Affordable Care Act (ACA)
Maternal, Infant, and Early Childhood
Home Visiting Program Needs Assessment

Supplemental Information Request
for the Submission of the Statewide Needs Assessment

North Dakota Department of Health

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A. "At Risk Communities" defined as communities with concentrations of the required indicators.

INTRODUCTION

This needs assessment offers an overview of key performance indicators that are useful in identifying communities in greatest need of a home visiting program in North Dakota. In addition, these indicators are similarly useful in designing a strategy to prioritize which type of home visiting program may be of most use in North Dakota. The rural nature of the state, however, has placed some important limitations on the data that can be presented. The most important of these limitations is the relatively small population base for much of North Dakota. As a result, we needed to be flexible in our approach to identify communities in greatest need.

Approach Used to Identify "Communities of Need"

Given the rural nature and sparsely populated context of North Dakota, we approached defining "communities of need" from a pragmatic perspective. Our approach was to use the smallest geographic building block that was meaningful from both a program perspective and from a data collection standpoint. There are only 15 cities in North Dakota with a population base of at least 2,500 people. We felt that using cities or incorporated places as the basis for "communities of need" would greatly bias our statewide assessment, thus we opted to select counties as the basic unit of analysis. However, even the majority of counties in North Dakota are relatively small in population. The latest population estimates indicate that 29 of the 53 counties in the state have a population base below 5,000 residents. This has significant consequences on our ability to report various indicators because of issues of confidentiality or because of instability within the data due to small numbers. Trend lines or one's ability to correctly interpret change over time periods is greatly hampered by small numbers. Very modest numeric changes translate into what can appear to be very significant proportional changes if the population base is very small. For example, in a county where only a handful of births are recorded annually, it doesn't take many new births to create rather dramatic swings in the percentage change in births.

In an attempt to accommodate the unique data limitations in North Dakota, we profile "communities" for this needs assessment in two distinct ways.

First, we use counties as our geographic area for "communities of need" and present eight indicators for which county-level data are appropriate. Five of these eight indicators represent economic issues (i.e., unemployment, average wage per job, children in poverty, children receiving TANF, and children receiving free or reduced lunches) while the remaining three indicators represent issues of safety (i.e., children needing services for abuse and neglect), risk (i.e., high school dropouts), and crime (i.e., children referred to juvenile court).

Second, we expanded our geographic dimension of "communities of need" to the regional level for an additional 13 indicators which include birth outcomes (i.e., preterm births and low weight

births), issues of mortality (i.e., neonatal deaths, post-neonatal deaths, perinatal deaths, and infant deaths), maltreatment (i.e., rape or abuse by boy/girlfriend), and behavioral risk indicators (i.e., binge drinking, smoking, smokeless tobacco use, marijuana use, and illegal substance use). The regions consist of groups of counties and coincide with the planning region boundaries established by the state of North Dakota for the purposes of standardizing areas being served by state agencies. The boundaries of North Dakota's eight established planning regions and four tribal statistical areas can be seen in Appendix Maps 1 and 2.

Framework of the Needs Assessment

We viewed the needs assessment as the basis for identifying "communities of need." Twenty-one indicators were selected for analysis. We were able to collect county-level data for eight indicators and regional-level data for 13 indicators. We designed a threefold strategy for the analysis.

First, in the Demographics of North Dakota section of the report, we provide a contextual portrait of the state by profiling important statewide demographic, economic, and household shifts that have occurred. This introductory overview provides the necessary grounding to place our 21 selected indicators in proper context. Five of the 21 selected indicators are included in the economic discussion within the demographic section of the report.

Second, we examined the remaining 16 indicators under two main subheadings; a) birth and infancy, and b) childhood and adolescence. In these two subsections, we offer accompanying narrative to provide context to each of the indicators. In most cases, we are able to provide annual trend lines for the indicators in order to present a historical perspective. Unfortunately, in some cases we were restricted by small numbers and had to rely on multi-year period estimates. In these cases, the trend consists of only two data points. Nonetheless, this still offers a useful historical context for analysis.

Finally, we present corresponding time line data for counties and regions in the Appendix section of this report. In order to reduce the amount of data presented in the Appendix, we typically restrict our reporting to annual percentages for the time line, which allows for easy comparisons. However, for relative context, we also present the actual number of events (when available) for the latest year we report and an estimate of change (if applicable) over the time period we report.

We summarize the findings of the needs assessment in the last section. Given the vast amount of data presented, we use two summary ranking tools which are organized in the form of a matrix.

The first is a county-based tool that displays all the counties as rows in a matrix and the eight county-based indicators used in the needs assessment as columns. For each indicator, the corresponding county ranking for that indicator is provided (a ranking of one represents the worst value, i.e., the county in greatest need) and color coded to illustrate whether or not that ranking fell within 1 through 5 (colored light blue) or from 6 through 10 (colored light green).

The second tool is a region-based tool that displays all eight regions as rows in a matrix and the 13 region-based indicators used in the needs assessment as columns. Cells shaded in light blue represent the three regions with the worst values for each indicator.

These tables can be used as tools to quickly identify counties and regions within the state that show the highest relative levels of need for each of the indicators reviewed. Such tools need to be used with caution because there are various limitations which may have consequences on the overall interpretation of need. We discuss these in more detail in the summary section.

DEMOGRAPHICS OF NORTH DAKOTA

The health care and health status of North Dakota's children are affected by demographic, social, and economic factors. Population shifts (including changes in the number of people, geographic consolidation, changing age composition, and race/ethnicity), poverty, and shifting household composition can all impact one's health status. North Dakota, with a few larger urban centers and a relatively small, geographically rural population, faces a unique set of challenges and opportunities that confront the population's health, the types of health care services needed, and the financial viability of health care systems.

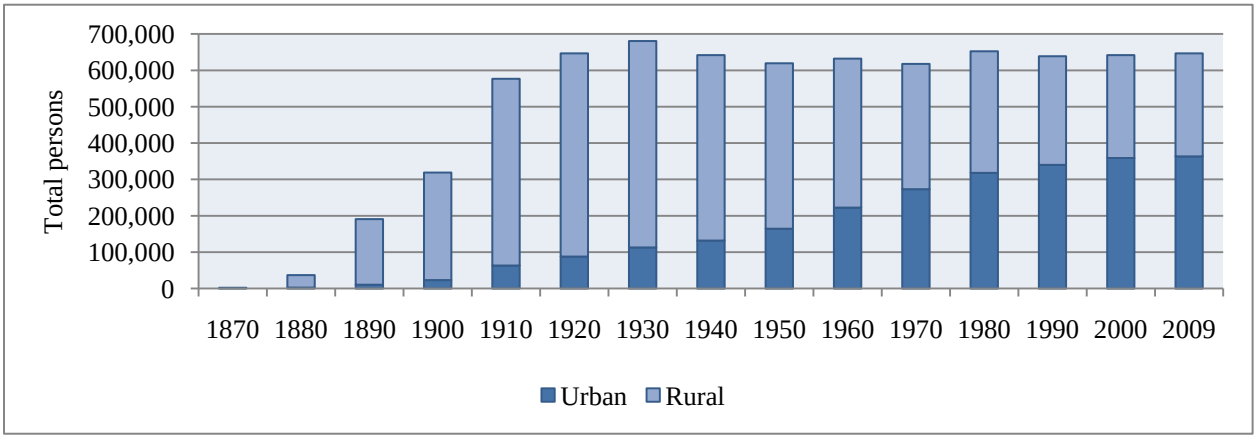
Moreover, the state has five federally recognized tribes and one American Indian service community within the state. These include the Mandan, Hidatsa, and Arikara Nation (Three Affiliated Tribes); the Spirit Lake Nation; the Standing Rock Sioux Tribe; the Turtle Mountain Band of Chippewa Indians; the Sisseton-Wahpeton Oyate Nation; and the Trenton Indian Service Area. Approximately 60 percent of American Indians in North Dakota live on reservations and nearly half of these American Indians are under the age of 20 (48 percent). The reservation areas align with several persistent pockets of poverty within the state and account for some of the health disparities that exist within North Dakota.

POPULATION SHIFTS

Changes in the Number of People

North Dakota's population has remained relatively stable after its initial growth period prior to 1930. The highest recorded population in the state was 680,845 residents in 1930 (see Figure 1). Changes in North Dakota's population since 1930 have been largely the result of transformations in agriculture and changing demand in the energy sector.

Figure 1. North Dakota population by rural and urban status, 1870 to 2009



Source: U.S. Census Bureau; Decennial Censuses, Vintage 2009 Population Estimates, and the 2006-2008 American Community Survey 3-Year Estimates. The 2006-2008 ACS urban and rural population distributions were applied to the vintage 2009 total population estimates to calculate the 2009 distributions.

Data from the 2000 Census indicate that the state's population grew by 0.5 percent from 1990 to 2000 reaching a population base of 642,200. This was the smallest relative growth of all 50 states. Beginning in 2000, Census Bureau estimates indicate that North Dakota's population declined annually through 2003, and then rebounded, exceeding the 2000 count in 2009 with a population estimate of 646,844 (an increase of 0.7 percent from 2000).

Geographic Consolidation

Decades of movement of rural residents to the larger cities have depopulated much of North Dakota. Figure 1, which illustrates this rural to urban movement, shows that in 1940, 79 percent of the state's population was rural (i.e., lived on a farm, in the countryside, or in a community with less than 2,500 people). The lack of employment opportunities in small towns and rural areas forced residents to move to larger cities in the state. This trend accelerated during the 1950s and 1960s, and slowed somewhat during the 1970s and 1980s. By the 1990s, the majority of residents in the state were living in urban areas.

From 1990 to 2000, population growth occurred largely in the metropolitan and American Indian reservation counties of the state. In fact, only six of the state's 53 counties grew in the 1990s: three of the four metro counties – Cass, Burleigh, and Morton; two reservation counties – Sioux and Rolette; and Ward County – home to the state's fourth largest city of Minot. From 2000 to 2009, the growth counties of the 1990s continued to grow along with the state's fourth metro county of Grand Forks. Due to increased activities in the energy sector, four counties in the western part of the state also showed an increase in population (Williams, Mountrail, McKenzie, and Stark).

Despite this recent growth in metro and western portions of North Dakota, the long-term trend of net out-migration is expected to continue. Thus, the majority of rural counties will continue to lose population. Currently, more than half of the 53 counties in the state (29 counties) have a population base below 5,000 residents. By 2020, nearly half of the counties (25 counties) will have a population base below 4,000 residents.

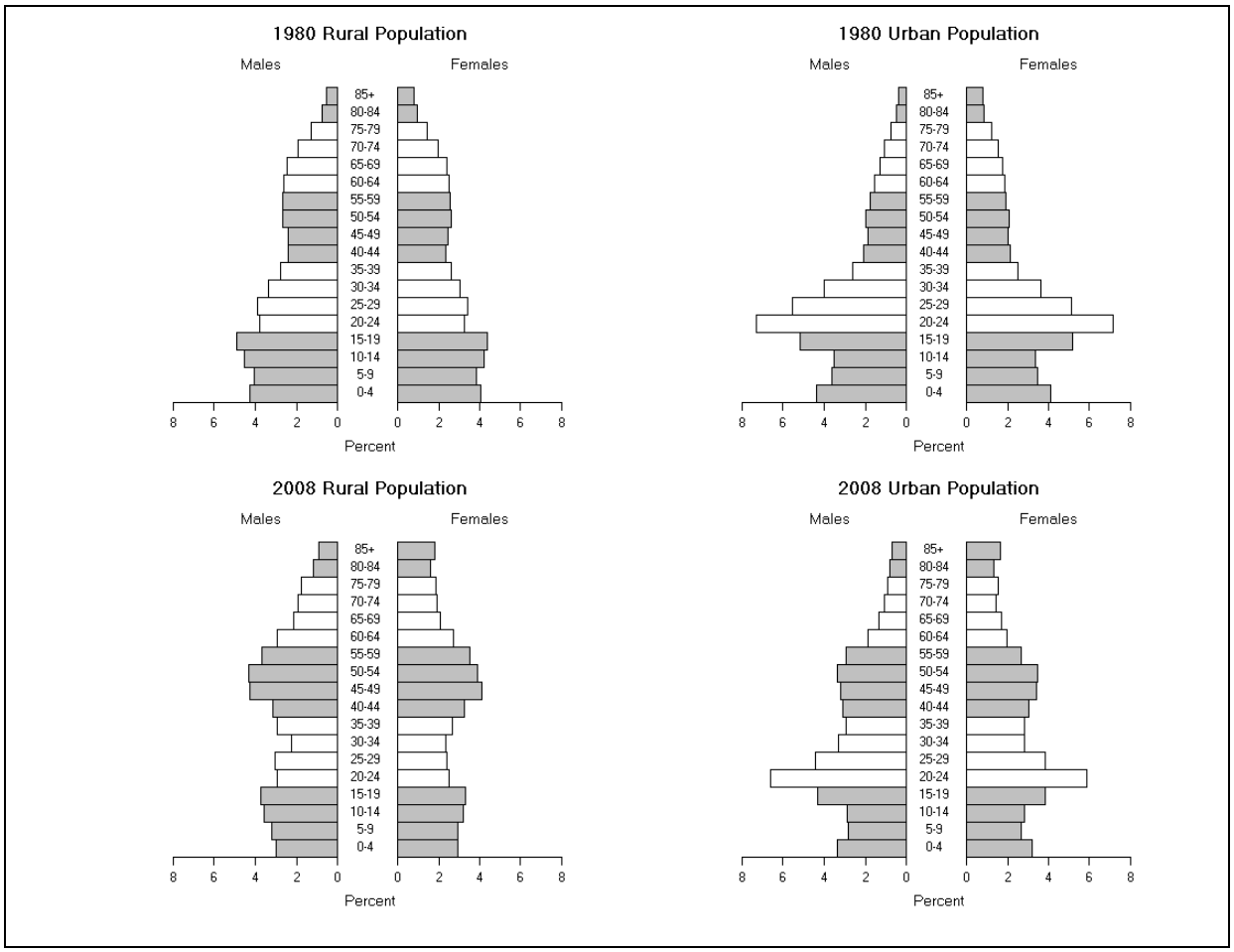
Changing Age Distribution

The changing population distribution in the state is also accompanied by a shifting age distribution. As noted in Figure 2, the age profile for the state's urban areas is very different than its corresponding rural areas. One of the most striking differences is found among the young adult age groups. In 2008, the proportion of young adults (i.e., ages 20 to 34) comprised 31 percent of the total rural population, compared to 69 percent in urban areas of the state.

