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Retail Trade Area Analysis

Linton North Dakota

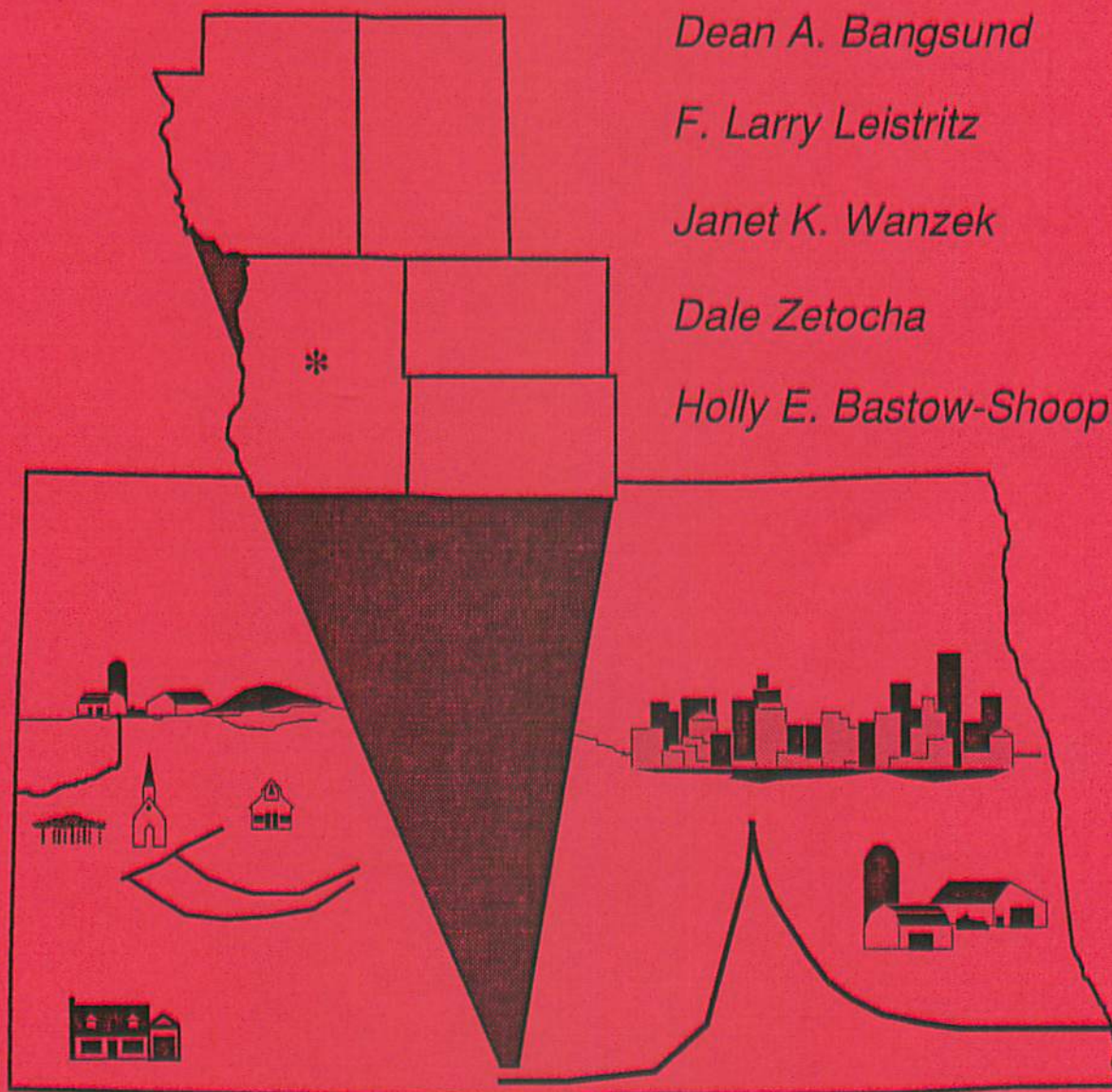
Dean A. Bangsund

F. Larry Leistritz

Janet K. Wanzek

Dale Zetocha

Holly E. Bastow-Shoop



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

Current trade area information for Linton 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 Linton population, retail sales, per capita income, pull factors, and Emmons County population and employment were identified and discussed. Linton's population, trade area population, retail sales, and pull factors along with Emmons County population and average annual employment have all decreased throughout the 1980s. Although most demographic and economic measurements have decreased, Linton 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 Linton and Emmons County are somewhat typical of the problems found in rural North Dakota communities in the 1980s.

Linton'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. Linton's MTA decreased in size by six townships, 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, primarily are employed in agriculture and professional/technical professions, and have resided in the area a large portion of their lives.

