist	113	94	83.2	92	97.9	81.4
Legal Service	96	64	66.7	62	96.9	64.6
Accounting Services	70	42	60.0	40	95.2	57.1
Heating Fuel/Propane	94	71	75.5	66	93.0	70.2
Barber	87	57	65.5	52	91.2	59.8
Beautician	97	72	74.2	65	90.3	67.0
Banking and Savings	115	92	80.0	76	82.6	66.1
Florist	108	85	78.7	70	82.4	64.8
Auto Sales	106	37	34.9	30	81.1	28.3
Hardware	108	91	84.3	72	79.1	66.7
Auto Repair	107	75	70.1	59	78.7	55.1
Radios, TVs, VCRs	113	52	46.0	40	76.9	35.4
Prescription Drugs	114	98	86.0	75	76.5	65.8
Appliance/Elec Repair	100	49	49.0	37	75.5	37.0
Veterinarian (Sm Animals)	59	4	6.8	3	75.0	5.1
Family Doctor	115	63	54.8	45	71.4	39.1
Gas/Diesel Service	112	97	86.6	68	70.1	60.7
Drinking Places	52	43	82.7	30	69.8	57.7
Optometrist	105	23	21.9	16	69.6	15.2
Major Appliances	111	47	42.3	32	68.1	28.8
Nursery (Plants)	96	53	55.2	36	67.9	37.5
Groceries	113	107	94.7	68	63.6	60.2
Building Supplies	102	82	80.4	52	63.4	51.0
Sporting Goods	82	45	54.9	28	62.2	34.1
Eating Places	111	96	86.5	45	46.9	40.5
Jewelry	84	11	13.1	5	45.5	6.0
Hospital	110	3	2.7	1	33.3	0.9
Men's Clothing	105	17	16.2	5	29.4	4.8
Furniture	104	7	6.7	2	28.6	1.9
Women's Clothing	104	15	14.4	4	26.7	3.8
Shoes	114	9	7.9	2	22.2	1.8
Teenage Clothing	50	2	4.0	0	0.0	0.0
Women's Coats	99	1	1.0	0	0.0	0.0
----- Agricultural Goods and Services -----						
Crop Consultants	12	2	16.7	2	100.0	16.7
Farm Fuel & Lubricant	18	11	61.1	10	90.9	55.6
Commercial Feeds	10	5	50.0	4	80.0	40.0
Other Farm Chemicals	15	11	73.3	8	72.7	53.3
Crop Seeds	14	9	64.3	6	66.7	42.9
Grain Marketing	18	14	77.8	9	64.3	50.0
Fertilizer	16	11	68.8	7	63.6	43.8
Farm Machinery	19	14	73.7	7	50.0	36.8
Farm Mach Repair/Parts	18	12	66.7	6	50.0	33.3
Other Farm Supplies	15	11	73.3	5	45.5	33.3
Veterinary Services	10	0	0.0	0	0.0	0.0
Livestock Marketing	9	0	0.0	0	0.0	0.0

^aDetermined by dividing number of responses of those who purchase some of the service in Larimore 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 Larimore.

^bDetermined by dividing number of responses of those who purchase majority of the service in Larimore by the number who purchase some of the service in Larimore. Number is proxy for relative importance of Larimore as a provider of the service for those purchasing the item.

^cDetermined by dividing number of responses who purchase majority of the service in Larimore by the number who purchase some of the service anywhere. Number is proxy for ability of Larimore to capture potential market for that service.

examining the number of respondents who purchased some of their goods and services in Larimore and comparing those responses to the number who purchased a majority of their goods and services in Larimore. A high percentage meant if respondents shopped in Larimore, they likely would purchase a majority of those goods and services in Larimore. A low percentage meant that, although some of the goods and services were purchased in Larimore, the majority of the goods and services was purchased elsewhere.

