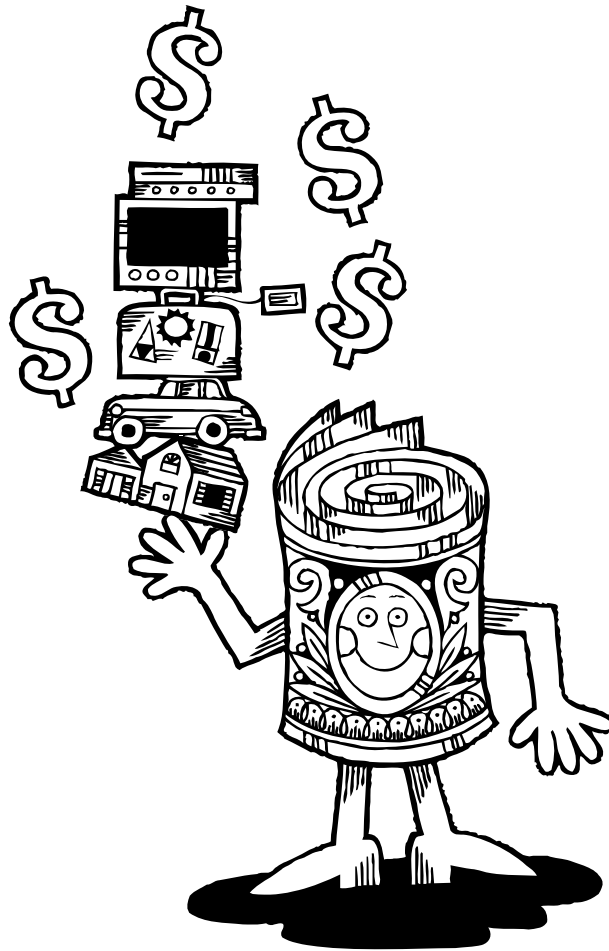


# Trends in the North Dakota Economy



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## Abstract

As North Dakota has shifted from its traditional dependence on natural resource-based activities to a more diversified economy, changes in employment, population, income, and retail sales have occurred. This report summarizes changes in these and other economic indicators at the county and community level from 1980 to 2004. Employment increased 12 percent from 1990 to 2004, with 19 of the state's 53 counties registering job growth. The largest percentage (and absolute) gains were in Cass (Fargo) and Burleigh (Bismarck) counties. Population statewide decreased by less than 1 percent from 1990 to 2004, as substantial growth in the Fargo and Bismarck-Mandan metropolitan areas was offset by population decreases in most of the state's rural counties. Per capita income (adjusted for inflation) increased 32 percent statewide from 1990 to 2004. The 2004 value (\$29,247) was about 89 percent of U.S. per capita income, compared to 79 percent in 1990. Retail sales also increased substantially from 1990 to 2004, and the state's four wholesale-retail trade centers accounted for a growing share of sales. Pull factors, which measure a community's retail sales compared to residents' purchasing power, were stable or increasing for the wholesale-retail centers and declining for smaller trade centers, on average.

**Key Words:** employment, population, per capita income, retail sales, pull factors

## Highlights

North Dakota has shifted from its dependence on natural resource activities to a more diversified economy. These shifts have led to changes in employment, population, income, and retail sales. This report provides information on patterns and trends that have developed since 1980, using several key economic measures, which illustrate economic trends at the state, county, and community levels.

Employment has increased 12 percent statewide from 1990 to 2004. During that period, 11 counties had employment increase by up to 10 percent, and 8 counties had growth exceeding 10 percent. Employment growth was concentrated in the state's two largest trade centers, Fargo-West Fargo and Bismarck-Mandan. State Regions 1, 2, 4, 5, and 7 experienced employment growth from 1990 to 2004.

Population in the state declined slightly (-0.7 percent) from 1990 to 2004. While the state's population has stabilized, there have been major shifts within the state. State Region 5 (Fargo trade center) has grown by 16.8 percent, and State Region 7 (Bismarck trade center) increased its population by 6.2 percent. These were the only two state regions with population increases from 1990-2004. Between 1990 and 2004, only 5 counties (Cass, Burleigh, Morton, Rolette, and Sioux) had population increases.

North Dakota total personal income increased by nearly 45 percent in real dollars from 1980 to 2004. Total personal income in the state was \$18.6 billion in 2004. Per capita income in the state grew from \$22,140 in 1990 to \$29,247 in 2004, a 32 percent increase. In 2004, North Dakota's per capita personal income was less than the national average (\$33,041), but had grown at a faster rate during the 1980 to 2004 period.

Taxable sales and purchases in the state, when adjusted for inflation, increased 5 percent from 1980 to 2004. Taxable sales and purchases reached \$6.5 billion in 2004. Cass County had \$2.1 billion in retail sales, and Burleigh County had \$1.0 billion for 2004, representing 32 percent and 16 percent of the state total, respectively. In 2004, the state's four largest trade centers accounted for 71 percent of the total, an increase from 49 percent in 1980. The four wholesale-retail trade centers and seven complete shopping centers captured 85 percent of the state's retail trade in 2004, up from 70 percent in 1980. Wholesale-retail trade centers were the only group to increase retail sales from 1980 to 2004.

Overall, from 1980 to 2004, North Dakota population, employment, and economic activity has shifted to the state's major trade centers. The state's four major wholesale-retail trade centers have experienced population and economic growth. Some other areas of the state have not been as fortunate, but further economic diversification and development could benefit these areas.

## **Trends in the North Dakota Economy**

by

Randal C. Coon and F. Larry Leistritz\*

Documenting the trends in the North Dakota economy has been helpful for many groups. Community leaders, businesses, and policy makers, as well as the general public have often requested basic economic data. In response to these requests, the Department of Agribusiness and Applied Economics has published a series of reports to satisfy this need. This report is the fifth in the “trends” series (Mortenson and Leistritz 1988a; Mortenson and Leistritz 1988b; Bangsund et al. 1992; Leistritz and Wanzek 1993). This series of reports have updated information regarding employment, retail sales, per capita income, and pull factors.

A second series of reports regarding selected indicators for North Dakota has also been prepared. The “state of the state” report covers a broad range of topics, including economic, demographic, public service, community resources, and fiscal data. This series of reports is much more comprehensive than the “trends” reports, and compilation of all required data has been a significant task. The “state of the state” report was first published in 1992 (Hamm et al. 1992) and subsequent editions in 1995 (Coon et al 1995), 1998 (Coon and Leistritz 1998), and 2003 (Coon and Leistritz 2003). These reports were intended to be published every three years, but the 2003 report was not completed until all U.S. census data for 2000 were released. The “state of the state” reports cover many diverse topics in addition to the economic trends covered in the “trends” reports. The “state of the state” report was intended for a more diverse audience with all data presented visually (i.e., maps, graphs, charts, etc.). This report does not contain all economic measures of the North Dakota economy, but rather several key indicators (employment, population, retail sales, income, and pull factors).

### **Procedures**

Data were collected at the state, county, and where available, the city level. Because of the volume of data collected, summary tables for most categories will be presented in the text. Employment and population data will be the only county level data presented in the text. The data tables from which summary tables were constructed will be presented in their entirety in the appendix. Data collected for this report were primarily from secondary sources, except the trade area populations. Trade area populations were assembled from census tract data based on trade area boundaries developed by Bangsund et al. 1991. Pull factors were calculated from data available from numerous sources. All dollar value data (retail sales, income, etc.) were collected in nominal, or current year dollars. In the text of this report, these dollar amounts were converted to constant 2004 dollar values, or dollar values with the effects of inflation removed. The Consumer Price Index (Appendix Table 12) was used to convert nominal dollar values to constant dollars. The appendix of this report presents all dollar values in terms of both current and constant dollars. A key data component used to calculate pull factors was census populations and intercensal population estimates for county, city, and political subdivisions. These data were not presented in the text or appendix because of the volume of data involved.

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The remainder of this report has been divided into five sections that identify patterns and trends in the North Dakota economy. These include (1) changes in annual employment by county and state regions from 1980 to 2004, (2) city, county, and state region populations from 1980 to 2004, (3) state personal income and per capita income for the 1980 to 2004 period, (4) taxable sales and purchases for cities, counties, and the state for 1980-2004, and (5) pull factors for North Dakota cities for 1980 to 2004.

## **Employment**

Average annual employment in North Dakota increased from 288,002 people in 1980 to 342,221 in 2004 (Table 1). From 1990 to 2004 employment increased by 12.1 percent, and an increase of 2.2 percent has occurred from 2000 to 2004. Cass County and Burleigh County had the largest employment increases during the 1990 to 2004 period, 36.6 and 33.3 percent, respectively. During this period, eleven counties had employment growth of up to 10 percent, and eight had employment increases surpassing 10 percent (Figure 1). Despite 19 counties experiencing employment growth from 1990 to 2004, the majority of the state's counties (34) did not fare as well.

In the long term (1990-2004), State Regions 1, 2, 4, 5, and 7 had employment growth, with Regions 3, 6, and 8 experiencing declines. State Regions 1, 4, 5, 7, and 8 had employment growth from 2000-2004, while Regions 2, 3, and 6 had declines. State Region 5 had 99,152 employees in 2004, 29 percent of the state total, and State Region 7 accounted for 21 percent (72,769 employees). The dominance of these two state regions, with the Fargo-West Fargo and Bismarck-Mandan trade centers, becomes evident when considering they accounted for 50 percent of the state's employment in 2004. State Region 8 had the largest employment decline from 1990 to 2004, -6.1 percent, but experienced employment growth of 6 workers from 2000 to 2004. State Region 2 had the largest employment decline (-5.1 percent) for 2000 to 2004 period, reversing its trend of 3.1 percent growth from 1990 to 2004. State Regions 3 and 6 experienced both long and short term employment decreases.

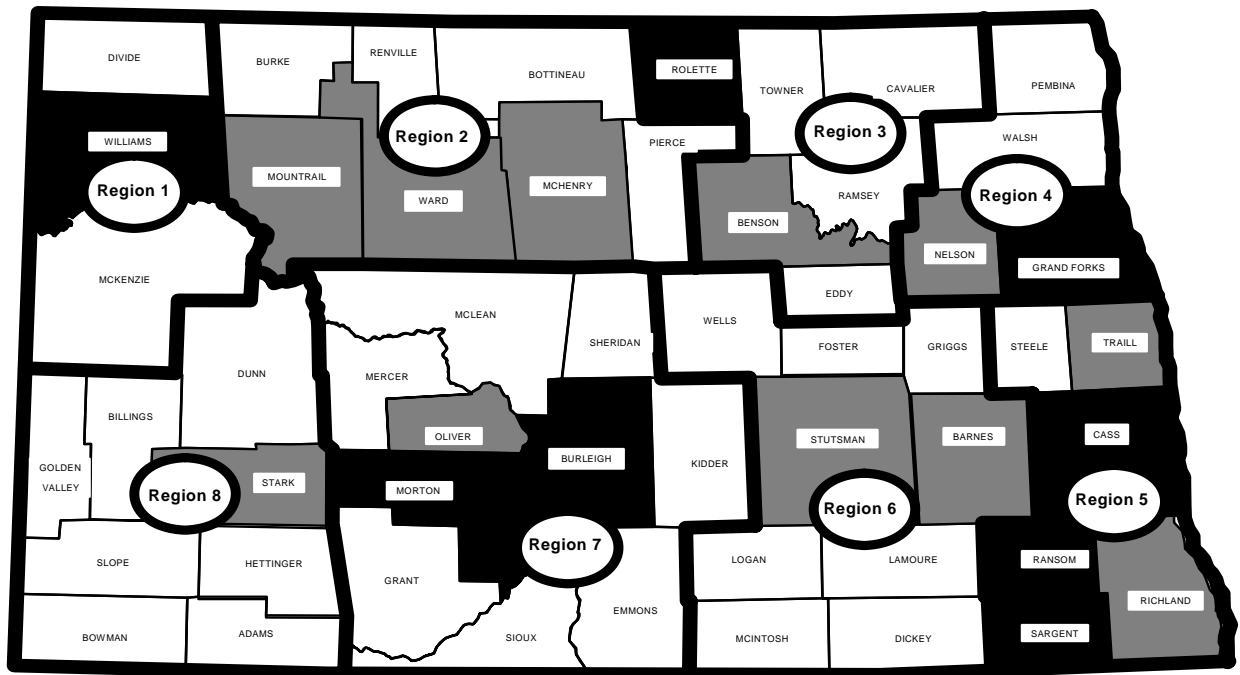
Table 1. Average Annual Employment in North Dakota by County and Region, Selected Years 1980-2004

County/Region	1980	1990	2000	2004	Change 1990-2004	Change 2000-2004
					-----%-----	
Divide	1,541	1,164	1,064	991	-14.9	-6.9
McKenzie	3,738	2,882	3,080	2,639	-8.4	-14.3
Williams	12,322	9,531	9,299	10,791	13.2	16.0
Region 1	17,601	13,577	13,443	14,421	6.2	7.3
Bottineau	3,788	3,594	3,223	3,374	-6.1	4.7
Burke	1,847	1,224	927	1,017	-16.9	9.7
McHenry	2,901	2,625	2,692	2,664	1.5	-1.0
Mountrail	3,363	2,895	2,977	2,933	1.3	-1.5
Pierce	2,847	2,087	2,588	1,890	-9.4	-27.0
Renville	1,516	1,357	1,259	1,257	-7.4	-0.2
Ward	22,350	25,264	28,739	27,115	7.3	-5.7
Region 2	38,612	39,046	42,405	40,250	3.1	-5.1
Benson	2,879	2,679	2,531	2,689	0.4	6.2
Cavalier	3,305	2,612	2,438	2,119	-18.9	-13.1
Eddy	1,508	1,354	1,166	1,286	-5.0	10.3
Ramsey	6,180	6,014	6,191	5,754	-4.3	-7.1
Rolette	4,090	4,183	5,031	4,775	14.2	-5.1
Towner	1,968	1,589	1,265	1,282	-19.3	1.3
Region 3	19,930	18,431	18,604	17,905	-2.9	-3.8
Grand Forks	24,911	31,716	35,052	36,523	15.2	4.2
Nelson	2,534	1,677	1,499	1,702	2.1	13.5
Pembina	5,333	4,277	4,359	3,839	-10.2	-11.9
Walsh	7,444	6,106	5,735	5,668	-7.2	-1.2
Region 4	40,222	43,776	46,645	47,732	9.0	2.3
Cass	42,369	58,258	74,145	79,605	36.6	7.4
Ransom	2,766	2,665	2,701	3,026	13.6	12.0
Richland	7,999	8,229	9,074	8,979	9.1	-1.1
Sargent	2,528	2,045	2,504	2,281	11.5	-8.9
Steele	1,361	1,243	1,093	1,189	-4.3	8.8
Trail	4,338	3,880	3,480	4,072	5.0	17.0
Region 5	61,361	76,320	92,997	99,152	29.9	6.6

Table 1. Cont.

County/Region	1980	1990	2000	2004	Change 1990-2004	Change 2000-2004
					-----%-----	
Barnes	5,961	5,905	5,572	5,917	0.2	6.2
Dickey	3,290	3,005	2,898	2,762	-8.1	-4.7
Foster	2,075	1,872	2,116	1,732	-7.5	-18.2
Griggs	1,642	1,532	1,566	1,337	-12.7	-14.6
LaMoure	2,516	2,383	2,227	2,262	-5.1	1.2
Logan	1,449	1,211	1,127	925	-23.6	-17.9
McIntosh	2,242	1,766	1,644	1,446	-18.1	-12.0
Stutsman	10,772	10,879	11,431	11,260	3.5	-1.5
Wells	3,146	2,389	2,410	2,203	-7.8	-8.6
Region 6	33,093	30,942	30,991	29,844	-3.6	-3.7
Burleigh	24,935	31,929	39,546	42,544	33.3	7.6
Emmons	2,302	2,065	1,957	1,788	-13.4	-8.6
Grant	1,635	2,164	1,492	1,232	-43.1	-17.4
Kidder	1,431	1,526	1,332	1,161	-23.9	-12.8
McLean	5,035	4,413	4,182	4,330	-1.9	3.5
Mercer	5,393	4,576	4,438	4,506	-1.5	1.5
Morton	11,357	11,567	13,311	14,043	21.4	5.5
Oliver	1,134	1,165	1,033	1,204	3.4	16.6
Sheridan	1,186	761	670	704	-7.5	5.1
Sioux	1,256	1,550	1,582	1,257	-18.9	-20.5
Region 7	55,664	61,716	69,543	72,769	17.9	4.6
Adams	1,921	1,765	1,326	1,256	-28.8	-5.3
Billings	1,157	531	471	492	-7.3	4.5
Bowman	2,038	1,941	1,780	1,692	-12.8	-4.9
Dunn	2,087	2,505	1,927	1,660	-33.7	-13.9
Golden Valley	1,224	908	847	907	-0.1	7.1
Hettinger	1,810	1,523	1,273	1,183	-22.3	-7.1
Slope	566	574	385	438	-23.7	13.8
Stark	10,716	11,720	12,135	12,522	6.8	3.2
Region 8	21,519	21,467	20,144	20,150	-6.1	0.0
North Dakota	288,002	305,272	334,773	342,221	12.1	2.2

Source: Job Service North Dakota. 1980, 1990, 2000, and 2004. Labor Force, Employed, and Unemployed by State Planning Region. Economic Data, Data Warehouse: North Dakota Job Service Internet Web Site.



Employment Growth >10%
  Employment Growth <10%
  Employment Decline

**Figure 1. Changes in County Employment, North Dakota (1990-2004)**

## Population

North Dakota population has been up and down since 1970. The state's population was 617,792 people in 1970, peaked in 1980 at 652,717 people, declined to 638,800 people in 1990, and grew to 642,200 people by 2000 (Table 2). Intercensal population estimate for 2004 was 634,366 people, a slight decline from 2000. North Dakota's population decline from 1990 to 2004 (-0.7 percent) was small, but the change from 2000 to 2004 was slightly larger, -1.2 percent. All state regions had population declines from 1990 to 2000 except Region 5 and Region 7. State Region 5 population during that period grew by 16.8 percent, highlighted by Cass County's 25.0 percent growth. State Region 7 had growth of 6.2 percent with Burleigh County growing 20.7 percent during that time. From 1990 to 2004 only five counties (Rolette, Cass, Burleigh, Morton, and Sioux) had population growth (Figure 3). These five counties were also the only ones with population growth for the 1980 to 2004 period. Two counties with major trade centers, Ward (Minot) and Grand Forks (Grand Forks), had population declines for both the 1990 to 2004 and 2000 to 2004 periods. Population losses were widespread across North Dakota with 15 counties losing more than 20 percent of their people from 1990 to 2004. Two of these counties (Burke and Sheridan) lost over 30 percent of their population during that period.

As population shifts, so do retail trade patterns. North Dakota cities have been classified into six categories based on retail activity (Bangsund et al. 1991). These categories include: wholesale-retail, complete shopping, partial shopping, full convenience, minimum convenience, and hamlets. These classifications represent different levels of retail trade activity. For example, a wholesale-retail center (e.g., Fargo, Bismarck) represents a much larger trade area than partial shopping centers (e.g., Beulah, Tioga). A complete listing of North Dakota cities by trade area classification is presented in Appendix Table 1. This table also contains the city populations for 1980, 1990, 2000, and 2004. Trade area populations for North Dakota cities are presented in Appendix Table 1 for 1990, 2000, and 2004. Trade area populations are the number of people that a city (trade center) serves. Trade area populations were not available from secondary data sources, but were calculated based on trade area analysis (Bangsund et al. 1991).

Table 3 presents a summary table of city populations and trade area populations totaled for each trade area classification. The wholesale-retail cities group experienced a population increase of 28 percent from 1980 to 2004, but only a 1 percent increase between 2000 and 2004. Average population for this group grew from 52,022 people in 1980 to 66,588 in 2004. Average population for this largest-city group was significantly larger than the other classifications. The wholesale-retail classification was the only one that had growth for the 1980-2004 period and the 2000 to 2004 time frame. In general, as the trade center classifications went to smaller groups, the population declines increased from 1980 to 2004, ranging from -7.85 percent for complete shopping to -22.57 percent for minimum convenience. The smallest city group, hamlets, broke the trend having a -11.83 percent decrease for that period. Population declines for the 2000 to 2004 period followed a pattern similar to the 1980-2004 time frame. Average population decline for hamlets from 2000 to 2004 was only 9 people, which could possibly indicate that the populations in North Dakota's smaller towns may be leveling off.