Main trade area residents traveled an average of 14.3 and 14.4 miles to Linton to purchase selected convenience and specialty goods and services, respectively. About one-third (30.2 percent) of the respondents who purchased 50 percent or more of convenience and specialty goods in Linton traveled between 16 and 20 miles to purchase the item.

Linton appears to be an important source of goods and services for those who shop in Linton; however, Linton could capture much more of the available market for two-thirds of the nonagricultural and about half of the agricultural goods and services included in the survey questionnaire.

Bismarck, Strasburg, Hazelton, and some cities in South Dakota were the most popular trade centers for the purchase of nonagricultural goods and services by Linton MTA residents who did not purchase a majority of the good or service in Linton. Zeeland, Hague, and Strasburg were popular for purchasing agricultural goods and services.

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

The Bismarck Tribune was the most popular daily newspaper for both Linton MTA and GTA residents. The Emmons County Record was the most popular weekly newspaper for Linton MTA and GTA residents. The most popular radio stations for Linton MTA residents included KFYZ of Bismarck, KBMR of Bismarck and KNDR of Mandan.

Although economic times have been difficult, Linton has not lost as much of its retail sales as other cities of similar size; however, Linton does not capture as much of its available market as cities of similar size. Linton has retained some of its past trade areas and should remain an important trade center in southcentral North Dakota.

RETAIL TRADE AREA ANALYSIS: LINTON, NORTH DAKOTA

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

INTRODUCTION

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

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

Purpose

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

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

*Research assistant, professor, and research assistant, respectively, Department of Agricultural Economics; extension associate, North Dakota State University Extension Service; and associate professor, Department of Apparel, Textiles, and Interior Design; North Dakota State University, Fargo.

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.

Linton area shoppers, and identify essential and nonessential services Linton 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 Linton trade area.

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

LINTON 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 Linton population, retail sales, market share, per capita income, pull factors, and Emmons County population and employment.

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

Linton's population declined 14.2 percent from 1980 to 1988 (Table 1). Of the North Dakota cities in the population range 1,500 to 2,500, only five cities had population increases from 1980 to 1988. If Hazen, the population of which increased almost 42 percent, was removed from the group, population in the size

TABLE 1. CITY AND TRADE AREA POPULATION FOR LINTON 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							
Bismarck	Burleigh	44,485	47,740	7.32	55,317	60,798	9.91
Mandan	Morton	15,513	15,550	0.24	23,463	24,395	3.97
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							
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							
Group Total		32,154	31,200	-2.97	--	--	--
Population 200 to 500							
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.

category would have declined almost 7 percent. Linton's trade area population decreased about 7.3 percent from 1980 to 1988, the eighth largest decrease for any town in the category. The population of Linton's competing trade centers and their trade area populations (excluding Bismarck-Mandan) also decreased.

Since Linton's trade area covers parts of counties other than Emmons County, population, average annual employment, and per capita income have been identified for surrounding counties (Table 2). Population in Emmons County decreased about 8 percent from 1980 to 1988. Changes in population of surrounding counties were mixed.

Average annual employment in Emmons County decreased 9.3 percent from 1980 to 1988. Employment in most counties surrounding Emmons declined substantially, except Burleigh and Morton Counties. Although population and employment declined in Emmons County during 1980 to 1988, real per capita income (i.e., adjusted for inflation) actually increased from 1979 to 1987. Per capita income decreased in all but one of the surrounding counties.

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

County	1980	1982	1984	1986	1988	1989	Percent Change 1980-88/89
----- Population -----							
Emmons	5,877	5,800	5,800	5,700	5,400	---	-8.12
Surrounding Counties							
Burleigh	54,811	56,600	59,000	60,500	60,400	---	10.20
Kidder	3,833	3,800	3,900	3,800	3,700	---	-3.47
Logan	3,493	3,400	3,300	3,200	3,100	---	-11.25
McIntosh	4,800	4,500	4,600	4,400	4,300	---	-10.42
Morton	25,177	25,500	26,200	26,100	25,400	---	0.89
Sioux	3,620	3,600	3,600	3,900	4,200	---	16.02
North Dakota	652,717	672,000	687,000	679,000	667,000	---	2.19
----- Average Annual Employment ^a -----							
Emmons	2,302	2,400	2,204	2,169	2,080	2,089	-9.25
Surrounding Counties							
Burleigh	24,935	24,870	28,245	30,748	32,499	33,524	34.45
Kidder	1,431	1,375	1,547	1,487	1,425	1,425	-0.42
Logan	1,449	1,394	1,498	1,452	1,422	1,429	-1.38
McIntosh	2,242	2,339	2,304	2,222	2,194	2,191	-2.27
Morton	11,357	11,327	12,691	11,266	11,970	12,160	7.07
Sioux	1,256	1,223	1,233	1,240	984	985	-21.58
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>
Emmons		\$7,342		\$8,044			9.6
Surrounding Counties							
Burleigh		12,153		11,503			-5.4
Kidder		7,108		6,595			-7.2
Logan		7,259		7,020			-3.3
McIntosh		8,050		8,318			3.3
Morton		9,778		8,919			-8.8
Sioux		5,699		5,341			-6.3
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.

