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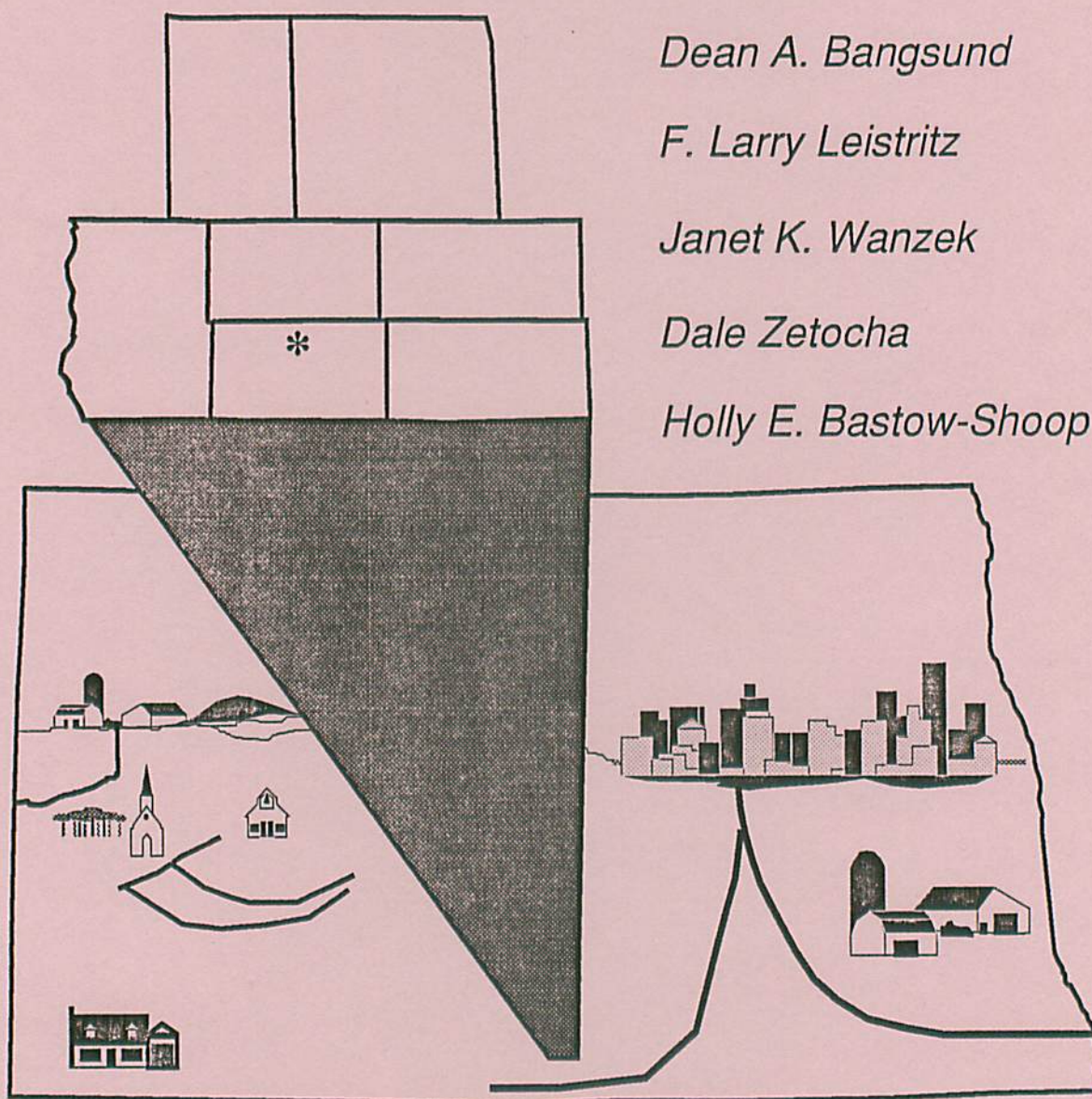
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Retail Trade Area Analysis

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

Current trade area information for Wishek 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 Wishek population, retail sales, per capita income, pull factors, and McIntosh County population and employment were identified and discussed. Wishek's population, trade area population, retail sales, and pull factor, along with McIntosh County population and average annual employment have all decreased throughout the 1980s. Although most demographic and economic measurements have decreased, Wishek has fared as well as other North Dakota cities with similar populations, and according to some measurements, has fared favorably compared to cities of similar size. The economic situation found in Wishek and McIntosh County are somewhat typical of the problems found in agriculturally dependent North Dakota communities in the 1980s.

Wishek'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. Wishek's MTA decreased in size by one township, compared to MTA boundaries determined in 1971.

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.

Main trade area residents traveled an average of 16.4 and 17.2 miles to Wishek to purchase selected convenience and specialty goods and services, respectively. Nearly half (47.1 percent) of the respondents who purchased 50 percent or more of convenience and specialty goods in Wishek traveled between 11 to 20 miles to purchase the item.