Goods and services that appear to be most utilized by those shopping in Larimore include chiropractor, computers, mortician, plumber, dentist, legal services, accounting services, and crop consulting (services where 95 percent of those buying the service in Larimore purchase a majority of the service in Larimore). The goods and services that people are less likely to purchase a majority of in Larimore include shoes, teenage clothing, women's clothing and coats, eating establishments, furniture, hospital, jewelry, livestock marketing, veterinary services, farm supplies, farm machinery, and farm machinery repair and parts.

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

Goods and services for which Larimore is capturing a large amount of the potential market (80 percent or more) within the MTA include mortician, plumber, and dentist. Larimore does not capture the existing market (less than 60 percent) for 35 out of the 47 goods and services on the survey questionnaire. Larimore's low market capture for a wide array of goods and services could be expected considering its location next to Grand Forks. Larimore will find it difficult to compete with Grand Forks for most specialty and higher ticket items.

Goods and services that are important to Larimore shoppers and those for which Larimore is capturing a large percentage of the market include mortician, plumber, and dentist. Computers, barber, auto sales, appliance and electronic repair, and veterinarian (small animals) services are important to shoppers in Larimore, but few of the potential buyers purchase a majority of those goods and services in Larimore.

The residents of Larimore's MTA exhibit an appreciable amount of shopping loyalty in Larimore, considering the relative ease with which they could shop in Grand Forks. Larimore, because of competition from Grand Forks, should consider targeting its goods and services delivery to providing convenience items and selected services.

Where Services Are Purchased When Not Purchased In Larimore

For most of the goods and services listed in the survey, some respondents did not purchase any of the good or service in Larimore or purchased more of the good or service in other cities. For people living in the Larimore MTA and not purchasing a majority of the services in Larimore, 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 Larimore MTA. Other popular cities included Northwood, Niagara, and McCanna. Northwood, Gilby, Fordville, Honeyford, McCanna, and Grand Forks were popular for purchasing agricultural goods and services.

Larimore will always lose some shoppers to surrounding cities and towns for several reasons. First, many shoppers in the Larimore 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, because of its size, will have an image of greater variety and more favorable prices for many goods and services. Thus, many people will travel to Grand Forks 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 Larimore Main Trade Area

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

According to selected demographic characteristics, little difference exists between those who purchase a majority of their goods and services in Larimore and those who purchase a majority of their goods and services elsewhere (Table 10). Household income was higher across all four services for the group purchasing less than 50 percent of the services in Larimore than for the group purchasing 50 percent or more. The group purchasing 50 percent or more of farm fuel and lubrication in Larimore had more children and had resided in the county less years than the group purchasing less than 50 percent of the items