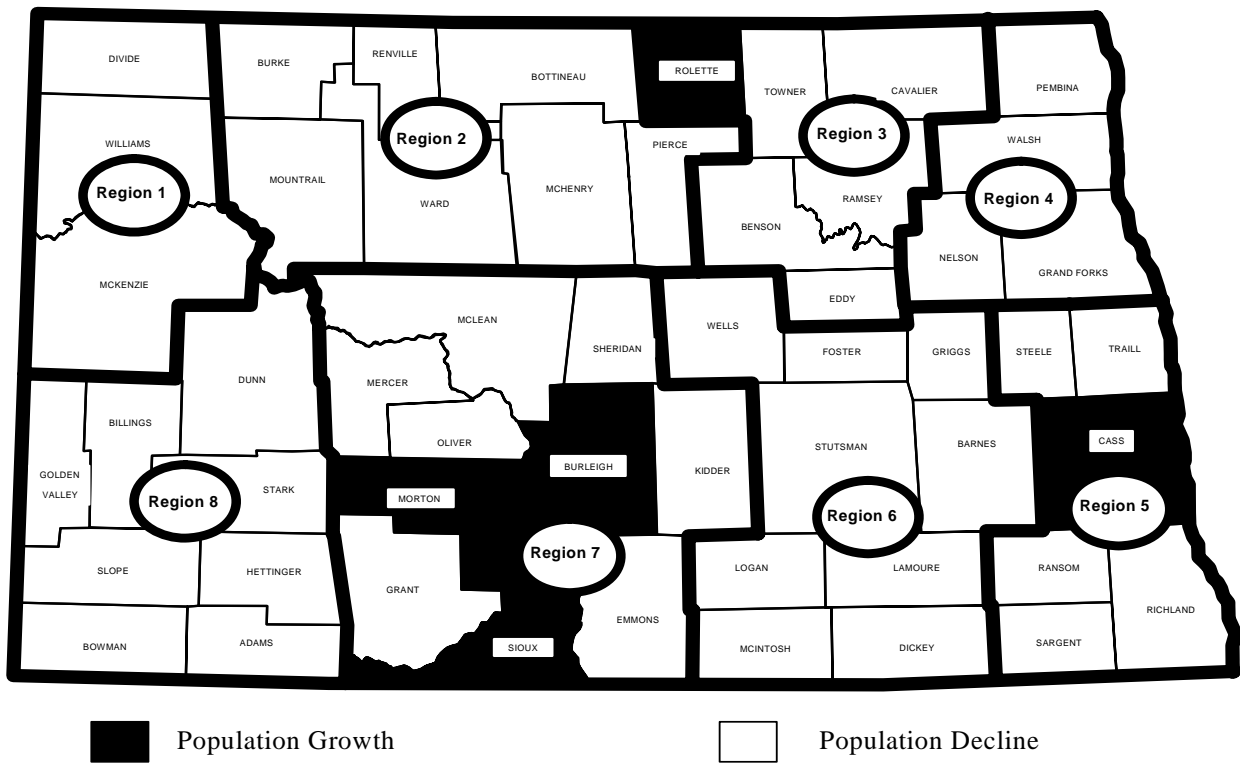
Table 2. North Dakota Population by County and State Planning Region, Selected Years 1970-2004

County/Region	1970	1980	1990	2000	2004	Change	Change
						1990-2004	2000-2004
						-----%-----	
Divide	4,564	3,494	2,899	2,283	2,208	-23.8	-3.3
McKenzie	6,127	7,132	6,383	5,737	5,499	-13.9	-4.2
Williams	19,301	22,237	21,129	19,761	19,278	-8.8	-2.4
Region 1	29,992	32,863	30,411	27,781	26,985	-11.3	-2.9
Bottineau	9,496	9,239	8,011	7,149	6,846	-14.5	-4.2
Burke	4,739	3,822	3,002	2,242	2,074	-30.9	-7.5
McHenry	8,977	7,858	6,528	5,987	5,630	-13.8	-6.0
Mountrail	8,437	7,679	7,021	6,631	6,530	-7.0	-1.5
Pierce	6,323	6,166	5,052	4,675	4,357	-13.8	-6.8
Renville	3,828	3,608	3,160	2,610	2,477	-21.6	-5.1
Ward	58,560	58,392	57,921	58,795	56,224	-2.9	-4.4
Region 2	100,360	96,764	90,695	88,089	84,138	-7.2	-4.5
Benson	8,245	7,944	7,198	6,964	6,968	-3.2	0.1
Cavalier	8,213	7,636	6,064	4,831	4,376	-27.8	-9.4
Eddy	4,103	3,554	2,951	2,757	2,601	-11.9	-5.7
Ramsey	12,915	13,048	12,681	12,066	11,450	-9.7	-5.1
Rolette	11,549	12,177	12,772	13,674	13,823	8.2	1.1
Towner	4,645	4,052	3,627	2,876	2,575	-29.0	-10.5
Region 3	49,670	48,411	45,293	43,168	41,793	-7.7	-3.2
Grand Forks	61,102	66,100	70,683	66,109	64,923	-8.2	-1.8
Nelson	5,807	5,233	4,410	3,715	3,445	-21.9	-7.3
Pembina	10,728	10,399	9,238	8,585	8,190	-11.3	-4.6
Walsh	16,251	15,371	13,840	12,389	11,646	-15.9	-6.0
Region 4	93,888	97,103	98,171	90,798	88,204	-10.2	-2.9
Cass	73,653	88,247	102,874	123,138	128,615	25.0	4.5
Ransom	7,102	6,698	5,921	5,890	5,828	-1.6	-1.1
Richland	18,089	19,207	18,148	17,998	17,626	-2.9	-2.1
Sargent	5,937	5,512	4,549	4,366	4,110	-9.7	-5.9
Steele	3,749	3,106	2,420	2,258	2,062	-14.8	-8.7
Trail	9,571	9,624	8,752	8,477	8,366	-4.4	-1.3
Region 5	118,101	132,394	142,664	162,127	166,607	16.8	2.8

Table 2. Cont.

County/Region	1970	1980	1990	2000	2004	Change	Change
						1990-2004	2000-2004
						-----%-----	
Barnes	14,669	13,960	12,545	11,775	11,133	-11.3	-5.5
Dickey	6,976	7,207	6,107	5,757	5,456	-10.7	-5.2
Foster	4,832	4,611	3,983	3,759	3,492	-12.3	-7.1
Griggs	4,184	3,714	3,303	2,754	2,515	-23.9	-8.7
LaMoure	7,117	6,473	5,383	4,701	4,504	-16.3	-4.2
Logan	4,245	3,493	2,847	2,308	2,099	-26.3	-9.1
McIntosh	5,545	4,800	4,021	3,390	3,129	-22.2	-7.7
Stutsman	23,550	24,154	22,241	21,908	20,928	-5.9	-4.5
Wells	7,847	6,979	5,864	5,102	4,658	-20.6	-8.7
Region 6	78,965	75,391	66,294	61,454	57,914	-12.6	-5.8
Burleigh	40,714	54,811	60,131	69,416	72,585	20.7	4.6
Emmons	7,200	5,877	4,830	4,331	3,913	-19.0	-9.7
Grant	5,009	4,274	3,549	2,841	2,623	-26.1	-7.7
Kidder	4,362	3,833	3,332	2,753	2,563	-23.1	-6.9
McLean	11,251	12,383	10,457	9,311	8,815	-15.7	-5.3
Mercer	6,175	9,404	9,808	8,644	8,434	-14.0	-2.4
Morton	20,310	25,177	23,700	25,303	25,339	6.9	0.1
Oliver	2,322	2,495	2,381	2,065	1,875	-21.3	-9.2
Sheridan	3,232	2,819	2,148	1,710	1,476	-31.3	-13.7
Sioux	3,632	3,620	3,761	4,044	4,141	10.1	2.4
Region 7	104,207	124,693	124,097	130,418	131,764	6.2	1.0
Adams	3,832	3,584	3,174	2,593	2,429	-23.5	-6.3
Billings	1,198	1,138	1,108	888	825	-25.5	-7.1
Bowman	3,901	4,229	3,596	3,242	3,101	-13.8	-4.4
Dunn	4,895	4,627	4,005	3,600	3,437	-14.2	-4.5
Golden Valley	2,611	2,391	2,108	1,924	1,770	-16.0	-8.0
Hettinger	5,075	4,275	3,445	2,715	2,541	-26.2	-6.4
Slope	1,484	1,157	907	767	742	-18.2	-3.3
Stark	19,613	23,697	22,832	22,636	22,116	-3.1	-2.3
Region 8	42,609	45,098	41,175	38,365	36,961	-10.2	-3.7
North Dakota	617,792	652,717	638,800	642,200	634,366	-0.7	-1.2

Source: U.S. Department of Commerce, Bureau of the Census. 1970, 1980, 1990, and 2000 Decennial Census of Population and Housing; U.S. Department of Commerce, Bureau of the Census. 2006. North Dakota Population Estimates, 2004. Census Bureau Internet Web Site.



**Figure 2. Change in County Populations, North Dakota (1990-2004)**

Table 3. North Dakota City and Trade Area Population, by Trade Center Classification, Selected Years 1980-2004

Trade Center Classification	City Population						Trade Area Population					
	1980	1990	2000	2004	Change 1980-2004	Change 2000-2004	1990	2000	2004	Change 1990-2004	Change 2000-2004	
Wholesale - Retail <sup>a</sup>	-----%-----						-----%-----					
Group Average	52,022	58,700	65,919	66,588	--	--	78,693	84,572	85,477	--	--	
Group Total	208,088	234,800	263,677	266,350	28.00	1.01	314,771	338,288	341,909	8.62	1.07	
Complete Shopping												
Group Average	10,370	10,476	10,171	9,888	--	--	17,357	16,660	16,095	--	--	
Group Total	75,113	73,335	71,199	69,215	-7.85	-2.79	121,501	116,617	112,663	-7.27	-3.39	
Partial Shopping												
Group Average	2,264	2,076	1,961	1,857	--	--	4,774	4,460	4,270	--	--	
Group Total	29,427	26,989	25,498	24,138	-17.97	-5.33	62,063	57,986	55,506	-10.57	-4.28	
Full Convenience												
Group Average	1,511	1,392	1,296	1,235	--	--	2,686	2,400	2,294	--	--	
Group Total	31,739	29,231	27,225	25,927	-18.31	-4.77	56,406	50,398	48,183	-14.58	-4.40	
Minimum Convenience												
Group Average	846	732	688	655	--	--	1,469	1,337	1,303	--	--	
Group Total	45,705	39,518	37,147	35,389	-22.57	-4.73	77,851	72,173	69,040	-11.32	-4.34	
Hamlets												
Group Average	393	366	351	342	--	--	--	--	--	--	--	
Group Total	31,415	29,619	28,409	27,700	-11.83	-2.50	23,096	20,142	19,114	-17.24	-5.10	
State Total	421,487	433,492	453,155	488,719	6.46	-0.98	655,688	655,604	646,415	-1.41	-1.40	

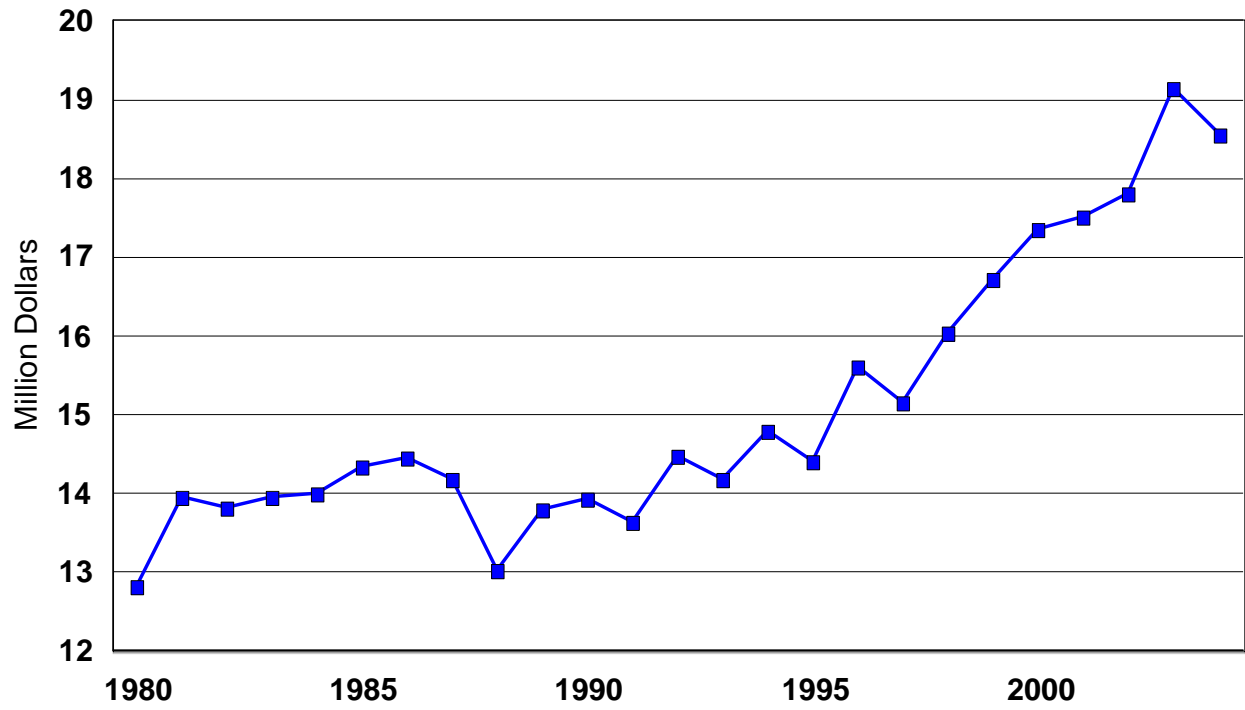
<sup>a</sup> West Fargo was considered part of the Fargo-West Fargo Trade Center, and Mandan was considered part of the Bismarck-Mandan Trade Center

Trade area populations for the different classifications showed a pattern very similar to city populations. Wholesale-retail centers increased their trade area populations for both the 1990-2004 and 2000-2004 periods, the only group to do so. As trade center classifications went to the smaller city groups, the trade area declines increased. The difference between the city populations and trade area populations was that hamlets had the largest loss in trade area population for the 1990 to 2004 period. Also, minimum convenience centers had a smaller (-11.32 percent) trade area population loss than did the full convenience group (-14.58 percent). The hamlets group was the only one that experienced a greater percentage loss in trade area populations than city populations. This would indicate that residents of hamlets were going to larger trade centers to do their shopping either by choice, or necessity.

### **Income**

Total personal income for North Dakota has grown from \$12.8 billion in 1980 to \$18.6 billion in 2004 (in terms of constant 2004 dollars) (Figure 3). (Current and constant dollar North Dakota personal income for 1980 to 2004 are presented in Appendix Table 10.) This represents a real growth rate of 44.7 percent for that period. (Real growth rate removes the inflation for that period.) Data from Figure 3 indicates that much of this real growth has occurred since the mid 1990s. This trend corresponds with the state-level effort to diversify the North Dakota economy. Prior to the mid 1990s, the state's economy was highly dependent on natural resources based activities (agriculture and energy) and the cycles that occurred in those sectors. Agriculture and energy remain key components of the state's economy, but the addition of agricultural processing, exported services, etc., have helped grow the North Dakota economy. (For more information regarding North Dakota's economic base, see Coon and Leistriz 2006.)

North Dakota constant dollar per capita personal income increased from \$22,140 in 1990 to \$29,247 in 2004, a 32 percent increase (Appendix Table 2). Per capita personal income for the United States for those years was higher, \$28,146 in 1990 and \$33,041 in 2004, although the increase was less (17 percent). North Dakota had a lower per capita income than the national average, but it had a larger percentage increase than the U.S. average for the 1980 to 2004 period. City per capita personal income data were not available from the Bureau of Economic Analysis, but the Census published these data for 1979, 1989, and 1999 (Bureau of the Census 1982; Bureau of the Census 2006). City per capita personal incomes were categorized by the trade center classifications for 1979, 1989, and 1999 for constant 2004 dollars (Appendix Table 3) and for current year dollars (Appendix Table 4). Generally, the larger cities (wholesale-retail centers) had higher per capita incomes, but this was not always the case. Some smaller cities had per capita incomes equal to or exceeding those of the largest cities. This is possibly because one development (factory, processing plant, etc.) could provide enough of a swing in wages that a smaller city's per capita income could match that of a wholesale-retail center. City per capita personal income was one of the data requirements for calculating pull factors, which will be discussed later in this report.



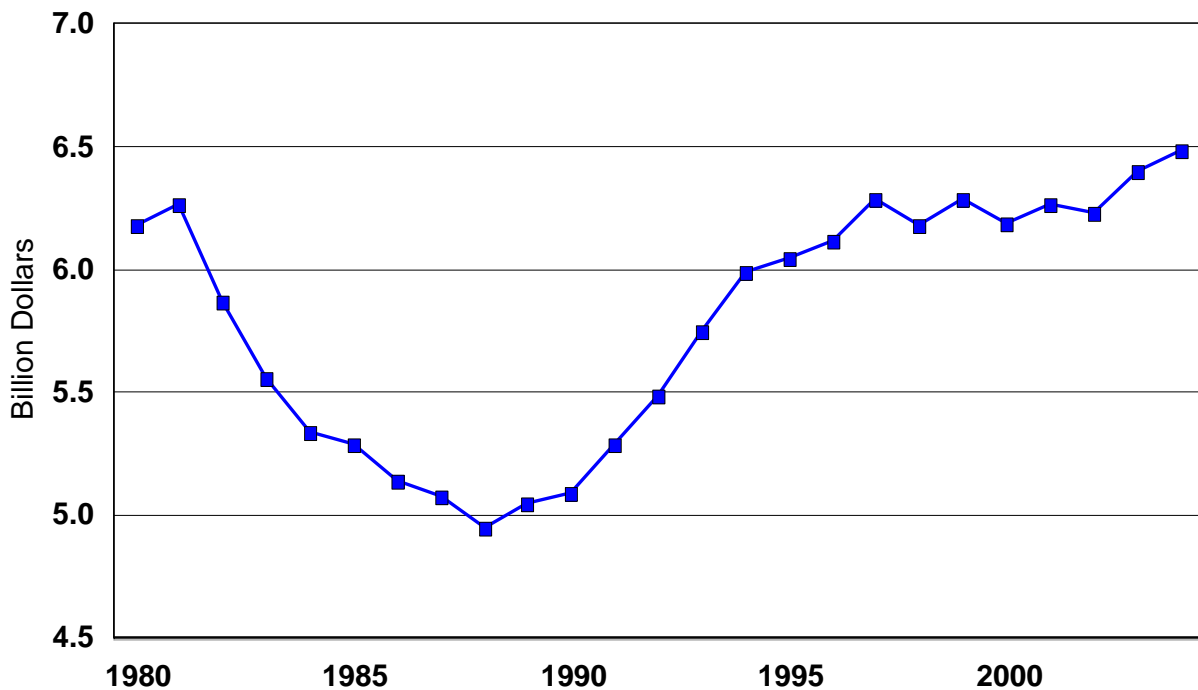
Source: Bureau of Economic Analysis 2000b.

**Figure 3. North Dakota Personal Income, 1980-2004 (Constant 2004 Dollars)**

## Taxable Sales and Purchases

North Dakota collects data on taxable sales and purchases. These values were collected annually (Office of the State Tax Commission 1980-2004) and can be used as a proxy for retail sales. Retail sales for North Dakota (in constant 2004 dollars) are presented in Figure 4. Appendix Table 9 presents current dollar and constant 2004 dollar taxable sales and purchases for North Dakota for the 1980 to 2004 period. Retail sales in real dollars declined from 1980 to the late 1980s, but have shown steady growth since then. In 2004, the state's retail sales reached the \$6.5 billion level.

Taxable sales and purchases were collected at the state, county, and city level. Appendix Table 5 presents county taxable sales for 1980, 1990, 2000, and 2004 in constant 2004 dollars, and Appendix Table 6 shows corresponding data for current year dollars. Cass and Burleigh Counties, with the major trade centers of Fargo and Bismarck, had the greatest amount of taxable sales in 2004. Cass County had \$2.1 billion in sales and Burleigh had \$1.0 billion for that year, representing 32.4 percent and 15.5 percent, respectively, of the state total. From 1980 to 2004, State Region 5 (61.6 percent) and State Region 7 (14.5 percent) were the only two regions that had real growth in taxable sales. Overall, the State had a 5.1 percent growth in retail trade from 1980 to 2004.



**Figure 4. North Dakota Taxable Sales and Purchases, 1980-2004 (Constant 2004 Dollars)**

City taxable sales and purchases were also required data for calculating pull factors. Cities were grouped into the trade center classifications and are presented for 1980, 1990, 2000, and 2004 in constant 2004 dollar values (Appendix Table 7) and current year dollar values (Appendix Table 8). Table 4 presents a summarization of the complete city data tables. Retail trade activity was concentrated in the wholesale-retail trade centers. The four trade centers in this group (Fargo-West Fargo, Grand Forks, Bismarck-Mandan, and Minot) accounted for 71 percent of retail sales in North Dakota in 2004. This share has steadily increased, going from 49 percent in 1980, to 63 percent in 1990, and 68 percent in 2000. Combining the four wholesale-retail trade centers with the seven complete shopping centers, they account for 85 percent of the state's total retail sales in 2004. Their share has increased from 70 percent in 1980. Hamlet trade centers were responsible for less than 2 percent of the state's retail sales in 2004, a slight decline from the 3.5 percent in 1980. The trend has been an increasing real dollar value of retail trade captured in the state's four largest wholesale-retail trade centers, as well as an increasing share of the state's total.

### **Pull Factors**

Pull factors measure a community's success in capturing the potential purchasing power of residents in its trade area. The measure is calculated by the following formula:

$$\text{Pull Factor} = \frac{\text{Trade Area Capture (TAC)}}{\text{Trade Area Population}}$$

$$\text{where TAC} = \frac{LTS_j}{PCS_s \times (TAPCI_j \div PCI_a)}$$

$LTS_j$  = Local taxable sales in community  $j$

$PCS_s$  = State per capita taxable sales

$TAPCI_j$  = Per capita income in trade area  $j$

$PCI_s$  = State average per capita income

Trade area populations were determined using trade area analyses conducted by Bangsund et al. (1991). Trade area capture measures the number of consumer equivalents purchasing taxable merchandise in a particular city. The basic underlying assumption in trade area capture was that local tastes and preferences, after adjusting for differences in per capita income, were the same as those for the entire state.

Dividing trade area capture by trade area population provides a way to compare a community's potential and actual sales. Pull factors greater than 1.0 indicate that a community's retail sales are greater than the purchasing power of its trade area residents; hence, it may be "pulling" customers from outside its normal trade area. Conversely, a pull factor of less than 1.0 suggests that a community is not capturing all of the purchasing power of its trade area residents. Changes in the pull factor indicate an improvement or a decline in a community's "pulling power."