In 2008, the proportion of young adults (i.e., ages 20 to 34) in the state's rural areas was significantly smaller than either the age cohort below them (i.e., ages 5 to 19) or above them (i.e., ages 35 to 49). This is a result of a large out-migration of young adults from rural North Dakota. The loss of young adults means that there will be fewer potential parents and fewer children. Thus, a corresponding decline in the number of children also is very visible in the

profile of rural areas. For example, in the population pyramid for the 2008 rural population shown in Figure 2, the bars representing the 0 to 4 age group are smaller than the corresponding bars for those ages 5 to 9 or the 10 to 14 year age group. This means that fewer children are being born in rural areas, a direct impact of the out-migration of young adults.

Figure 2. North Dakota population by 5-year age cohort, gender, and rural and urban status, 1980 and 2008



Source: U.S. Census Bureau, 1980 Census and the 2006-2008 American Community Survey 3-Year Estimates

A historical analysis of birth records indicates a steady decline in North Dakota births throughout the 1980s and 1990s. In 1982, there were 12,655 births in North Dakota. This number dropped to a low of 7,635 in 1999. However, beginning in 2002, the number of births began to increase, and in 2008, the North Dakota Department of Health reported 8,931 births. This growth, which is taking place largely in North Dakota's urban areas, is noticeable in the 0 to 4 age group seen in the 2008 population pyramid for urban areas in North Dakota (see Figure 2).

This increase in births is most likely attributable to an age-cohort "bulge" phenomenon referred to as the "echo of the echo of the baby boom." The baby boom is a large cohort of people born from 1946 to 1964. This was a very prosperous period following WWII when the number of

babies born increased rapidly. The children of baby boomers, referred to as the "echo", are now of childbearing age and are having children of their own (i.e., the echo of the echo).

Another noteworthy trend is the increasing proportion of elderly ages 65 and older. In 1980, 12 percent of the state's population base was age 65 or older; in 2000, the proportion increased to 15 percent. In fact, 27 of the state's 53 counties had more than 20 percent of their population base older than 64 in 2000. Nationally, the proportion of elderly was 12 percent.

Current 2008 estimates indicate that 94,276 residents, or 15 percent of North Dakota's population, are at least 65 years of age. Beginning in 2011, the leading edge of the baby-boom generation begins turning age 65. Population projections indicate that the senior population will nearly double by 2020 when approximately 150,000 residents, or 23 percent of North Dakota's population, will be at least 65 years of age. This trend is particularly relevant to rural areas of North Dakota because they have a relatively higher concentration of seniors. In fact, by 2020, 47 of North Dakota's 53 counties will have at least 20 percent of their population ages 65 and older.

These high proportions of elderly are also due, in part, to a modest net in-migration of seniors who are returning to the state to be close to family and friends. Elderly desiring to return to informal care networks, already a growing trend in population redistribution, will contribute to dramatic increases as the baby-boom population ages. Currently, North Dakota ties with Florida for the largest proportion of elderly 85 years and older in the nation (2.8 percent each in 2008).

Race and Ethnicity

The racial and ethnic mix in North Dakota is changing modestly. From 1980 to 2008, the proportion of the state's population that is white alone decreased from 96 percent to 91 percent. Comprising the largest minority group in North Dakota, American Indians represented 6 percent of the state's total population in 2008, which is up from 3 percent in 1980.

American Indians living in North Dakota are concentrated largely in four reservation areas. In 2000, 60 percent of American Indians living in North Dakota were living on reservations. Fort Berthold Reservation includes parts of six counties (Dunn, McKenzie, McLean, Mercer, Mountrail, and Ward) and had a total population of 5,915 in 2000; 3,986 or 67 percent were American Indians. Spirit Lake Reservation includes parts of four counties (Benson, Eddy, Nelson, and Ramsey) and had a total population of 4,435 in 2000; 3,317 or 75 percent were American Indians. The Standing Rock Reservation encompasses Sioux County in North Dakota and also extends into South Dakota. The portion of Standing Rock within North Dakota had 4,044 residents in 2000; 3,421 or 85 percent were American Indians. Finally, the Turtle Mountain Reservation is located in Rolette County and had 8,307 residents in 2000; 8,009 or 96 percent were American Indians.

In terms of ethnicity, 2 percent of North Dakota's population was of Hispanic/Latino origin in 2008, which is up from less than 1 percent in 1980.

The number of foreign nationals in North Dakota being granted permanent legal status has averaged approximately 590 per year since 1999. In 2009, 843 foreign nationals living in North Dakota were granted lawful permanent residence in the United States. Nearly half of these immigrants were from Africa (48 percent), approximately 1 in 4 was from Asia (28 percent), and about 1 in 10 was from North America (11 percent) and Europe (10 percent).

While North Dakota's population continues to be largely white, the increases in racial and ethnic diversity have important implications for health and health care services (e.g., interpretation, translation services, and culturally appropriate care).

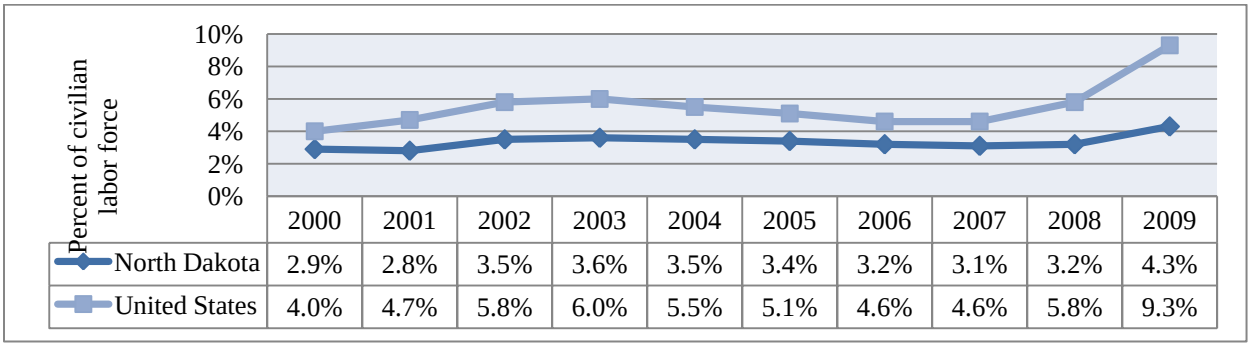
ECONOMIC CONDITION

Labor Force and Wages

North Dakota's labor force has grown since the latter part of the 1970s. In 1978, there were 282,913 employed workers in the state. This number rose to 317,000 employed workers by 1989 before overall employment began to dip as a result of the recession period of the early 1990s. The statewide employment estimate for 2009 was 349,104 workers.

Unemployment has remained very low in North Dakota since 1978, typically averaging from one to four percentage points below the national average through 2008 (Figure 3). While North Dakota's unemployment rate did rise one percentage point in 2009 to 4 percent (up from 3 percent in 2008), the national unemployment rate rose to 9 percent in 2009 (up from 6 percent in 2008).

Figure 3. Unemployment rates in North Dakota and the United States, 2000 to 2009

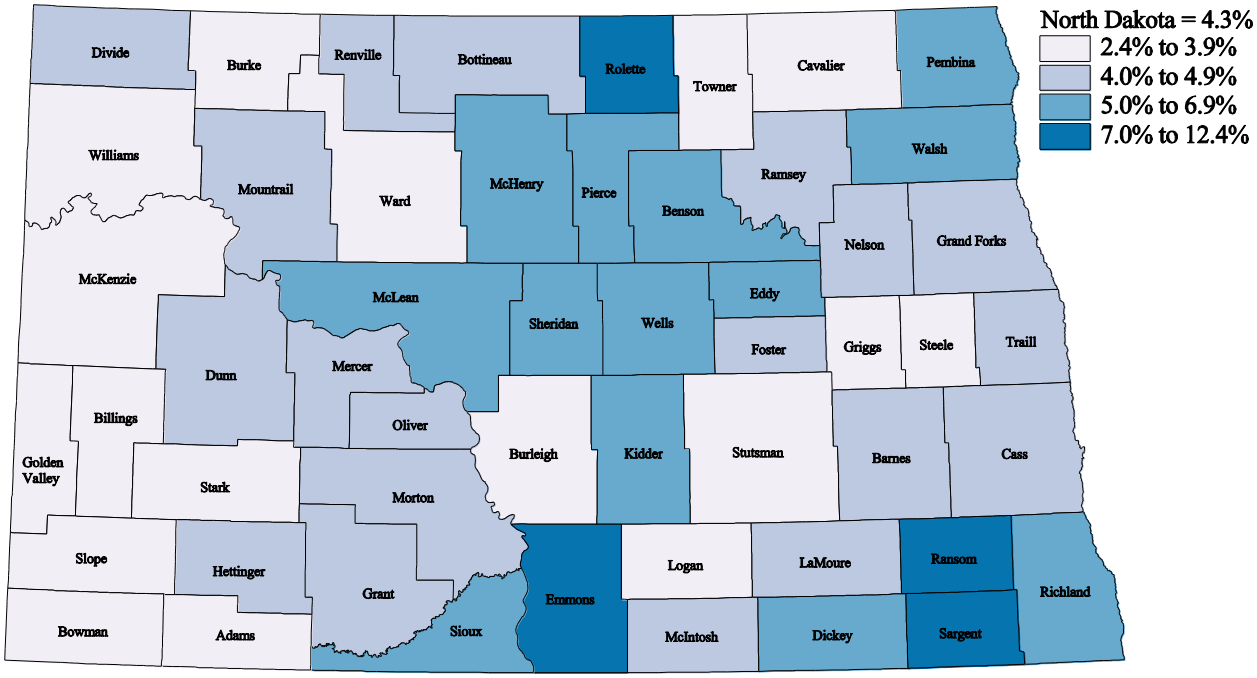


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
North Dakota	2.9%	2.8%	3.5%	3.6%	3.5%	3.4%	3.2%	3.1%	3.2%	4.3%
United States	4.0%	4.7%	5.8%	6.0%	5.5%	5.1%	4.6%	4.6%	5.8%	9.3%

Source: Job Service North Dakota, Labor Market Information Center, LAUS Unit and the U.S. Bureau of Labor Statistics

Within North Dakota, two counties had double-digit unemployment rates in 2009 (Rolette at 12 percent and Sargent at 12 percent) (see Figure 4 and Appendix Table 1). American Indians in North Dakota are more than four times as likely as whites to be unemployed (14 percent compared to 3 percent, respectively in 2008 according to the 2006-2008 American Community Survey).