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

Goods and Services	Most Popular Cities	Responses Per City	Percent Purchased	Goods and Services	Most Popular Cities	Responses Per City	Percent Purchased
Groceries	Grand Forks	42	76.7	Eating Establishments	Grand Forks	60	74.4
Drinking Places	Grand Forks	9	81.3	Men's Clothing	Grand Forks	97	91.8
	Niagara	3	76.7	Women's Clothing	Grand Forks	98	90.9
	McCanna	3	76.7	Teen Clothing	Grand Forks	49	91.4
Women's Coats	Grand Forks	97	92.5	Jewelry	Grand Forks	76	90.6
Shoes	Grand Forks	109	92.0	Radios, TVs, VCRs	Grand Forks	70	90.5
Major Appliances	Grand Forks	75	93.0	Florist	McCanna	20	84.0
Appliance Repair	Grand Forks	58	88.8	Grand Forks	16	78.3	
	Grand Forks	28	73.8	Furniture	Grand Forks	97	91.2
	McCanna	24	84.0	Grafton	3	58.3	
Nursery (plants)	Northwood	4	73.8	Auto Repair	Grand Forks	24	81.0
	Grand Forks	51	85.4	Northwood	6	95.8	
	Northwood	15	87.6	Niagara	6	62.5	
Auto Sales	Grand Forks	30	66.7	Heating Fuel/Propane	McCanna	11	92.7
Gas Station	Emerado	4	76.3		Emerado	7	90.0
Emerado	4	75.0	Grand Forks		4	87.5	
Plumber	Niagara	6	96.7	Barber	Grand Forks	22	90.0
	Northwood	2	80.0		McCanna	5	90.0
	Arvilla	2	100.0		Legal Service	Grand Forks	28
Beautician	Grand Forks	19	89.2	Lakota	3	96.7	
	McCanna	6	94.2	Computers	Grand Forks	17	98.7
	Niagara	3	93.3	Optometrist	Grand Forks	82	93.7
Accounting Service	Grand Forks	17	98.8	Durbin	3	100.0	
	Arvilla	8	97.5	Chiropractor	Grand Forks	10	83.5
Family Doctor	Grand Forks	52	92.6	Hospital	Grand Forks	81	91.0
	Northwood	14	90.7		Northwood	24	78.3
Donist	Grand Forks	14	84.2		Prescription Drugs	Grand Forks	33
Mortician	Durbin	5	100.0	Catalog Sales	4	68.5	
	Grand Forks	5	97.0	Banking and Savings	Grand Forks	28	81.2
	Grand Forks	30	95.0	Petersburg	4	93.8	
Vet (small animals)	Park River	19	92.9	Hardware	Grand Forks	29	76.3
	Cooperstown	4	91.3	Niagara	4	55.0	
	Grand Forks	47	80.0	Farm Mach. Repair	Northwood	5	71.0
Building Supplies	Grand Forks	47	80.0	Gilby	3	66.7	
	Grand Forks	52	86.9	Fordville	2	37.0	
	Northwood	5	76.0	Commercial Feed	McCanna	2	75.0
	Gilby	2	85.0	Crop Seeds	Honeyford	5	50.0
Farm Machinery	Grand Forks	2	40.0	McCanna	2	70.0	
	Fordville	2	37.0	Fertilizer	Honeyford	4	60.0
	Emerado	2	95.0	Grand Forks	2	80.0	
Farm Fuel/Lubrication	Gilby	2	95.0	Gilby	2	70.0	
	Northwood	5	92.5	Farm Supplies	Grand Forks	9	73.3
Crop Consultant	Grand Forks	2	72.5	Grain Marketing	Honeyford	5	53.0
	Northwood	5	92.5	McCanna	3	83.3	
Farm Chemicals	Honeyford	3	60.0	Livestock Marketing	West Fargo	6	85.0
Veterinary Service	Park River	4	97.5				
	Cooperstown	3	93.3				
	Grand Forks	2	95.0				

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 LARIMORE, NORTH DAKOTA, 1989

Attribute	Group Purchasing 50 Percent or More of Goods in Larimore				Group Purchasing Less Than 50 Percent of Goods in Larimore			
	Banking & Savings	Plumber	Hardware	Farm Fuel	Banking & Savings	Plumber	Hardware	Farm Fuel
Age	54.6	53.3	56.0	45.8	50.2	55.9	46.1	52.3
Education	12.7	12.9	12.5	14.2	13.2	13.1	13.5	13.3
Years Lived In County	40.3	39.3	39.3	26.6	33.7	40.7	33.0	50.5
Number in Household	2.9	3.0	2.8	4.2	3.0	3.0	3.4	2.5
Number in Grade School	0.5	0.6	0.4	0.7	0.7	0.8	1.0	0.7
Number in High School	0.7	0.7	0.6	1.4	0.6	0.7	1.0	0.0
Average Miles Traveled ^a	8.7	7.1	7.1	7.6	16.4	9.5	17.3	9.3
Household Income	\$24,669	\$24,590	\$24,008	\$29,500	\$29,214	\$28,667	\$31,071	\$31,071

^aThose living in Larimore and those traveling less than one mile to Larimore were not included in the analysis.

in Larimore. The group purchasing less than 50 percent of the four goods and services in Larimore traveled farther (for each of the services) than the group purchasing 50 percent or more of the same goods and services in Larimore.