Table 4. Adjusted Taxable Sales and Purchases, by Trade Center Classifications, North Dakota, Selected Years 1980-2004 (Constant 2004 Dollars)

Trade Center Classification	1980	1990	2000	2004	Change 1980-2004	Change 2000-2004
Wholesale - Retail <sup>a</sup>	-----\$-----				-----%-----	
Group Average	755,006,559	801,723,918	1,058,005,876	1,156,924,794	--	--
Group Total	3,020,026,237	3,206,895,671	4,232,023,503	4,627,699,177	53.23	9.35
Share of Sales (%)	48.89	62.96	68.36	71.28	--	--
Complete Shopping						
Group Average	184,986,224	121,385,400	131,262,445	130,883,457	--	--
Group Total	1,294,903,568	849,697,799	918,837,113	916,184,199	-29.25	-0.29
Share of Sales (%)	20.91	16.68	14.84	14.11	--	--
Partial Shopping						
Group Average	45,098,354	25,090,576	25,388,303	22,804,727	--	--
Group Total	586,278,597	326,177,489	330,047,940	296,461,449	-49.43	-10.18
Share of Sales (%)	9.49	6.40	5.33	4.57		
Full Convenience						
Group Average	21,020,860	11,929,782	12,510,676	10,971,620	--	--
Group Total	441,438,055	250,525,414	262,724,186	230,404,013	-47.81	-12.30
Share of Sales (%)	7.15	4.92	4.24	3.55	--	--
Minimum Convenience						
Group Average	8,819,907	5,053,996	4,939,907	4,465,293	--	--
Group Total	476,274,958	272,915,797	266,754,988	241,125,808	-49.37	-9.61
Share of Sales (%)	7.71	5.36	4.31	3.71	--	--

Table 4. Cont.

Trade Center Classification	1980	1990	2000	2004	Change 1980-2004	Change 2000-2004
Hamlets	-----\$-----				-----%-----	
Group Average	2,272,513	1,111,015	1,057,868	1,034,374	--	--
Group Total	213,616,266	109,990,453	104,728,955	102,403,042	-52.06	-2.22
Share of Sales (%)	3.46	2.16	1.69	1.57	--	--
State Total	6,177,751,293	5,093,664,889	6,191,038,545	6,491,948,094	5.1	4.9

<sup>a</sup> West Fargo was considered part of the Fargo-West Fargo Trade Center, and Mandan was considered part of the Bismarck-Mandan Trade Center

Pull factors were calculated for all North Dakota cities for which trade areas were determined and for which information on taxable retail sales and purchases was available (Appendix Table 11). The state's four major trade centers all experienced increased pull factor numbers from 1980 to 2004. Bismarck-Mandan increased its pull factor from 0.83 to 1.05 during that period, Fargo-West Fargo increased from 1.01 to 1.20, Grand Forks increased from 0.81 to 1.26, and Minot experienced a growth from 0.73 to 0.90. Generally, major trade centers had the biggest pull factors, indicating they capture more of their trade area purchasing power than smaller trade centers.

Table 5 presents a summary of the complete city pull factor table. Wholesale-retail trade area cities had the biggest pull factor in 2004 (1.10). As the trade classification went to smaller cities, the pull factors declined. This decline was rather consistent, dropping from 0.81 for the complete shopping group to 0.23 for hamlets. In 1980, 1990, and 2000, the partial shopping and full convenience group had very similar pull factors indicating they captured approximately the same amount of their trade area purchasing power, but in 2004 the partial shopping group achieved some separation. Smaller centers (minimum convenience centers and hamlets) have progressively smaller pull factors, reflecting lower capture rates for local purchasing potential. The percentage change in pull factors from 1980 to 2004 was over a 30 percent increase for wholesale-retail cities, but was a decrease (-17 percent) for the complete shopping group. The partial shopping, full convenience, and minimum convenience groups had similar declines from 41 to 49 percent. However, the hamlet group had a much larger decrease (61 percent) with its pull factors dropping from 0.60 to 0.23 between 1980 and 2004.

Table 5. Pull Factors for North Dakota Cities, by Trade Area Classification, Selected Years 1980-2004

Trade Area Classification	1980	1990	2000	2004	Change 1980-2004	Change 2000-2004
Wholesale-Retail					-----%-----	
Group Average	0.85	1.10	1.07	1.10	30.33	2.98
Complete Shopping						
Group Average	0.97	0.89	0.83	0.81	-16.91	-2.81
Partial Shopping						
Group Average	1.04	0.75	0.66	0.62	-40.87	-6.47
Full Convenience						
Group Average	1.04	0.67	0.69	0.54	-48.30	-21.98
Minimum Convenience						
Group Average	0.78	0.54	0.45	0.40	-49.00	-11.87
Hamlets						
Group Average	0.60	0.31	0.25	0.23	-61.19	-7.96

Pull factors did not approach 1.0 for many smaller cities. Most smaller cities do not offer a wide enough range of goods and services to capture their potential purchasing power. A minimum convenience center will not likely offer many high-priced consumer goods or services, forcing residents to purchase these items elsewhere. Small trade centers will likely experience substantial outshopping activity that will limit their pull factor values.

Wholesale-retail trade centers increased their pull factors from 1980 to 2004, but pull factors decreased for all other trade center classifications during that period. This trend follows the same pattern as the growth in taxable sales for the large trade centers. Sales of goods and services have continued to be concentrated in major trade centers. Pull factor numbers presented in Table 5 indicate that North Dakota consumers have purchased more goods and services at major trade centers over time, a trend that is likely to continue.

### **Summary**

This report presents data for selected economic variables and identifies patterns and trends in the North Dakota economy. Topics covered in this analysis included employment, population, income, retail sales, and pull factors. This information was intended to provide community leaders, businesses, and policy makers with current and pertinent data which could be helpful in the decision-making processes.

Employment in North Dakota has increased for the 1990 to 2004 period by 12.1 percent and by 2.2 percent from 2000 to 2004. Employment growth has been greatest in the counties with trade centers, and particularly in Cass County (Fargo-West Fargo trade center) and Burleigh County (Bismarck trade center). Cass County employment grew by 36.6 percent from 1990 to 2004, and Burleigh grew by 33.3 percent during that same period. The state's population declined slightly from 1990 to 2004 (-0.7 percent) and appears to have stabilized slightly below the 1980 peak of 652,717 people. County population growth has paralleled employment growth, with Cass (25.0 percent) and Burleigh (20.7 percent) counties experiencing the most growth during the 1990-2004 period. Only five counties had population growth from 1990 to 2004.

Total personal income in North Dakota grew from \$12.8 billion in 1980 to \$18.6 billion in 2004 in terms of constant 2004 dollars (i.e., the effects of inflation have been removed). Personal income was rather flat for the 1980 to 1988 period, but has shown continued and steady growth since that time. North Dakota's per capita personal income has grown in real terms from \$22,140 in 1990 to \$29,247 in 2004, a 32 percent increase. The state's per capita income in 2004 was less than the national average (\$33,041), but has increased faster since 1990.

North Dakota's retail sales (in terms of constant dollars) have gone through a period of decline (1980 to 1988) followed by many years (1989 to 1997) of strong growth, and moderate growth recently (1998 to 2004). Retail sales in North Dakota reached \$6.5 billion in 2004. As would be expected, the counties with major trade centers dominated retail sales totals. Cass County had \$2.1 billion in retail sales in 2004, followed by Burleigh County with \$1.0 billion. These sales represent 32.4 and 15.5 percent of the state's total, respectively. Taxable sales in the Fargo-West Fargo trade center accounted for 31.5 percent of the state's total in 2004. The wholesale-retail group increased their share of the state's total from 48.9 percent in 1980 to 71.3 percent in 2004. The final economic measure used to identify the economic trends in the state was the pull factors. Pull factors

measure a community's success in capturing the potential purchasing power of residents in its trade area. Pull factors have become bigger for the wholesale-retail group, but declined for all other classifications. The wholesale-retail group was the only one to have a pull factor greater than 1.0 in 2004. Pull factor numbers indicate that the trend toward major trade centers capturing consumer purchases at the expense of smaller cities has become very definite. All of these key economic indicators illustrate patterns and trends that are occurring in the North Dakota economy.

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# Appendix

Appendix Table 1. North Dakota City and Trade Area Populations, by Trade Center Classifications, Selected Years 1980-2004

City	County	City Population						Trade Area Population				
		1980	1990	2000	2004	Change 1980-2004	Change 2000-2004	1990	2000	2004	Change 1990-2004	Change 2000-2004
Wholesale-retail Centers												
						-----%					-----%	
Bismarck	Burleigh	44,485	49,256	55,532	56,619	27.28	1.96	75,024	82,861	85,102	13.43	2.70
Fargo	Cass	61,383	74,111	90,599	91,048	48.33	0.50	103,744	123,707	129,157	24.50	4.41
Grand Forks	Grand Forks	43,765	49,425	49,321	48,984	11.93	-0.68	70,275	65,933	64,778	-7.82	-1.75
Mandan	Morton	15,513	15,177	16,718	16,969	9.39	1.50	N/A	N/A	N/A	N/A	N/A
Minot	Ward	32,843	34,544	36,567	35,149	7.02	-3.88	65,728	65,787	62,872	-4.35	-4.43
West Fargo	Cass	10,099	12,287	14,940	17,581	74.09	17.68	N/A	N/A	N/A	N/A	N/A
Group Total		208,088	234,800	263,677	266,350	28.00	1.01	314,771	338,288	341,909	8.62	1.07
Complete Shopping Centers												
Devils Lake	Ramsey	7,442	7,782	7,222	7,049	-5.28	-2.40	17,335	16,684	16,311	-5.91	-2.24
Dickinson	Stark	15,924	16,097	16,010	15,886	-0.24	-0.77	25,619	25,064	24,411	-4.72	-2.61
Grafton	Walsh	5,293	4,840	4,516	4,267	-19.38	-5.51	8,255	7,583	7,137	-13.54	-5.88
Jamestown	Stutsman	16,280	15,571	15,527	14,965	-8.08	-3.62	25,011	24,081	22,991	-8.08	-4.53
Valley City	Barnes	7,774	7,163	6,826	6,446	-17.08	-5.57	12,463	11,716	11,084	-11.06	-5.39
Wahpeton	Richland	9,064	8,751	8,586	8,411	-7.20	-2.04	13,518	13,365	13,074	-3.28	-2.18
Williston	Williams	13,336	13,131	12,512	12,191	-8.59	-2.57	19,300	18,124	17,655	-8.52	-2.59
Group Total		75,113	73,335	71,199	69,215	-7.85	-2.79	121,501	116,617	112,663	-7.27	-3.39
Partial Shopping Centers												
Beulah	Mercer	2,908	3,363	3,152	3,060	5.23	-2.92	4,761	4,315	4,196	-11.87	-2.76
Bottineau	Bottineau	2,829	2,598	2,336	2,213	-21.77	-5.27	5,660	5,127	4,909	-13.27	-4.25
Bowman	Bowman	2,071	1,741	1,600	1,535	-25.88	-4.06	3,997	3,595	3,440	-13.94	-4.31
Carrington	Foster	2,641	2,267	2,268	2,097	-20.60	-7.54	4,874	4,482	4,169	-14.46	-6.98
Cavalier	Pembina	1,505	1,508	1,537	1,473	-2.13	-4.16	4,063	3,741	3,567	-12.21	-4.65
Harvey	Wells	2,527	2,263	1,989	1,794	-29.01	-9.80	5,384	4,598	4,193	-22.12	-8.81
Hettinger	Adams	1,739	1,574	1,307	1,230	-29.27	-5.89	2,919	2,390	2,240	-23.26	-6.28
Langdon	Cavalier	2,335	2,241	2,101	1,888	-19.14	-10.14	5,202	4,164	3,772	-27.49	-9.41
Lisbon	Ransom	2,283	2,177	2,292	2,245	-1.66	-2.05	4,935	5,079	4,915	-0.41	-3.23
Rolla	Rolette	1,538	1,286	1,417	1,444	-6.11	1.91	9,312	10,304	10,391	11.59	0.84
Rugby	Pierce	3,335	2,909	2,939	2,728	-18.20	-7.18	5,520	5,059	4,756	-13.84	-5.99
Tioga	Williams	1,597	1,278	1,125	1,091	-31.68	-3.02	2,318	1,971	1,918	-17.26	-2.69
Watford City	McKenzie	2,119	1,784	1,435	1,340	-36.76	-6.62	3,118	3,161	3,040	-2.50	-3.83
Group Total		29,427	26,989	25,498	24,138	-17.97	-5.33	62,063	57,986	55,506	-10.57	-4.28

Appendix Table 1. Cont.

City	County	City Population						Trade Area Population				
		1980	1990	2000	2004	Change 1980-2004	Change 2000-2004	1990	2000	2004	Change 1990-2004	Change 2000-2004
Full Convenience Centers												
-----%-----												
Beach	Golden Valley	1,381	1,205	1,116	1,018	-26.29	-8.78	2,299	2,066	1,901	-17.31	-7.99
Cando	Towner	1,496	1,564	1,342	1,185	-20.79	-11.70	1,344	938	856	-36.31	-8.74
Casselton	Cass	1,661	1,601	1,855	1,891	13.85	1.94	2,834	3,023	2,982	5.22	-1.36
Cooperstown	Griggs	1,308	1,247	1,053	950	-27.37	-9.78	3,123	2,594	2,366	-24.24	-8.79
Crosby	Divide	1,469	1,312	1,089	1,043	-29.00	-4.22	2,796	2,002	2,126	-23.96	6.19
Garrison	McLean	1,830	1,530	1,318	1,247	-31.86	-5.39	3,057	2,928	2,777	-9.16	-5.16
Hazen	Mercer	2,365	2,818	2,457	2,381	0.68	-3.09	4,820	4,146	4,047	-16.04	-2.39
Hillsboro	Trail	1,600	1,488	1,563	1,540	-3.75	-1.47	2,827	2,736	2,703	-4.39	-1.21
Kenmare	Ward	1,456	1,214	1,081	1,112	-23.63	2.87	2,859	2,365	2,330	-18.50	-1.48
Killdeer	Dunn	790	722	713	683	-13.54	-4.21	1,906	1,778	1,717	-9.92	-3.43
Lamoure	Lamoure	1,077	970	944	913	-15.23	-3.28	2,795	2,571	2,461	-11.95	-4.28
Linton	Emmons	1,561	1,410	1,321	1,179	-24.47	-10.75	3,671	3,329	3,004	-18.17	-9.76
Mayville	Traill	2,255	2,092	1,953	1,929	-14.46	-1.23	4,311	4,086	4,019	-6.77	-1.64
Michigan	Nelson	502	413	345	313	-37.65	-9.28	667	544	493	-26.09	-9.38
Mohall	Renville	1,049	931	812	770	-26.60	-5.17	1,608	1,338	1,276	-20.65	-4.63
Northwood	Grand Forks	1,240	1,166	959	904	-27.10	-5.74	2,014	1,648	1,558	-22.64	-5.46
Oakes	Dickey	2,112	1,775	1,979	1,848	-12.50	-6.62	3,151	3,233	3,042	-3.64	-5.91
Park River	Walsh	1,844	1,725	1,535	1,444	-21.69	-5.93	3,654	3,126	2,933	-19.73	-6.17
Stanley	Mountrail	1,631	1,371	1,279	1,237	-24.16	-3.28	2,587	2,305	2,197	-15.08	-4.69
Washburn	McLean	1,767	1,506	1,389	1,302	-26.32	-6.26	1,986	1,818	1,709	-13.95	-6.00
Wishek	McIntosh	1,345	1,171	1,122	1,038	-22.83	-7.49	2,097	1,824	1,686	-19.60	-7.57
Group Total		31,739	29,231	27,225	25,927	-18.31	-4.77	56,406	50,398	48,183	-14.58	-4.40
Minimum Convenience Centers												
Arthur	Cass	445	400	402	382	-14.16	-4.98	543	539	511	-5.89	-5.19
Ashley	McIntosh	1,192	1,052	882	809	-32.13	-8.28	1,835	1,501	1,383	-24.63	-7.86
Belfield	Stark	1,274	887	866	824	-35.32	-4.85	1,800	1,625	1,529	-15.06	-5.91
Berthold	Ward	485	409	466	442	-8.87	-5.15	645	650	621	-3.72	-4.46
Drayton	Pembina	1,082	961	913	866	-19.96	-5.15	1,419	1,238	1,172	-17.41	-5.33
Dunseith	Rolette	625	723	739	745	19.20	0.81	4,287	4,722	4,771	11.29	1.04
Edgeley	LaMoure	843	680	637	592	-29.77	-7.06	1,550	1,367	1,294	-16.52	-5.34
Edinburg	Walsh	300	284	252	234	-22.00	-7.14	932	729	681	-26.93	-6.58
Elgin	Grant	930	765	659	602	-35.27	-8.65	1,036	1,087	1,001	-3.38	-7.91
Ellendale	Dickey	1,967	1,798	1,559	1,484	-24.56	-4.81	2,816	2,490	2,378	-15.55	-4.50
Emerado	Grand Forks	596	483	510	496	-16.78	-2.75	N/A	N/A	N/A	N/A	N/A
Enderlin	Ransom	1,140	997	942	1,056	-7.37	12.10	1,443	2,169	2,236	54.95	3.09

Appendix Table 1. Cont.

City	County	City Population						Trade Area Population				
		1980	1990	2000	2004	Change 1980-2004	Change 2000-2004	1990	2000	2004	Change 1990-2004	Change 2000-2004
Minimum Convenience Centers Cont.												
						-----%					-----%	
Fessenden	Wells	761	655	625	559	-26.54	-10.56	1,229	1,110	1,008	-17.98	-9.19
Finley	Steele	718	543	515	462	-35.65	-10.29	1,162	1,078	977	-15.92	-9.37
Flasher	Morton	410	317	285	273	-33.41	-4.21	1,089	988	962	-11.66	-2.63
Forman	Sargent	629	586	506	474	-24.64	-6.32	2,001	1,747	1,631	-18.49	-6.64
Glen Ullin	Morton	1,125	927	865	837	-25.60	-3.24	1,409	1,325	1,294	-8.16	-2.34
Gwinner	Sargent	725	585	717	693	-4.41	-3.35	682	815	783	14.81	-3.93
Hankinson	Richland	1,158	1,038	1,058	1,018	-12.09	-3.78	2,020	2,046	1,974	-2.28	-3.52
Hebron	Morton	1,078	888	803	756	-29.87	-5.85	1,485	1,350	1,296	-12.73	-4.00
Hoople	Walsh	350	310	292	272	-22.29	-6.85	N/A	N/A	N/A	N/A	N/A
Hunter	Cass	369	341	326	307	-16.80	-5.83	564	516	484	-14.18	-6.20
Kindred	Cass	568	569	614	580	2.11	-5.54	1,880	2,046	1,987	5.69	-2.88
Kulm	LaMoure	570	514	422	403	-29.30	-4.50	818	639	612	-25.18	-4.23
Lakota	Nelson	963	898	781	759	-21.18	-2.82	1,609	1,331	1,263	-21.50	-5.11
Larimore	Grand Forks	1,524	1,464	1,433	1,357	-10.96	-5.30	2,745	2,604	2,471	-9.98	-5.11
Leeds	Benson	678	542	464	449	-33.78	-3.23	897	770	753	-16.05	-2.21
Lidgerwood	Richland	971	799	738	758	-21.94	2.71	1,742	1,485	1,477	-15.21	-0.54
Maddock	Benson	677	559	498	484	-28.51	-2.81	1,297	1,119	1,099	-15.27	-1.79
Mcville	Nelson	626	559	470	433	-30.83	-7.87	1,019	839	769	-24.53	-8.34
Milnor	Sargent	716	651	711	672	-6.15	-5.49	1,411	1,486	1,395	-1.13	-6.12
Minto	Walsh	592	560	657	621	4.90	-5.48	851	925	871	2.35	-5.84
Mott	Hettinger	1,315	1,019	808	734	-44.18	-9.16	1,758	1,389	1,260	-28.33	-9.29
Napoleon	Logan	1,103	930	857	766	-30.55	-10.62	1,799	1,492	1,354	-24.74	-9.25
New England	Hettinger	825	663	555	559	-32.24	0.72	1,601	1,292	1,257	-21.49	-2.71
New Rockford	Eddy	1,791	1,604	1,463	1,364	-23.84	-6.77	2,805	2,551	2,398	-14.51	-6.00
New Salem	Morton	1,081	909	938	896	-17.11	-4.48	2,107	2,112	2,028	-3.75	-3.98
New Town	Mountrail	1,335	1,388	1,367	1,359	1.80	-0.59	3,341	3,073	3,047	-8.80	-0.85
Page	Cass	329	266	225	209	-36.47	-7.11	511	481	452	-11.55	-6.03
Pembina	Pembina	673	642	642	611	-9.21	-4.83	744	741	705	-5.24	-4.86
Powers Lake	Burke	466	408	309	280	-39.91	-9.39	946	766	713	-24.63	-6.92
Ray	Williams	766	603	534	523	-31.72	-2.06	836	760	745	-10.89	-1.97
Richardton	Stark	699	625	619	584	-16.45	-5.65	986	870	815	-17.34	-6.32
Rolette	Rolette	667	623	538	542	-18.74	0.74	1,892	1,752	1,765	-6.71	0.74
Steele	Kidder	796	762	761	714	-10.30	-6.18	1,532	1,434	1,338	-12.66	-6.69
Strasburg	Emmons	623	553	549	499	-19.90	-9.11	1,182	1,069	972	-17.77	-9.07
Towner	McHenry	867	669	574	530	-38.87	-7.67	1,877	1,549	1,458	-22.32	-5.87
Turtle Lake	McLean	802	681	580	540	-32.67	-6.90	1,581	1,345	1,269	-19.73	-5.65

Appendix Table 1. Cont.