Linton's deflated taxable sales (i.e., adjusted for inflation) decreased 36 and 3.2 percent from 1980 to 1989 and 1987 to 1989, respectively (Table 3). Linton's decrease in taxable sales was less than the group's average (1980 to 1989 and 1987 to 1989). Although Linton fared favorably compared to other cities in the same population category, average taxable sales for the group decreased 45.6 and 10.1 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. Statewide, taxable sales decreased 17.77 and 0.24 percent from 1980 to 1989 and 1987 to 1989, respectively.

TABLE 3. DEFLATED TAXABLE SALES AND PURCHASES FOR LINTON 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					
Bismarck	473,728,420	434,129,473	458,447,623	-3.23	5.60
Mandan	103,775,472	82,527,988	78,038,107	-24.80	-5.44
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					
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					
Group Total	197,005,522	124,426,751	123,454,776	-37.33	-0.78
Population 200 to 500					
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: Leistritz et al. 1990.

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

Linton's pull factor decreased about 47 percent from 1980 to 1989 (Table 4). Only five cities in the population group 1,500 to 2,500 had larger decreases in their pull factors from 1980 to 1989. Linton'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 Bismarck, which increased its pull factor 57 percent. Pull factors for cities competing with Linton in 1989 were generally higher than Linton's pull factor, suggesting Linton does not capture as much of its available market as do neighboring cities.

TABLE 4. PULL FACTORS FOR LINTON 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						
Bismarck	1.15	1.21	1.81	5.12	57.26	49.60
Mandan	0.75	0.74	0.60	-0.58	-20.14	-19.68
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						
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						
Group Average	0.60	0.49	0.42	-18.94	-29.78	-13.38
Population 200 to 500						
Strasburg	*	*	*	*	*	*
Group Average	0.41	0.35	0.28	-14.30	-30.65	-19.07

SOURCE: Leistritz et al. 1990.

Both city and county populations have declined in the geographic area near Linton. Deflated taxable sales in Linton and average annual employment in Emmons County have decreased substantially in the 1980s. Although real per capita income in Emmons County increased from 1979 to 1987, Linton's pull factor has continued to decrease (1980 to 1989). Changes in economic activity and population for Linton have been similar to other North Dakota cities in the 1,500 to 2,500 population range. Linton compares favorably to other cities of comparable size in some categories, but has lost much of its ability to capture its trade area purchasing power. Much of this decrease may be attributable to the expanded retail influence of the Bismarck-Mandan trade center.

Although Linton suffers from decreased economic activity and population declines, the city is doing as well as its smaller competing cities. Economic pressures and population declines found in Linton and Emmons County are 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 Linton.

North Dakota cities were put in seven size classifications, and the types of services expected to be provided by each size class 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.

Linton 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 Linton 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 Linton. 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 Linton.

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.

Linton's MTA lies mostly to the south of the city, with a limited number of townships to the north; however, the GTA extends well beyond the MTA to the north, yet has only minimal pull to the east and west (Figure 1). The GTA for Linton likely extends into South Dakota; however, only trade areas in North Dakota were determined in this report. The Linton GTA has more influence on the townships located to the north, and to a lesser extent, east of town. Linton's ability to attract customers from the west appears limited due to a natural barrier created by Lake Oahe.

CHARACTERISTICS OF LINTON AREA RESIDENTS

Business people and community leaders usually are interested in the characteristics of local shoppers and shopping patterns. The characteristics of Linton shoppers were analyzed, using 59 survey responses from the Linton MTA. Other analyses included