Wishek could capture more of the potential market for nearly half of the goods and services on the survey questionnaire; however, Wishek appears to be an important source of most goods and services for those who shop in Wishek.

Bismarck, Jamestown, Linton, Lehr, Napoleon, and Ashley were the most popular cities for the purchase of nonagricultural goods and services by Wishek MTA residents who did not purchase a majority of the good or service in Wishek. Zeeland, Ashley, and Fredonia were popular for purchasing agricultural goods and services.

Outshopping analysis revealed no substantial demographic or socioeconomic differences between Wishek MTA residents purchasing 50 percent or more and those purchasing less than 50 percent of selected goods and services in Wishek. Differences between groups were evident only in miles traveled.

The Bismarck Tribune and The Jamestown Sun were the most popular daily newspapers for both Wishek MTA and GTA residents. The Wishek Star and The Ashley Tribune were the most popular weekly newspapers for Wishek MTA and GTA residents, respectively. The most popular radio stations for Wishek MTA residents included KSJB of Jamestown, KFYZ of Bismarck, and KDRQ of Bismarck.

Although economic times have been difficult, Wishek has retained much of its past trade area and should remain an important trade center in for residents of Logan and McIntosh Counties and the surrounding area.

RETAIL TRADE AREA ANALYSIS: WISHEK, 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 overview 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 Wishek 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 Wishek's main and greater trade areas, provide information on the demographic characteristics of Wishek area shoppers, and identify essential and nonessential services Wishek 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 Wishek trade area.

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

WISHEK 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 Wishek population, retail sales, market share, per capita income, pull factors, and McIntosh 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.

Wishek's population declined about 9.3 percent from 1980 to 1988 (Table 1). Of the North Dakota cities in the population range 1,000 to 1,500, only three had population increases from 1980 to 1988. Wishek's trade area population decreased about 11.4 percent from 1980 to 1988, the fifth largest decrease of any town in the category. The population of Wishek's competing trade centers and their trade area populations also decreased from 1980 to 1988.

Since Wishek's trade areas cover parts of counties other than McIntosh County, population, average annual employment, and per capita income have been identified for surrounding counties (Table 2). Population in McIntosh County decreased about 10.4 percent from 1980 to 1988, with all surrounding counties losing population during the same time period.

Average annual employment in McIntosh County decreased about 2.3 percent from 1980 to 1989. Employment in all counties surrounding McIntosh declined substantially, except Logan County, where employment only decreased 1.4 percent. Although population and employment declined in McIntosh County during 1980 to 1988,

TABLE 1. CITY AND TRADE AREA POPULATION FOR WISHEK 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							
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							
Ellendale	Dickey	1,967	1,710	-13.07	3,477	3,140	-9.69
Linton	Emmons	1,561	1,340	-14.16	4,647	4,307	-7.32
Group Total		39,095	37,540	-3.98	--	--	--
Population 1,000 to 1,500							
Ashley	McIntosh	1,192	1,070	-10.23	2,328	2,058	-11.60
Napoleon	Logan	1,103	930	-15.68	2,143	1,985	-7.37
Wishek	McIntosh	1,345	1,220	-9.29	2,772	2,456	-11.40
Group Total		29,622	27,540	-7.03	--	--	--
Population 500 to 1,000							
Edgeley	LaMoure	843	640	-24.08	1,433	1,180	-17.66
Group Total		32,154	31,200	-2.97	--	--	--
Population 200 to 500							
Kulm	LaMoure	570	480	-15.79	1,158	1,070	-7.60
Strasburg	Emmons	623	490	-21.35	.	.	.
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 MCINTOSH AND SURROUNDING COUNTIES, NORTH DAKOTA, 1980 TO 1989

County	1980	1982	1984	1986	1988	1989	Percent Change 1980-88/89	
----- Population -----								
McIntosh	4,800	4,500	4,600	4,400	4,300	---	-10.42	
Surrounding Counties								
Dickey	7,207	7,000	7,100	6,900	6,600	---	-8.42	
Emmons	5,877	5,800	5,800	5,700	5,400	---	-8.12	
LaMoure	6,473	6,300	6,200	6,100	5,800	---	-10.40	
Logan	3,493	3,400	3,300	3,200	3,100	---	-11.25	
North Dakota	652,717	672,000	687,000	679,000	667,000	---	2.19	
----- Average Annual Employment ^a -----								
McIntosh	2,242	2,339	2,304	2,222	2,194	2,191	-2.27	
Surrounding Counties								
Dickey	3,290	3,246	3,310	3,260	3,034	3,020	-8.21	
Emmons	2,302	2,400	2,204	2,169	2,080	2,089	-9.25	
LaMoure	2,516	2,499	2,548	2,408	2,269	2,231	-11.33	
Logan	1,449	1,394	1,498	1,452	1,422	1,429	-1.38	
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>					<u>Percent Change 1979 to 1987</u>
McIntosh	\$8,050		\$8,318					3.3
Surrounding Counties								
Dickey	8,204		7,942					-3.2
Emmons	7,342		8,044					9.6
LaMoure	8,165		8,431					3.3
Logan	7,259		7,020					-3.3
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.

real per capita income (i.e., adjusted for inflation) actually increased from 1979 to 1987. Per capita income decreased in half of the surrounding counties.