Figure 4. Unemployment rates in North Dakota by county, 2009

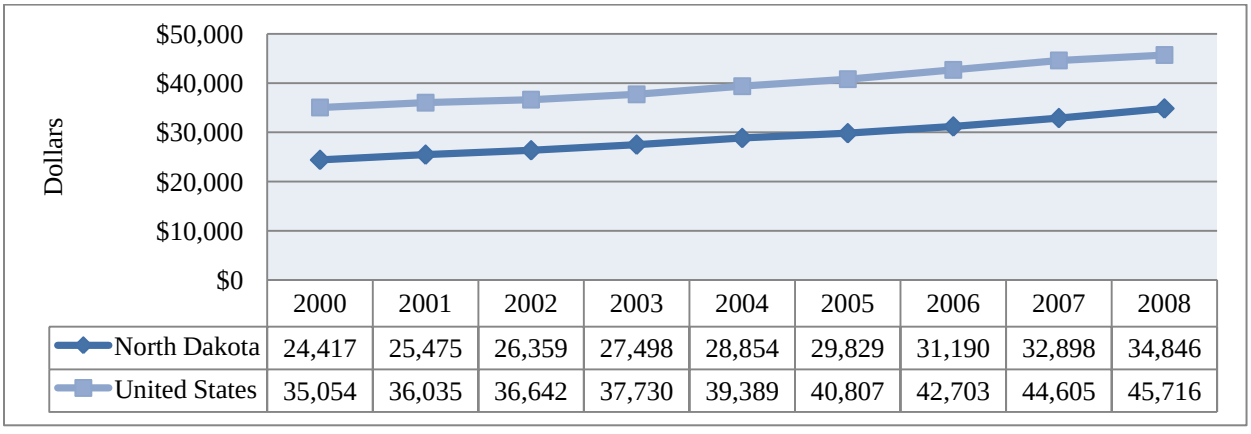


Source: Job Service North Dakota, Labor Market Information Center, LAUS Unit and the U.S. Bureau of Labor Statistics

While North Dakota had the lowest unemployment rate in the nation in 2009 at 4 percent, it also had the second highest multiple job holding rate, with 10 percent of employed residents working more than one job in 2009. Nationally, 5 percent of workers held multiple jobs in 2009.

Factors contributing to multiple job holding include part-time and seasonal work, low wages, and limited benefits. In 2008, the average wage per job in North Dakota ranked 46th nationally at $34,846, which was 24 percent below the national average of $45,716 (Figure 5 and Appendix Table 2).

Figure 5. Average wage per job in North Dakota and the United States, 2000 to 2008



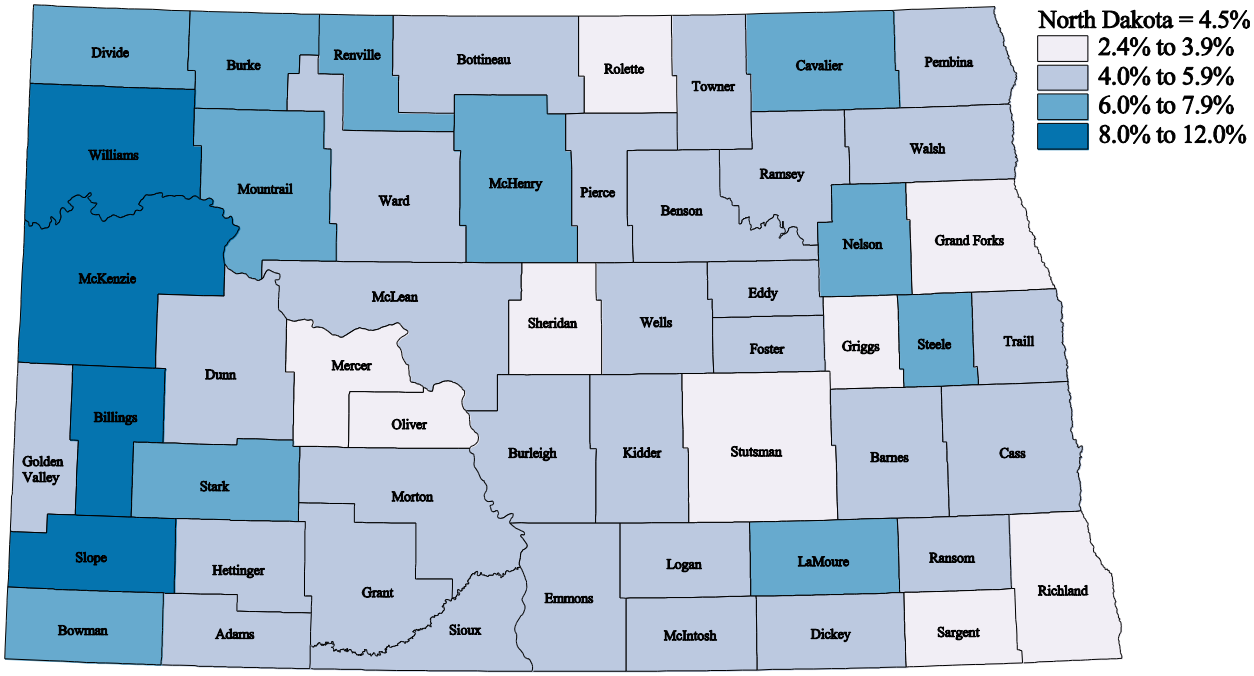
	2000	2001	2002	2003	2004	2005	2006	2007	2008
North Dakota	24,417	25,475	26,359	27,498	28,854	29,829	31,190	32,898	34,846
United States	35,054	36,035	36,642	37,730	39,389	40,807	42,703	44,605	45,716

Source: U.S. Bureau of Economic Analysis, Regional Economic Accounts

Recent activity in the energy sector has created significant growth in average wages in the western part of the state. Specifically, the five counties with the largest annual average growth in wages since 2000 included Slope, Williams, Billings, McKenzie, and Bowman (Figure 6 and Appendix Table 2).

In many cases, those counties with the lowest average wages have relatively higher child poverty rates. Interestingly, McKenzie County had the 5th largest average wage per job in 2008, yet 21 percent of children were living in poverty. Among the possible explanations is that those individuals in McKenzie County earning higher wages are single or perhaps have fewer children than those individuals with lower wages and are living below the poverty threshold. In 2011, we will be able to look at income and poverty measures by family status at the county level of geography (i.e., through the 2005-2009 American Community Survey conducted by the U.S. Census Bureau). These data will be useful in helping to understand the social composition of geographies across North Dakota.

Figure 6. Annual average percent change in average wage per job in North Dakota by county, 2000 to 2009



Source: U.S. Bureau of Economic Analysis, Regional Economic Accounts

Poverty

A characteristic highly relevant to the health of children, families, and their communities and to the financial viability of health care systems is poverty. Poverty refers to a condition in which one is unable to afford basic human needs, such as clean water, nutrition, health care, education, clothing, and shelter. Poverty rates vary greatly according to geography, age, race, and household type. Guidelines set by the Department of Health and Human Services used to determine

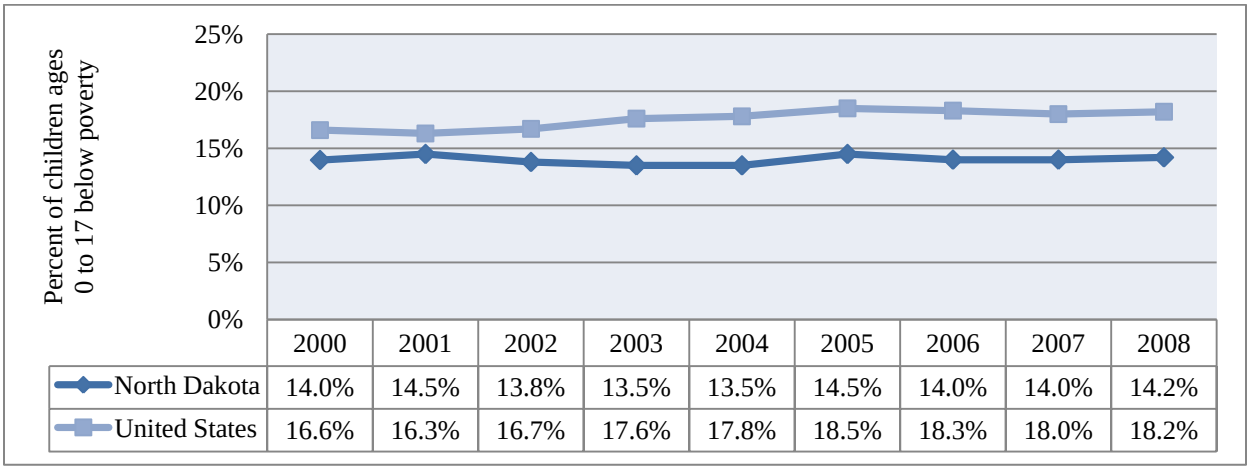
eligibility for certain federal assistance programs indicate that the poverty level for a family of four (in the contiguous 48 states and D.C.) was $21,200 in 2008.

Current 2008 estimates indicate that approximately 12 percent of North Dakota residents live in poverty, a proportion that has remained relatively unchanged since 2000. While North Dakota's poverty rate was slightly less than the national average of 13 percent in 2008, certain populations within the state are severely and consistently affected by poverty. Approximately 38 percent of residents in Sioux County, which is part of the Standing Rock Reservation, were impoverished in 2008 – the 12th highest poverty rate in the nation (when ranked among all counties nationwide). In fact, Sioux, Benson, and Rolette counties (all reservation counties) have consistently had 23 percent or more of their population living in poverty since at least 1970.

In terms of age, young children in North Dakota are at greater risk of poverty than most other age groups. In 2008, nearly one in five children ages 0 to 4 statewide was impoverished (18 percent). This proportion more than triples to 61 percent for American Indian children ages 0 to 4.

Among all children ages 0 to 17 in North Dakota, 14 percent were impoverished in 2008, a rate which has changed little over the past decade (Figure 7 and Appendix Table 3).

Figure 7. Percent of children ages 0 to 17 living below poverty in North Dakota and the United States, 2000 to 2008

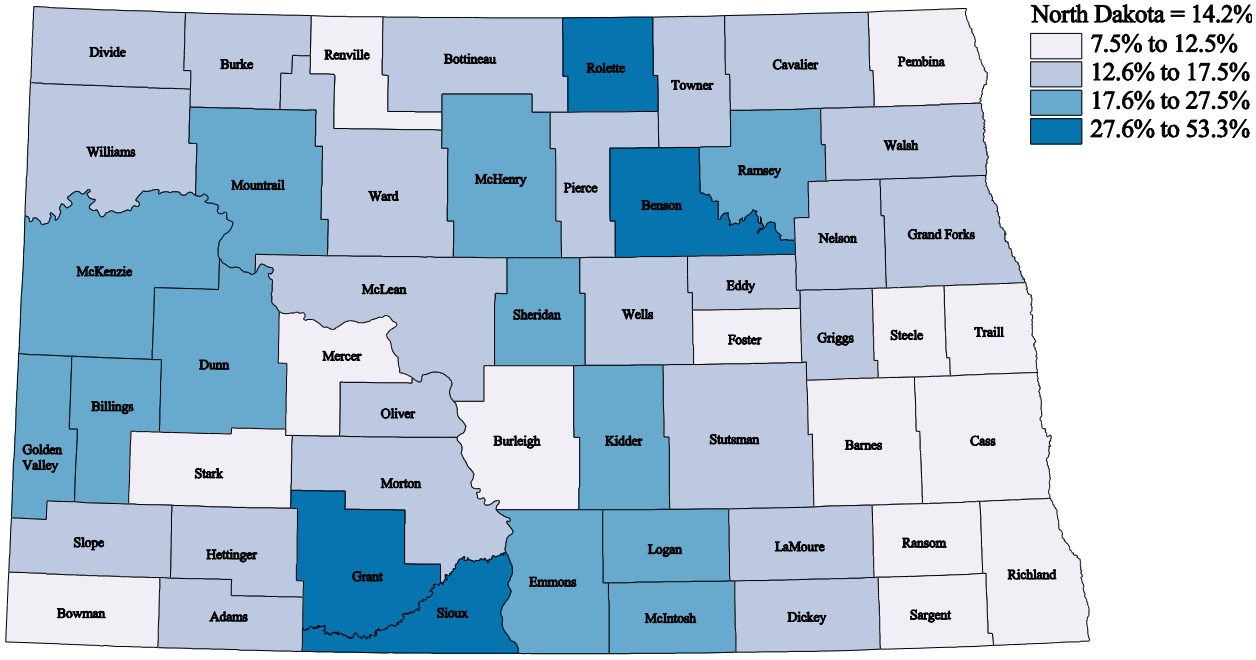


	2000	2001	2002	2003	2004	2005	2006	2007	2008
North Dakota	14.0%	14.5%	13.8%	13.5%	13.5%	14.5%	14.0%	14.0%	14.2%
United States	16.6%	16.3%	16.7%	17.6%	17.8%	18.5%	18.3%	18.0%	18.2%

Source: U.S. Census Bureau, 2000 Decennial Census and Small Area Income and Poverty Estimates

Child poverty rates vary widely throughout the state of North Dakota. American Indian reservations are most affected by high rates of child poverty. For example, in Sioux County, which is part of the Standing Rock Sioux Tribe, one out of every two children ages 0 to 17 was impoverished in 2008 (53 percent) (see Figure 8 and Appendix Table 3) – the 6th highest child poverty rate in the nation (when ranked among all counties nationwide).