City	County	City Population						Trade Area Population				
		1980	1990	2000	2004	Change 1980-2004	Change 2000-2004	1990	2000	2004	Change 1990-2004	Change 2000-2004
Minimum Convenience Centers Cont.												
						-----%					-----%	
Underwood	McLean	1,329	976	812	760	-42.81	-6.40	1,813	1,272	1,200	-33.81	-6
Velva	McHenry	1,101	968	1,049	984	-10.63	-6.20	1,860	1,872	1,763	-5.22	-5.82
Walhalla	Pembina	1,429	1,131	1,057	1,005	-29.67	-4.92	1,797	1,609	1,525	-15.14	-5.22
Westhope	Bottineau	741	578	533	500	-32.52	-6.19	1,065	905	858	-19.44	-5.19
Wimbledon	Barnes	330	275	237	220	-33.33	-7.17	756	659	616	-18.52	-6.53
Wyndmere	Richland	550	501	533	511	-7.09	-4.13	846	844	819	-3.19	-2.96
Group Total		45,705	39,518	37,147	35,389	-22.57	-4.73	77,851	72,173	69,040	-11.32	-4.34
Hamlets												
Abercrombie	Richland	260	252	296	293	12.69	-1.01	N/A	N/A	N/A	N/A	N/A
Adams	Walsh	303	248	203	189	-37.62	-6.90	517	406	380	-26.50	-6.40
Alexander	McKenzie	358	216	217	209	-41.62	-3.69	N/A	N/A	N/A	N/A	N/A
Anamoose	McHenry	355	277	282	269	-24.23	-4.61	N/A	N/A	N/A	N/A	N/A
Aneta	Nelson	341	314	284	263	-22.87	-7.39	472	444	410	-13.14	-7.66
Binford	Griggs	293	233	201	180	-38.57	-10.45	N/A	N/A	N/A	N/A	N/A
Bisbee	Towner	257	227	167	152	-40.86	-8.98	379	297	269	-29.02	-9.43
Bowbells	Burke	587	498	406	368	-37.31	-9.36	928	710	652	-29.74	-8.17
Buffalo	Cass	226	204	209	195	-13.72	-6.70	N/A	N/A	N/A	N/A	N/A
Burlington	Ward	762	995	1,096	1,030	35.17	-6.02	N/A	N/A	N/A	N/A	N/A
Buxton	Traill	336	343	350	350	4.17	0.00	N/A	N/A	N/A	N/A	N/A
Carson	Grant	469	383	319	287	-38.81	-10.03	995	815	765	-23.12	-6.13
Center	Oliver	900	826	678	613	-31.89	-9.59	1,237	1,044	952	-23.04	-8.81
Columbus	Burke	325	223	151	136	-58.15	-9.93	288	188	171	-40.63	-9.04
Davenport	Cass	195	218	261	251	28.72	-3.83	N/A	N/A	N/A	N/A	N/A
Des Lacs	Ward	212	216	209	195	-8.02	-6.70	N/A	N/A	N/A	N/A	N/A
Drake	McHenry	479	361	322	295	-38.41	-8.39	727	620	577	-20.63	-6.94
Edmore	Ramsey	416	329	256	240	-42.31	-6.25	614	469	442	-28.01	-5.76
Fairmount	Richland	480	427	406	389	-18.96	-4.19	557	517	496	-10.95	-4.06
Fordville	Walsh	326	299	266	247	-24.23	-7.14	473	414	389	-17.76	-6.04
Frontier	Cass	160	218	273	265	65.63	-2.93	N/A	N/A	N/A	N/A	N/A
Gackle	Logan	456	450	335	303	-33.55	-9.55	873	664	609	-30.24	-8.28
Gilby	Grand Forks	283	262	243	237	-16.25	-2.47	N/A	N/A	N/A	N/A	N/A
Gladstone	Stark	317	224	248	236	-25.55	-4.84	N/A	N/A	N/A	N/A	N/A
Glenburn	Renville	454	439	374	348	-23.35	-6.95	N/A	N/A	N/A	N/A	N/A
Golden Valley	Mercer	287	239	183	176	-38.68	-3.83	N/A	N/A	N/A	N/A	N/A
Grandin	Cass	210	213	181	169	-19.52	-6.63	N/A	N/A	N/A	N/A	N/A

Appendix Table 1. Cont.

City	County	City Population						Trade Area Population				
		1980	1990	2000	2004	Change 1980-2004	Change 2000-2004	1990	2000	2004	Change 1990-2004	Change 2000-2004
Hamlets Cont.		-----%-----						-----%-----				
Granville	McHenry	281	236	286	262	-6.76	-8.39	N/A	N/A	N/A	N/A	N/A
Grenora	Williams	362	261	202	195	-46.13	-3.47	N/A	N/A	N/A	N/A	N/A
Halliday	Dunn	355	288	227	215	-39.44	-5.29	1,015	954	936	-7.78	-1.89
Hannaford	Griggs	201	204	181	162	-19.40	-10.50	N/A	N/A	N/A	N/A	N/A
Harwood	Cass	326	590	607	641	96.63	5.60	N/A	N/A	N/A	N/A	N/A
Hatton	Trail	787	800	707	689	-12.45	-2.55	1,197	1,166	1,126	-5.93	-3.43
Hazelton	Emmons	266	240	237	214	-19.55	-9.70	844	721	654	-22.51	-9.29
Hope	Steele	406	281	303	272	-33.00	-10.23	727	707	648	-10.87	-8.35
Horace	Cass	494	662	915	1,034	109.31	13.01	N/A	N/A	N/A	N/A	N/A
Lansford	Bottineau	294	249	253	244	-17.01	-3.56	N/A	N/A	N/A	N/A	N/A
Leonard	Cass	289	310	255	247	-14.53	-3.14	N/A	N/A	N/A	N/A	N/A
Lignite	Burke	332	242	174	162	-51.20	-6.90	365	252	235	-35.62	-6.75
Lincoln	Burleigh	656	1,132	1,730	2,147	227.29	24.10	N/A	N/A	N/A	N/A	N/A
Litchville	Barnes	251	205	191	177	-29.48	-7.33	N/A	N/A	N/A	N/A	N/A
Manvel	Grand Forks	308	333	370	351	13.96	-5.14	N/A	N/A	N/A	N/A	N/A
Mapleton	Cass	306	682	606	619	102.29	2.15	N/A	N/A	N/A	N/A	N/A
Max	McLean	330	301	278	268	-18.79	-3.60	756	577	553	-26.85	-4.16
Mcclusky	Sheridan	658	492	415	354	-46.20	-14.70	545	414	361	-33.76	-12.80
Medina	Stutsman	521	387	335	312	-40.12	-6.87	729	680	634	-13.03	-6.76
Minnewaukan	Benson	461	401	318	308	-33.19	-3.14	N/A	N/A	N/A	N/A	N/A
Munich	Cavalier	300	310	268	238	-20.67	-11.19	570	453	407	-28.60	-10.15
Neché	Pembina	471	434	437	434	-7.86	-0.69	500	510	503	0.60	-1.37
New Leipzig	Grant	352	326	274	248	-29.55	-9.49	635	508	454	-28.50	-10.63
Noonan	Divide	283	231	154	153	-45.94	-0.65	N/A	N/A	N/A	N/A	N/A
Osnabrock	Cavalier	222	214	174	162	-27.03	-6.90	N/A	N/A	N/A	N/A	N/A
Parshall	Mountrail	1,059	943	981	1,026	-3.12	4.59	2,035	1,947	1,952	-4.08	0.26
Petersburg	Nelson	230	219	195	178	-22.61	-8.72	348	292	266	-23.56	-8.90
Pick City	Mercer	182	203	166	165	-9.34	-0.60	N/A	N/A	N/A	N/A	N/A
Portland	Trail	627	602	604	588	-6.22	-2.65	N/A	N/A	N/A	N/A	N/A
Reeder	Adams	355	252	181	167	-52.96	-7.73	N/A	N/A	N/A	N/A	N/A
Regent	Hettinger	297	268	211	188	-36.70	-10.90	559	443	416	-25.58	-6.09
Reiles Acre	Cass	191	210	254	241	26.18	-5.12	N/A	N/A	N/A	N/A	N/A
Riverdale	McLean	N/A	283	273	266	N/A	-2.56	N/A	N/A	N/A	N/A	N/A
Rocklake	Towner	287	221	194	170	-40.77	-12.37	N/A	N/A	N/A	N/A	N/A
Rutland	Sargent	250	212	220	204	-18.40	-7.27	455	430	404	-11.21	-6.05
S Heart	Stark	294	322	307	295	0.34	-3.91	N/A	N/A	N/A	N/A	N/A

Appendix Table 1. Cont.

City	County	City Population						Trade Area Population				
		1980	1990	2000	2004	Change 1980-2004	Change 2000-2004	1990	2000	2004	Change 1990-2004	Change 2000-2004
Hamlets Cont.		-----%-----						-----%-----				
Sawyer	Ward	417	319	377	351	-15.83	-6.90	N/A	N/A	N/A	N/A	N/A
Scranton	Bowman	415	294	304	289	-30.36	-4.93	763	654	623	-18.35	-4.74
Selfridge	Sioux	273	242	223	219	-19.78	-1.79	N/A	N/A	N/A	N/A	N/A
Sherwood	Renville	294	286	255	236	-19.73	-7.45	490	421	397	-18.98	-5.70
Sheyenne	Eddy	307	272	318	304	-0.98	-4.40	524	504	485	-7.44	-3.77
St John	Rolette	401	368	358	361	-9.98	0.84	N/A	N/A	N/A	N/A	N/A
St Thomas	Pembina	528	444	447	423	-19.89	-5.37	N/A	N/A	N/A	N/A	N/A
Stanton	Mercer	623	517	345	330	-47.03	-4.35	N/A	N/A	N/A	N/A	N/A
Surrey	Ward	999	856	917	876	-12.31	-4.47	N/A	N/A	N/A	N/A	N/A
Tappen	Kidder	271	239	210	195	-28.04	-7.14	N/A	N/A	N/A	N/A	N/A
Thompson	Grand Forks	785	930	1,006	980	24.84	-2.58	N/A	N/A	N/A	N/A	N/A
Tolna	Nelson	241	230	202	191	-20.75	-5.45	759	656	615	-18.97	-6.25
Tower City	Cass	293	233	252	238	-18.77	-5.56	N/A	N/A	N/A	N/A	N/A
Upham	McHenry	227	205	155	148	-34.80	-4.52	N/A	N/A	N/A	N/A	N/A
Willow City	Bottineau	329	281	221	213	-35.26	-3.62	N/A	N/A	N/A	N/A	N/A
Wilton	McLean	950	728	565	526	-44.63	-6.90	1,220	1,265	1,333	9.26	5.38
Wing	Burleigh	220	208	124	118	-46.36	-4.84	N/A	N/A	N/A	N/A	N/A
Zap	Mercer	511	287	231	221	-56.75	-4.33	N/A	N/A	N/A	N/A	N/A
Group Total		31,415	29,619	28,409	27,700	-11.83	-2.50	23,096	20,142	19,114	-17.24	-5.10
TOTAL		421,487	433,492	453,155	448,719	6.46	-0.98	655,688	655,604	646,415	-1.41	-1.40

Appendix Table 2. County per Capita Income, North Dakota 1990-2004

County	Per Capita Income			Change	Change
	2004	1990	1990	1990-2004	1990-2004
	(Current \$)	(Current \$)	(2004 \$)	(Current \$)	(2004 \$)
	-----\$-----			-----%-----	
Adams	24,025	13,613	19,672	76.5	22.1
Barnes	28,484	15,807	22,842	80.2	24.7
Benson	22,334	12,725	18,389	75.5	21.5
Billings	22,649	11,236	16,237	101.6	39.5
Bottineau	31,519	15,663	22,634	101.2	39.3
Bowman	29,822	15,679	22,658	90.2	31.6
Burke	29,460	16,055	23,201	83.5	27.0
Burleigh	31,869	17,234	24,905	84.9	28.0
Cass	33,664	17,640	25,491	90.8	32.1
Cavalier	36,587	14,576	21,064	151.0	73.7
Dickey	28,987	14,880	21,503	94.8	34.8
Divide	26,174	14,026	20,269	86.6	29.1
Dunn	21,918	9,935	14,357	120.6	52.7
Eddy	27,506	15,874	22,939	73.3	19.9
Emmons	24,309	10,523	15,207	131.0	59.9
Foster	30,562	16,440	23,757	85.9	28.6
Golden Valley	20,942	13,460	19,451	55.6	7.7
Grand Forks	28,879	14,718	21,269	96.2	35.8
Grant	22,237	8,711	12,588	155.3	76.7
Griggs	31,765	16,660	24,075	90.7	31.9
Hettinger	27,461	12,702	18,355	116.2	49.6
Kidder	24,562	12,560	18,150	95.6	35.3
LaMoure	29,267	14,565	21,048	100.9	39.1
Logan	30,768	15,146	21,887	103.1	40.6
McHenry	23,793	12,998	18,783	83.1	26.7
McIntosh	28,038	13,178	19,043	112.8	47.2
McKenzie	24,334	12,759	18,438	90.7	32.0
McLean	28,912	14,950	21,604	93.4	33.8
Mercer	30,374	16,431	23,744	84.9	27.9

Appendix Table 2. Cont.

County	Per Capita Income			Change	Change
	2004 (Current \$)	1990 (Current \$)	1990 (2004 \$)	1990-2004 (Current \$)	1990-2004 (2004 \$)
	-----\$-----			-----%-----	
Morton	25,272	13,178	19,043	91.8	32.7
Mountrail	26,090	13,946	20,153	87.1	29.5
Nelson	29,090	18,055	26,091	61.1	11.5
Oliver	25,654	10,945	15,816	134.4	62.2
Pembina	31,156	18,163	26,247	71.5	18.7
Pierce	24,231	16,515	23,866	46.7	1.5
Ramsey	27,662	15,931	23,022	73.6	20.2
Ransom	27,984	15,152	21,896	84.7	27.8
Renville	34,333	15,074	21,783	127.8	57.6
Richland	26,353	14,480	20,925	82.0	25.9
Rolette	20,523	9,737	14,071	110.8	45.9
Sargent	31,859	16,954	24,500	87.9	30.0
Sheridan	26,158	12,698	18,350	106.0	42.6
Sioux	15,749	7,332	10,595	114.8	48.6
Slope	23,277	9,460	13,671	146.1	70.3
Stark	26,492	13,671	19,756	93.8	34.1
Steele	32,603	17,821	25,753	82.9	26.6
Stutsman	27,505	16,381	23,672	67.9	16.2
Towner	34,353	13,592	19,642	152.7	74.9
Traill	28,599	15,926	23,014	79.6	24.3
Walsh	27,645	15,377	22,221	79.8	24.4
Ward	30,647	15,061	21,764	103.5	40.8
Wells	30,612	16,932	24,468	80.8	25.1
Williams	27,357	14,707	21,253	86.0	28.7
North Dakota	29,247	15,321	22,140	90.9	32.1
United States	33,041	19,477	28,146	69.9	17.4

Source: Bureau of Economic Analysis, 2006a. Per Capita Personal Income. CA05 Interactive Tables. U.S. Department of Commerce, Bureau of Economic Analysis Internet Website.

Appendix Table 3. Per Capita Income for North Dakota Community Trade Areas, 1979, 1989 and 1999  
(Constant 2004 Dollars)

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Wholesale-Retail Centers	-----dollars-----			-----%-----	
Bismarck	21,229	20,321	23,573	11.04	16.00
Fargo	20,685	20,648	23,926	15.67	15.88
Grand Forks	18,310	18,132	20,858	13.92	15.04
Mandan	18,359	16,576	19,853	8.14	19.77
Minot	18,726	18,180	20,423	9.06	12.33
West Fargo	17,849	17,350	21,961	23.04	26.58
Complete Shopping Centers					
Devils Lake	16,369	16,486	20,117	22.90	22.02
Dickinson	18,325	15,389	18,114	-1.15	17.70
Grafton	13,860	18,424	18,873	36.16	2.44
Jamestown	17,826	17,368	18,920	6.14	8.94
Valley City	17,409	15,607	18,434	5.88	18.11
Wahpeton	16,298	15,402	17,341	6.40	12.59
Williston	20,370	17,649	18,886	-7.29	7.01
Partial Shopping Centers					
Beulah	20,919	21,329	21,106	0.89	-1.04
Bottineau	16,725	15,888	18,743	12.07	17.98
Bowman	17,664	15,967	21,375	21.01	33.87
Carrington	18,788	15,360	21,558	14.74	40.35
Cavalier	19,772	19,469	22,209	12.32	14.07
Harvey	14,987	16,204	24,353	62.49	50.28
Hettinger	17,787	16,204	23,980	34.82	47.98
Langdon	19,215	17,423	17,768	-7.53	1.98
Lisbon	16,179	17,118	21,269	31.46	24.24
Rolla	16,793	16,340	18,839	12.18	15.29
Rugby	15,851	15,239	16,305	2.87	7.00
Tioga	20,396	15,997	19,174	-5.99	19.86
Watford City	18,557	17,106	20,505	10.50	19.87
Full Convenience Centers					
Beach	16,611	16,323	16,385	-1.36	0.38
Cando	17,097	18,432	21,689	26.86	17.67
Casselton	15,762	18,145	20,691	31.27	14.03
Cooperstown	16,280	13,820	19,655	20.73	42.22
Crosby	16,462	15,891	18,054	9.67	13.61
Garrison	15,773	14,533	18,813	19.27	29.44
Hazen	18,713	19,026	21,440	14.57	12.69
Hillsboro	19,251	16,546	20,383	5.88	23.19
Kenmare	16,644	14,460	17,494	5.10	20.98
Killdeer	19,826	14,562	19,472	-1.79	33.72

Appendix Table 3. Cont.

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Full Convenience Centers	-----dollars-----			-----%-----	
LaMoure	14,256	14,704	17,952	25.93	22.09
Linton	13,371	14,862	16,624	24.33	11.85
Mayville	16,007	14,989	19,366	20.98	29.20
Michigan	15,755	17,932	18,181	15.40	1.39
Mohall	16,608	18,634	19,663	18.40	5.52
Northwood	17,196	17,728	20,323	18.18	14.64
Oakes	14,779	16,305	19,433	31.49	19.18
Park River	14,748	17,106	18,131	22.94	5.99
Stanley	16,384	14,293	17,404	6.23	21.77
Washburn	20,053	17,976	22,367	11.54	24.43
Wishek	14,292	13,900	19,402	35.75	39.59
Minimum Convenience Centers					
Arthur	16,996	21,201	15,816	-6.94	-25.40
Ashley	15,510	14,488	14,742	-4.95	1.76
Belfield	16,522	13,318	14,149	-14.36	6.24
Berthold	12,091	14,006	20,051	65.83	43.16
Drayton	17,016	18,211	19,516	14.69	7.17
Dunseith	10,949	7,640	10,747	-1.84	40.67
Edgely	16,428	13,836	24,458	48.88	76.78
Edinburg	14,683	16,023	18,630	26.89	16.27
Elgin	15,804	11,535	20,501	29.72	77.73
Ellendale	13,821	12,571	14,364	3.93	14.26
Emerado	14,396	16,963	19,817	37.65	16.83
Enderlin	16,231	16,427	23,679	45.89	44.15
Fessenden	16,137	15,753	19,620	21.58	24.54
Finley	19,897	18,858	20,398	2.52	8.16
Flasher	14,568	15,618	15,841	8.74	1.43
Forman	13,418	16,588	22,912	70.75	38.12
Glen Ullin	14,321	15,677	18,435	28.73	17.59
Gwinner	17,357	20,756	20,719	19.37	-0.18
Hankinson	13,465	14,588	17,775	32.01	21.85
Hebron	14,448	14,264	14,132	-2.19	-0.92
Hoople	12,822	20,543	16,823	31.20	-18.11
Hunter	18,913	16,919	28,461	50.48	68.22
Kindred	19,644	21,571	20,766	5.71	-3.73
Kulm	15,432	17,309	22,569	46.25	30.39
Lakota	15,851	15,750	17,937	13.16	13.88
Larimore	16,272	15,472	18,450	13.38	19.25
Leeds	17,547	15,133	22,529	28.39	48.87
Lidgerwood	14,584	14,283	16,218	11.21	13.55
Maddock	15,658	13,872	17,759	13.42	28.02

Appendix Table 3. Cont.

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Minimum Convenience Centers	-----dollars-----			-----%-----	
McVille	13,129	15,894	22,424	70.80	41.09
Milnor	16,826	18,401	20,344	20.91	10.56
Minto	15,226	13,746	20,423	34.13	48.58
Mott	14,162	13,979	17,823	25.85	27.50
Napoleon	12,156	14,632	18,378	51.19	25.60
New England	15,999	13,948	19,831	23.95	42.17
New Rockford	16,548	14,253	18,646	12.68	30.82
New Salem	14,454	15,493	18,725	29.55	20.86
New Town	13,566	12,204	14,162	4.39	16.05
Page	17,443	17,271	18,927	8.51	9.59
Pembina	16,467	20,979	22,993	39.63	9.60
Powers Lake	12,536	12,451	16,888	34.72	35.64
Ray	16,395	16,876	18,215	11.10	7.93
Richardton	17,238	13,279	16,858	-2.20	26.95
Rolette	15,382	14,350	17,850	16.04	24.39
Steele	14,266	14,481	19,012	33.27	31.29
Strasburg	10,361	13,983	17,219	66.20	23.14
Towner	14,919	14,204	22,222	48.95	56.45
Turtle Lake	13,579	15,324	19,104	40.68	24.67
Underwood	15,770	16,326	20,315	28.82	24.43
Velva	15,916	15,010	17,311	8.77	15.33
Walhalla	13,811	14,711	19,156	38.70	30.21
Westhope	16,551	17,728	20,696	25.05	16.74
Wimbledon	13,171	15,275	18,701	41.99	22.43
Wyndmere	16,280	16,477	17,335	6.48	5.21
Hamlets					
Abercrombie	12,398	14,291	15,774	27.23	10.37
Adams	13,488	16,794	16,129	19.58	-3.96
Alexander	15,258	13,328	13,187	-13.57	-1.06
Anamoose	12,169	11,520	17,145	40.89	48.83
Aneta	12,960	14,839	16,836	29.91	13.46
Binford	16,767	12,164	16,395	-2.22	34.78
Bisbee	21,000	10,298	19,968	-4.91	93.90
Bowbells	15,039	14,166	17,565	16.80	23.99
Bowdon	14,654	13,989	28,169	92.23	101.36
Buffalo	21,741	20,371	21,568	-0.80	5.88
Burlington	13,837	12,073	16,158	16.78	33.84
Buxton	14,813	15,496	18,405	24.26	18.78
Carpio	15,265	13,799	17,459	14.37	26.52
Carson	13,356	12,921	13,328	-0.21	3.15
Center	18,008	18,150	22,727	26.21	25.22

Appendix Table 3. Cont.