Wishek's deflated taxable sales (i.e., adjusted for inflation) decreased 29.2 percent from 1980 to 1989; however, deflated taxable sales increased about 1.1 percent from 1987 to 1989 (Table 3). Wishek was one of five cities in the population range 1,000 to 1,500 that had increased taxable sales from 1987 to 1989. Although Wishek fared favorably compared to other cities in the same population category, average taxable sales for the group decreased 41.3 and 7.8 percent from 1980 to 1989 and

TABLE 3. DEFLATED TAXABLE SALES AND PURCHASES FOR WISHEK 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					
Group Total	398,731,612	315,496,552	298,875,168	-25.04	-5.27
Population 1,500 to 2,500					
Ellendale	11,948,031	5,855,283	5,820,123	-51.29	-0.60
Linton	12,237,182	8,087,687	7,828,082	-36.03	-3.21
Group Total	415,612,668	251,583,986	226,276,758	-45.56	-10.06
Population 1,000 to 1,500					
Ashley	5,898,217	4,972,359	4,323,835	-26.69	-13.04
Napoleon	9,159,048	6,495,609	5,322,539	-41.89	-18.06
Wishek	10,300,143	7,218,169	7,295,253	-29.17	1.07
Group Total	222,752,746	141,859,953	130,721,134	-41.32	-7.85
Population 500 to 1,000					
Edgeley	7,662,811	4,837,705	4,346,211	-43.28	-10.16
Group Total	197,005,522	124,426,751	123,454,776	-37.33	-0.78
Population 200 to 500					
Kulm	4,166,352	2,836,764	2,322,911	-44.25	-18.11
Strasburg	2,902,126	2,473,112	2,109,908	-27.30	-14.69
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: Leistriz et al. 1990.

1987 to 1989, respectively. Competing cities also suffered large decreases in their adjusted taxable sales for the same time periods. 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 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.

Wishek's pull factor decreased almost 31.6 percent from 1980 to 1989 (Table 4). Only Drayton and Walhalla, in the population group 1,000 to 1,500, increased their pull factor from 1980 to 1989. Wishek's pull factor, however, 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. Pull factors for competing cities decreased substantially from 1980 to 1989. Pull factors in 1989 for cities

TABLE 4. PULL FACTORS FOR WISHEK 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 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						
Ellendale	0.69	0.43	0.31	-38.48	-55.69	-27.99
Linton	0.58	0.44	0.31	-23.96	-47.24	-30.62
Group Average	0.89	0.65	0.52	-26.93	-42.26	-20.99
Population 1,000 to 1,500						
Ashley	0.51	0.54	0.36	4.29	-29.08	-32.00
Napoleon	0.99	0.88	0.39	-10.57	-60.18	-55.48
Wishek	0.75	0.65	0.52	-13.26	-31.63	-21.18
Group Average	0.65	0.53	0.43	-18.35	-34.55	-19.84
Population 500 to 1,000						
Edgeley	1.05	0.90	0.65	-14.00	-38.05	-27.97
Group Average	0.60	0.49	0.42	-18.94	-29.78	-13.38
Population 200 to 500						
Kulm	0.70	0.58	0.38	-17.90	-45.73	-33.90
Strasburg	*	*	*	*	*	*
Group Average	0.41	0.35	0.28	-14.30	-30.65	-19.07

SOURCE: Leistritz et al. 1990.

competing with Wishek were less than Wishek's pull factor (except Edgeley), suggesting Wishek does a better job of capturing its available market than do neighboring cities.

Both city and county populations have declined in the geographic area near Wishek. Deflated taxable sales in Wishek and average annual employment in McIntosh County have decreased substantially in the 1980s. Although real per capita income in McIntosh County increased from 1979 to 1987, Wishek's pull factor has continued to decrease (1980 to 1989). Changes in economic activity and population for Wishek have been similar to other North Dakota cities in the 1,000 to 1,500 population range, suggesting Wishek is no worse off than other cities of comparable size.

Although Wishek 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 Wishek 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 Wishek and McIntosh County are somewhat typical of the economic problems found in rural North Dakota communities in the 1980s.

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 Wishek.

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.