Figure 8. Percent of children ages 0 to 17 living below poverty in North Dakota by county, 2008



Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

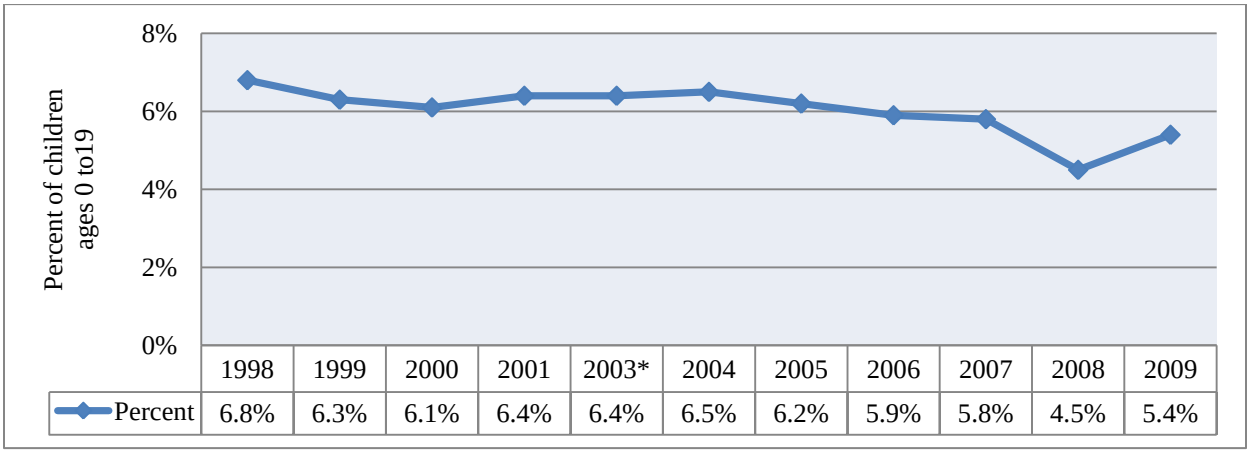
Family composition factors into poverty as well. In 2008, nearly two-thirds of North Dakota children ages 0 to 4 living with a single mother were living in poverty (62 percent), compared to 6 percent of children ages 0 to 4 living with married parents that were impoverished. Children ages 0 to 4 living with single mothers in rural areas are more likely to be affected by poverty than those in urban areas of the state. Three-fourths of children ages 0 to 4 living with single mothers in rural North Dakota were living in poverty in 2008, compared to 55 percent of children living with single mothers in urban areas.

Temporary Assistance to Needy Families

Childhood poverty is, in part, reflected in the number of children receiving assistance from the TANF program (Temporary Assistance for Needy Families). TANF is a federal assistance program operated by states which seeks to end the dependence of parents on government benefits by promoting job preparation, work, and marriage by providing financial assistance to eligible families with dependent children.

The TANF program operating in North Dakota provided assistance to 8,983 children ages 0 to 19 in 2009, which is 5 percent of all children statewide. This proportion has decreased by 2 percentage points since 1998 (Figure 9 and Appendix Table 4).

Figure 9. Percent of children ages 0 to 19 receiving TANF in North Dakota, 1998 to 2009



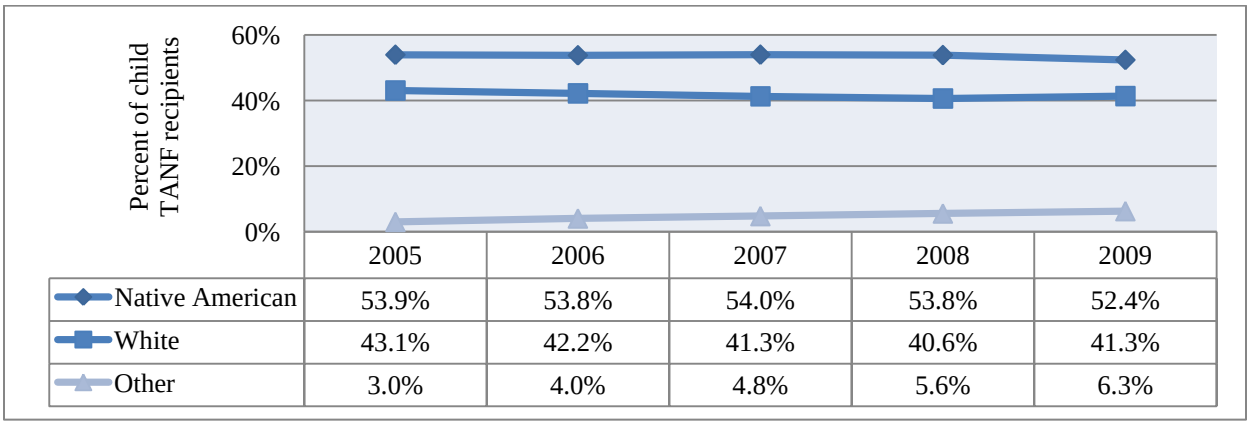
	1998	1999	2000	2001	2003*	2004	2005	2006	2007	2008	2009
Percent	6.8%	6.3%	6.1%	6.4%	6.4%	6.5%	6.2%	5.9%	5.8%	4.5%	5.4%

Note: *Non-consecutive year. SFY 2002 data are not available.
Source: North Dakota Department of Human Services

American Indian children in North Dakota are the most likely recipients of TANF (52 percent in 2009) (see Figure 10). White children comprised 41 percent of all child TANF recipients statewide, black children comprised 6 percent, and Asian/Native Hawaiian/Pacific Islander children comprised less than 1 percent in 2009.

In the reservation counties of Benson, Rolette, and Sioux, approximately one-third of all children received TANF in 2009 (Figure 11 and Appendix Table 4).

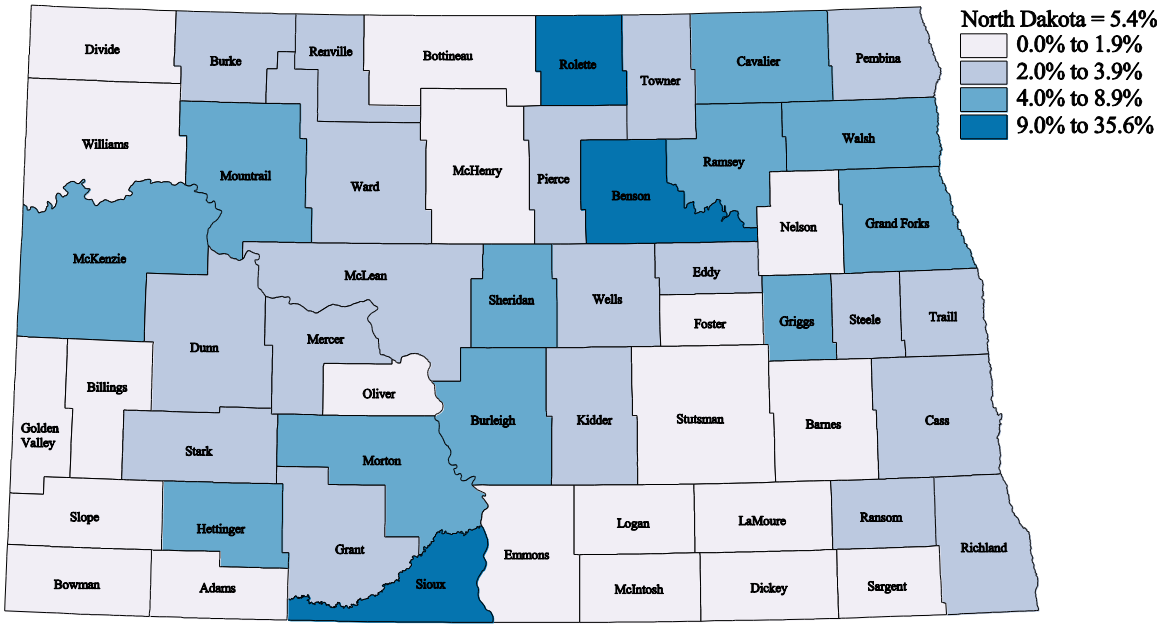
Figure 10. Racial distribution of children ages 0 to 19 receiving TANF in North Dakota, 2005 to 2009



	2005	2006	2007	2008	2009
Native American	53.9%	53.8%	54.0%	53.8%	52.4%
White	43.1%	42.2%	41.3%	40.6%	41.3%
Other	3.0%	4.0%	4.8%	5.6%	6.3%

Source: North Dakota Department of Human Services

Figure 11. Percent of children ages 0 to 19 receiving TANF in North Dakota by county, 2009



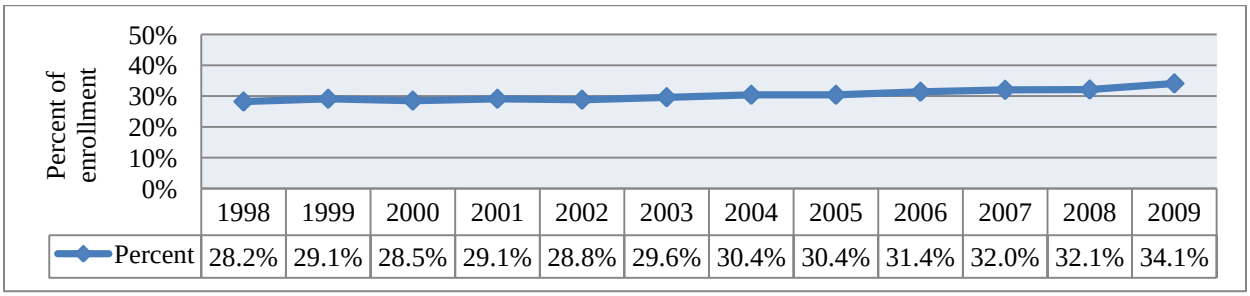
Source: North Dakota Department of Human Services

Free and Reduced Price Lunch

The number of children receiving free or reduced price school lunches is another indicator of children in need. The National School Lunch Program is a federally assisted meal program providing nutritionally balanced, low-cost or free lunches to eligible children each school day.

In the 2009-10 school year, one out of every three North Dakota school children received free or reduced-price lunches (34,689 children or 34 percent of total enrollment). This proportion has been increasing steadily throughout the decade, approximately 2 percent per year (which is up from 29 percent in 2000-01) (Figure 12 and Appendix Table 5).

Figure 12. Percent of school children receiving free and reduced price lunches in North Dakota, 1998-99 to 2009-10



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Percent	28.2%	29.1%	28.5%	29.1%	28.8%	29.6%	30.4%	30.4%	31.4%	32.0%	32.1%	34.1%

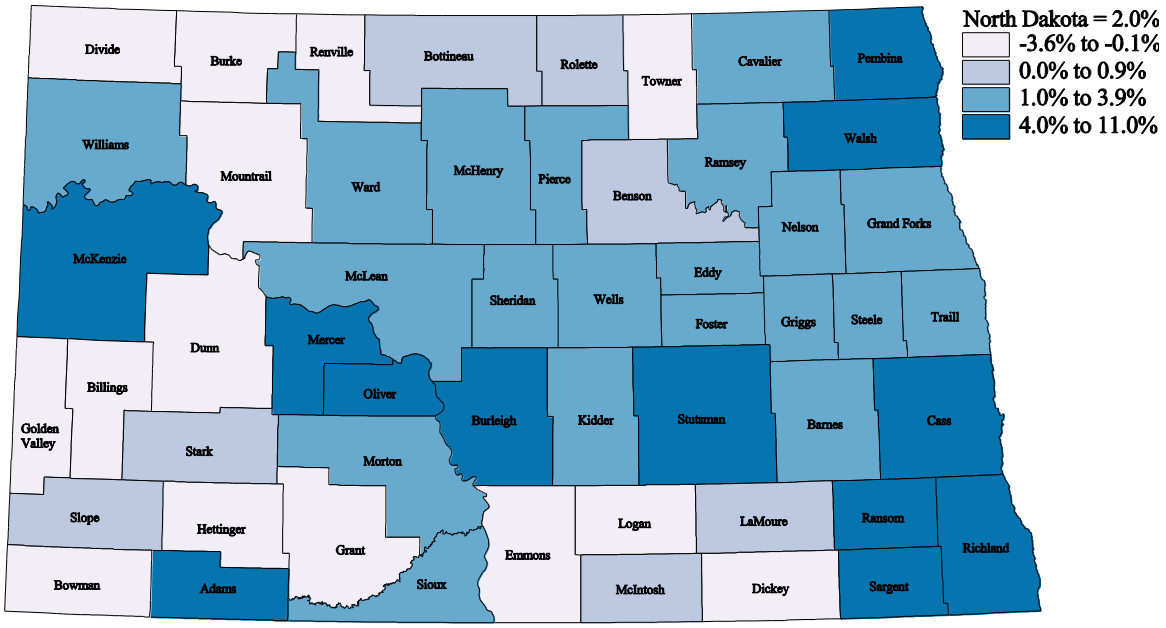
Source: North Dakota Department of Human Services

While 14 counties in North Dakota reported an annual average decrease since the beginning of the decade in the proportion of children receiving free and reduced price lunches, the same indicator grew by at least 5 percent per year in four North Dakota counties (Ransom, Sargent, Oliver, and Mercer) (see Figure 13 and Appendix Table 5). Interestingly, three of these counties

(Sargent, Oliver, and Mercer) also had some of the highest average wages in 2008 (see Appendix Table 2).