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Hamlets	-----dollars-----			-----%-----	
Cogswell	13,189	15,094	15,972	21.10	5.82
Columbus	16,306	18,103	16,604	1.83	-8.28
Crystal	13,314	14,603	21,246	59.58	45.49
Davenport	18,166	16,477	21,246	16.95	28.94
Des Lacs	17,966	18,130	14,025	-21.94	-22.64
Drake	14,357	16,319	14,767	2.85	-9.51
Edmore	14,495	15,322	19,114	31.87	24.75
Esmond	12,801	15,328	20,077	56.83	30.98
Fairmount	17,029	16,313	17,566	3.15	7.69
Fordville	12,942	12,640	14,192	9.66	12.28
Gackle	16,090	23,396	17,917	11.35	-23.42
Galesburg	18,424	15,033	17,583	-4.56	16.97
Gilby	18,034	16,189	16,905	-6.26	4.42
Gladstone	14,394	12,792	14,114	-1.95	10.33
Glenburn	16,514	14,018	20,109	21.76	43.44
Golden Valley	16,868	14,570	16,762	-0.63	15.05
Goodrich	14,100	14,340	16,464	16.77	14.82
Grandin	17,578	16,338	18,112	3.03	10.85
Granville	12,023	12,522	16,528	37.46	31.99
Grenora	14,737	15,715	15,829	7.41	0.72
Halliday	16,384	16,348	20,831	27.14	27.42
Hannaford	17,370	15,539	20,088	15.65	29.28
Harwood	16,111	21,003	24,028	49.14	14.40
Hatton	13,931	14,876	18,291	31.30	22.96
Hazleton	15,864	11,357	13,779	-13.14	21.33
Hope	14,529	15,231	18,963	30.52	24.51
Horace	16,389	16,310	17,871	9.04	9.58
Kensel	11,128	16,390	19,376	74.11	18.22
Lansford	15,208	14,644	19,801	30.20	35.21
Lehr	14,901	12,388	15,775	5.86	27.34
Leonard	14,755	14,683	16,937	14.79	15.36
Lignite	14,118	16,879	17,401	23.25	3.09
Lincoln	12,328	11,063	15,005	21.72	35.63
Litchville	18,153	16,628	15,486	-14.70	-6.87
Manvel	14,979	14,501	19,846	32.49	36.85
Mapleton	15,528	11,413	14,627	-5.80	28.16
Marion	17,001	16,844	12,975	-23.68	-22.97
Max	14,542	14,055	15,466	6.36	10.04
McClusky	14,602	13,970	16,866	15.50	20.73
Medina	12,120	12,833	19,118	57.74	48.97
Minnewauken	18,749	14,658	18,229	-2.78	24.36
Mooreton	17,485	16,905	18,635	6.58	10.23

Appendix Table 3. Cont.

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Hamlets	-----dollars-----			-----%-----	
Munich	21,359	14,795	19,105	-10.55	29.13
Neche	12,757	15,872	27,002	111.66	70.12
New Lepzig	14,729	17,240	18,404	24.95	6.75
Noonan	10,319	14,675	23,886	131.47	62.76
Osnabrock	13,777	14,838	16,163	17.32	8.93
Parshall	12,742	12,419	12,993	1.98	4.63
Petersburg	13,392	13,601	19,995	49.31	47.01
Pick City	17,576	14,128	18,230	3.72	29.03
Plaza	12,856	13,577	16,278	26.62	19.90
Portal	15,487	17,208	21,486	38.74	24.86
Portland	15,278	13,986	17,177	12.43	22.82
Reeder	15,783	16,401	17,532	11.08	6.90
Regent	17,477	14,977	13,445	-23.07	-10.23
Reynolds	14,984	16,977	19,298	28.79	13.67
Rhame	16,785	13,424	12,815	-23.65	-4.54
Riverdale	n/a	16,032	21,510	n/a	34.17
Rocklake	16,676	8,770	14,872	-10.81	69.58
Rutland	17,035	13,121	15,947	-6.38	21.54
Southheart	14,774	10,693	14,808	0.23	38.48
Sawyer	11,807	14,168	15,019	27.20	6.01
Scranton	17,422	18,092	18,463	5.97	2.05
Selfridge	11,633	9,122	10,006	-13.99	9.68
Sherwood	16,756	14,676	16,732	-0.15	14.00
Sheyenne	15,963	16,692	18,307	14.69	9.67
St John	11,095	9,776	13,940	25.65	42.60
St Thomas	19,850	15,490	20,662	4.09	33.39
Stanton	17,118	17,589	20,391	19.12	15.93
Starkweather	13,210	16,002	13,922	5.39	-13.00
Streeter	14,188	11,963	15,359	8.25	28.38
Surrey	12,349	11,911	16,645	34.79	39.74
Sykeston	12,052	12,742	12,861	6.71	0.93
Tappen	9,957	9,588	16,388	64.58	70.92
Thompson	16,129	16,824	22,516	39.60	33.83
Tolna	16,288	14,072	20,898	28.30	48.51
Tower City	16,049	16,434	17,748	10.59	7.99
Upham	12,518	9,399	12,685	1.34	34.96
Walcott	11,342	12,714	18,339	61.69	44.24
Wildrose	17,511	15,693	12,532	-28.43	-20.14
Willow City	12,697	12,187	13,504	6.35	10.80
Wilton	13,088	13,624	19,402	48.25	42.41
Wing	16,337	9,410	16,974	3.90	80.39
Zap	16,655	15,635	18,341	10.12	17.31
Zeeland	10,215	11,078	13,911	36.18	25.57

Source: Bureau of the Census. 1982. 1980 Census of Population and Housing: Summary characteristics of Government Units for Standard Metropolitan Statistical Areas - North Dakota. PHC80-3-36. U.S. Department of Commerce. U.S. Government Printing Office, Washington, D.C.

U.S. Census Bureau. 2006. Per Capita Income for Municipalities - North Dakota - 1989 and 1999. American Factfind: U.S. Census Bureau interactive web site. Summary File 3. Washington, D.C.

Appendix Table 4. Per Capita Income for North Dakota Community Trade Areas, 1979, 1989 and 1999  
(Current Year Dollars)

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Wholesale-Retail Centers	-----dollars-----			-----%-----	
Bismarck	8,159	13,339	20,789	154.80	55.85
Fargo	7,950	13,554	21,101	165.42	55.68
Grand Forks	7,037	11,902	18,395	161.40	54.55
Mandan	7,056	10,881	17,509	148.14	60.91
Minot	7,197	11,934	18,011	150.26	50.92
West Fargo	6,860	11,389	19,368	182.33	70.06
Complete Shopping Centers					
Devils Lake	6,291	10,822	17,741	182.01	63.93
Dickinson	7,043	10,102	15,975	126.82	58.14
Grafton	5,327	12,094	16,644	212.45	37.62
Jamestown	6,851	11,401	16,686	143.56	46.36
Valley City	6,691	10,245	16,257	142.97	58.68
Wahpeton	6,264	10,110	15,293	144.14	51.27
Williston	7,829	11,585	16,656	112.75	43.77
Partial Shopping Centers					
Beulah	8,040	14,001	18,614	131.52	32.95
Bottineau	6,428	10,429	16,530	157.16	58.50
Bowman	6,789	10,481	18,851	177.67	79.86
Carrington	7,221	10,083	19,012	163.29	88.55
Cavalier	7,599	12,780	19,586	157.74	53.26
Harvey	5,760	10,637	21,477	272.86	101.91
Hettinger	6,836	10,637	21,148	209.36	98.82
Langdon	7,385	11,437	15,670	112.19	37.01
Lisbon	6,218	11,237	18,757	201.66	66.92
Rolla	6,454	10,726	16,614	157.42	54.89
Rugby	6,092	10,003	14,380	136.05	43.76
Tioga	7,839	10,501	16,910	115.72	61.03
Watford City	7,132	11,229	18,084	153.56	61.05
Full Convenience Centers					
Beach	6,384	10,715	14,450	126.35	34.86
Cando	6,571	12,099	19,128	191.10	58.10
Casselton	6,058	11,911	18,248	201.22	53.20
Cooperstown	6,257	9,072	17,334	177.03	91.07
Crosby	6,327	10,431	15,922	151.65	52.64
Garrison	6,062	9,540	16,591	173.69	73.91
Hazen	7,192	12,489	18,908	162.90	51.40
Hillsboro	7,399	10,861	17,976	142.95	65.51
Kenmare	6,397	9,492	15,428	141.18	62.54
Killdeer	7,620	9,559	17,173	125.37	79.65

Appendix Table 4. Cont.

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Full Convenience Centers	-----dollars-----			-----%-----	
LaMoure	5,479	9,652	15,832	188.96	64.03
Linton	5,139	9,756	14,661	185.29	50.28
Mayville	6,152	9,839	17,079	177.62	73.58
Michigan	6,055	11,771	16,034	164.81	36.22
Mohall	6,383	12,232	17,341	171.67	41.77
Northwood	6,609	11,637	17,923	171.19	54.02
Oakes	5,680	10,703	17,138	201.73	60.12
Park River	5,668	11,229	15,990	182.11	42.40
Stanley	6,297	9,382	15,349	143.75	63.60
Washburn	7,707	11,800	19,726	155.95	67.17
Wishek	5,493	9,124	17,111	211.51	87.54
Minimum Convenience Centers					
Arthur	6,532	13,917	13,948	113.53	0.22
Ashley	5,961	9,510	13,001	118.10	36.71
Belfield	6,350	8,742	12,478	96.50	42.74
Berthold	4,647	9,194	17,683	280.53	92.33
Drayton	6,540	11,954	17,211	163.17	43.98
Dunseith	4,208	5,015	9,478	125.24	88.99
Edgely	6,314	9,082	21,570	241.62	137.50
Edinburg	5,643	10,518	16,430	191.16	56.21
Elgin	6,074	7,572	18,080	197.66	138.77
Ellendale	5,312	8,252	12,668	138.48	53.51
Emerado	5,533	11,135	17,477	215.87	56.96
Enderlin	6,238	10,783	20,883	234.77	93.67
Fessenden	6,202	10,341	17,303	178.99	67.32
Finley	7,647	12,379	17,989	135.24	45.32
Flasher	5,599	10,252	13,970	149.51	36.27
Forman	5,157	10,889	20,206	291.82	85.56
Glen Ullin	5,504	10,291	16,258	195.39	57.98
Gwinner	6,671	13,625	18,272	173.90	34.11
Hankinson	5,175	9,576	15,676	202.92	63.70
Hebron	5,553	9,363	12,463	124.44	33.11
Hoople	4,928	13,485	14,836	201.06	10.02
Hunter	7,269	11,106	25,100	245.30	126.00
Kindred	7,550	14,160	18,314	142.57	29.34
Kulm	5,931	11,362	19,904	235.59	75.18
Lakota	6,092	10,339	15,819	159.67	53.00
Larimore	6,254	10,156	16,271	160.17	60.21
Leeds	6,744	9,934	19,869	194.62	100.01
Lidgerwood	5,605	9,376	14,303	155.18	52.55
Maddock	6,018	9,106	15,662	160.25	72.00

Appendix Table 4. Cont.

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Minimum Convenience Centers	-----dollars-----			-----%-----	
McVille	5,046	10,433	19,776	291.91	89.55
Milnor	6,467	12,079	17,942	177.44	48.54
Minto	5,852	9,023	18,011	207.78	99.61
Mott	5,443	9,176	15,718	188.77	71.29
Napoleon	4,672	9,605	16,208	246.92	68.75
New England	6,149	9,156	17,489	184.42	91.01
New Rockford	6,360	9,356	16,444	158.55	75.76
New Salem	5,555	10,170	16,514	197.28	62.38
New Town	5,214	8,011	12,490	139.55	55.91
Page	6,704	11,337	16,692	148.99	47.23
Pembina	6,329	13,771	20,278	220.40	47.25
Powers Lake	4,818	8,173	14,894	209.13	82.23
Ray	6,301	11,078	16,064	154.94	45.01
Richardton	6,625	8,717	14,867	124.41	70.55
Rolette	5,912	9,420	15,742	166.27	67.11
Steele	5,483	9,506	16,767	205.80	76.38
Strasburg	3,982	9,179	15,186	281.37	65.44
Towner	5,734	9,324	19,598	241.79	110.19
Turtle Lake	5,219	10,059	16,848	222.82	67.49
Underwood	6,061	10,717	17,916	195.59	67.17
Velva	6,117	9,853	15,267	149.58	54.95
Walhalla	5,308	9,657	16,894	218.27	74.94
Westhope	6,361	11,637	18,252	186.94	56.84
Wimbledon	5,062	10,027	16,493	225.82	64.49
Wyndmere	6,257	10,816	15,288	144.33	41.35
Hamlets					
Abercrombie	4,765	9,381	13,911	191.94	48.29
Adams	5,184	11,024	14,224	174.38	29.03
Alexander	5,864	8,749	11,630	98.33	32.93
Anamoose	4,677	7,562	15,120	223.28	99.95
Aneta	4,981	9,741	14,848	198.09	52.43
Binford	6,444	7,985	14,459	124.38	81.08
Bisbee	8,071	6,760	17,610	118.19	160.50
Bowbells	5,780	9,299	15,491	168.01	66.59
Bowdon	5,632	9,183	24,843	341.10	170.53
Buffalo	8,356	13,372	19,021	127.63	42.24
Burlington	5,318	7,925	14,250	167.96	79.81
Buxton	5,693	10,172	16,232	185.12	59.58
Carpio	5,867	9,058	15,397	162.43	69.98
Carson	5,133	8,482	11,754	128.99	38.58
Center	6,921	11,914	20,043	189.60	68.23

Appendix Table 4. Cont.

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Hamlets	-----dollars-----			-----%-----	
Cogswell	5,069	9,908	14,086	177.89	42.17
Columbus	6,267	11,883	14,643	133.65	23.23
Crystal	5,117	9,586	18,737	266.17	95.46
Davenport	6,982	10,816	18,737	168.36	73.23
Des Lacs	6,905	11,901	12,369	79.13	3.93
Drake	5,518	10,712	13,023	136.01	21.57
Edmore	5,571	10,058	16,857	202.58	67.60
Esmond	4,920	10,062	17,706	259.88	75.97
Fairmount	6,545	10,708	15,492	136.70	44.68
Fordville	4,974	8,297	12,516	151.63	50.85
Gackle	6,184	15,358	15,801	155.51	2.88
Galesburg	7,081	9,868	15,507	118.99	57.14
Gilby	6,931	10,627	14,909	115.11	40.29
Gladstone	5,532	8,397	12,447	125.00	48.23
Glenburn	6,347	9,202	17,734	179.41	92.72
Golden Valley	6,483	9,564	14,783	128.03	54.57
Goodrich	5,419	9,413	14,520	167.95	54.25
Grandin	6,756	10,725	15,973	136.43	48.93
Granville	4,621	8,220	14,576	215.43	77.32
Grenora	5,664	10,316	13,960	146.47	35.32
Halliday	6,297	10,731	18,371	191.74	71.20
Hannaford	6,676	10,200	17,716	165.37	73.69
Harwood	6,192	13,787	21,191	242.23	53.70
Hatton	5,354	9,765	16,131	201.29	65.19
Hazleton	6,097	7,455	12,152	99.31	63.00
Hope	5,584	9,998	16,724	199.50	67.27
Horace	6,299	10,706	15,761	150.21	47.22
Kensel	4,277	10,759	17,088	299.53	58.83
Lansford	5,845	9,613	17,463	198.77	81.66
Lehr	5,727	8,132	13,912	142.92	71.08
Leonard	5,671	9,638	14,937	163.39	54.98
Lignite	5,426	11,080	15,346	182.82	38.50
Lincoln	4,738	7,262	13,233	179.30	82.22
Litchville	6,977	10,915	13,657	95.74	25.12
Manvel	5,757	9,519	17,502	204.01	83.86
Mapleton	5,968	7,492	12,900	116.15	72.18
Marion	6,534	11,057	11,443	75.13	3.49
Max	5,589	9,226	13,640	144.05	47.84
McClusky	5,612	9,170	14,874	165.04	62.20
Medina	4,658	8,424	16,860	261.96	100.14
Minnewauken	7,206	9,622	16,076	123.09	67.08
Mooreton	6,720	11,097	16,434	144.55	48.09

Appendix Table 4. Cont.

City	Year			Change	Change
	1979	1989	1999	1979-1999	1989-1999
Hamlets	-----dollars-----			-----%-----	
Munich	8,209	9,712	16,849	105.25	73.49
Neché	4,903	10,419	23,813	385.68	128.55
New Leipzig	5,661	11,317	16,231	186.72	43.42
Noonan	3,966	9,633	21,065	431.14	118.68
Osnabrock	5,295	9,740	14,254	169.20	46.34
Parshall	4,897	8,152	11,459	134.00	40.57
Petersburg	5,147	8,928	17,634	242.61	97.51
Pick City	6,755	9,274	16,077	138.00	73.36
Plaza	4,941	8,912	14,356	190.55	61.09
Portal	5,952	11,296	18,949	218.36	67.75
Portland	5,872	9,181	15,149	157.99	65.00
Reeder	6,066	10,766	15,462	154.90	43.62
Regent	6,717	9,831	11,857	76.52	20.61
Reynolds	5,759	11,144	17,019	195.52	52.72
Rhame	6,451	8,812	11,302	75.20	28.26
Riverdale	n/a	10,524	18,970	n/a	80.25
Rocklake	6,409	5,757	13,116	104.65	127.83
Rutland	6,547	8,613	14,064	114.82	63.29
Southheart	5,678	7,019	13,059	129.99	86.05
Sawyer	4,538	9,300	13,245	191.87	42.42
Scranton	6,696	11,876	16,283	143.18	37.11
Selfridge	4,471	5,988	8,824	97.36	47.36
Sherwood	6,440	9,634	14,756	129.13	53.17
Sheyenne	6,135	10,957	16,145	163.16	47.35
St John	4,264	6,417	12,294	188.32	91.58
St Thomas	7,629	10,168	18,222	138.85	79.21
Stanton	6,579	11,546	17,983	173.34	55.75
Starkweather	5,077	10,504	12,278	141.84	16.89
Streeter	5,453	7,853	13,545	148.40	72.48
Surrey	4,746	7,819	14,679	209.29	87.74
Sykeston	4,632	8,364	11,342	144.86	35.60
Tappen	3,827	6,294	14,453	277.66	129.63
Thompson	6,199	11,044	19,857	220.33	79.80
Tolna	6,260	9,237	18,430	194.41	99.52
Tower City	6,168	10,788	15,652	153.76	45.09
Upham	4,811	6,170	11,187	132.53	81.31
Walcott	4,359	8,346	16,173	271.03	93.78
Wildrose	6,730	10,301	11,052	64.22	7.29
Willow City	4,880	8,000	11,909	144.04	48.86
Wilton	5,030	8,943	17,111	240.18	91.33
Wing	6,279	6,177	14,970	138.41	142.35
Zap	6,401	10,263	16,175	152.69	57.60
Zeeland	3,926	7,272	12,268	212.48	68.70

Source: Bureau of the Census. 1982. 1980 Census of Population and Housing: Summary characteristics of Government Units for Standard Metropolitan Statistical Areas - North Dakota. PHC80-3-36. U.S. Department of Commerce. U.S. Government Printing Office, Washington, D.C.

U.S. Census Bureau. 2006. Per Capita Income for Municipalities - North Dakota - 1989 and 1999. American Factfind: U.S. Census Bureau interactive web site. Summary File 3. Washington, D.C.

Appendix Table 5. Adjusted Taxable Sales and Purchases for North Dakota Counties and Regions, 1980-2004 (Constant 2004 Dollars)

County	Adjusted Taxable Sales and Purchases (2004 Dollars)				Change 1980-2004	Change 2000-2004
	1980	1990	2000	2004		
	-----\$-----				-----%-----	
Divide	21,166,309	11,124,588	8,435,625	8,613,538	-59.3	2.1
McKenzie	49,753,765	31,211,725	20,222,146	25,127,081	-49.5	24.3
Williams	521,270,213	202,149,329	207,960,381	236,898,107	-54.6	13.9
Region 1	592,190,287	244,485,641	236,618,152	270,638,726	-54.3	14.4
Bottineau	75,180,644	34,664,195	40,514,795	37,762,355	-49.8	-6.8
Burke	18,140,841	8,895,678	6,724,237	6,148,931	-66.1	-8.6
McHenry	27,228,733	14,735,874	18,700,289	16,307,837	-40.1	-12.8
Mountrail	37,711,934	20,188,527	23,307,982	20,813,273	-44.8	-10.7
Pierce	47,237,393	35,569,632	33,674,449	32,116,839	-32.0	-4.6
Renville	25,011,462	15,250,223	13,521,952	13,246,211	-47.0	-2.0
Ward	581,329,181	524,848,864	608,456,334	634,715,679	9.2	4.3
Region 2	811,840,189	654,152,994	744,900,038	761,111,125	-6.3	2.2
Benson	25,507,765	8,736,382	9,123,663	9,010,348	-64.7	-1.2
Cavalier	51,666,808	31,162,566	27,838,527	24,638,049	-52.3	-11.5
Eddy	25,221,952	9,085,654	8,343,458	7,889,321	-68.7	-5.4
Ramsey	141,691,855	111,659,200	132,194,793	117,382,137	-17.2	-11.2
Rolette	42,540,600	28,719,348	26,886,940	22,807,601	-46.4	-15.2
Towner	28,325,779	11,796,433	9,641,918	7,727,973	-72.7	-19.9
Region 3	314,954,759	201,159,583	214,029,301	189,455,429	-39.9	-11.5
Grand Forks	579,802,177	692,271,934	784,864,224	852,928,203	47.1	8.7
Nelson	40,181,503	21,973,694	16,109,679	10,699,390	-73.4	-33.6
Pembina	57,206,415	47,667,036	53,795,959	43,536,480	-23.9	-19.1
Walsh	115,143,495	84,353,336	76,484,080	64,868,740	-43.7	-15.2
Region 4	792,333,589	846,266,000	931,253,941	972,032,813	22.7	4.4

Appendix Table 5. Cont.