Wishek was classified as a full 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
Hardware

Groceries

Specialty Goods and Services

Barber
Doctor
Florist
Heating fuel and propane

Legal services
Mortician
Plumber

Agricultural Goods and Services

Farm machinery

Farm supplies

The main trade area for Wishek 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 Wishek. 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 Wishek.

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.

Wishek's MTA lies almost entirely to the northeast and southwest of the town. The GTA captures an even distribution of townships around the city (Figure 1). The Wishek GTA has a fairly strong influence on the townships located around the city, when considering the number and relative strength of competing trade centers.

CHARACTERISTICS OF WISHEK AREA RESIDENTS

Business people and community leaders usually are interested in the characteristics of local shoppers and shopping patterns. The characteristics of Wishek shoppers were analyzed, using 80 survey responses from the Wishek MTA. Other analyses included examination of important and less important services for patron shoppers of Wishek, identification of neighboring cities area shoppers patronize, determination of distances area shoppers traveled to Wishek, and listing popular newspapers and radio stations among area residents.

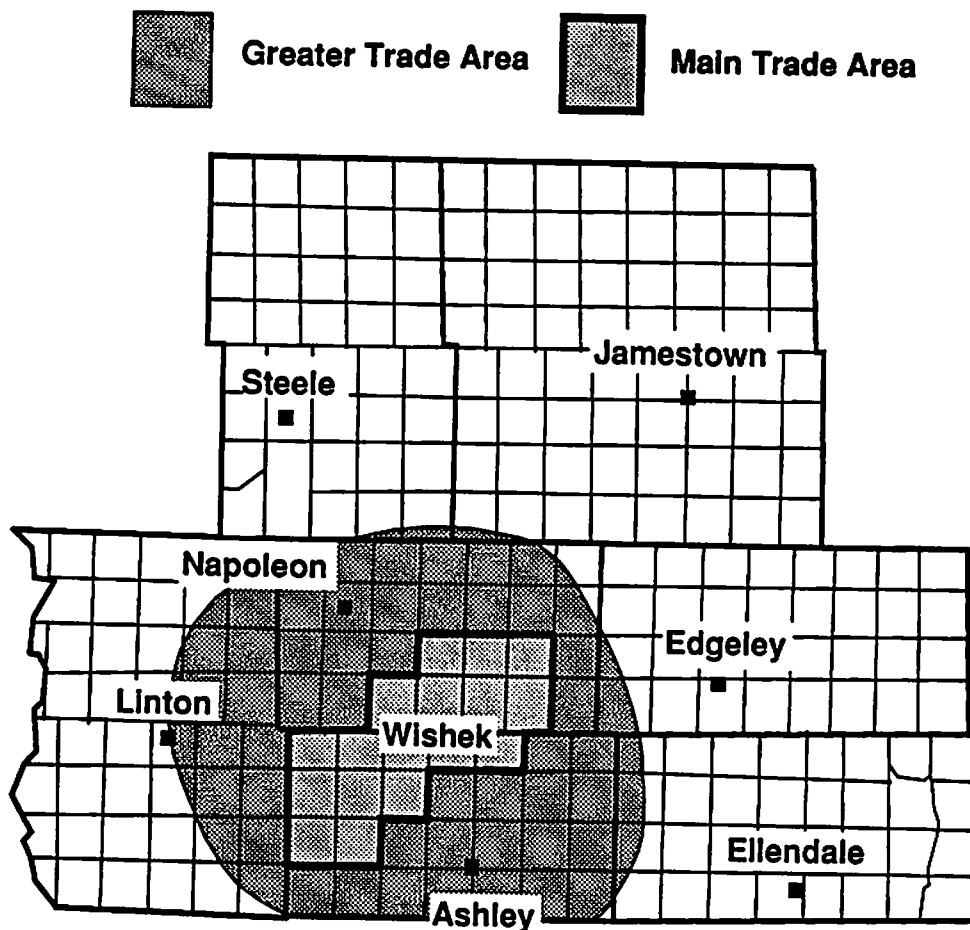


Figure 1. Main and Greater Trade Areas for Wishek, North Dakota, 1989

Demographic Profile of Shoppers in Wishek Main Trade Area

Demographic characteristics of the survey respondents for the Wishek 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.

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

Demographic Characteristic	Average of Survey Responses	
Age (Years)	53.6	
Education (Years)	11.5	
Lived in County (Years)	41.9	
Household Size (People)	2.6	
Average Household Income	\$21,507	
Occupation	Respondent	Spouse
	---%---	---%---
Farming	37.9	42.1
Retired	24.2	14.0
Tech/Sales/Admin	16.7	17.5
Professional	12.1	10.5
Service Jobs	1.5	3.5
Craft/Repair	4.5	---
Housewife	0.0	3.5
Equipment Operator	---	3.5
Other	3.1	5.3
Martial Status	--- % ---	
Single	7.7	
Separated/Divorced	---	
Married	83.3	
Widowed	9.0	
Male	65.4	
Female	34.6	

Distance Traveled by Wishek Area Shoppers

Average distances that area residents traveled to Wishek were determined for each convenience and specialty good or service in the 12-item goods and services mix (Table 6). Distances were determined by averaging respondents' estimated miles between Wishek and their home residence. Wishek residents and any respondents who lived one mile or less from Wishek 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 Wishek 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 Wishek. 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 Wishek.