In seven North Dakota counties, at least half of all school children received a free or reduced-price lunch in 2009-10 (Golden Valley, Mountrail, Sheridan, Grant, Rolette, Benson, and Sioux) (see Appendix Table 5).

Figure 13. Annual average percent change in the proportion of children receiving free and reduced price lunches in North Dakota by county, 2000-01 to 2009-10



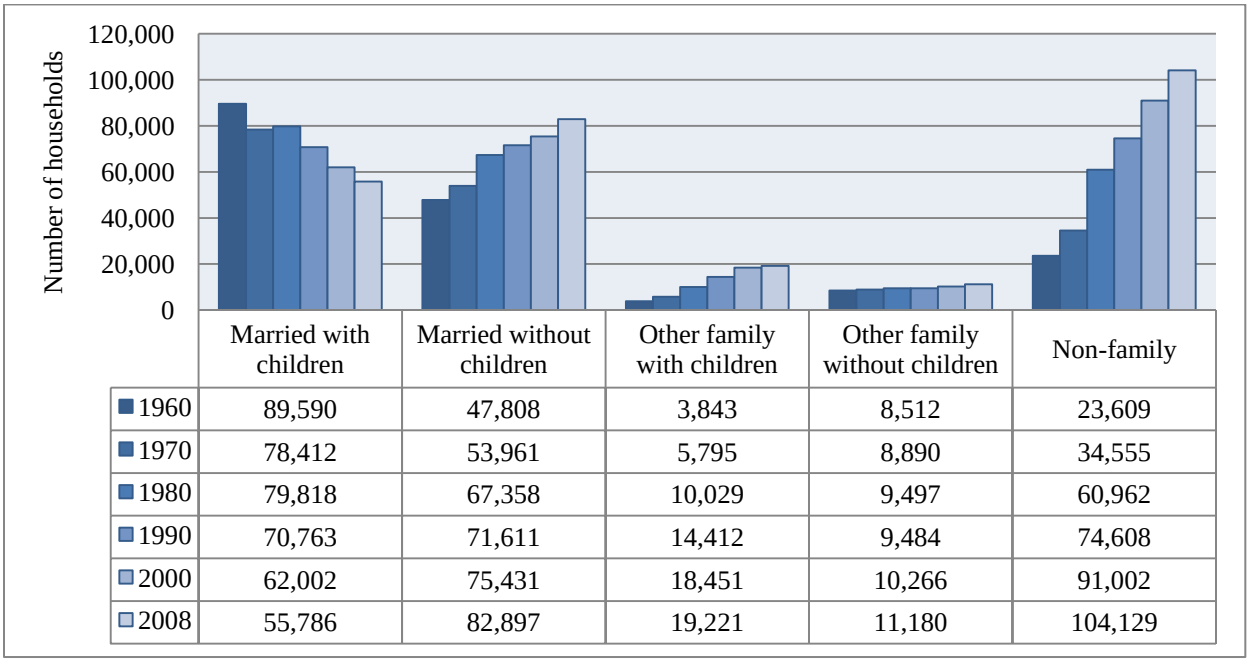
Source: North Dakota Department of Human Services

SHIFTING HOUSEHOLD COMPOSITION

While North Dakota's overall population count has seen little change over the past few decades, the number of households in the state has been increasing. Households, which are occupied housing units, grew 6 percent from 1980 to 1990, 7 percent from 1990 to 2000, and 6 percent from 2000 to 2008. This growth was largely the result of changes in household composition.

As noted in Figure 14, the state's dominant household type in 1960 was married couples with children under age 18, which represented 89,590 households in the state. In 2008, married couples with children under age 18 accounted for 55,786 households, a decline of 33,804 households or 38 percent. This dramatic transition was largely a result of the baby-boom generation as they grew up and left behind a growing proportion of "empty nester" households. The number of households composed of married couples without children under age 18 grew from 47,808 households in 1960 to 82,897 households in 2008, an increase of 73 percent.

Figure 14. North Dakota households by type and presence of own children under age 18, 1960 to 2008



	Married with children	Married without children	Other family with children	Other family without children	Non-family
1960	89,590	47,808	3,843	8,512	23,609
1970	78,412	53,961	5,795	8,890	34,555
1980	79,818	67,358	10,029	9,497	60,962
1990	70,763	71,611	14,412	9,484	74,608
2000	62,002	75,431	18,451	10,266	91,002
2008	55,786	82,897	19,221	11,180	104,129

Source: U.S. Census Bureau – Decennial Censuses and the 2006-2008 American Community Survey 3-Year Estimates

The most dramatic shift in households during the past 50 years has been the explosion of non-family households. As noted in Figure 14, non-family households represented 23,609 households in 1960. By 2008, this household type more than quadrupled to 104,129 households in the state. Approximately 80 percent of these non-family households are accounted for by persons living alone; the elderly (i.e., ages 65 and older) comprise 35 percent of all persons living alone.

While the majority of families that have children in North Dakota are married couples, the number of single-parent households is growing. In 1960, there were 3,843 single parents with children under age 18. By 2008, this number grew to 19,221 single parents (i.e., a growth of 400 percent). Meanwhile, married couples with children decreased 38 percent from 1960 to 2008. As noted earlier, young children living with single mothers in North Dakota are at much greater risk for poverty than are those living in married-couple families. Thus, the growing numbers of single parents are likely to face greater challenges when dealing with issues relating to accessing and obtaining health care.

BIRTH AND INFANCY

The birth data presented in the needs assessment refer to live births. Live births are distinguished from stillbirths, i.e., the birth of a fetus that has died in the uterus, during labor, or during delivery. Stillbirths can occur at full term (37 weeks of gestation or more). Live births are also distinguished from miscarriages, i.e., when a pregnancy ends spontaneously prior to when the fetus is capable of surviving (20 weeks of gestation). Miscarriages, also referred to as spontaneous abortions, are distinguished from induced terminations of pregnancy.

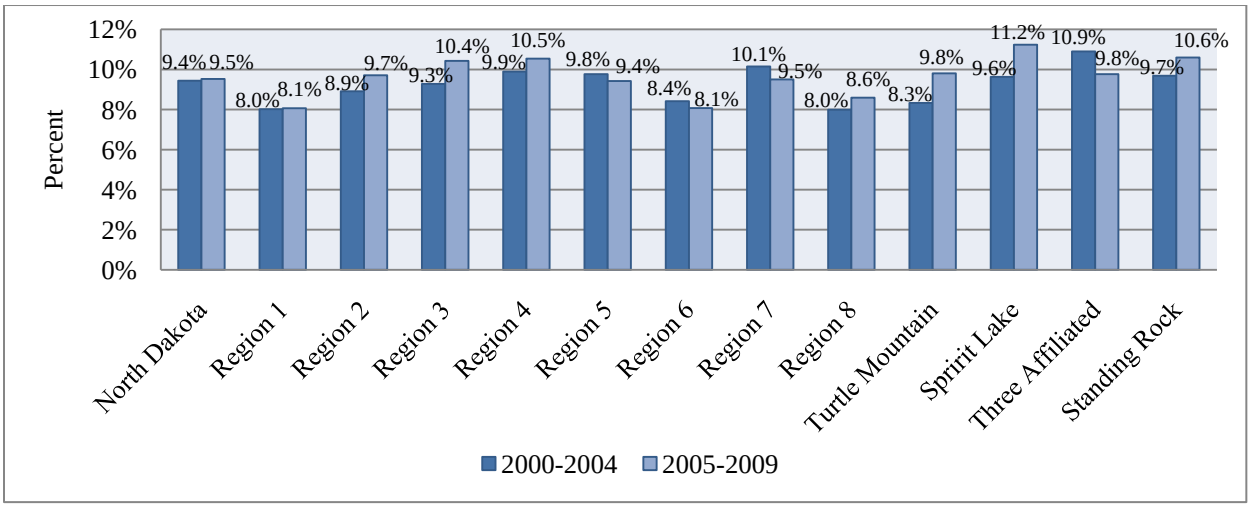
To ensure confidentiality, 10 years of data were combined into two groupings (i.e., 2000-2004 and 2005-2009) and collapsed into planning regions and tribal statistical areas. North Dakota has eight established planning regions and four tribal statistical areas for the purposes of standardizing the areas being served by state agencies. See Appendix Map 1 and 2 for the geographic boundaries of each planning region and tribal area.

PRETERM BIRTHS

Preterm births are infants born at less than 37 weeks of gestation. According to aggregated data for 2005-2009, 10 percent of live births in North Dakota were preterm (4,164 births). This proportion is relatively unchanged from 2000-2004.

Infants born in the Spirit Lake and Standing Rock tribal statistical areas along with those born in Region 4 had the greatest risk of a preterm birth in 2005-2009 (11 percent each). With the exception of the Three Affiliated tribal area and regions 5, 6, and 7, the proportion of preterm births grew in each statistical area from 2000-2004 to 2005-2009 (see Figure 15 and Appendix Table 6).

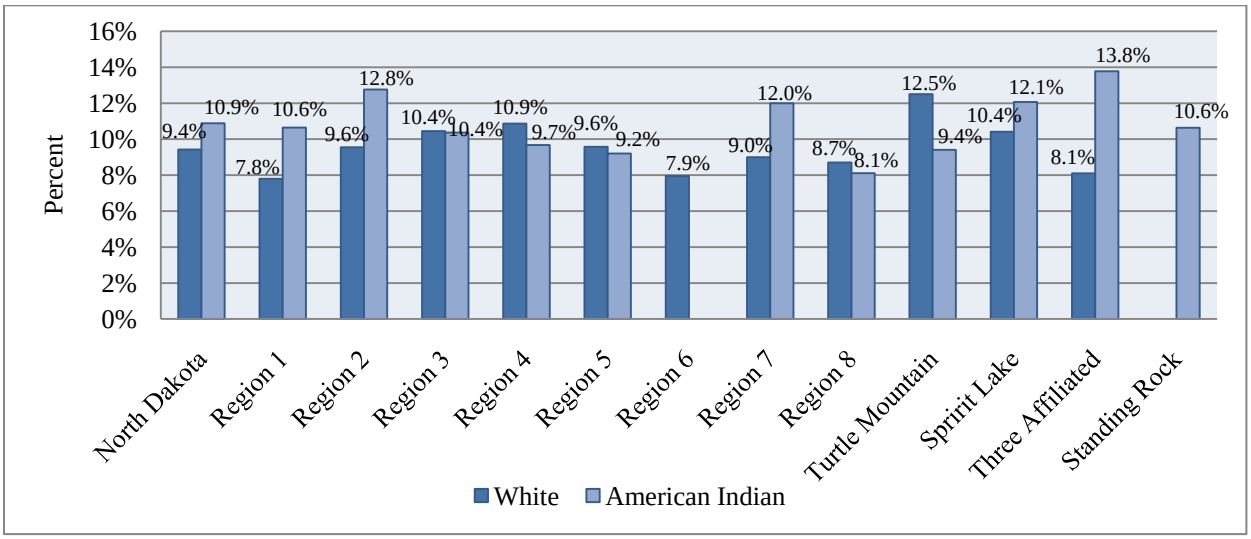
Figure 15. Percent of total live births that are less than 37 weeks gestation in North Dakota's statistical planning regions, 2000-2004 and 2005-2009



Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region.
Source: North Dakota Department of Health, Division of Vital Records

Infants born to American Indian mothers have a greater risk of being born preterm in North Dakota. According to data from 2005-2009, 11 percent of live births to American Indian mothers in North Dakota were preterm compared to 9 percent of live births to white mothers. In the Three Affiliated tribal statistical area, 14 percent of live births to American Indian mothers were preterm in 2005-2009 (see Figure 16 and Appendix Table 6).