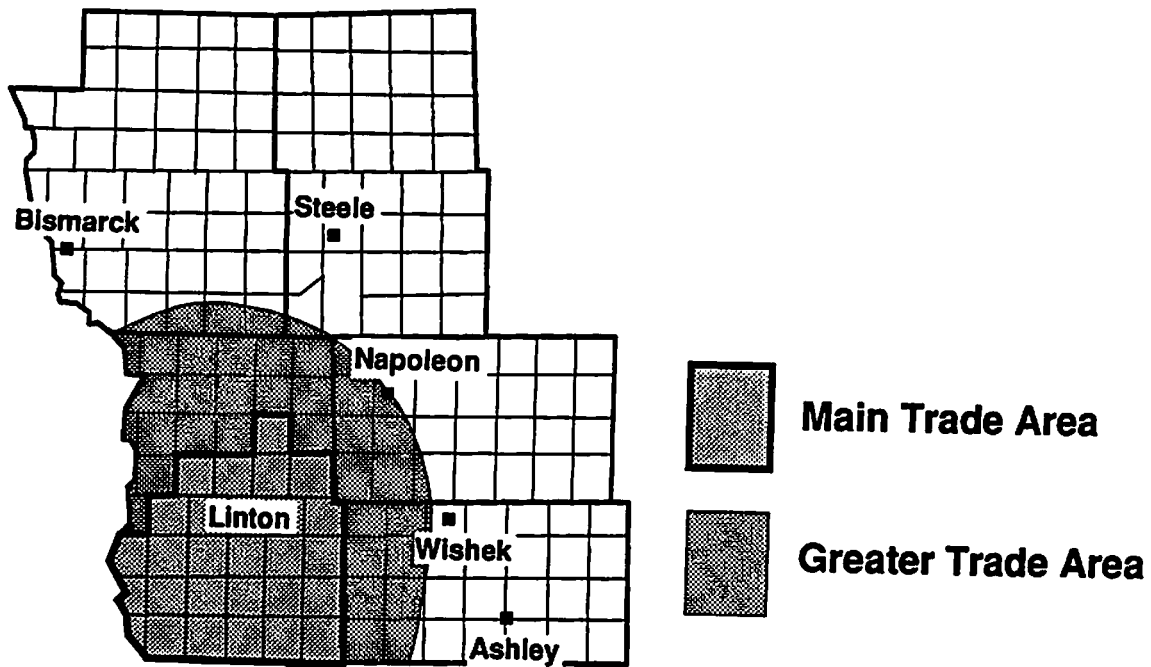


Figure 1. Main and Greater Trade Areas for Linton, North Dakota, 1989

examination of important and less important services for patron shoppers of Linton, identification of neighboring cities area shoppers patronize, determination of distances area shoppers traveled to Linton, and listing popular newspapers and radio stations among area residents.

Demographic Profile of Shoppers in Linton Main Trade Area

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

Distance Traveled by Linton Area Shoppers

Average distances that area residents traveled to Linton were determined for each convenience and specialty good or service in the 12-item goods and services mix (Table 6).

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

Demographic Characteristic	Average of Survey Responses	
Age (Years)	52.8	
Education (Years)	11.6	
Lived in County (Years)	41.5	
Household Size (People)	3.2	
Average Household Income	\$24,615	
Occupation	Respondent	Spouse
	---%---	---%---
Farming	60.4	52.6
Retired	14.6	7.9
Professional	10.4	10.5
Tech/Sales/Admin	8.3	15.8
Service Jobs	4.2	2.6
Equipment Operator	2.1	--
Craft/Repair	--	--
Housewife	--	10.5
Other	--	--
Martial Status	--- % ---	
Single	8.5	
Separated/Divorced	5.1	
Married	83.1	
Widowed	3.4	
Male	67.8	
Female	32.2	

Distances were determined by averaging respondents' estimated miles between Linton and their home residence. Linton residents and any respondents who lived one mile or less from Linton 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 Linton 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 Linton. 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 Linton.

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

<u>All Respondents Purchasing 50 Percent or More of the Service in Linton</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	19.0	Barber	16.1
Banking and Savings	20.2	Doctor	15.9
Hardware	20.2	Florist	14.6
		Heating Fuel	12.0
		Legal Services	14.5
		Mortician	14.9
		Plumber	13.8
Average	14.4	Average	14.9
<u>MTA Respondents Only Who Purchase 50 Percent or More of the Service in Linton</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	14.5	Barber	14.3
Banking and Savings	13.3	Doctor	15.7
Hardware	15.0	Florist	15.4
		Heating Fuel	11.8
		Legal Services	14.8
		Mortician	14.1
		Plumber	12.5
Average	14.3	Average	14.4

^aOne-way distance to Linton only.

The average distance traveled to Linton 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 Linton. For those respondents living in the MTA, the average distance traveled for both types of goods and services was nearly identical.

Distance traveled by type of good or service (convenience and specialty) was broken down into distance categories. About one-third (30.2 percent) of the respondents (regardless of residence location) who purchase 50 percent or more of a

convenience and specialty good or service traveled between 16 and 20 miles to purchase the item in Linton (Table 7). For those living in the MTA, the number of respondents per distance category was skewed into two ranges, six to 10 miles and 16 to 20 miles.