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

<u>All Respondents Purchasing 50 Percent or More of the Service in Wishek</u>			
<u>Convenience Items</u>		<u>Specialty Items</u>	
<u>Goods and Services</u>	<u>Average Miles Traveled</u>	<u>Goods and Services</u>	<u>Average Miles Traveled</u>
Groceries	16.2	Barber	17.7
Banking and Savings	17.2	Doctor	18.0
Hardware	17.4	Florist	18.1
		Heating Fuel	15.9
		Legal Services	14.9
		Mortician	18.0
		Plumber	18.2
Average	16.8	Average	17.6
<u>MTA Respondents Only Who Purchase 50 Percent or More of the Service in Wishek</u>			
<u>Convenience Items</u>		<u>Specialty Items</u>	
<u>Goods and Services</u>	<u>Average Miles Traveled</u>	<u>Goods and Services</u>	<u>Average Miles Traveled</u>
Groceries	16.2	Barber	17.9
Banking and Savings	16.0	Doctor	16.7
Hardware	16.9	Florist	18.3
		Heating Fuel	16.4
		Legal Services	14.2
		Mortician	18.1
		Plumber	17.0
Average	16.3	Average	17.2

^aOne-way distance to Wishek only.

The average distance traveled to Wishek 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 Wishek. 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. Nearly half (47.1 percent) of the respondents (regardless of residence location) who purchase 50 percent or more of a convenience and

specialty good or service traveled between 11 to 20 miles to purchase the item in Wishek (Table 7). For those living in the MTA, 67.2 percent of the respondents purchasing a convenience and specialty item traveled between 6 to 20 miles to purchase the item.

Area Shoppers' Utilization of Goods and Services Provided in Wishek

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

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

<u>All Respondents Purchasing 50 Percent or More of a Service in Wishek</u>				
Distance (Miles) ^a	<u>Convenience Goods</u>		<u>Specialty Goods</u>	
	Number	Percent	Number	Percent
1 to 5	3	8.8	3	4.3
6 to 10	6	17.6	7	10.0
11 to 15	8	23.5	15	21.4
16 to 20	9	26.5	17	24.3
21 to 25	5	14.7	13	18.6
over 25	3	8.8	15	21.4
<u>MTA Respondents Only Who Purchase 50 Percent or More of a Service in Wishek</u>				
Distance (Miles) ^a	<u>Convenience Goods</u>		<u>Specialty Goods</u>	
	Number	Percent	Number	Percent
1 to 5	3	11.5	3	9.4
6 to 10	6	23.1	7	21.9
11 to 15	6	23.1	6	18.8
16 to 20	6	23.1	8	25.0
21 to 25	4	15.4	6	18.8
over 25	1	3.8	2	6.3