Figure 16. Percent of total live births that are less than 37 weeks gestation by race in North Dakota's statistical planning regions, 2005-2009



Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region. Data for geographies in which the event number was five or fewer are not shown.
Source: North Dakota Department of Health, Division of Vital Records

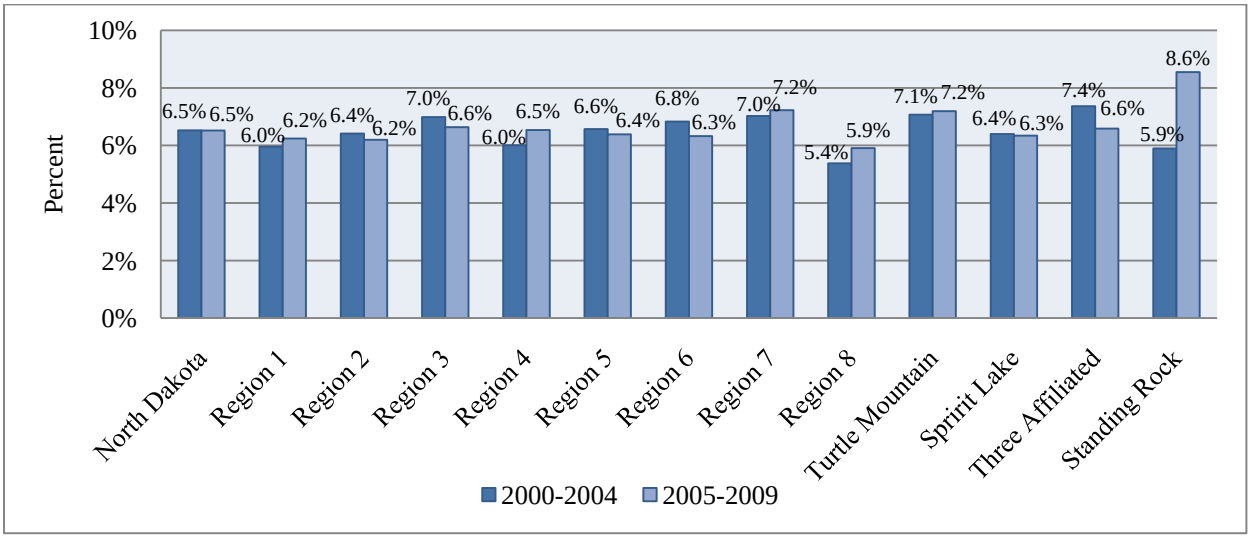
Preterm infants have greater risk of disabilities and early death compared to infants born at 37 weeks or greater gestation. Babies that are born early are often born smaller. The causes of being born early and being born at a low birth weight can differ, but there is a great deal of overlap within these two populations of babies.

LOW BIRTH WEIGHT BIRTHS

Low birth weight births are those which are less than 2,500 grams or 5 pounds, 8 ounces. According to aggregated data for 2005-2009, 7 percent of live births in North Dakota were low birth weight (2,850 births). This proportion remained unchanged from 7 percent (2,562 births) in 2000-2004.

Infants born in the Standing Rock tribal statistical area had the greatest risk of a low birth weight birth in 2005-2009 (9 percent), which is up from 6 percent in 2000-2004. With the exception of the Standing Rock tribal statistical area, the proportions of low birth weight births changed little among the state's statistical regions (see Figure 17 and Appendix Table 7).

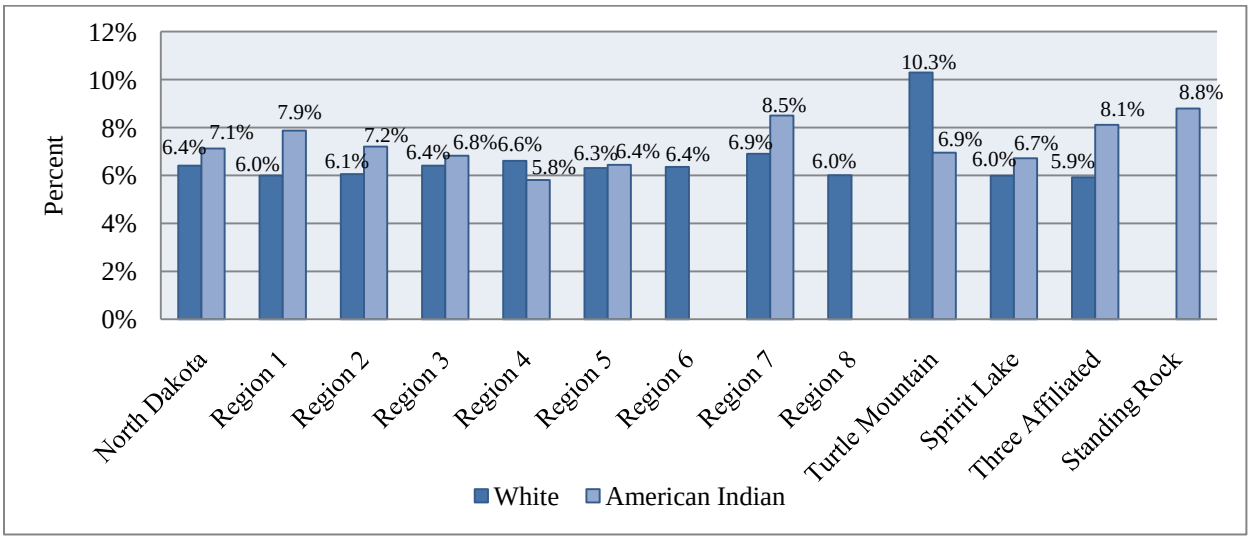
Figure 17. Percent of total live births that are less than 2,500 grams in North Dakota's statistical planning regions, 2000-2004 and 2005-2009



Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region.
Source: North Dakota Department of Health, Division of Vital Records

Overall, infants born to American Indian mothers have a greater risk of being born with a low birth weight in North Dakota. According to data from 2005-2009, 7 percent of live births to American Indian mothers in North Dakota were low birth weight compared to 6 percent of live births to white mothers. Infants born to American Indian mothers in the Standing Rock tribal statistical area along with those born in Region 7 had the greatest risk of a low birth weight birth in 2005-2009 (9 percent each). In the Turtle Mountain tribal area, 10 percent of live births to white mothers were low birth weight in 2005-2009 (see Figure 18 and Appendix Table 7).

Figure 18. Percent of total live births that are less than 2,500 grams by race in North Dakota's statistical planning regions, 2005-2009



Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region. Data for geographies in which the event number was five or fewer are not shown.
Source: North Dakota Department of Health, Division of Vital Records

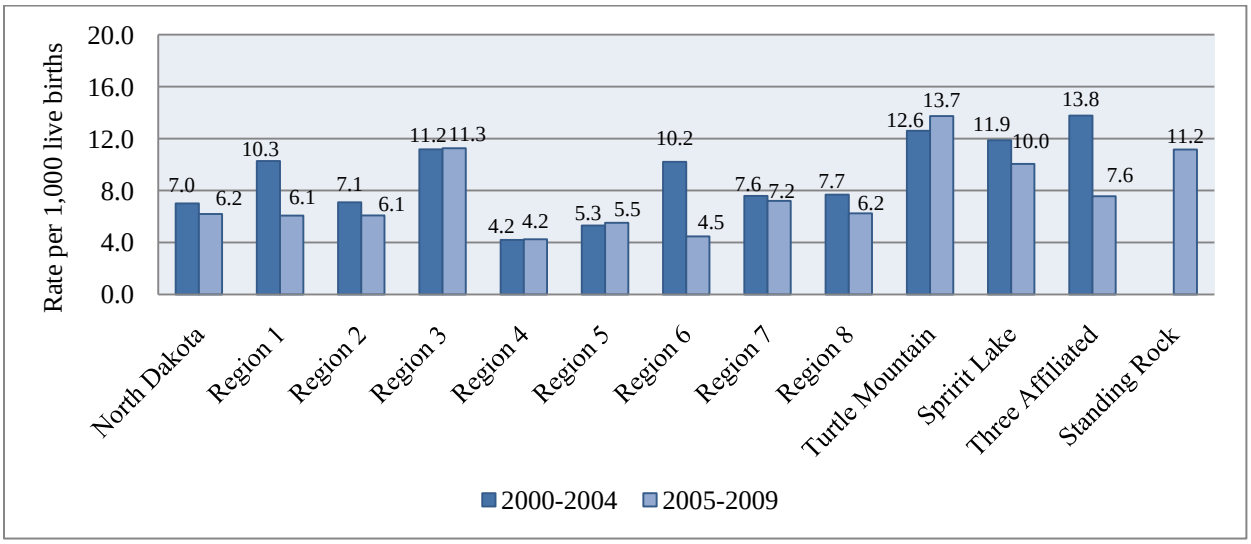
INFANT MORTALITY

Infant Deaths

According to aggregated data for 2005-2009, North Dakota reported 6.2 infant deaths per 1,000 live births. This rate is down slightly from 7.0 infant deaths per 1,000 live births during 2000-2004.

Mothers living in the Turtle Mountain tribal statistical area had the greatest risk for infant deaths in 2005-2009 at 13.7 infant deaths per 1,000 live births, which is up from 12.6 in 2000-2004. Other statistical areas in North Dakota with infant deaths of at least 10.0 per 1,000 births in 2005-2009 include Region 3 (11.3), Standing Rock statistical area (11.2), and Spirit Lake statistical area (10.0) (see Figure 19 and Appendix Table 8).

Figure 19. Rate of infant deaths per 1,000 live births in North Dakota's statistical planning regions, 2000-2004 and 2005-2009

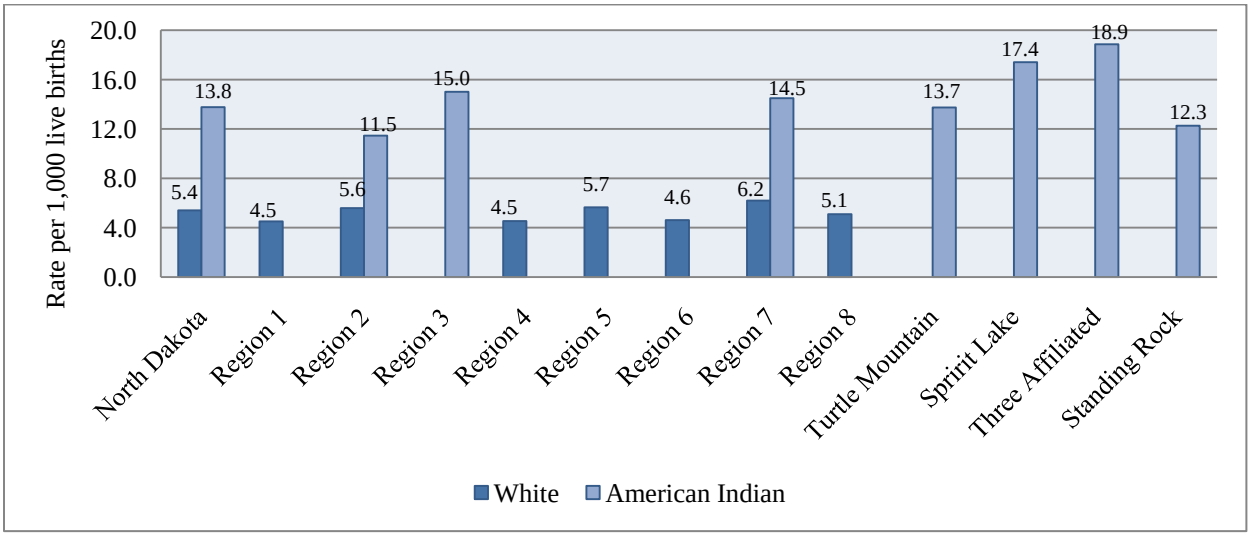


Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region.
Source: North Dakota Department of Health, Division of Vital Records

Infants born to American Indian mothers have a greater risk of death than those born to white mothers in North Dakota. According to data from 2005-2009, there were 13.8 infant deaths per 1,000 live births to American Indian mothers compared to a rate of 5.4 for white mothers

Geographically, American Indian mothers in the Three Affiliated and Spirit Lake tribal statistical areas had the highest infant death rates in 2005-2009 (18.9 and 17.4 infant deaths per 1,000 live births, respectively) (see Figure 20 and Appendix Table 8).