County	Adjusted Taxable Sales and Purchases (2004 Dollars)				Change 1980-2004	Change 2000-2004
	1980	1990	2000	2004		
	-----\$-----				-----%-----	
Cass	1,155,974,902	1,261,734,336	1,898,762,107	2,100,762,530	81.7	10.6
Ransom	41,520,009	37,244,259	47,004,769	33,829,329	-18.5	-28.0
Richland	128,022,911	105,923,467	106,664,821	106,350,520	-16.9	-0.3
Sargent	31,976,459	30,357,590	28,548,540	24,052,652	-24.8	-15.8
Steele	13,472,938	5,552,885	6,311,778	6,962,504	-48.3	10.3
Traill	54,746,940	37,797,228	39,363,910	32,088,440	-41.4	-18.5
Region 5	1,425,714,159	1,478,609,766	2,126,655,926	2,304,045,975	61.6	8.3
Barnes	115,922,690	76,801,977	66,101,947	61,984,935	-46.5	-6.2
Dickey	51,612,772	26,528,609	24,070,965	24,394,682	-52.7	1.3
Foster	49,349,178	30,893,413	35,330,775	31,811,357	-35.5	-10.0
Griggs	29,348,537	17,123,881	16,171,219	13,175,064	-55.1	-18.5
LaMoure	39,404,785	26,432,610	24,012,153	28,297,783	-28.2	17.9
Logan	20,105,615	11,202,429	9,637,068	7,624,707	-62.1	-20.9
McIntosh	26,675,933	16,921,357	20,451,709	16,896,377	-36.7	-17.4
Stutsman	221,222,947	168,973,643	185,285,945	178,025,900	-19.5	-3.9
Wells	54,726,262	29,875,968	29,233,443	24,875,794	-54.6	-14.9
Region 6	608,368,719	404,753,889	410,295,224	387,086,599	-36.4	-5.7
Burleigh	727,906,005	709,087,131	916,655,222	1,005,828,907	38.2	9.70
Emmons	30,095,761	17,622,909	17,927,577	14,066,503	-53.3	-21.5
Grant	15,743,707	9,150,011	10,062,889	7,728,181	-50.9	-23.2
Kidder	11,833,743	7,944,908	12,449,534	11,385,100	-3.8	-8.6
McLean	68,443,261	34,791,103	39,766,568	32,207,101	-52.9	-19.0
Mercer	59,631,421	41,699,803	38,621,419	36,760,530	-38.4	-4.8
Morton	193,517,644	139,427,140	156,324,636	168,855,516	-12.7	8.0
Oliver	3,718,829	2,396,490	2,161,567	2,517,098	-32.3	16.5
Sheridan	7,630,357	3,072,417	3,240,480	1,886,593	-75.3	-41.8

Appendix Table 5. Cont.

County	Adjusted Taxable Sales and Purchases (2004 Dollars)				Change 1980-2004	Change 2000-2004
	1980	1990	2000	2004		
	-----\$-----				-----%-----	
Sioux	1,043,745	451,796	397,628	370,304	-64.5	-6.9
Region 7	1,119,564,475	965,643,707	1,197,607,519	1,281,605,833	14.5	7.0
Adams	26,499,363	16,759,635	14,045,786	13,649,154	-48.5	-2.8
Billings	5,967,079	7,714,414	11,893,353	13,515,740	126.5	13.6
Bowman	38,809,687	23,733,851	23,381,663	22,504,826	-42.0	-3.8
Dunn	27,291,626	12,021,718	10,386,463	8,324,483	-69.5	-19.9
Golden Valley	18,048,733	11,207,218	20,216,735	13,525,310	-25.1	-33.1
Hettinger	31,886,570	10,387,809	8,109,092	6,908,487	-78.3	-14.8
Slope	576,046	256,502	477,707	569,632	-1.1	19.2
Stark	363,706,012	216,512,162	241,167,646	246,973,962	-32.1	2.4
Region 8	512,785,116	298,593,309	329,678,445	325,971,594	-36.4	-1.1
North Dakota	6,177,751,293	5,093,664,889	6,191,038,545	6,491,948,094	5.1	4.9

Source: Office of the State Tax Commissioner. 1980-2004. North Dakota Sales and Use Tax Statistical Report. Bismarck, ND.

Appendix Table 6. Taxable Sales and Purchases for North Dakota Counties and Regions, 1980-2004 (Current Year Dollars)

County	Taxable Sales and Purchases (Current Dollars)				Change	Change
	1980	1990	2000	2004	1980-2004	2000-2004
	-----\$-----				-----%-----	
Divide	9,232,850	7,697,079	7,689,722	8,613,538	-6.7	12.0
McKenzie	21,702,842	21,595,326	18,434,044	25,127,081	15.8	36.3
Williams	227,380,682	139,866,691	189,571,906	236,898,107	4.2	25.0
Region 1	258,316,374	169,159,096	215,695,672	270,638,726	4.8	25.5
Bottineau	32,794,174	23,984,083	36,932,356	37,762,355	15.2	2.3
Burke	7,913,126	6,154,901	6,129,660	6,148,931	-22.3	0.3
Mchenry	11,877,310	10,195,720	17,046,754	16,307,837	37.3	-4.3
Mountrail	16,450,135	13,968,399	21,247,021	20,813,273	26.5	-2.0
Pierce	20,605,188	24,610,553	30,696,854	32,116,839	55.9	4.6
Renille	10,910,125	10,551,597	12,326,301	13,246,211	21.4	7.5
Ward	253,578,705	363,141,814	554,654,817	634,715,679	150.3	14.4
Region 2	354,128,763	452,607,067	679,033,763	761,111,125	114.9	12.1
Benson	11,126,615	6,044,684	8,316,922	9,010,348	-19.0	8.3
Cavalier	22,537,321	21,561,313	25,376,962	24,638,049	9.3	-2.9
Eddy	11,001,942	6,286,345	7,605,705	7,889,321	-28.3	3.7
Ramsey	61,806,698	77,256,763	120,505,737	117,382,137	89.9	-2.6
Rolette	18,556,423	19,870,856	24,509,517	22,807,601	22.9	-6.9
Towner	12,355,847	8,161,927	8,789,351	7,727,973	-37.5	-12.1
Region 3	137,384,846	139,181,888	195,104,194	189,455,429	37.9	-2.9
Grand Forks	252,912,618	478,981,481	715,464,197	852,928,203	237.2	19.2
Nelson	17,527,373	15,203,552	14,685,213	10,699,390	-39.0	-27.1
Pembina	24,953,725	32,980,721	49,039,160	43,536,480	74.5	-11.2
Walsh	50,226,170	58,363,894	69,721,130	64,868,740	29.2	-7.0
Region 4	345,619,886	585,529,648	848,909,700	972,032,813	181.2	14.5

Appendix Table 6. Cont.

County	Taxable Sales and Purchases (Current Dollars)				Change 1980-2004	Change 2000-2004
	1980	1990	2000	2004		
	-----\$-----				-----%-----	
Cass	504,242,051	872,991,307	1,730,867,919	2,100,762,530	316.6	21.4
Ransom	18,111,236	25,769,224	42,848,468	33,829,329	86.8	-21.1
Richland	55,844,236	73,288,222	97,233,201	106,350,520	90.4	9.4
Sargent	13,948,292	21,004,352	26,024,193	24,052,652	72.4	-7.6
Steele	5,876,963	3,842,029	5,753,672	6,962,504	18.5	21.0
Traill	23,880,890	26,151,822	35,883,236	32,088,440	34.4	-10.6
Region 5	621,903,668	1,023,046,956	1,938,610,689	2,304,045,975	270.5	18.9
Barnes	50,566,059	53,139,125	60,257,016	61,984,935	22.6	2.9
Dickey	22,513,750	18,355,088	21,942,539	24,394,682	8.4	11.2
Foster	21,526,359	21,375,087	32,206,723	31,811,357	47.8	-1.2
Griggs	12,801,979	11,847,977	14,741,312	13,175,064	2.9	-10.6
LaMoure	17,188,565	18,288,667	21,888,927	28,297,783	64.6	29.3
Logan	8,770,170	7,750,937	8,784,930	7,624,707	-13.1	-13.2
McIntosh	11,636,176	11,707,851	18,643,308	16,896,377	45.2	-9.4
Stutsman	96,498,559	116,912,505	168,902,411	178,025,900	84.5	5.4
Wells	23,871,870	20,671,119	26,648,535	24,875,794	4.2	-6.7
Region 6	265,373,487	280,048,356	374,015,701	387,086,599	45.9	3.5
Burleigh	317,516,251	490,615,880	835,601,843	1,005,828,907	216.8	20.4
Emmons	13,127,922	12,193,253	16,342,367	14,066,503	7.2	-13.9
Grant	6,867,484	6,330,873	9,173,098	7,728,181	12.5	-15.8
Kidder	5,161,938	5,497,065	11,348,709	11,385,100	120.6	0.3
McLean	29,855,294	24,071,890	36,250,290	32,207,101	7.9	-11.2
Mercer	26,011,525	28,852,005	35,206,398	36,760,530	41.3	4.4
Morton	84,413,367	96,469,342	142,501,947	168,855,516	100.0	18.5
Oliver	1,622,172	1,658,126	1,970,435	2,517,098	55.2	27.7
Sheridan	3,328,400	2,125,799	2,953,947	1,886,593	-43.3	-36.1
Sioux	455,287	312,597	362,469	370,304	-18.7	2.2
Region 7	488,359,640	668,126,830	1,091,711,503	1,281,605,833	162.4	17.4

Appendix Table 6. Cont.

County	Taxable Sales and Purchases (Current Dollars)				Change 1980-2004	Change 2000-2004
	1980	1990	2000	2004		
	-----\$-----				-----%-----	
Adams	11,559,155	11,595,956	12,803,816	13,649,154	18.1	6.6
Billings	2,602,870	5,337,587	10,841,707	13,515,740	419.3	24.7
Bowman	16,928,980	16,421,401	21,314,187	22,504,826	32.9	5.6
Dunn	11,904,744	8,317,801	9,468,061	8,324,483	-30.1	-12.1
Golden Valley	7872948	7,754,250	18,429,111	13,525,310	71.8	-26.6
Hettinger	13,909,082	7,187,303	7,392,062	6,908,487	-50.3	-6.5
Slope	251,274	177,473	435,467	569,632	126.7	30.8
Stark	158,650,387	149,804,305	219,842,886	246,973,962	55.7	12.3
Region 8	223,679,440	206,596,076	300,527,297	325,971,594	45.7	8.5
North Dakota	2,694,766,104	3,524,295,917	5,643,608,519	6,491,948,094	140.9	15.0

Source: Office of the State Tax Commissioner. 1980-2004. North Dakota Sales and Use Tax Statistical Report. Bismarck, ND.

Appendix Table 7. Adjusted Taxable Sales and Purchases for North Dakota Cities by Trade Area Classification, Selected Years 1980-2004 (Constant 2004 Dollars)

City	Deflated Taxable Sales (2004 Dollars)				Change 1980-	Change
	1980	1990	2000	2004	2004	2000-2004
	-----dollars-----				-----%-----	
<b>Wholesale Retail</b>						
Bismarck	721,609,569	704,551,683	911,513,588	993,154,176	37.63	8.96
Fargo	1,034,659,727	1,159,269,839	1,679,589,798	1,828,816,117	76.76	8.88
Grand Forks	526,777,275	661,479,629	755,067,719	825,218,047	56.65	9.29
Mandan	158,076,591	122,101,069	141,267,842	155,699,409	-1.50	10.22
Minot	531,362,248	500,285,315	580,948,407	607,684,297	14.36	4.60
West Fargo	47,540,826	59,208,137	163,636,149	217,127,131	356.72	32.69
Group Total	3,020,026,237	3,206,895,671	4,232,023,503	4,627,699,177	53.23	9.35
<b>Complete Shopping</b>						
Devils Lake	126,368,524	106,822,675	128,704,044	115,381,793	-8.69	-10.35
Dickinson	334,638,646	200,838,794	227,042,961	231,235,878	-30.90	1.85
Grafton	74,737,323	59,976,717	54,645,753	46,925,745	-37.21	-14.13
Jamestown	209,523,049	162,133,755	179,586,079	172,762,037	-17.55	-3.80
Valley City	98,392,319	65,649,830	58,269,652	56,290,427	-42.79	-3.40
Wahpeton	87,288,244	81,629,723	84,156,567	82,711,292	-5.24	-1.72
Williston	363,955,464	172,646,304	186,432,058	210,877,027	-42.06	13.11
Group Total	1,294,903,568	849,697,799	918,837,113	916,184,199	-29.25	-0.29
<b>Partial Shopping</b>						
Beulah	32,155,162	24,799,695	25,131,782	23,258,550	-27.67	-7.45
Bottineau	54,412,779	26,474,355	31,147,600	29,193,666	-46.35	-6.27
Bowman	33,666,059	20,458,142	20,087,193	19,702,131	-41.48	-1.92
Carrington	47,668,936	30,153,162	34,550,667	30,958,331	-35.06	-10.40
Cavalier	29,659,900	24,133,793	32,305,159	21,277,204	-28.26	-34.14
Harvey	40,117,093	23,505,175	22,526,203	19,938,169	-50.30	-11.49
Hettinger	23,465,872	15,675,306	13,345,070	13,097,547	-44.18	-1.85

Appendix Table 7. Cont.

City	Deflated Taxable Sales (2004 Dollars)				Change 1980-	Change
	1980	1990	2000	2004	2004	2000-2004
	-----dollars-----				-----%-----	
Partial Shopping Cont.						
Langdon	40,141,872	25,190,095	23,531,276	20,732,897	-48.35	-11.89
Lisbon	30,220,079	31,386,655	42,505,282	27,048,242	-10.50	-36.36
Rolla	27,447,355	19,344,521	17,893,895	15,515,253	-43.47	-13.29
Rugby	46,229,867	35,063,576	33,127,238	31,738,925	-31.35	-4.19
Tioga	137,859,545	22,044,526	15,661,922	20,820,412	-84.90	32.94
Watford City	43,234,079	27,948,487	18,234,652	23,180,122	-46.38	27.12
Group Total	586,278,597	326,177,489	330,047,940	296,461,449	-49.43	-10.18
Full Convenience						
Beach	17,718,616	10,734,125	17,495,709	12,933,261	-27.01	-26.08
Cando	22,898,040	9,180,303	7,976,145	6,196,171	-72.94	-22.32
Casselton	21,090,862	12,362,930	16,818,467	14,539,549	-31.06	-13.55
Cooperstown	22,471,566	14,549,513	13,806,328	10,720,944	-52.29	-22.35
Crosby	19,167,691	7,945,423	7,062,236	7,491,020	-60.92	6.07
Garrison	23,201,796	11,382,303	10,548,367	9,742,973	-58.01	-7.64
Hazen	23,992,603	14,485,256	12,661,322	11,656,004	-51.42	-7.94
Hillsboro	13,398,370	11,457,980	11,743,084	11,898,252	-11.20	1.32
Kenmare	27,794,921	11,560,820	16,456,025	14,081,227	-49.34	-14.43
Killdeer	19,669,710	9,734,100	8,884,921	6,862,221	-65.11	-22.77
Lamoure	16,164,780	12,793,398	8,036,825	13,954,737	-13.67	73.63
Linton	18,640,359	10,774,375	9,002,249	7,343,925	-60.60	-18.42
Mayville	25,105,752	15,468,620	16,860,606	13,406,980	-46.60	-20.48
Michigan	18,033,578	8,941,373	8,838,701	3,709,960	-79.43	-58.03
Mohall	19,413,876	11,581,426	10,274,883	10,388,064	-46.49	1.10
Northwood	24,634,689	14,610,093	16,128,673	13,903,179	-43.56	-13.80

Appendix Table 7. Cont.

City	Deflated Taxable Sales (2004 Dollars)				Change 1980- 2004	Change 2000-2004
	1980	1990	2000	2004		
	-----dollars-----				-----%-----	
Full Convenience Cont.						
Oakes	32,068,363	17,869,902	16,546,668	15,711,016	-51.01	-5.05
Park River	19,502,657	10,535,633	11,262,547	8,692,708	-55.43	-22.82
Stanley	21,847,571	12,168,297	14,567,920	12,246,208	-43.95	-15.94
Washburn	18,932,501	11,897,272	14,468,636	13,344,230	-29.52	-7.77
Wishek	15,689,753	10,492,275	13,283,877	11,581,384	-26.19	-12.82
Group Total	441,438,055	250,525,414	262,724,186	230,404,013	-47.81	-12.30
Min Conv Center						
Arthur	4,207,886	3,249,270	2,676,399	2,103,495	-50.01	-21.41
Ashley	8,984,493	5,669,617	6,636,973	4,892,418	-45.55	-26.29
Belfield	17,409,052	8,328,138	9,778,478	10,849,969	-37.68	10.96
Berthold	6,010,660	3,429,928	2,509,051	2,743,775	-54.35	9.36
Drayton	7,864,066	6,544,823	6,651,352	7,644,771	-2.79	14.94
Dunseith	4,824,889	5,195,378	4,076,471	2,750,431	-42.99	-32.53
Edgeley	11,672,422	7,395,792	11,481,575	8,524,189	-26.97	-25.76
Edinburg	4,192,226	3,330,220	1,888,250	1,545,353	-63.14	-18.16
Elgin	7,594,793	5,204,810	6,481,937	4,947,719	-34.85	-23.67
Ellendale	18,199,908	7,514,965	6,182,902	6,793,219	-62.67	9.87
Emerado	2,849,582	3,725,787	4,250,183	4,703,659	65.06	10.67
Enderlin	9,401,873	4,777,467	3,426,466	5,679,699	-39.59	65.76
Fessenden	9,523,611	4,800,752	5,682,639	4,032,078	-57.66	-29.05
Finley	6,226,971	3,560,449	3,851,909	3,857,675	-38.05	0.15
Flasher	5,588,352	2,778,799	1,194,150	1,285,260	-77.00	7.63
Forman	5,590,701	3,401,266	2,968,617	3,120,300	-44.19	5.11
Glen Ullin	8,113,958	4,629,397	5,020,514	3,783,440	-53.37	-24.64

Appendix Table 7. Cont.

City	Deflated Taxable Sales (2004 Dollars)				Change 1980- 2004	Change 2000-2004
	1980	1990	2000	2004		
	-----dollars-----				-----%-----	
Mini Conv Center Cont.						
Gwinner	11,342,144	17,920,043	17,067,501	15,332,190	35.18	-10.17
Hankinson	9,920,746	6,576,353	5,387,147	5,698,869	-42.56	5.79
Hebron	7,185,816	3,024,332	2,641,443	2,236,276	-68.88	-15.34
Hoople	6,189,619	2,586,003	2,912,818	2,061,587	-66.69	-29.22
Hunter	7,499,485	5,003,237	7,733,428	5,929,012	-20.94	-23.33
Kindred	16,199,580	6,544,342	10,450,143	10,705,849	-33.91	2.45
Kulm	6,346,419	3,393,583	2,326,267	3,970,014	-37.44	70.66
Lakota	9,059,616	5,002,931	2,469,759	2,719,361	-69.98	10.11
Larimore	10,762,178	5,999,210	5,059,819	4,577,728	-57.46	-9.53
Leeds	7,811,829	3,096,564	2,268,023	1,423,524	-81.78	-37.24
Lidgerwood	11,054,671	7,870,521	6,068,367	6,005,497	-45.67	-1.04
Maddock	11,613,752	3,287,901	4,102,134	3,462,296	-70.19	-15.60
McVille	6,634,369	4,221,343	1,865,836	1,752,519	-73.58	-6.07
Milnor	10,636,849	6,900,436	6,698,014	3,965,712	-62.72	-40.79
Minto	2,682,026	3,801,863	2,812,056	2,247,697	-16.19	-20.07
Mott	15,046,860	5,349,797	4,029,899	3,976,326	-73.57	-1.33
Napoleon	13,951,573	8,707,531	7,836,723	6,037,719	-56.72	-22.96
New England	12,812,306	3,721,528	2,790,351	1,868,960	-85.41	-33.02
New Rockford	20,646,732	7,491,166	7,401,036	6,856,244	-66.79	-7.36
New Salem	12,361,896	6,422,253	5,751,538	5,193,063	-57.99	-9.71
New Town	6,314,744	3,712,111	4,133,181	4,342,211	-31.24	5.06
Page	5,362,332	3,000,212	1,925,405	4,609,144	-14.05	139.39
Pembina	2,911,250	3,968,379	5,488,472	4,727,146	62.38	-13.87
Powers Lake	5,175,653	2,938,484	2,781,537	2,474,257	-52.19	-11.05
Ray	10,248,332	3,435,380	2,884,425	3,246,395	-68.32	12.55

Appendix Table 7. Cont.

City	Deflated Taxable Sales (2004 Dollars)				Change 1980- 2004	Change 2000-2004
	1980	1990	2000	2004		
	-----dollars-----				-----%-----	
Mini Conv Center Cont.						
Richardton	9,324,767	5,033,383	2,339,249	2,306,257	-75.27	-1.41
Rolette	8,634,752	2,954,323	3,369,031	3,386,379	-60.78	0.51
Steele	6,047,024	4,469,141	9,115,579	8,228,347	36.07	-9.73
Strasburg	4,420,680	2,998,656	3,390,664	1,938,041	-56.16	-42.84
Towner	6,638,392	3,789,510	4,923,788	6,073,827	-8.50	23.36
Turtle Lake	6,405,575	3,177,504	2,732,914	2,237,911	-65.06	-18.11
Underwood	12,058,066	3,968,552	7,339,922	2,226,458	-81.54	-69.67
Velva	9,957,767	6,157,312	8,205,699	6,236,534	-37.37	-24.00
Walhalla	9,496,271	7,920,065	5,505,200	6,482,280	-31.74	17.75
Westhope	8,261,826	2,809,972	2,772,384	3,112,195	-62.33	12.26
Wimbledon	8,955,339	6,590,457	4,096,442	1,945,283	-78.28	-52.51
Wyndmere	8,048,277	5,534,561	3,320,927	2,275,250	-71.73	-31.49
Group Total	476,274,958	272,915,797	266,754,988	241,125,808	-49.37	-9.61
Hamlets						
Abercrombie	1,464,781	557,964	2,779,594	5,479,153	274.06	97.12
Adams	2,007,033	810,808	759,587	658,023	-67.21	-13.37
Alexander	3,083,096	1,091,650	727,680	630,070	-79.56	-13.41
Anamoose	3,387,281	1,698,547	1,841,013	1,353,138	-60.05	-26.50
Aneta	1,401,712	1,168,013	1,158,837	1,132,295	-19.22	-2.29
Binford	5,073,511	1,173,273	1,019,024	1,065,975	-78.99	4.61
Bisbee	1,410,465	780,683	479,569	468,896	-66.76	-2.23
Bowbells	4,448,919	1,979,052	1,491,297	1,103,917	-75.19	-25.98
Bowdon	683,156	266,495	236,218	163,872	-76.01	-30.63
Buffalo	2,020,440	894,245	740,769	830,756	-58.88	12.15

Appendix Table 7. Cont.