Area Shoppers' Utilization of Goods and Services Provided in Linton

The importance of Linton as a trade center for those who shop in Linton and the ability of Linton to capture the MTA market for selected goods and services were determined (Table 8). The importance of shopping in Linton was determined by examining the number of respondents who purchased some of their goods and services in Linton and comparing those responses to the number who purchased a majority of their goods and services in Linton. A high percentage meant if respondents shopped in Linton, they likely would purchase a majority of those goods and services in Linton. A low percentage meant that, although some of the goods and services were purchased in Linton, 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 LINTON, NORTH DAKOTA, 1989

<u>All Respondents Purchasing 50 Percent or More of a Service in Linton</u>				
Distance (Miles) ^a	<u>Convenience Goods</u>		<u>Specialty Goods</u>	
	Number	Percent	Number	Percent
1 to 5	5	7.9	5	5.2
6 to 10	19	30.2	32	33.3
11 to 15	6	9.5	9	9.4
16 to 20	22	34.9	26	27.1
21 to 25	5	7.9	8	8.3
over 25	6	9.5	16	16.7

<u>MTA Respondents Only Who Purchase 50 Percent or More of a Service in Linton</u>				
Distance (Miles) ^a	<u>Convenience Goods</u>		<u>Specialty Goods</u>	
	Number	Percent	Number	Percent
1 to 5	4	9.1	4	8.3
6 to 10	12	27.3	13	27.1
11 to 15	3	6.8	4	8.3
16 to 20	18	40.9	19	39.6
21 to 25	4	9.1	5	10.4
over 25	3	6.8	3	6.3

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

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

Responses in Linton Main Trade Area						
Goods and Services	Purchase the Goods & Services Somewhere	Purchase Some of the Goods & Services in Linton		Purchase Majority of the Goods & Services in Linton		Measure of Market Capture
		No.	% ^a	No.	% ^b	
Heating Fuel/Propane	53	22	41.5	22	100.0	41.5
Plumber	44	24	54.5	24	100.0	54.5
Mortician	42	41	97.6	40	97.6	95.2
Barber	44	40	90.9	39	97.5	88.6
Dentist	57	40	70.2	39	97.5	68.4
Accounting Services	49	30	61.2	29	96.7	59.2
Florist	42	41	97.6	39	95.1	92.9
Veterinarian (Sm Animals)	43	38	88.4	36	94.7	83.7
Nursery (Plants)	45	38	84.4	35	92.1	77.8
Appliance/Elec Repair	44	34	77.3	31	91.2	70.5
Banking and Savings	58	30	51.7	27	90.0	46.6
Family Doctor	58	49	84.5	44	89.8	75.9
Legal Service	52	45	86.5	40	88.9	76.9
Auto Repair	55	35	63.6	31	88.6	56.4
Beautician	48	32	66.7	28	87.5	58.3
Optometrist	57	39	68.4	34	87.2	59.6
Gas/Diesel Service	58	36	62.1	31	86.1	53.4
Hardware	52	42	80.8	36	85.7	69.2
Auto Sales	51	28	54.9	24	85.7	47.1
Prescription Drugs	54	44	81.5	36	81.8	66.7
Groceries	59	55	93.2	45	81.8	76.3
Hospital	57	46	80.7	37	80.4	64.9
Chiropractor	33	24	72.7	19	79.2	57.6
Radios, TVs, VCRs	53	38	71.7	30	78.9	56.6
Women's Coats	50	17	34.0	13	76.5	26.0
Drinking Places	32	25	78.1	19	76.0	59.4
Building Supplies	54	33	61.1	23	69.7	42.6
Major Appliances	51	34	66.7	22	64.7	43.1
Men's Clothing	55	36	65.5	23	63.9	41.8
Eating Places	53	43	81.1	27	62.8	50.9
Furniture	52	34	65.4	21	61.8	40.4
Sporting Goods	39	27	69.2	16	59.3	41.0
Jewelry	42	27	64.3	16	59.3	38.1
Shoes	57	32	56.1	18	56.3	31.6
Women's Clothing	54	35	64.8	17	48.6	31.5
Teenage Clothing	26	15	57.7	7	46.7	26.9
Computers	6	3	50.0	1	33.3	16.7
----- Agricultural Goods and Services -----						
Crop Seeds	33	17	51.5	16	94.1	48.5
Other Farm Chemicals	28	16	57.1	15	93.8	53.6
Veterinary Services	35	31	88.6	29	93.5	82.9
Fertilizer	27	13	48.1	12	92.3	44.4
Crop Consultants	16	13	81.3	12	92.3	75.0
Farm Fuel & Lubricant	37	18	48.6	16	88.9	43.2
Livestock Marketing	35	32	91.4	27	84.4	77.1
Farm Mach Repair/Parts	36	29	80.6	23	79.3	63.9
Other Farm Supplies	32	28	87.5	22	78.6	68.8
Commercial Feeds	32	17	53.1	13	76.5	40.6
Grain Marketing	35	17	48.6	13	76.5	37.1
Farm Machinery	35	26	74.3	19	73.1	54.3