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

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

Responses in Wishek Main Trade Area						
Goods and Services	Purchase the Goods & Services Somewhere	Purchase Some of the Goods & Services in Wishek		Purchase Majority of the Goods & Services in Wishek		Measure of Market Capture
		No.	% ^a	No.	% ^b	
Mortician	55	52	94.5	52	100.0	94.5
Computers	11	1	9.1	1	100.0	9.1
Plumber	71	64	90.1	63	98.4	88.7
Dentist	79	58	73.4	56	96.6	70.9
Heating Fuel/Propane	65	52	80.0	50	96.2	76.9
Florist	60	56	93.3	53	94.6	88.3
Auto Repair	74	65	87.8	61	93.8	82.4
Gas/Diesel Service	77	65	84.4	61	93.8	79.2
Legal Service	55	32	58.2	30	93.8	54.5
Veterinarian (Sm Animals)	43	41	95.3	38	92.7	88.4
Drinking Places	48	41	85.4	38	92.7	79.2
Barber	63	53	84.1	49	92.5	77.8
Accounting Services	57	39	68.4	36	92.3	63.2
Appliance/Elec Repair	58	49	84.5	45	91.8	77.6
Hospital	75	68	90.7	62	91.2	82.7
Beautician	64	53	82.8	48	90.6	75.0
Major Appliances	64	53	82.8	48	90.6	75.0
Banking and Savings	79	52	65.8	47	90.4	59.5
Family Doctor	77	69	89.6	61	88.4	79.2
Prescription Drugs	74	69	93.2	61	88.4	82.4
Optometrist	76	51	67.1	45	88.2	59.2
Hardware	72	61	84.7	53	86.9	73.6
Auto Sales	63	48	76.2	41	85.4	65.1
Radios, TVs, VCRs	70	46	65.7	39	84.8	55.7
Chiropractor	42	24	57.1	20	83.3	47.6
Groceries	79	72	91.1	59	81.9	74.7
Nursery (Plants)	49	42	85.7	34	81.0	69.4
Furniture	57	14	24.6	11	78.6	19.3
Eating Places	76	64	84.2	50	78.1	65.8
Building Supplies	66	60	90.9	46	76.7	69.7
Jewelry	53	22	41.5	15	68.2	28.3
Sporting Goods	50	41	82.0	26	63.4	52.0
Shoes	74	19	25.7	9	47.4	12.2
Men's Clothing	70	20	28.6	5	25.0	7.1
Women's Clothing	71	20	28.2	4	20.0	5.6
Women's Coats	65	3	4.6	0	0.0	0.0
Teenage Clothing	28	6	21.4	0	0.0	0.0
----- Agricultural Goods and Services -----						
Other Farm Chemicals	33	22	66.7	21	95.5	63.6
Fertilizer	22	16	72.7	15	93.8	68.2
Farm Machinery	30	28	93.3	26	92.9	86.7
Veterinary Services	34	32	94.1	29	90.6	85.3
Other Farm Supplies	30	27	90.0	24	88.9	80.0
Commercial Feeds	34	23	67.6	20	87.0	58.8
Crop Seeds	32	23	71.9	20	87.0	62.5
Grain Marketing	35	27	77.1	23	85.2	65.7
Farm Fuel & Lubricant	37	24	64.9	20	83.3	54.1
Livestock Marketing	35	27	77.1	22	81.5	62.9
Farm Mach Repair/Parts	35	31	88.6	24	77.4	68.6
Crop Consultants	14	9	64.3	6	66.7	42.9

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

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

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

Goods and services that appear to be most utilized by those shopping in Wishek include plumber, mortician, computers, heating fuel and propane, dentist, and other farm chemicals (services where 95 percent of those buying the service in Wishek purchase a majority of the service in Wishek). The goods and services that people are less likely to purchase a majority of in Wishek include shoes, teenage clothing, women's clothing and coats, men's clothing, sporting goods, jewelry, and crop consulting.

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

Goods and services for which Wishek is capturing a large amount of the potential market (85 percent or more) within the MTA include mortician, plumber, florist, veterinarian (small animals), farm machinery, and veterinary (livestock) services. Goods and services for which Wishek does not capture much of the existing market (less than 60 percent) include shoes, women's coats and clothing, computers, teenage clothing, men's clothing, sporting goods, jewelry, furniture, radios-TVs-VCRs, optometrist, chiropractor, banking and savings, legal services, farm fuel and lubrication, commercial feeds, and crop consulting.

Goods and services that are important to Wishek shoppers and those for which Wishek is capturing a large percentage of the market include plumber, mortician, florist, veterinarian (small animals), and auto repair. Computers, legal services, accounting services, chiropractor, furniture, other farm chemicals, and fertilizer are important to shoppers in Wishek, but few of the potential buyers purchase a majority of those goods and services in Wishek. This suggests some loyalty for those shopping in Wishek yet a good portion of the market has not been captured. Most of the goods and services are important to Wishek shoppers (except for clothing items and a few selected specialty items), suggesting that most of the potential shoppers (within the MTA) feel Wishek is an important source for most of their services.

Where Services Are Purchased When Not Purchased In Wishek

For most of the goods and services listed in the survey, some respondents did not purchase any of the good or service in Wishek or purchased more of the good or service in other cities. For people living in the Wishek MTA and not purchasing a majority of the services in Wishek, the cities where the majority of those services were purchased were identified (Table 9). Bismarck was