Both the average age and years resided in county were very high, suggesting either that the survey respondents were older individuals or the MTA is composed of older clientele (providing the survey is a representative sample of the MTA). Other demographic variables suggest that households in the Larimore MTA are small, with few school children. Only slight differences were evident between the two main groups, with no substantial differences appearing across all goods and services for the group purchasing 50 percent or more and those purchasing less than 50 percent of the goods and services in Larimore.

Newspaper Subscriptions of Larimore Area Residents

Newspaper subscriptions of respondents in the Larimore main and greater trade areas were identified (Table 11). Newspaper subscriptions were divided into daily and weekly papers for both

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

Main Trade Area			Greater Trade Area		
Newspaper	Numbers of Respondents	Percent	Newspaper	Number of Respondents	Percent
----- Daily Newspapers -----					
Grand Forks Herald	86	96.6	Grand Forks Herald	77	95.1
Fargo Forum	2	2.2	Fargo Forum	3	3.7
USA Today	1	1.1	USA Today	1	1.2
	Total	89 ^a		Total	81 ^b
----- Weekly Newspapers -----					
Larimore Leader	59	57.8	Larimore Leader	16	20.3
Larimore Pioneer	19	18.6	Michigan Arena	12	15.2
West Fargo Pioneer	5	4.9	Larimore Pioneer	8	10.1
G. F. Herald (Sunday)	4	3.9	Lakota American	7	8.9
Washburn Leader	4	3.9	Tri County Sun	6	7.6
Agweek-Grand Forks	3	2.9	G. F. Herald (Sunday)	5	6.3
Others	8	8.0	Northwood Gleaner	4	5.1
			AgWeek-Grand Forks	3	3.8
			Grafton Record	3	3.8
			Others	15 ^c	18.9
	Total	102 ^d		Total	79 ^e

^a86 respondents subscribe to a daily paper with 3 respondents subscribing to more than one paper.

^b78 respondents subscribe to a daily paper with 3 respondents subscribing to more than one paper.

^cOther weekly newspapers included Aneta Star, Walsh County Press, Washburn Leader, Tioga Tribune, Ness Press, and Midway Express.

^d81 respondents subscribe to a weekly paper with 21 respondents subscribing to more than one paper.

^e56 respondents subscribe to a weekly paper with 23 respondents subscribing to more than one paper.

main and greater trade area respondents. The most popular daily newspaper for both the main and greater trade areas was *The Grand Forks Herald*. The most popular weekly newspaper for both the main and greater trade areas was the *Larimore Leader*. Other popular weekly newspapers for respondents included *Larimore Pioneer* and *Lakota American*.

Radio Stations of Larimore Area Residents

The most popular radio stations that respondents in Larimore's main trade area listened to were KNOX of Grand Forks, followed by KKXL of Grand Forks, KYCK of Crookston, and KFGO of Fargo (Table 12).

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

Radio Station	Number of Respondents	Percent
KNOX-Grand Forks	36	36.4
KKXL-Grand Forks	15	15.2
KYCK-Crookston, MN	14	14.1
KFGO-Fargo	12	12.1
KFNW-Fargo	3	3.0
Others	19	19.2

Comparison of Current and Previous Larimore Trade Area Boundaries

Vangsness (1973) discussed general information on retail trade and identified both main and greater trade areas for Larimore. Information from the past Larimore 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 Larimore's main and greater trade areas. Although trade area delineation criteria used in the previous Larimore trade area report differ, enough similarity exists to make comparisons with the trade area boundaries determined in this report.

The main trade area for Larimore has changed little from 1973. Larimore lost two and gained one township from Grand Forks, for a decrease in MTA size of one township since the early 1970s. The greater trade area appears to have diminished slightly to the west, north, and south of Larimore; however, the GTA appears to have remained constant to the east of Larimore. Some of the differences in trade areas may be attributed to different trade area delineation criteria and to changes in the relative strength of competing trade centers.