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

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

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

Goods and services that appear to be most utilized by those shopping in Linton include heating fuel and propane, plumber, mortician, barber, dentist, accounting, and florist services (services where 95 percent of those buying the service in Linton purchase a majority of the service in Linton). The goods and services that people are less likely to purchase a majority of in Linton include computers, shoes, teenage clothing, women's clothing, jewelry, sporting goods, furniture, eating establishments, men's clothing, major appliances, and building supplies.

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

Goods and services for which Linton is capturing a large amount of the potential market (80 percent or more) within the MTA include florist, mortician, barber, and veterinary (small animals and livestock). Linton captures little of the existing market (less than 60 percent) for two-thirds of the nonagricultural and over half of the agricultural goods and services listed on the survey questionnaire.

Goods and services that are important to Linton shoppers and those for which Linton is capturing a large percentage of the market include florist and mortician. Heating fuel and propane, plumber, accounting, banking and savings, auto sales, crop seeds, fertilizer, and farm fuel and lubricant services are important to shoppers in Linton, but few of the potential buyers purchase a majority of those goods and services in Linton.

Many patrons purchase a majority of their goods and services in Linton; however, Linton could capture much more of the potential market for these items. This phenomenon suggests some strong trade center loyalty exists for those shopping in Linton, but at the same time a large portion of the market is being lost to other trade centers. Linton appears to be an important source of services for those shopping in Linton, but Linton could improve its market capture for about two-thirds of the convenience and specialty items, and about half of the agricultural items.

Where Services Are Purchased When Not Purchased In Linton

For most of the goods and services listed in the survey, some respondents did not purchase any of the good or service in Linton or purchased more of the good or service in other cities.

For people living in the Linton MTA and not purchasing a majority of the services in Linton, the cities where the majority of those services were purchased were identified (Table 9). Bismarck was the most popular choice for services purchased outside of the Linton MTA. Other popular cities included Strasburg and Hazelton in North Dakota and Herreid, Eureka, and Pollock in South Dakota. Zeeland, Hague, and Strasburg in North Dakota and Pollock and Eureka in South Dakota were popular for purchasing agricultural goods and services.

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

Responses were analyzed to determine if those who bought 50 percent or more of selected goods and services in Linton 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 Linton and those who purchase a majority of their goods and services elsewhere (Table 10). Household income was higher for three services for the group purchasing 50 percent or more of the services in Linton than for the group purchasing less than 50 percent. The group purchasing less than 50 percent of the four goods and services in Linton traveled farther for prescription drugs and radios-TVs-VCRs than the group purchasing 50 percent or more of the same goods and services in Linton.