TABLE 9. MOST POPULAR CITIES FOR THE PURCHASE OF GOODS AND SERVICES BY WISHEK MAIN TRADE AREA RESIDENTS WHO DID NOT PURCHASE A MAJORITY OF THE GOOD OR SERVICE IN WISHEK, 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
Grocery	Lehr	7	80.0	Eating Places	Bismarck	11	59.5
	Ashley	3	58.3		Lehr	4	68.8
	Jamestown	3	53.3		Ashley	3	46.7
Drinking Places	Zeeland	5	87.0	Men's Clothing	Bismarck	45	72.4
	Bismarck	2	95.0		Jamestown	12	60.8
	Lehr	2	55.0		Catalog Sales	3	73.3
Women's Clothing	Bismarck	46	76.7	Teen Clothing	Bismarck	23	82.6
	Jamestown	14	58.2		Jamestown	3	48.3
	Catalog Sales	3	73.3				
Women's Coats	Bismarck	48	75.2	Shoes	Bismarck	43	75.0
	Jamestown	9	66.1		Jamestown	13	61.5
	Fargo	4	32.5		Linton	3	61.7
Jewelry	Bismarck	26	78.0	Radios, TVs, VCRs	Bismarck	19	63.8
	Jamestown	6	76.7		Jamestown	3	61.7
	Linton	2	95.0		Linton	2	100.0
			Aberdeen, SD		2	50.0	
Mjr Appliance Repair	Bismarck	5	77.0	Florist	Bismarck	4	60.0
	Jamestown	4	66.3				
Auto Sales	Bismarck	10	69.0	Gas Station	Zeeland	5	86.0
	Napoleon	3	36.7		Lehr	5	78.0
	Valley City	2	100.0		Fredonia	4	85.0
	Aberdeen, SD	2	75.0	Plumber	Zeeland	4	100.0
			Four cities with one response				
Furniture	Bismarck	26	73.0	Nursery (Plants)	Bismarck	7	72.8
	Jamestown	7	59.3		Jamestown	2	65.0
	Ashley	5	43.0		Kulm	2	45.0
	Linton	3	90.0				
Auto Repair	Lehr	8	71.9	Legal Service	Ashley	9	91.7
	Ashley	2	50.0		Bismarck	8	66.9
			Napoleon		7	94.3	
Heating Fuel/Propane	Lehr	5	100.0	Accounting Service	Bismarck	7	86.4
	Zeeland	4	100.0		Napoleon	5	98.0
	Fredonia	3	96.7		Jamestown	3	96.7
Beautician	Ashley	4	78.8	Barber	Lehr	5	81.0
	Bismarck	3	93.3		Ashley	3	83.3
	Ashley	3	85.0	Family Doctor	Bismarck	7	79.3
			Ashley		6	79.7	
			Jamestown		2	90.0	
Optometrist	Bismarck	15	89.0	Banking and Services	Lehr	14	84.3
	Jamestown	12	92.9		Ashley	5	90.0
	Linton	3	90.0		Zeeland	5	77.0
Computers	Bismarck	9	66.1	Building Supplies	Zeeland	9	83.9
			Bismarck		5	66.0	
Major Appliances	Bismarck	11	79.1	Mortician	Three cities with one response		
	Jamestown	3	70.0				
Chiropractor	Bismarck	14	82.9		Hospital	Bismarck	7
	Linton	3	76.7	Ashley		4	90.0
	Jamestown	3	68.3	Hardware	Lehr	7	69.3
			Bismarck		7	63.6	
Dentist	Ashley	8	97.5	Farm Machinery	Four cities with one response		
	Bismarck	6	95.8				
	Gackle	4	61.3				
Prescription Drugs	Ashley	5	80.0	Crop Consultant	Napoleon	3	76.7
	Bismarck	3	85.0		Ashley	3	50.0
Vet (Small Animals)	Ashley	3	83.3	Fertilizer	Zeeland	2	92.5
					Ashley	2	85.0
				Crop Seeds	Fredonia	5	66.0
			Lehr		2	80.0	
			Zeeland		2	87.5	
Sporting Goods	Bismarck	18	71.9	Grain Marketing	Fredonia	5	92.0
	Jamestown	3	55.0		Zeeland	3	81.7
					Lehr	2	67.5
Farm Mach. Repair	Ashley	4	50.0	Farm Supplies	Jamestown	2	55.0
	Bismarck	3	38.0		Six cities with one response		
Farm Fuel/Lubrication	Fredonia	6	78.3	Farm Chemicals	Fredonia	6	73.3
	Zeeland	5	93.0		Lehr	2	100.0
	Lehr	5	90.0		Zeeland	2	92.5
Commercial Feed	Fredonia	5	84.0	Livestock Marketing	Ashley	6	70.0
	Zeeland	3	95.0		Napoleon	3	81.7
Veterinary Services	Ashley	3	88.3				

the most popular choice for services purchased outside of the Wishek MTA. Other popular cities included Jamestown, Linton, Lehr, Napoleon, and Ashley. Zeeland, Ashley, and Fredonia were popular for purchasing agricultural goods and services.

Wishek will always lose some shoppers to surrounding cities and towns for several reasons. First, many shoppers in the Wishek 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, Bismarck, 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 Bismarck 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 Wishek Main Trade Area

Responses were analyzed to determine if those who bought 50 percent or more of selected goods and services in Wishek 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 Wishek and those who purchase a majority of their goods and services elsewhere (Table 10). Differences between the two groups were noted in household size and average distance traveled.

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 Wishek MTA are small, with few school children. Only slight differences were evident between the two main groups, with no substantial differences appearing between those purchasing 50 percent or more and those purchasing less than 50 percent of the goods and services in Wishek.