City	Deflated Taxable Sales (2004 Dollars)				Change 1980- 2004	Change 2000-2004
	1980	1990	2000	2004		
	-----dollars-----				-----%-----	
Hamlets Cont.						
Burlington	2,448,048	2,697,566	2,479,530	3,262,892	33.29	31.59
Buxton	1,617,787	1,386,985	1,166,010	1,367,978	-15.44	17.32
Carpio	1,434,429	475,496	384,905	387,405	-72.99	0.65
Carson	2,685,311	1,682,662	1,232,272	1,338,993	-50.14	8.66
Center	3,405,919	2,286,728	2,144,097	2,488,068	-26.95	16.04
Cogswell	383,643	321,542	29,214	127,758	-66.70	337.31
Columbus	2,919,212	957,479	350,625	310,182	-89.37	-11.53
Crystal	796,355	862,305	352,983	230,634	-71.04	-34.66
Davenport	N/a	82,184	124,042	158,762	N/a	27.99
Des Lacs	58,346	170,477	89,002	71,458	22.47	-19.71
Drake	3,859,719	810,529	1,016,112	960,238	-75.12	-5.50
Edmore	3,050,132	1,162,239	561,935	437,519	-85.66	-22.14
Esmond	2,116,195	997,118	346,565	410,094	-80.62	18.33
Fairmount	1,886,092	1,306,764	1,854,854	1,540,069	-18.35	-16.97
Fordville	3,123,142	1,330,053	637,212	865,938	-72.27	35.89
Gackle	3,732,415	1,557,925	1,089,561	874,911	-76.56	-19.70
Galesburg	N/a	N/a	4,686,119	747,824	N/a	-84.04
Gilby	4,446,235	1,369,533	788,885	310,082	-93.03	-60.69
Gladstone	575,908	615,523	191,781	354,410	-38.46	84.80
Glenburn	2,361,827	1,103,023	1,083,664	1,203,035	-49.06	11.02
Golden Valley	903,410	805,486	305,714	231,338	-74.39	-24.33
Goodrich	1,252,189	701,810	371,025	348,012	-72.21	-6.20
Grandin	2,938,359	1,211,529	885,216	689,501	-76.53	-22.11
Granville	834,245	348,017	463,502	262,521	-68.53	-43.36
Grenora	5,480,152	1,995,584	1,221,943	732,283	-86.64	-40.07

Appendix Table 7. Cont.

City	Deflated Taxable Sales(2004 Dollars)				Change 1980-	Change
	1980	1990	2000	2004	2004	2000-2004
	-----dollars-----				-----%-----	
Hamlets Cont.						
Halliday	3,782,944	1,182,977	952,862	1,045,258	-72.37	9.70
Hannaford	1,159,491	668,414	689,573	851,357	-26.57	23.46
Harwood	1,912,922	2,109,148	3,246,049	3,546,242	85.38	9.25
Hatton	4,667,390	2,613,010	2,467,477	2,523,823	-45.93	2.28
Hazelton	1,786,208	1,308,686	2,434,163	3,438,258	92.49	41.25
Hope	5,574,636	1,646,419	1,798,849	2,708,287	-51.42	50.56
Horace	1,180,903	1,279,252	1,625,906	3,378,980	186.14	107.82
Kensal	833,780	321,598	286,154	263,375	-68.41	-7.96
Lansford	3,710,840	650,577	885,184	596,303	-83.93	-32.64
Lehr	2,063,986	519,010	199,847	210,205	-89.82	5.18
Leonard	1,816,527	1,335,118	904,896	1,015,889	-44.08	12.27
Lignite	2,188,865	1,223,864	1,161,829	1,295,000	-40.84	11.46
Lincoln	N/a	735,184	1,038,699	1,043,872	N/a	0.50
Litchville	4,945,858	2,170,820	919,968	835,074	-83.12	-9.23
Manvel	1,182,806	1,290,426	1,517,959	1,333,076	12.70	-12.18
Mapleton	711,940	809,443	1,175,687	1,416,641	98.98	20.49
Marion	827,934	517,183	398,851	317,123	-61.70	-20.49
Max	1,636,109	1,062,522	553,836	609,208	-62.76	10.00
McClusky	5,436,031	1,801,072	1,936,553	1,370,432	-74.79	-29.23
Medina	2,597,742	863,999	658,499	577,427	-77.77	-12.31
Minnewaukan	1,645,621	319,497	251,305	651,089	-60.44	159.08
Mooreton	2,121,071	1,030,039	916,018	659,508	-68.91	-28.00
Munich	5,034,115	1,513,377	1,118,048	979,844	-80.54	-12.36
Neche	1,388,895	1,669,976	1,440,803	1,186,141	-14.60	-17.68
New Leipzig	4,449,832	1,779,479	1,558,161	1,063,490	-76.10	-31.75

Appendix Table 7. Cont.

City	Deflated Taxable Sales(2004 Dollars)				Change 1980- 2004	Change 2000-2004
	1980	1990	2000	2004		
	-----dollars-----				-----%-----	
Hamlets Cont.						
Noonan	989,342	2,372,909	887,353	699,923	-29.25	-21.12
Osnabrock	1,325,872	718,881	433,054	323,576	-75.60	-25.28
Parshall	5,288,302	2,133,631	2,041,095	2,223,553	-57.95	8.94
Petersburg	1,669,126	527,467	307,664	291,061	-82.56	-5.40
Pick City	N/a	537,311	879,453	694,490	N/a	-21.03
Plaza	1,509,343	1,033,158	790,643	744,744	-50.66	-5.81
Portal	815,736	915,665	753,427	683,081	-16.26	-9.34
Portland	3,504,043	2,105,607	1,496,416	1,384,252	-60.50	-7.50
Reeder	2,593,418	947,696	685,292	533,366	-79.43	-22.17
Regent	3,906,858	2,130,364	1,283,198	1,061,584	-72.83	-17.27
Reynolds	1,766,163	1,070,052	1,040,749	671,675	-61.97	-35.46
Rhame	1,453,319	781,396	823,606	499,129	-65.66	-39.40
Riverdale	N/a	1,098,453	742,380	822,534	N/a	10.80
Rocklake	3,415,456	1,381,025	665,496	566,822	-83.40	-14.83
Rutland	1,242,929	818,859	779,080	645,151	-48.09	-17.19
S Heart	1,724,888	983,543	1,247,908	1,771,190	2.68	41.93
Sawyer	1,469,288	967,264	1,673,907	2,058,072	40.07	22.95
Scranton	3,394,337	2,003,676	2,396,338	2,303,566	-32.14	-3.87
Selfridge	745,730	313,543	247,397	308,196	-58.67	24.58
Sherwood	2,947,774	1,940,005	1,800,294	1,355,564	-54.01	-24.70
Sheyenne	4,305,106	1,694,721	1,004,888	1,012,022	-76.49	0.71
St John	1,026,978	931,467	1,117,077	750,311	-26.94	-32.83
St Thomas	1,255,476	804,262	751,524	872,414	-30.51	16.09
Stanton	1,132,431	783,185	545,974	563,159	-50.27	3.15
Starkweather	789,131	312,305	123,429	60,513	-92.33	-50.97

Appendix Table 7. Cont.

City	Deflated Taxable Sales(2004 Dollars)				Change 1980-	Change
	1980	1990	2000	2004	2004	2000-2004
	-----dollars-----				-----%-----	
Hamlets Cont.						
Surrey	1,163,237	981,122	906,236	1,288,390	10.76	42.17
Sykeston	N/a	231,507	352,779	315,500	N/a	-10.57
Tappen	2,197,785	1,585,282	1,632,196	1,635,426	-25.59	0.20
Thompson	3,765,060	1,131,658	1,031,303	1,136,547	-69.81	10.20
Tolna	2,394,972	1,513,966	904,374	842,143	-64.84	-6.88
Tower City	4,514,503	1,875,694	1,584,648	1,608,512	-64.37	1.51
Upham	733,164	497,292	545,508	448,374	-38.84	-17.81
Walcott	N/a	489,246	2,875,877	2,287,633	N/a	-20.45
Wildrose	1,339,758	1,023,696	899,243	528,553	-60.55	-41.22
Willow City	2,806,754	1,345,427	977,925	899,082	-67.97	-8.06
Wilton	2,138,907	1,039,353	2,064,284	2,025,185	-5.32	-1.89
Wing	1,474,082	919,289	458,972	321,999	-78.16	-29.84
Zap	945,702	282,282	238,088	214,185	-77.35	-10.04
Zeeland	1,925,379	687,823	512,349	437,663	-77.27	-14.58
Group Total	213,616,266	109,990,453	104,728,955	102,403,042	-52.06	-2.22
In-state Total	6,032,537,681	5,016,202,623	6,115,116,685	6,414,277,688	6.33	4.89

Source: Office of the State Tax Commissioner. 1980-2004. North Dakota Sales and Use Tax Statistical Report. Bismarck, Nd.

Appendix Table 8. Taxable Sales and Purchases for North Dakota Cities by Trade Area Classification

City	Current Year Dollar Taxable Sales				Change	Change
	1980	1990	2000	2004	1990-2004	2000-2004
Wholesale Retail					-----%	-----
Bismarck	314,769,714	487,477,813	830,914,848	993,154,176	103.73	19.53
Fargo	451,323,763	802,096,339	1,531,075,477	1,828,816,117	128.00	19.45
Grand Forks	229,782,890	457,676,350	688,302,387	825,218,047	80.31	19.89
Mandan	68,953,802	84,481,470	128,776,520	155,699,409	84.30	20.91
Minot	231,782,878	346,146,347	529,579,222	607,684,297	75.56	14.75
West Fargo	20,737,547	40,965,984	149,166,954	217,127,131	430.02	45.56
Group Total	1,317,350,594	2,218,844,303	3,857,815,408	4,627,699,177	108.56	19.96
Complete Shopping						
Devils Lake	55,122,584	73,910,382	117,323,650	115,381,793	56.11	-1.66
Dickinson	145,971,056	138,959,935	206,967,148	231,235,878	66.40	11.73
Grafton	32,600,795	41,497,763	49,813,813	46,925,745	13.08	-5.80
Jamestown	91,395,005	112,180,001	163,706,544	172,762,037	54.00	5.53
Valley City	42,919,223	45,422,978	53,117,276	56,290,427	23.93	5.97
Wahpeton	38,075,570	56,479,432	76,715,193	82,711,292	46.44	7.82
Williston	158,759,199	119,453,611	169,947,181	210,877,027	76.53	24.08
Group Total	564,843,432	587,904,102	837,590,805	916,184,199	55.84	9.38
Partial Shopping						
Beulah	14,026,243	17,158,856	22,909,555	23,258,550	35.55	1.52
Bottineau	23,735,127	18,317,550	28,393,437	29,193,666	59.38	2.82
Bowman	14,685,304	14,154,945	18,311,024	19,702,131	39.19	7.60
Carrington	20,793,429	20,862,909	31,495,594	30,958,331	48.39	-1.71
Cavalier	12,937,797	16,698,120	29,448,641	21,277,204	27.42	-27.75
Harvey	17,499,277	16,263,181	20,534,369	19,938,169	22.60	-2.90
Hettinger	10,235,931	10,845,711	12,165,059	13,097,547	20.76	7.67
Langdon	17,510,086	17,428,973	21,450,571	20,732,897	18.96	-3.35
Lisbon	13,182,150	21,716,360	38,746,839	27,048,242	24.55	-30.19

Appendix Table 8. Cont.

City	Current Year Dollar Taxable Sales				Change	Change
	1980	1990	2000	2004	1990-2004	2000-2004
Partial Shopping Cont.					-----%	-----
Rolla	11,972,674	13,384,433	16,311,664	15,515,253	15.92	-4.88
Rugby	20,165,700	24,260,414	30,198,029	31,738,925	30.83	5.10
Tioga	60,135,025	15,252,561	14,277,048	20,820,412	36.50	45.83
Watford City	18,858,922	19,337,499	16,622,290	23,180,122	19.87	39.45
Group Total	255,737,665	225,681,512	300,864,120	296,461,449	31.36	-1.46
Full Convenience						
Beach	7,728,949	7,426,918	15,948,686	12,933,261	74.14	-18.91
Cando	9,988,240	6,351,832	7,270,871	6,196,171	-2.45	-14.78
Casselton	9,199,940	8,553,885	15,331,328	14,539,549	69.98	-5.16
Cooperstown	9,802,210	10,066,777	12,585,531	10,720,944	6.50	-14.82
Crosby	8,361,043	5,497,421	6,437,772	7,491,020	36.26	16.36
Garrison	10,120,740	7,875,391	9,615,649	9,742,973	23.71	1.32
Hazen	10,465,694	10,022,318	11,541,770	11,656,004	16.30	0.99
Hillsboro	5,844,436	7,927,752	10,704,726	11,898,252	50.08	11.15
Kenmare	12,124,284	7,998,907	15,000,934	14,081,227	76.04	-6.13
Killdeer	8,580,026	6,735,003	8,099,290	6,862,221	1.89	-15.27
LaMoure	7,051,158	8,851,725	7,326,185	13,954,737	57.65	90.48
Linton	8,131,018	7,454,767	8,206,243	7,343,925	-1.49	-10.51
Mayville	10,951,255	10,702,705	15,369,741	13,406,980	25.27	-12.77
Michigan	7,866,337	6,186,517	8,057,157	3,709,960	-40.03	-53.95
Mohall	8,468,430	8,013,164	9,366,347	10,388,064	29.64	10.91
Northwood	10,745,775	10,108,692	14,702,528	13,903,179	37.54	-5.44
Oakes	13,988,381	12,364,147	15,083,562	15,711,016	27.07	4.16
Park River	8,507,157	7,289,582	10,266,679	8,692,708	19.25	-15.33
Stanley	9,530,020	8,419,219	13,279,781	12,246,208	45.46	-7.78
Washburn	8,258,452	8,231,697	13,189,276	13,344,230	62.11	1.17

Appendix Table 8. Cont.

City	Current Year Dollar Taxable Sales				Change	Change
	1980	1990	2000	2004	1990-2004	2000-2004
Full Convenience Cont.					-----%-----	
Wishek	6,843,949	7,259,583	12,109,277	11,581,384	59.53	-4.36
Group Total	192,557,494	173,338,002	239,493,333	230,404,013	32.92	-3.80
Min Conv Center						
Arthur	1,835,501	2,248,163	2,439,744	2,103,495	-6.43	-13.78
Ashley	3,919,081	3,922,796	6,050,112	4,892,418	24.72	-19.14
Belfield	7,593,916	5,762,221	8,913,836	10,849,969	88.29	21.72
Berthold	2,621,880	2,373,160	2,287,193	2,743,775	15.62	19.96
Drayton	3,430,345	4,528,349	6,063,220	7,644,771	68.82	26.08
Dunseith	2,104,641	3,594,671	3,716,017	2,750,431	-23.49	-25.98
Edgeley	5,091,569	5,117,133	10,466,340	8,524,189	66.58	-18.56
Edinburg	1,828,670	2,304,172	1,721,285	1,545,353	-32.93	-10.22
Elgin	3,312,887	3,601,197	5,908,785	4,947,719	37.39	-16.27
Ellendale	7,938,891	5,199,588	5,636,191	6,793,219	30.65	20.53
Emerado	1,243,002	2,577,864	3,874,369	4,703,659	82.46	21.40
Enderlin	4,101,144	3,305,519	3,123,488	5,679,699	71.82	81.84
Fessenden	4,154,247	3,321,630	5,180,163	4,032,078	21.39	-22.16
Finley	2,716,236	2,463,467	3,511,312	3,857,675	56.60	9.86
Flasher	2,437,667	1,922,645	1,088,560	1,285,260	-33.15	18.07
Forman	2,438,692	2,353,329	2,706,123	3,120,300	32.59	15.31
Glen Ullin	3,539,349	3,203,070	4,576,585	3,783,440	18.12	-17.33
Gwinner	4,947,500	12,398,840	15,558,342	15,332,190	23.66	-1.45
Hankinson	4,327,479	4,550,165	4,910,799	5,698,869	25.25	16.05
Hebron	3,134,489	2,092,529	2,407,879	2,236,276	6.87	-7.13
Hoople	2,699,943	1,789,250	2,655,258	2,061,587	15.22	-22.36
Hunter	3,271,313	3,461,729	7,049,615	5,929,012	71.27	-15.90
Kindred	7,066,338	4,528,016	9,526,110	10,705,849	136.44	12.38

Appendix Table 8. Cont.

City	Current Year Dollar Taxable Sales				Change	Change
	1980	1990	2000	2004	1990-2004	2000-2004
Mini Conv Center Cont.					-----%	-----
Kulm	2,768,340	2,348,013	2,120,572	3,970,014	69.08	87.21
Lakota	3,951,850	3,461,517	2,251,376	2,719,361	-21.44	20.79
Larimore	4,694,516	4,150,841	4,612,415	4,577,728	10.28	-0.75
Leeds	3,407,559	2,142,506	2,067,478	1,423,524	-33.56	-31.15
Lidgerwood	4,822,103	5,445,597	5,531,784	6,005,497	10.28	8.56
Maddock	5,065,977	2,274,892	3,739,411	3,462,296	52.20	-7.41
McVille	2,893,945	2,920,738	1,700,853	1,752,519	-40.00	3.04
Milnor	4,639,847	4,774,397	6,105,756	3,965,712	-16.94	-35.05
Minto	1,169,913	2,630,501	2,563,406	2,247,697	-14.55	-12.32
Mott	6,563,516	3,701,513	3,673,563	3,976,326	7.42	8.24
Napoleon	6,085,746	6,024,722	7,143,777	6,037,719	0.22	-15.48
New England	5,588,792	2,574,917	2,543,620	1,868,960	-27.42	-26.52
New Rockford	9,006,208	5,183,122	6,746,614	6,856,244	32.28	1.62
New Salem	5,392,321	4,443,543	5,242,970	5,193,063	16.87	-0.95
New Town	2,754,523	2,568,402	3,767,713	4,342,211	69.06	15.25
Page	2,339,076	2,075,840	1,755,155	4,609,144	122.04	162.61
Pembina	1,269,902	2,745,713	5,003,165	4,727,146	72.16	-5.52
Powers Lake	2,257,646	2,033,131	2,535,585	2,474,257	21.70	-2.42
Ray	4,470,374	2,376,932	2,629,376	3,246,395	36.58	23.47
Richardton	4,067,510	3,482,587	2,132,406	2,306,257	-33.78	8.15
Rolette	3,766,522	2,044,090	3,071,131	3,386,379	65.67	10.26
Steele	2,637,742	3,092,189	8,309,552	8,228,347	166.10	-0.98
Strasburg	1,928,323	2,074,764	3,090,851	1,938,041	-6.59	-37.30
Towner	2,895,700	2,621,954	4,488,412	6,073,827	131.65	35.32
Turtle Lake	2,794,144	2,198,508	2,491,262	2,237,911	1.79	-10.17
Underwood	5,259,789	2,745,833	6,690,904	2,226,458	-18.92	-66.72
Velva	4,343,628	4,260,231	7,480,127	6,236,534	46.39	-16.63

Appendix Table 8. Cont.

City	Current Year Dollar Taxable Sales				Change	Change
	1980	1990	2000	2004	1990-2004	2000-2004
Mini Conv Center Cont.					-----%	-----
Walhalla	4,142,321	5,479,876	5,018,414	6,482,280	18.29	29.17
Westhope	3,603,850	1,944,214	2,527,242	3,112,195	60.07	23.15
Wimbledon	3,906,364	4,559,923	3,734,222	1,945,283	-57.34	-47.91
Wyndmere	3,510,699	3,829,351	3,027,281	2,275,250	-40.58	-24.84
Group Total	207,753,526	188,829,860	243,167,719	241,125,808	27.69	-0.84
Hamlets						
Abercrombie	638,945	386,054	2,533,814	5,479,153	1319.30	116.24
Adams	875,478	560,996	692,422	658,023	17.30	-4.97
Alexander	1,344,862	755,310	663,336	630,070	-16.58	-5.01
Anamoose	1,477,549	1,175,221	1,678,225	1,353,138	15.14	-19.37
Aneta	611,434	808,146	1,056,369	1,132,295	40.11	7.19
Binford	2,213,091	811,785	928,919	1,065,975	31.31	14.75
Bisbee	615,252	540,153	437,164	468,896	-13.19	7.26
Bowbells	1,940,641	1,369,302	1,359,432	1,103,917	-19.38	-18.80
Bowdon	297,996	184,387	215,331	163,872	-11.13	-23.90
Buffalo	881,326	618,726	675,268	830,756	34.27	23.03
Burlington	1,067,851	1,866,440	2,260,283	3,262,892	74.82	44.36
Buxton	705,687	959,652	1,062,908	1,367,978	42.55	28.70
Carpio	625,705	328,995	350,871	387,405	17.75	10.41
Carson	1,171,346	1,164,230	1,123,311	1,338,993	15.01	19.20
Center	1,485,679	1,582,182	1,954,510	2,488,068	57.26	27.30
Cogswell	167,347	222,474	26,631	127,758	-42.57	379.73
Columbus	1,273,375	662,478	319,622	310,182	-53.18	-2.95
Crystal	347,374	596,627	321,771	230,634	-61.34	-28.32
Davenport	N/a	56,863	113,074	158,762	179.20	40.41
Des Lacs	25,451	117,953	81,132	71,458	-39.42	-11.92

Appendix Table 8. Cont.