TABLE 9. MOST POPULAR CITIES FOR THE PURCHASE OF GOODS AND SERVICES BY LINTON MAIN TRADE AREA RESIDENTS WHO DID NOT PURCHASE A MAJORITY OF THE GOOD OR SERVICE IN LINTON, 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	Hazelton	4	64.7	Eating Places	Bismarck	16	66.9
	Bismarck	3	70.0		Pollock, SD.	4	62.5
Drinking Places	Strasburg	3	90.0	Men's Clothing	Bismarck	30	84.7
	Bismarck	3	81.7				
	Hague	3	73.3				
Women's Clothing	Bismarck	34	81.2	Teen Clothing	Bismarck	19	84.5
Woman's Coats	Bismarck	35	82.1	Shoes	Bismarck	36	85.8
Jewelry	Bismarck	24	82.3	Radios, TVs, VCRs	Bismarck	21	83.6
Mjr Appliance Repair	Bismarck	7	89.3	Florist	Bismarck	3	96.7
	Strasburg	2	75.0				
	Herreid, SD.	2	70.0				
Auto Sales	Bismarck	14	87.1	Gas Station	Strasburg	16	85.6
	Wishek	5	72.0		Hazelton	3	100.0
	Herreid, SD.	3	60.0		Zeeland	3	93.3
Furniture	Bismarck	26	80.9	Plumber	Strasburg	8	100.0
	Strasburg	5	66.0		Hague	4	81.3
					Zeeland	3	100.0
Auto Repair	Strasburg	16	79.0	Nursery (Plants)	Bismarck	9	66.7
	Three cities w/two resp. ea.			Legal Service	Bismarck	8	97.5
Heating Fuel/Propane	Strasburg	20	98.3	Accounting Service	Strasburg	10	98.0
	Hazelton	4	100.0		Bismarck	5	100.0
	Three cities w/two resp. ea.				Wishek	3	93.3
Beautician	Strasburg	11	78.2	Barber	Strasburg	2	100.0
	Bismarck	4	78.7		Three cities w/two resp. ea.		
	Hazelton	3	100.0				
Optometrist	Bismarck	17	93.8	Family Doctor	Bismarck	10	78.0
	Six cities w/one resp. ea.						
Computers	Bismarck	4	70.0	Banking and Services	Strasburg	17	89.4
					Hazelton	6	95.8
Major Appliance	Bismarck	20	78.5	Four cities w/two resp. ea.			
	Strasburg	6	81.7	Building Supplies	Strasburg	25	82.0
Chiropractor	Bismarck	12	83.3		Bismarck	4	70.0
	Dentist	Bismarck	9	100.0	Mortician	Two cities w/oe resp. ea.	
Mobridge, SD		4	91.3				
Five cities w/one resp. ea.				Hospital	Bismarck	16	85.0
Prescription Drugs	Bismarck	13	89.2		Hardware	Strasburg	13
	Eureka, SD	2	97.5	Bismarck		3	90.0
	Vet (Small Animals)	Bismarck	3	91.7	Farm Machinery	Pollock	6
Eureka, SD		3	63.3	Bismarck		5	65.0
				Kintyre,		5	65.0
Sporting Goods	Bismarck	18	79.7	Wishek	2	40.0	
	Strasburg	4	65.0	Crop Consultant	Four cities w/one resp. ea.		
Farm Mach. Repair	Bismarck	6	61.7		Fertilizer	Strasburg	7
	Pollock, SD	5	76.0	Hazelton		2	70.0
Farm Fuel	Strasburg	14	92.1	Pollock, SD		2	50.0
	Zeeland	2	100.0	Crop Seeds	Strasburg	8	80.0
	Pollock, SD	2	75.0		Hague	3	85.0
Commercial Feed	Strasburg	11	69.5	Grain Marketing	Strasburg	5	82.0
	Hague	23	59.7		Hagu	4	87.5
	Zeeland	2	100.0		Four cities with two responses		
Veterinary Services	Eureka, SD	2	50.0	Farm Supplies	Bismarck	4	47.5
	Four cities w/one resp. ea.				Strasburg	3	76.7
				Farm Chemical	Strasburg	5	62.0
					Three towns with 2 responses		
				Livestock Marketing	Herreid, SD	4	80.0
					Five cities with one response		

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 LINTON, NORTH DAKOTA, 1989

Attribute	Group Purchasing 50 Percent or More of Goods in Linton				Group Purchasing Less Than 50 Percent of Goods in Linton			
	Prescrip Drugs	Gas Station	Building Supplies	Radios, TVs, & VCRs	Prescrip Drugs	Gas Station	Building Supplies	Radios TVs & VCRS
Age	50.9	50.3	51.7	54.7	54.7	54.9	52.2	48.5
Education	12.1	12.4	12.4	12.0	11.1	10.9	11.8	11.9
Years Lived In County	41.1	38.1	39.0	42.4	41.7	44.7	40.5	37.4
Number in Household	3.5	3.1	3.2	2.9	3.0	3.3	3.4	3.5
Number in Grade School	0.8	0.5	0.4	0.4	0.4	0.7	0.7	0.6
Number in High School	0.4	0.5	0.4	0.2	0.5	0.4	0.5	0.6
Average Miles Traveled ^a	15.9	12.5	12.5	14.9	45.4	11.6	11.6	49.9
Household Income	\$24,804	\$26,563	\$29,861	\$28,000	\$25,000	\$22,946	\$24,138	\$24,423

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

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 Linton 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 Linton.

Newspaper Subscriptions of Linton Area Residents

Newspaper subscriptions of respondents in the Linton 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 newspaper for both the main and greater trade areas was *The Bismarck Tribune*. The most popular weekly paper for the main and greater trade areas was *The Emmons County Record*.

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

Main Trade Area			Greater Trade Area		
Newspaper	Numbers of Respondents	Percent	Newspaper	Number of Respondents	Percent
----- Daily Newspapers -----					
Bismarck Tribune	32	100.0	Bismarck Tribune	22	84.0
			Fargo Forum	2	8.0
			Others	2	8.0
	<u>32^a</u>			<u>26^b</u>	
Total			Total		
----- Weekly Newspapers -----					
Emmons County Record	55	87.3	Emmons County Record	29	50.0
Pollock Pioneer	3	4.8	Napoleon Homestead	16	27.6
			Wishek Star	5	8.6
			AgWeek-Grand Forks	3	5.2
			Others ^c	5	8.6
	<u>58^d</u>			<u>58^e</u>	
Total			Total		

^a32 respondents subscribe to a daily paper with no respondents subscribing to more than one paper.