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 WISHEK, NORTH DAKOTA, 1989

Attribute	Group Purchasing 50 Percent or More of Goods in Wishek				Group Purchasing Less Than 50 Percent of Goods in Wishek			
	Radios TVs&VCRs	Gas Station	Building Supplies	Prescrip. Drugs	Radios TVs&VCRs	Gas Station	Building Supplies	Prescrip. Drugs
Age	52.7	53.8	49.2	52.5	50.4	50.5	49.6	56.3
Education	12.1	11.5	12.3	11.4	11.7	12.4	11.4	11.6
Years Lived In County	45.1	42.8	41.4	42.2	39.3	41.4	43.0	39.8
Number in Household	2.6	2.6	2.8	2.8	3.0	3.1	3.0	2.6
Number in Grade School	0.4	0.5	0.7	0.6	0.7	0.9	0.6	0.5
Number in High School	0.1	0.1	0.1	0.1	0.3	0.6	0.4	0.4
Average Miles Traveled ^a	17.7	16.3	14.9	16.0	82.3	15.9	37.6	41.3
Household Income	\$24,075	\$22,550	\$22,431	\$23,177	\$22,197	\$20,294	\$24,643	\$17,813

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

Newspaper Subscriptions of Wishek Area Residents

Newspaper subscriptions of respondents in the Wishek 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 Bismarck Tribune* and *The Jamestown Sun*. The most popular weekly papers for the main and greater trade areas were the *Wishek Star* and the *Ashley Tribune*, respectively. Other popular weekly newspapers for respondents included *Kulm Messenger* and *Napoleon Homestead*.

Radio Stations of Wishek Area Residents

The most popular radio stations that respondents in Wishek's main trade area listened to were KSJB of Jamestown, followed by KFYY of Bismarck and KDRQ of Bismarck (Table 12).

Comparison of Current and Previous Wishek Trade Area Boundaries

Owens and Vangness (1971) discussed general information on retail trade and identified both main and greater trade areas for Wishek. Information from the past Wishek 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 Wishek's main and greater trade areas. Although trade area delineation criteria used in the previous Wishek trade area report differ, enough similarity exists to make comparisons with the trade area boundaries determined in this report.

The main trade area for Wishek has changed little from 1971. Wishek lost one township each to Napoleon and Kulm. Wishek gained one township from Ashley for an overall decrease in MTA size of one township since the early 1970s. The greater trade area appears to have remained constant. Some of the differences in trade areas may be attributed to different trade area delineation criteria and to changes in the relative strength of the competing trade centers.

SUMMARY AND CONCLUSIONS

Trade area analysis was conducted for Wishek based on a statewide trade area survey which the Department of Agricultural Economics at NDSU conducted in 1989. The demographic and economic profile for Wishek was discussed. Wishek has suffered in the 1980s from decreased population, reduced taxable sales, and lower pull factors. Changes in economic activity and population for Wishek have been similar to other North Dakota cities in the 1,000 to 1,500 population range, suggesting Wishek, during the 1980s, fared at least as well as other cities of comparable size. Although Wishek suffers from decreased economic activity and population declines, the city is doing relatively better than its smaller competing cities. The depressed economic conditions Wishek experienced in the 1980s were common to most cities in North Dakota.

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

Wishek's main trade area appears to have decreased little since 1971. Wishek's MTA decreased in size by one township. The greater trade area remained unchanged.

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

Bismarck, Jamestown, Linton, Lehr, Napoleon, and Ashley provide most of the shopping locations for area residents who do not purchase the good or service in Wishek. 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 Wishek. Those purchasing 50 percent or more of one or more convenience or specialty goods or services in Wishek traveled an average distance of about 17 miles.

Even though the 1980s have been difficult for rural North Dakota cities, Wishek appears to have fared as well as other cities of comparable size and somewhat better than smaller neighboring towns. Wishek is faced with decreasing city and county population and decreasing county employment; however, Wishek increased its retail sales from 1987 to 1989. Although economic times have been difficult, Wishek appears to be doing a good job of retaining nearly all of its past trade area and should remain an important trade center for residents in Logan and McIntosh Counties 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	%	DO NOT WRITE IN THIS AREA

TOWN NAME	%	DO NOT WRITE IN THIS AREA

TOWN NAME	%	DO NOT WRITE IN THIS AREA

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):

- Respondent
- 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 \$25,001-\$30,000
- \$5,000-\$10,000 \$30,001-\$35,000
- \$10,001-\$15,000 \$35,001-\$40,000
- \$15,001-\$20,000 \$40,001-\$45,000
- \$20,001-\$25,000 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.

- 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	%	DO NOT WRITE IN THIS AREA

TOWN NAME	%	DO NOT WRITE IN THIS AREA

TOWN NAME	%	DO NOT WRITE IN THIS AREA

WHERE ARE YOUR FARM PRODUCTS MARKETED?

59. Grain					
60. Livestock					