Figure 20. Rate of infant deaths per 1,000 live births by race in North Dakota's statistical planning regions, 2005-2009

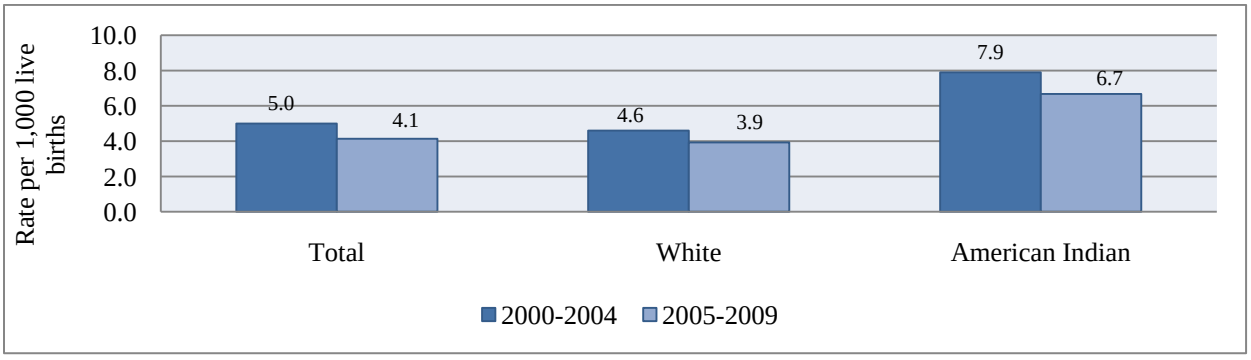


Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region. Data for geographies in which the event number was five or fewer are not shown.
Source: North Dakota Department of Health, Division of Vital Records

Neonatal, Post-Neonatal, Perinatal Deaths

The rate for neonatal deaths, which are deaths among infants less than 28 days old, showed a slight decline from 2000-2004 to 2005-2009 (see Figure 21 and Appendix Table 9). In 2000-2004, there were 5.0 neonatal deaths per 1,000 live births in North Dakota, compared to 4.1 in 2005-2009. The neonatal death rate was higher for American Indian infants than for white infants in 2005-2009 (6.7 and 3.9, respectively).

Figure 21. Rate of neonatal deaths per 1,000 live births by race in North Dakota, 2000-2004 and 2005-2009

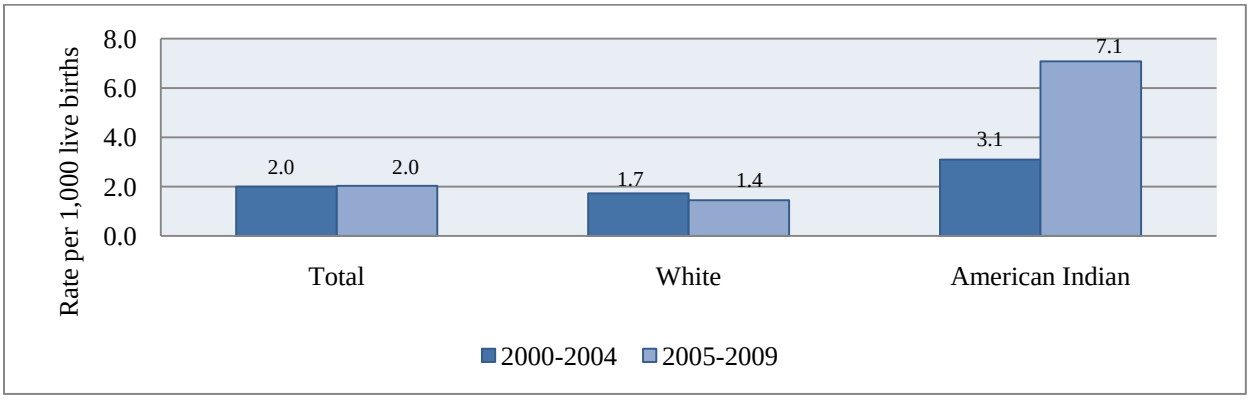


Note: Neonatal deaths are those deaths among infants less than 28 days old.
Source: North Dakota Department of Health, Division of Vital Records

Post-neonatal deaths, which are deaths among infants from the end of their first month to a year after their birth, showed no change from 2000-2004 to 2005-2009 in North Dakota at 2.0 post-neonatal deaths per 1,000 live births (see Figure 22 and Appendix Table 10). While there was no change in the overall post-neonatal death rate in North Dakota, the post-neonatal death rate for

American Indian infants in the state grew from 3.1 post-neonatal deaths per 1,000 live births in 2000-2004 to 7.1 in 2005-2009. The post-neonatal death rate was much higher for American Indian infants than for white infants in 2005-2009 (7.1 and 1.4, respectively).

Figure 22. Rate of post-neonatal deaths per 1,000 live births by race in North Dakota, 2000-2004 and 2005-2009



Note: Post-neonatal deaths are those deaths among infants from the end of their first month to a year after their birth.
Source: North Dakota Department of Health, Division of Vital Records

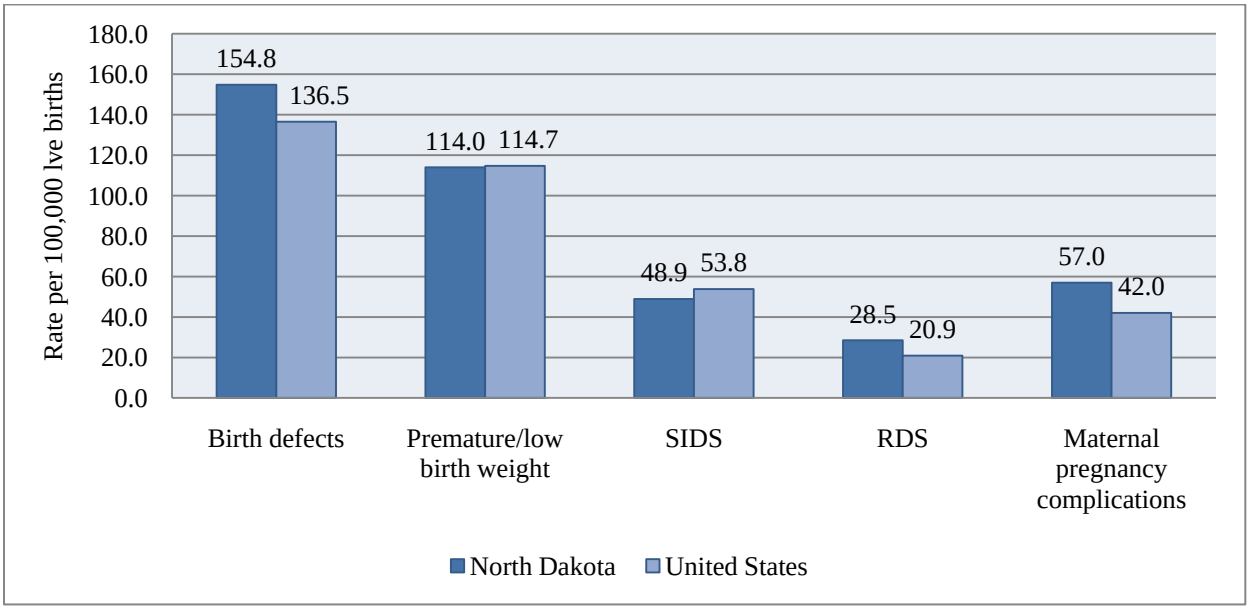
Perinatal deaths are fetal deaths more than 20 weeks old as well as neonatal deaths among infants less than 7 days old. According to aggregated data for 2005-2009, North Dakota reported 7.3 perinatal deaths per 1,000 live births + fetal deaths, which is down from 10.0 in 2000-2004.

Causes of Infant Deaths

Birth defects and prematurity/low birth weight are two significant causes of infant deaths. Sudden infant death syndrome (SIDS), respiratory distress syndrome (RDS), and maternal pregnancy complications are other common causes of infant deaths. Maternal pregnancy complications occur during the gestation of the infant and include issues like an incompetent cervix, premature rupture of membranes, an ectopic pregnancy, a multiple pregnancy, or maternal death. According to the Centers for Disease Control and Prevention (CDC), the leading causes of infant mortality in the United States in 2007 were congenital birth defects; prematurity and low birth weight; SIDS; maternal complications of pregnancy; unintentional injuries; complications of placenta, cord, and membranes; bacterial sepsis; RDS; neonatal hemorrhage; and diseases of the circulatory system.

Rates of deaths from birth defects, RDS, and maternal pregnancy complications are higher in North Dakota than the national average (see Figure 16). There was an average of 154.8 infant deaths per 100,000 live births in North Dakota due to birth defects from 2003-2005 compared to 136.5 in the United States overall. There were 57.0 infant deaths per 100,000 live births in the state due to maternal pregnancy complications compared to 42.0 nationally. There were 28.5 deaths per 100,000 live births due to RDS compared to 20.9 nationally.

Figure 16. Infant deaths in North Dakota and the United States: Rate per 100,000 live births by cause, 2003-2005 average



Note: SIDS stands for sudden infant death syndrome and RDS stands for infant respiratory distress syndrome.
Source: March of Dimes Foundation using data from the National Center for Health Statistics

CHILDREN AND ADOLESCENTS

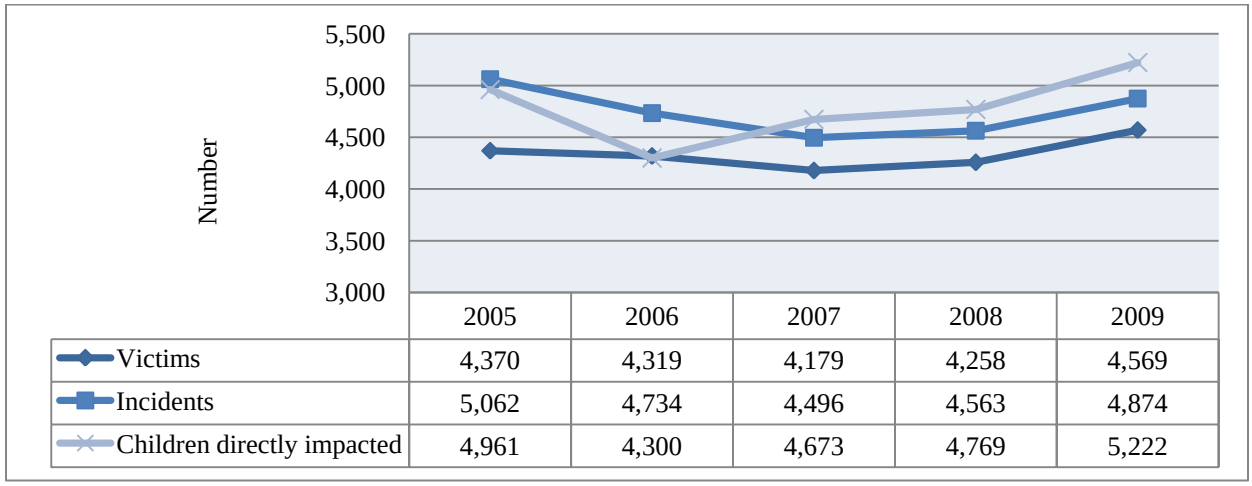
This section examines various risk factors associated with children and adolescents. External risk factors discussed include domestic violence and child abuse and neglect. Behavioral risk factors associated with childhood success discussed in this section include high school dropouts, substance abuse, and crime.

DOMESTIC VIOLENCE

Domestic violence includes physical, sexual, and emotional abuse. In 2009, there were 4,569 victims who received services from a crisis intervention center in North Dakota (see Figure 21). This is up 7 percent from 2008 and up 9 percent from 2007. At least 5,222 children in North Dakota were directly impacted by incidents of domestic violence in 2009, up 10 percent from 2008 and up 12 percent from 2007.

The vast majority of victims are women (94 percent in 2009). At least one-fourth of the victims in 2009 were under the age of 30 (26 percent). About 4 percent of victims were pregnant at the time they are assaulted (166 women).

Figure 21. Domestic violence victims, incidents, and children directly impacted in North Dakota, 2005 to 2009



	2005	2006	2007	2008	2009
Victims	4,370	4,319	4,179	4,258	4,569
Incidents	5,062	4,734	4,496	4,563	4,874
Children directly impacted	4,961	4,300	4,673	4,769	5,222

Source: North Dakota Council on Abused Women's Services

There are currently 21 agencies in North Dakota dedicated to helping victims of domestic violence and sexual assault. See Appendix Map 3 for the 21 North Dakota domestic violence agencies' coverage areas.

Excluding domestic violence agencies on tribal lands (for which availability of data is limited), agencies throughout the state which saw the largest proportions of children in their coverage area being affected by domestic violence in 2009 include Washburn (8 percent), Bismarck (7 percent), Grand Forks (7 percent), and Valley City (6 percent) (see Appendix Table 11).