^b25 respondents subscribe to a daily paper with 1 respondent subscribing to more than one paper.

^cOther weekly newspapers included Cass County Reporter, Ozone Press-Steele, West Fargo Pioneer, and New England Herald.

^d58 respondents subscribe to a weekly paper with no respondents subscribing to more than one paper.

^e39 respondents subscribe to a weekly paper with 19 respondents subscribing to more than one paper.

Radio Stations of Linton Area Residents

The most popular radio stations that respondents in Linton's main trade area listened to were KFYZ of Bismarck, followed by KBMR of Bismarck and KNDR of Mandan (Table 12).

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

Radio Station	Number of Respondents	Percent
KFYZ-Bismarck	32	61.6
KBMR-Bismarck	10	19.2
KNDR-Mandan	5	9.6
Others	5	9.6

Comparison of Current and Previous Linton Trade Area Boundaries

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

The main trade area for Linton has changed some from 1971. Linton lost one township to Napoleon and five townships to Bismarck. Linton lost six townships overall since the early 1970s. The greater trade area appears to have diminished substantially to the northeast, east, and southeast of Linton. 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 Bismarck and other competing trade centers.

SUMMARY AND CONCLUSIONS

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

Main and greater trade areas were defined for Linton, using several delineation criteria. Townships where the majority of the respondents purchased 50 percent or more of a mix of goods and services in Linton 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 Linton 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.

Linton's main trade area appears to have decreased some since 1971. Linton's MTA lost six townships to neighboring cities. The greater trade area decreased substantially to the northeast, east, and southeast. The shape of the greater trade

area appears to reflect competition from several competing trade centers and does not extend beyond Lake Oahe.

Linton appears to be doing a fair job of capturing the available market (those respondents who purchase a majority of the service in Linton divided by the total number of respondents in the Linton main trade area who purchase the service) for only about one-third of the services listed on the survey questionnaire. Linton appears to be an important source of services for those shopping in Linton (i.e., of those shopping in Linton, most individuals will purchase a majority of the item from Linton retailers); however, Linton could improve its market capture for most convenience and specialty items, and half of the agricultural items.

Bismarck, Strasburg, and Hazelton in North Dakota and Herreid, Eureka, and Pollock in South Dakota provide most of the shopping locations for area residents who do not purchase the good or service in Linton. 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 Linton. Those purchasing 50 percent or more of one or more convenience or specialty goods or services in Linton traveled an average distance of about 14.7 miles.

Even though the 1980s have been difficult for rural North Dakota cities, Linton appears to have fared as well as other cities of comparable size and somewhat better than smaller neighboring towns. Linton's retail sales have decreased less than other cities with similar population, but its pull factor is substantially less than cities of similar population. These factors, along with an analysis of its market capture, indicate Linton has good trade center partronization by area residents but at the same time is losing much of its potential market for many goods and services to competing trade centers. Although economic times have been difficult, Linton appears to be doing an average job of retaining its past trade area and should remain an important trade center for residents in Emmons County and the surrounding area.

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APPENDIX

TRADE AREA STUDY CONFIDENTIAL

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

BEGIN HERE...

LOCATION OF RESIDENCE

Town:

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

County:

To what daily newspapers do you subscribe?

To what weekly newspapers do you subscribe?

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

in _____
(town)

DIRECTIONS:

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

- EXAMPLE: Groceries
- Groceries
- Eating places
- Drinking places (alcoholic)
- Men's clothing
- Women's clothing
- Women's coats
- Teenage clothing
- Shoes
- Jewelery
- Major appliances
- Radios, TVs, VCRs
- Appliance/electronic repair
- Florist
- Nursery (plants)
- Furniture
- Auto sales
- Auto repair
- Gas or diesel service sta.
- Heating fuel/propane
- Plumber
- Barber
- Beautician
- Legal services
- Accounting services
- Computers
- Eye doctor
- Family doctor
- Chiropractor
- Dentist
- Hospital
- Mortician (funeral home)

TOWN NAME	%	DO NOT WRITE IN THIS AREA	TOWN NAME	%	DO NOT WRITE IN THIS AREA	TOWN NAME	%	DO NOT WRITE IN THIS AREA
Parson	60		Bismarck	15		Mandan	10	

Please continue on the next page →

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 | 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) _____ |

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

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					