City	Current Year Dollar Taxable Sales				Change	Change
	1980	1990	2000	2004	1990-2004	2000-2004
Hamlets Cont.					-----%	-----
Drake	1,683,629	560,803	926,264	960,238	71.23	3.67
Edmore	1,330,483	804,151	512,247	437,519	-45.59	-14.59
Esmond	923,095	689,904	315,921	410,094	-40.56	29.81
Fairmount	822,723	904,147	1,690,842	1,540,069	70.33	-8.92
Fordville	1,362,330	920,261	580,868	865,938	-5.90	49.08
Gackle	1,628,098	1,077,925	993,219	874,911	-18.83	-11.91
Galesburg	N/a	N/a	4,271,758	747,824	N/a	-82.49
Gilby	1,939,470	947,577	719,129	310,082	-67.28	-56.88
Gladstone	251,214	425,879	174,823	354,410	-16.78	102.73
Glenburn	1,030,241	763,179	987,843	1,203,035	57.63	21.78
Golden Valley	394072	557,314	278,682	231,338	-58.49	-16.99
Goodrich	546,211	485,581	338,218	348,012	-28.33	2.90
Grandin	1,281,727	838,254	806,943	689,501	-17.75	-14.55
Granville	363,902	240,792	422,518	262,521	9.02	-37.87
Grenora	2,390,470	1,380,740	1,113,895	732,283	-46.96	-34.26
Halliday	1,650,139	818,499	868,607	1,045,258	27.70	20.34
Hannaford	505,776	462,474	628,599	851,357	84.09	35.44
Harwood	834,426	1,459,315	2,959,024	3,546,242	143.01	19.84
Hatton	2,035,939	1,807,936	2,249,295	2,523,823	39.60	12.21
Hazelton	779,153	905,477	2,218,927	3,438,258	279.72	54.95
Hope	2,431,684	1,139,154	1,639,789	2,708,287	137.75	65.16
Horace	515,116	885,112	1,482,139	3,378,980	281.76	127.98
Kensal	363,699	222,513	260,851	263,375	18.36	0.97
Lansford	1,618,687	450,133	806,913	596,303	32.47	-26.10
Lehr	900,321	359,102	182,176	210,205	-41.46	15.39
Leonard	792,378	923,765	824,882	1,015,889	9.97	23.16
Lignite	954,794	846,789	1,059,097	1,295,000	52.93	22.27

Appendix Table 8. Cont.

City	Current Year Dollar Taxable Sales				Change	Change
	1980	1990	2000	2004	1990-2004	2000-2004
Hamlets Cont.					-----%	
Lincoln	0	508,672	946,854	1,043,872	105.22	10.25
Litchville	2,157,408	1,501,986	838,622	835,074	-44.40	-0.42
Marvel	515,946	892,843	1,383,737	1,333,076	49.31	-3.66
Mapleton	310,552	560,052	1,071,729	1,416,641	152.95	32.18
Marion	361,149	357,838	363,583	317,123	-11.38	-12.78
Max	713,679	735,157	504,864	609,208	-17.13	20.67
McClusky	2,371,224	1,246,158	1,765,317	1,370,432	9.97	-22.37
Medina	1,133,148	597,799	600,273	577,427	-3.41	-3.81
Minnewaukan	717,828	221,059	229,084	651,089	194.53	184.21
Mooreton	925,222	712,682	835,021	659,508	-7.46	-21.02
Munich	2,195,906	1,047,102	1,019,187	979,844	-6.42	-3.86
Neché	605,843	1,155,453	1,313,403	1,186,141	2.66	-9.69
New Leipzig	1,941,039	1,231,218	1,420,384	1,063,490	-13.62	-25.13
Noonan	431,556	1,641,811	808,891	699,923	-57.37	-13.47
Osnabrock	578,352	497,392	394,762	323,576	-34.95	-18.03
Parshall	2,306,784	1,476,255	1,860,615	2,223,553	50.62	19.51
Petersburg	728,081	364,953	280,459	291,061	-20.25	3.78
Pick City	N/a	371,764	801,689	694,490	86.81	-13.37
Plaza	658,383	714,840	720,732	744,744	4.18	3.33
Portal	355,828	633,547	686,807	683,081	7.82	-0.54
Portland	1,528,481	1,456,865	1,364,098	1,384,252	-4.98	1.48
Reeder	1,131,262	655,709	624,696	533,366	-18.66	-14.62
Regent	1,704,191	1,473,994	1,169,734	1,061,584	-27.98	-9.25
Reynolds	770,409	740,367	948,723	671,675	-9.28	-29.20
Rhame	633,945	540,646	750,780	499,129	-7.68	-33.52
Riverdale	N/a	760,017	676,737	822,534	8.23	21.54
Rocklake	1,489,839	955,528	606,651	566,822	-40.68	-6.57

Appendix Table 8. Cont.

City	Current Year Dollar Taxable Sales				Change	Change
	1980	1990	2000	2004	1990-2004	2000-2004
Hamlets Cont.					-----%	
Rutland	542,172	566,567	710,191	645,151	13.87	-9.16
S Heart	752,405	680,511	1,137,564	1,771,190	160.27	55.70
Sawyer	640,911	669,248	1,525,895	2,058,072	207.52	34.88
Scranton	1,480,627	1,386,339	2,184,447	2,303,566	66.16	5.45
Selfridge	325,291	216,940	225,521	308,196	42.07	36.66
Sherwood	1,285,834	1,342,285	1,641,107	1,355,564	0.99	-17.40
Sheyenne	1,877,909	1,172,574	916,033	1,012,022	-13.69	10.48
St John	447,973	644,480	1,018,302	750,311	16.42	-26.32
St Thomas	547,645	556,467	685,072	872,414	56.78	27.35
Stanton	493,972	541,884	497,697	563,159	3.93	13.15
Starkweather	344,223	216,083	112,515	60,513	-72.00	-46.22
Surrey	507,410	678,836	826,104	1,288,390	89.79	55.96
Sykeston	N/a	160,179	321,585	315,500	96.97	-1.89
Tappen	958,685	1,096,853	1,487,872	1,635,426	49.10	9.92
Thompson	1,642,338	782,992	940,112	1,136,547	45.15	20.89
Tolna	1,044,699	1,047,510	824,407	842,143	-19.61	2.15
Tower City	1,969,249	1,297,789	1,444,529	1,608,512	23.94	11.35
Upham	319,810	344,075	497,273	448,374	30.31	-9.83
Walcott	N/a	338,508	2,621,583	2,287,633	575.80	-12.74
Wildrose	584,409	708,293	819,729	528,553	-25.38	-35.52
Willow City	1,224,320	930,898	891,454	899,082	-3.42	0.86
Wilton	933,002	719,126	1,881,754	2,025,185	181.62	7.62
Wing	643,002	636,054	418,388	321,999	-49.38	-23.04
Zap	412,520	195,310	217,036	214,185	9.66	-1.31
Zeeland	839,860	475,903	467,046	437,663	-8.04	-6.29
Group Total	93,180,487	76,102,161	95,468,510	102,403,042	34.56	7.26
In-state Total	2,631,423,198	3,470,699,940	5,574,399,895	6,414,277,688	84.81	15.07

Source: Office of the Tax Commissioner. 1980-2004. North Dakota Sales and Use Tax Statistical Report. Bismarck, ND.

Appendix Table 9. North Dakota Taxable Sales and Purchases, Current and Constant 2004 Dollars, 1980-2004

Year	Current Dollars Taxable Sales	Constant 2004 Dollar Taxable Sales
1980	2,694,766,104	6,180,656,202
1981	3,013,624,810	6,265,332,245
1982	3,000,562,367	5,871,942,010
1983	2,929,606,482	5,559,025,583
1984	3,020,597,687	5,336,745,030
1985	3,013,492,942	5,286,829,723
1986	2,979,992,811	5,137,918,640
1987	3,050,623,211	5,075,912,165
1988	3,098,194,257	4,949,192,104
1989	3,314,014,296	5,051,851,061
1990	3,524,295,917	5,092,913,175
1991	3,816,171,659	5,292,887,173
1992	4,081,306,251	5,493,009,759
1993	4,402,119,373	5,754,404,409
1994	4,703,831,173	5,992,141,622
1995	4,879,178,076	6,046,069,487
1996	5,089,864,059	6,124,986,834
1997	5,345,192,564	6,288,461,840
1998	5,331,411,458	6,177,765,305
1999	5,544,026,823	6,285,744,697
2000	5,643,608,319	6,188,167,016
2001	5,879,207,248	6,267,811,565
2002	5,868,871,798	6,230,224,839
2003	6,038,676,890	6,396,903,485
2004	6,491,948,094	6,491,948,094

Source: Office of the State Tax Commissioner, 1980-2004. North Dakota Sales and Use Tax Statistical Report. Bismarck, ND.

Appendix Table 10. North Dakota Personal Income, Current and Constant 2004 Dollars, 1980-2004

Year	Current Dollars Personal Income	Constant 2004 Dollar Personal Income
	-----\$000-----	
1980	5,589,756	12,820,541
1981	6,709,944	13,949,988
1982	7,069,655	13,834,941
1983	7,360,558	13,966,903
1984	7,930,244	14,011,032
1985	8,182,182	14,354,705
1986	8,386,307	14,459,150
1987	8,526,996	14,188,013
1988	8,162,964	13,039,879
1989	9,047,120	13,791,341
1990	9,649,930	13,944,986
1991	9,842,901	13,651,735
1992	10,762,348	14,484,991
1993	10,859,605	14,195,562
1994	11,612,277	14,792,710
1995	11,640,079	14,423,890
1996	12,982,928	15,623,259
1997	12,885,281	15,159,154
1998	13,855,000	16,054,461
1999	14,747,353	16,720,355
2000	15,836,129	17,364,177
2001	16,421,689	17,507,131
2002	16,779,969	17,813,131
2003	18,077,751	19,150,160
2004	18,553,456	18,553,456

Source: Bureau of Economic Analysis. 2006. Annual Personal Income Estimates. Interactive Tables. U.S. Department of Commerce Bureau of Economic Analysis Website. Washington, D.C.

Appendix Table 11. Pull Factors for North Dakota Cities by Trade Area Classifications, Selected Years 1980-2004

City	Pull Factor				Change	Change
	1980	1990	2000	2004	1980-2004	2000-2004
					-----%-----	
<b>Wholesale-retail Centers</b>						
Bismarck	0.83	1.05	1.03	1.05	25.71	2.01
Fargo	1.01	1.23	1.19	1.20	19.33	0.75
Grand Forks	0.81	1.18	1.18	1.26	55.74	6.82
Minot	0.73	0.92	0.88	0.90	22.65	1.99
Average	0.85	1.10	1.07	1.10	30.33	2.98
<b>Complete Shopping Centers</b>						
Devils Lake	0.75	0.75	0.83	0.73	-2.93	-11.55
Dickinson	1.16	1.11	1.03	1.02	-11.98	-1.05
Grafton	0.90	0.95	0.77	0.68	-24.31	-11.33
Jamestown	0.87	0.77	0.79	0.78	-9.76	-1.02
Valley City	0.94	0.65	0.57	0.51	-45.97	-10.31
Wahpeton	0.79	0.82	0.70	0.69	-12.89	-2.08
Williston	1.40	1.17	1.14	1.25	-10.87	9.77
Average	0.97	0.89	0.83	0.81	-16.91	-2.81
<b>Partial Shopping Centers</b>						
Beulah	0.56	0.62	0.56	0.52	-6.96	-7.08
Bottineau	1.10	0.58	0.64	0.54	-51.14	-15.47
Bowman	0.73	0.64	0.61	0.55	-24.95	-9.30
Carrington	0.91	0.74	0.79	0.69	-23.67	-12.23
Cavalier	0.69	0.65	0.76	0.55	-20.56	-28.29
Harvey	0.79	0.49	0.57	0.44	-44.13	-21.60
Hettinger	0.84	0.80	0.66	0.70	-17.55	6.08
Langdon	0.78	0.66	0.49	0.43	-44.65	-11.69
Lisbon	0.81	0.83	0.89	0.56	-30.50	-37.04
Rolla	0.44	0.40	0.26	0.21	-52.29	-19.13
Rugby	0.98	0.76	0.76	0.79	-19.87	3.37
Tioga	3.81	1.25	0.88	1.13	-70.23	29.15
Watford City	1.10	1.40	0.70	0.90	-18.42	27.15
Average	1.04	0.75	0.66	0.62	-40.87	-6.47
<b>Full Convenience</b>						
Beach	0.74	0.66	1.21	0.93	26.23	-23.51
Cando	2.07	0.99	0.89	0.60	-70.87	-32.61
Casselton	0.60	0.48	0.49	0.41	-31.52	-15.33
Cooperstown	1.07	0.55	0.56	0.41	-61.82	-27.42
Crosby	0.67	0.41	0.37	0.38	-42.99	2.80
Garrison	0.83	0.48	0.43	0.35	-58.24	-18.50
Hazen	0.45	0.36	0.29	0.27	-39.23	-7.91
Hillsboro	0.47	0.50	0.49	0.44	-6.97	-9.50

Appendix Table 11. Cont.

City	Pull Factor				Change	Change
	1980	1990	2000	2004	1980-2004	2000-2004
Fullconvenience Cont.					-----%	-----
Kenmare	0.74	0.49	0.70	0.56	-23.36	-19.07
Killdeer	1.05	1.01	0.74	0.52	-50.21	-29.39
LaMoure	1.12	0.60	0.34	0.55	-50.64	65.28
Linton	0.74	0.54	0.33	0.29	-61.35	-13.94
Mayville	0.60	0.44	0.47	0.33	-44.33	-28.66
Michigan	3.15	1.46	1.98	0.74	-76.52	-62.62
Mohall	1.69	0.91	0.77	0.68	-59.79	-11.53
Northwood	1.11	0.91	1.01	0.88	-20.34	-12.44
Oakes	1.18	0.74	0.55	0.51	-56.72	-7.23
Park River	0.52	0.38	0.38	0.31	-41.15	-20.06
Stanley	0.89	0.66	0.74	0.61	-31.67	-17.32
Washburn	1.04	0.78	0.94	0.77	-25.94	-17.89
Wishek	1.04	0.74	0.75	0.70	-32.86	-6.59
Average	1.04	0.67	0.69	0.54	-48.30	-21.98
Min Conv Center						
Arthur	0.57	0.66	0.44	0.35	-38.72	-19.91
Ashley	0.69	0.46	0.46	0.36	-48.11	-20.77
Belfield	0.73	0.65	0.69	0.77	4.97	11.58
Berthold	0.73	0.64	0.39	0.41	-43.25	6.66
Drayton	0.47	0.50	0.47	0.60	27.46	26.04
Dunseith	0.18	0.24	0.13	0.08	-54.92	-37.19
Edgeley	1.40	0.63	0.90	0.64	-54.08	-28.54
Edinburg	0.39	0.47	0.28	0.23	-39.81	-14.86
Elgin	1.29	1.16	0.86	0.64	-50.68	-26.53
Ellendale	0.82	0.35	0.27	0.28	-65.73	5.76
Enderlin	0.89	0.43	0.17	0.26	-70.95	53.96
Fessenden	0.82	0.44	0.59	0.37	-54.67	-36.89
Finley	1.08	0.35	0.40	0.35	-67.90	-12.65
Flasher	0.45	0.37	0.14	0.15	-66.70	4.25
Forman	0.33	0.19	0.15	0.17	-47.96	15.75
Glen Ullin	0.51	0.48	0.45	0.33	-35.11	-27.23
Gwinner	1.80	2.96	1.83	1.76	-2.45	-3.86
Hankinson	0.57	0.44	0.29	0.31	-44.64	6.86
Hebron	0.43	0.30	0.23	0.20	-54.32	-16.83
Hunter	1.03	0.97	1.32	1.04	1.37	-21.04
Kindred	0.77	0.38	0.45	0.46	-40.87	1.91
Kulm	1.50	0.55	0.39	0.63	-57.88	62.35
Lakota	0.73	0.34	0.23	0.21	-71.04	-6.36
Larimore	0.37	0.28	0.20	0.18	-50.23	-8.44
Leeds	1.16	0.53	0.47	0.24	-79.16	-48.76

Appendix Table 11. Cont.

City	Pull Factor				Change	Change
	1980	1990	2000	2004	1980-2004	2000-2004
Mini Conv Center Cont.					-----%	-----
Lidgerwood	0.66	0.61	0.45	0.44	-33.41	-3.03
Maddock	1.22	0.39	0.59	0.40	-67.00	-31.39
McVile	0.83	0.45	0.27	0.22	-73.16	-17.30
Milnor	0.96	0.55	0.39	0.26	-73.31	-35.16
Minto	0.32	0.58	0.32	0.27	-17.37	-17.50
Mott	1.34	0.48	0.28	0.33	-75.44	18.63
Napoleon	1.35	0.63	0.55	0.41	-69.35	-24.30
New England	1.30	0.37	0.21	0.15	-88.11	-24.91
New Rockford	0.88	0.33	0.38	0.30	-66.34	-22.79
New Salem	0.54	0.44	0.33	0.29	-46.28	-11.32
New Town	0.26	0.16	0.16	0.16	-39.72	-0.67
Page	0.71	0.64	0.35	0.87	21.36	146.10
Pembina	0.36	0.58	0.65	0.62	72.54	-6.02
Powers Lake	0.54	0.37	0.35	0.34	-37.93	-4.00
Ray	0.77	0.54	0.42	0.46	-40.70	8.54
Richardton	0.75	0.72	0.31	0.31	-59.06	-0.42
Rolette	0.66	0.30	0.28	0.27	-59.69	-6.16
Steele	0.96	0.46	0.79	0.72	-25.38	-9.73
Strasburg	0.54	0.47	0.39	0.23	-56.67	-40.16
Towner	0.43	0.30	0.46	0.50	15.73	8.83
Turtle Lake	0.42	0.26	0.24	0.17	-58.40	-27.36
Underwood	0.65	0.29	0.68	0.18	-71.94	-73.09
Velva	0.68	0.49	0.63	0.42	-37.36	-32.98
Walhalla	0.43	0.48	0.30	0.39	-9.78	28.97
Westhope	0.78	0.33	0.32	0.33	-58.10	2.24
Wimbledon	1.29	1.07	0.71	0.32	-75.52	-55.38
Wyndmere	1.17	0.88	0.44	0.30	-74.27	-31.19
Average	0.78	0.54	0.45	0.40	-49.00	-11.87
Hamlets						
Adams	0.32	0.20	0.20	0.18	-43.84	-10.05
Aneta	0.41	0.27	0.32	0.27	-33.92	-14.61
Bisbee	0.48	0.30	0.17	0.15	-69.65	-14.53
Bowbells	0.47	0.26	0.20	0.16	-65.30	-19.03
Carson	0.49	0.39	0.22	0.22	-53.82	2.61
Center	0.36	0.33	0.26	0.29	-19.48	13.69
Columbus	0.92	0.40	0.18	0.18	-80.89	-2.30
Drake	0.56	0.17	0.24	0.20	-64.13	-15.68
Edmore	0.43	0.23	0.13	0.10	-76.15	-20.31
Fairmount	0.37	0.32	0.40	0.34	-7.98	-15.65
Fordville	0.65	0.37	0.16	0.23	-64.65	40.55

Appendix Table 11. Cont.

City	Pull Factor				Change	Change
	1980	1990	2000	2004	1980-2004	2000-2004
Hamlets Cont.					-----%	-----
Gackle	0.82	0.23	0.17	0.13	-83.71	-21.93
Halliday	0.35	0.23	0.15	0.15	-58.31	-1.29
Hatton	0.42	0.27	0.24	0.22	-47.13	-6.53
Hazelton	0.30	0.29	0.42	0.62	106.90	48.24
Hope	1.55	0.26	0.28	0.37	-76.34	29.84
Lignite	0.57	0.40	0.45	0.53	-5.69	20.07
Max	0.23	0.18	0.11	0.11	-53.61	-3.95
McClusky	1.28	0.51	0.66	0.41	-67.48	-37.21
Medina	0.32	0.14	0.10	0.09	-70.16	-7.61
Munich	0.90	0.36	0.21	0.19	-79.08	-11.44
Nече	0.25	0.36	0.25	0.22	-13.24	-13.35
New Leipzig	1.37	0.65	0.44	0.30	-77.98	-32.31
Parshall	0.30	0.15	0.12	0.12	-58.21	1.87
Petersburg	0.68	0.17	0.13	0.11	-84.26	-16.19
Regent	1.22	0.60	0.28	0.27	-78.29	-3.91
Rutland	0.33	0.20	0.16	0.14	-56.84	-9.38
Scranton	0.37	0.33	0.40	0.35	-3.87	-10.71
Sherwood	0.88	0.50	0.43	0.28	-67.78	-33.36
Sheyenne	1.05	0.40	0.26	0.22	-79.28	-18.01
Tolna	0.38	0.22	0.17	0.13	-64.70	-19.84
Wilton	0.18	0.11	0.19	0.15	-14.74	-22.08
Average	0.60	0.31	0.25	0.23	-61.19	-7.96

Appendix Table 12. Consumer Price Index, Annual Average for All Items, 1982-1984 and 2004 Base

Year	Consumer Price Index	
	1982-1984 = Base	2004 = Base
1980	82.4	43.6
1981	90.9	48.1
1982	96.5	51.1
1983	99.6	52.7
1984	103.9	56.6
1985	107.6	57.0
1986	109.6	58.0
1987	113.6	60.1
1988	118.3	62.6
1989	124.0	65.6
1990	130.7	69.2
1991	136.2	72.1
1992	140.3	74.3
1993	144.5	76.5
1994	148.2	78.5
1995	152.4	80.7
1996	156.9	83.1
1997	160.5	85.0
1998	163.0	86.3
1999	166.6	88.2
2000	172.2	91.2
2001	177.1	93.8
2002	179.9	94.2
2003	184.0	94.4
2004	188.9	100.0

Source: U.S. Department of Labor, 2006. Consumer Price Index. Bureau of Labor Statistics Internet Website.