SUMMARY AND CONCLUSIONS

Trade area analysis was conducted for Larimore based on a statewide trade area survey which the Department of Agricultural Economics at NDSU conducted in 1989. The demographic and economic profile for Larimore was discussed. Larimore has suffered in the 1980s from decreased population, reduced taxable sales, and lower pull factors. Changes in economic activity and population for Larimore have been similar to other North Dakota cities in the 1,500 to 2,500 population range, suggesting Larimore, during the 1980s, fared at least as well as other cities of comparable size. Although Larimore suffers from decreased economic activity and population declines, the city is doing relatively better than its smaller competing cities. The

depressed economic conditions Larimore experienced in the 1980s were common to most cities in North Dakota.

Main and greater trade areas were defined for Larimore, using several delineation criteria. Townships where 35 percent or more of the respondents purchased 50 percent or more of a mix of goods and services in Larimore 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 Larimore were included in the greater trade area (not including main trade area townships). The goods and services mix contained four convenience, one specialty, and two agricultural items.

Larimore's main trade area appears to have decreased slightly since 1973. Larimore lost two townships to neighboring cities, but gained one township, for an overall reduction in MTA size of one township. The greater trade area decreased slightly to the west, north, and south; however, pull to the east remained unchanged. The greater trade area captures a relatively even number of townships around the main trade area.

Larimore appears to be doing a fair job of capturing most of the available market (those respondents who purchase a majority of the service in Larimore divided by the total number of respondents in the Larimore main trade area who purchase the service) for about one-third of the services listed on the survey questionnaire. Larimore appears to be an important source of services for those shopping in Larimore, (i.e., of those shopping in Larimore, most individuals will purchase a majority of the item from Larimore retailers) but Larimore is not capturing much of its potential market.

Grand Forks, Northwood, Niagara, and McCanna provide most of the shopping locations for area residents who do not purchase the good or service in Larimore. No substantial differences were found in the demographic characteristics of those purchasing less than 50 percent and those purchasing more than 50 percent of selected convenience and specialty goods and services in Larimore. Subtle differences were found with the number of years resided in the county and number of children between the two groups for farm fuel and lubrication items, and average income between the two groups. Those purchasing 50 percent or more of one or more convenience or specialty goods or services in Larimore traveled an average distance of about 7.5 miles.

Even though the 1980s have been difficult for rural North Dakota cities, Larimore appears to have fared as well as other cities of comparable size and somewhat better than smaller neighboring towns. The economic pressures and population declines found in Larimore are somewhat overshadowed by the strong economic base of Grand Forks. Much of the decrease in Larimore's taxable sales and reduced pull factors can be attributable to the increased economic influence of Grand Forks. Larimore has done a good job of retaining most of its past trade areas and should remain an important trade center for residents in western Grand Forks County and the surrounding area.

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APPENDIX

Please continue here

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

TOWN NAME	%	BY HOW MANY IN THIS TOWN?

TOWN NAME	%	BY HOW MANY IN THIS TOWN?

TOWN NAME	%	BY HOW MANY IN THIS TOWN?

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 separated or divorced

married 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):

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

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

- 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

TOWN NAME	%	BY HOW MANY IN THIS TOWN?

TOWN NAME	%	BY HOW MANY IN THIS TOWN?

TOWN NAME	%	BY HOW MANY IN THIS TOWN?

WHERE ARE YOUR FARM PRODUCTS MARKETED?

Product	TOWN NAME	%	BY HOW MANY IN THIS TOWN?
59. Grain			
60. Livestock			

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

- | | |
|--|--|
| <input type="checkbox"/> under \$5,000 | <input type="checkbox"/> \$25,001-\$30,000 |
| <input type="checkbox"/> \$5,000-\$10,000 | <input type="checkbox"/> \$30,001-\$35,000 |
| <input type="checkbox"/> \$10,001-\$15,000 | <input type="checkbox"/> \$35,001-\$40,000 |
| <input type="checkbox"/> \$15,001-\$20,000 | <input type="checkbox"/> \$40,001-\$45,000 |
| <input type="checkbox"/> \$20,001-\$25,000 | <input type="checkbox"/> over \$45,000 |

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