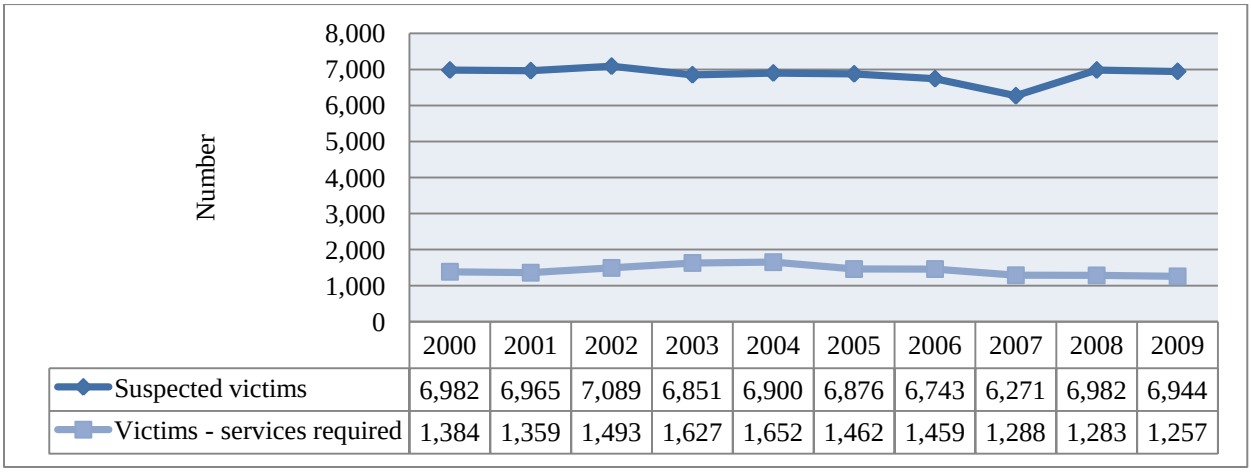
CHILD MALTREATMENT

Child Abuse and Neglect

Child abuse and neglect in North Dakota refers to any recent act or failure to act on the part of a parent or caregiver which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm. Any person may report incidents of suspected child abuse or neglect, but certain persons are required to report, such as medical or mental health professionals, school personnel, clergy, child care providers, and law enforcement officers. Child abuse and neglect data represent assessments made to the North Dakota Department of Human Services (NDDHS) on behalf of children where there is the suspicion of child abuse or neglect. When a suspected case of abuse or neglect is investigated by the NDDHS or its designated agent, it is determined if services are required, if services are recommended, or if no services are required or recommended.

In North Dakota, the number of victims of child abuse and neglect in cases where it was determined that services were required increased through the middle of the decade, and then began to decline (see Figure 22). In 2009, there were 1,257 child abuse and neglect victims, which was slightly less than 1,384 child victims in 2000. Younger children are at greater risk of being a (suspected) victim of child abuse and neglect (see Figure 23). In 2009, nearly one-fourth of suspected victims in North Dakota were under the age of three (23 percent).

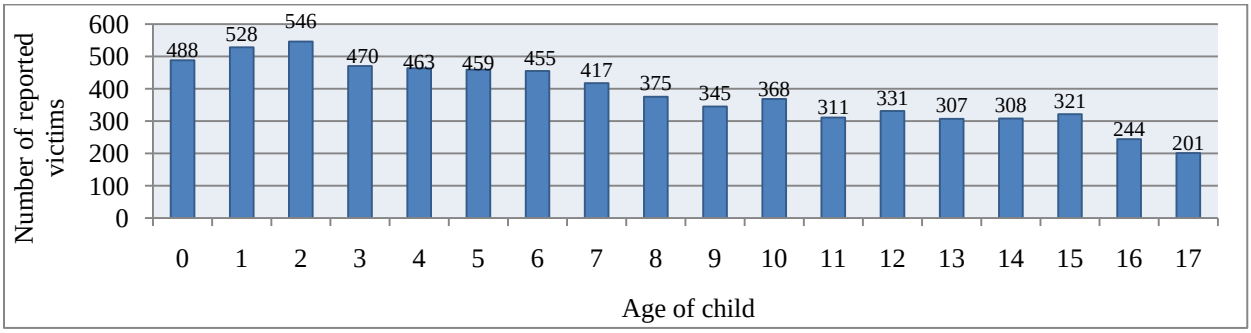
Figure 22. North Dakota victims of child abuse and neglect: Suspected victims and victims in cases where services were required, 2000 to 2009



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Suspected victims	6,982	6,965	7,089	6,851	6,900	6,876	6,743	6,271	6,982	6,944
Victims - services required	1,384	1,359	1,493	1,627	1,652	1,462	1,459	1,288	1,283	1,257

Source: North Dakota Department of Human Services, Children and Family Services

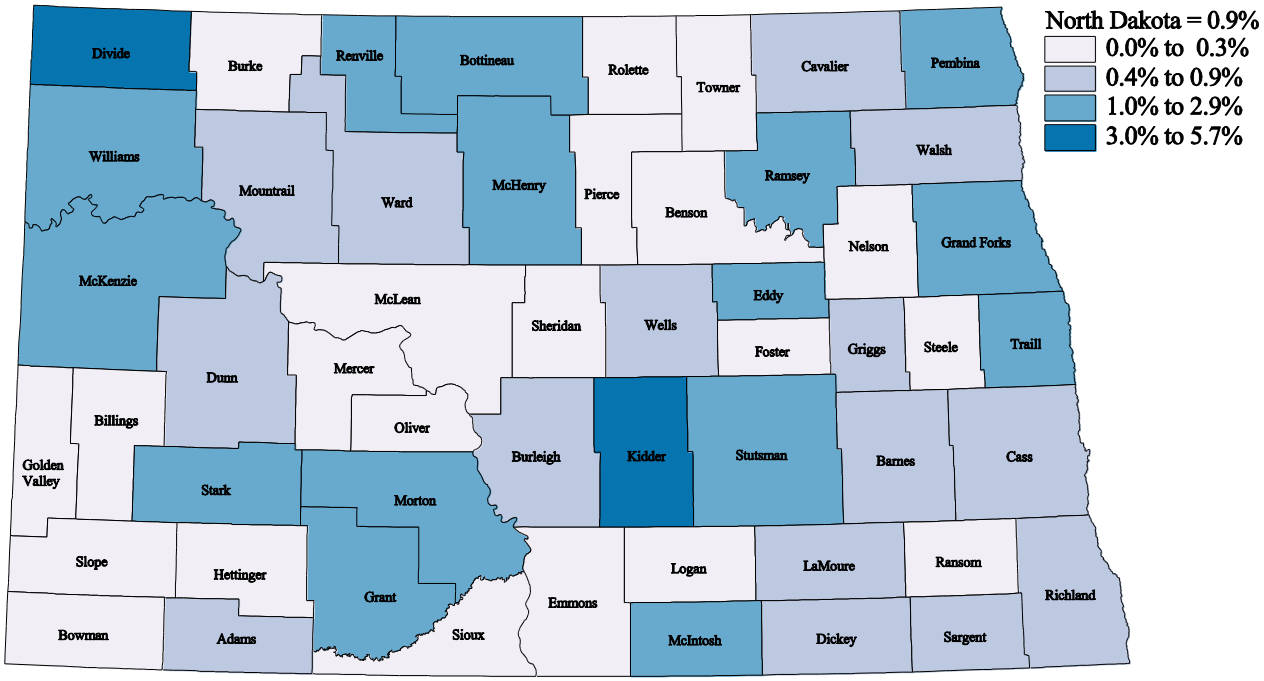
Figure 23. Number of suspected victims of child abuse and neglect in North Dakota by age of child, 2009



Source: North Dakota Department of Human Services, FFY 2008-09 Children and Family Services Statistical Bulletin

Of all children ages 0 to 17 in North Dakota, 5 percent were suspected of being abused or neglected and 1 percent required immediate services for abuse or neglect in 2009. These proportions vary widely among counties throughout the state; however, of particular concern is Divide County which had the largest proportion of suspected victims (11 percent) in 2009 and the largest increase in the proportion of suspected victims over the past year (8 percentage points). In addition, half of suspected child abuse victims in Divide County required immediate services in 2009. In Divide County, 6 percent of all children ages 0 to 17 required immediate services for child abuse and neglect in 2009 (see Figure 24 and Appendix Table 12), a proportion which is up from 0.3 percent in 2008 and 1 percent in 2000.

Figure 24. Child abuse and neglect victims requiring immediate services as a percent of all children ages 0 to 17 in North Dakota by county, 2009

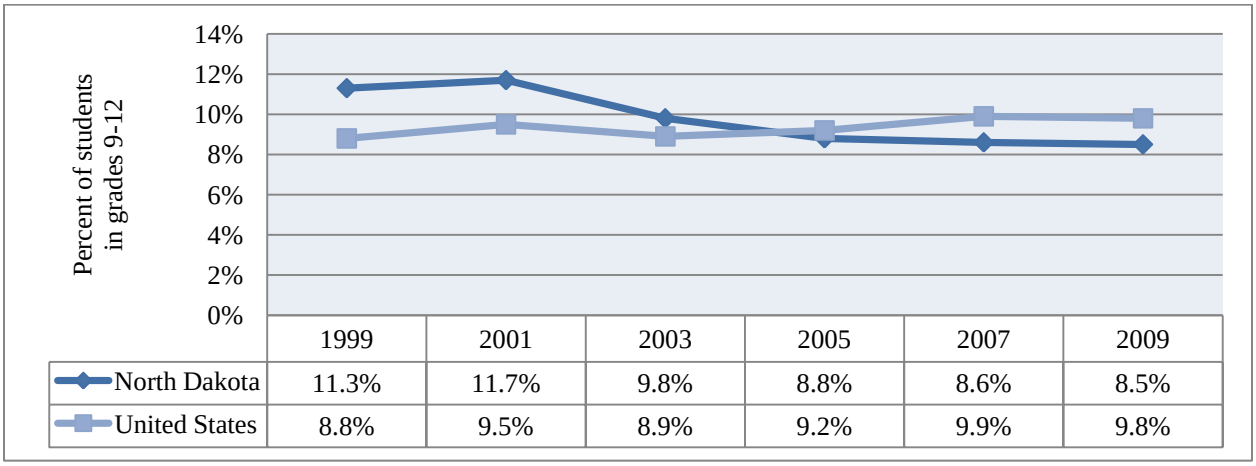


Source: North Dakota Department of Human Services, Children and Family Services

Physical Violence

According to 2009 Youth Risk Behavior Survey (YRBS) data, 9 percent of North Dakota students in grades 9-12 were hit, slapped, or physically hit on purpose by their boyfriend or girlfriend in the past year; the rates were similar between females and males. This proportion is down from 11 percent in 1999 (see Figure 25).

Figure 25. Percent of students in grades 9-12 who were ever hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the past 12 months in North Dakota and the United States, 1999 to 2009



	1999	2001	2003	2005	2007	2009
North Dakota	11.3%	11.7%	9.8%	8.8%	8.6%	8.5%
United States	8.8%	9.5%	8.9%	9.2%	9.9%	9.8%

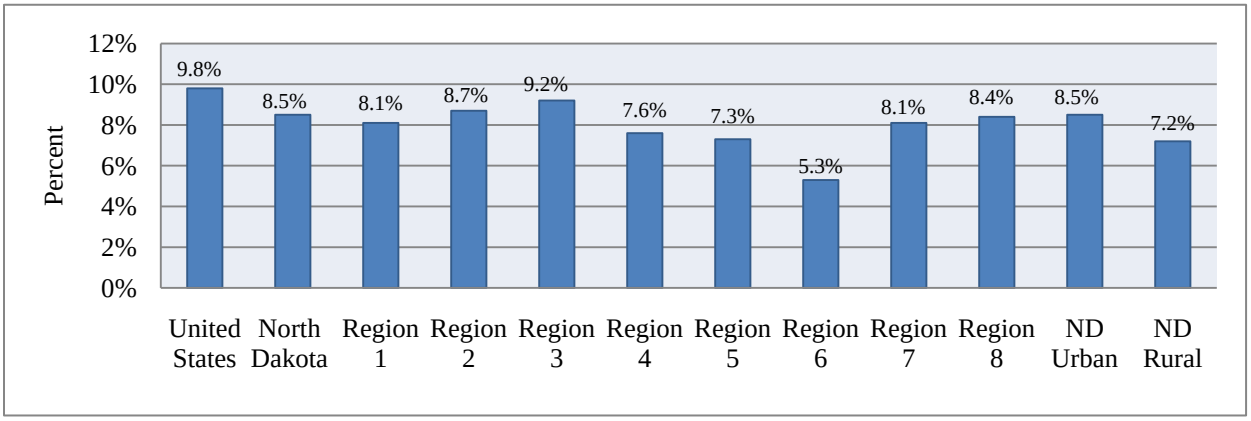
Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS)

For data obtained from the YRBS, which is collected in odd numbered years, we were able to analyze the proportions for each of the eight planning regions in North Dakota. North Dakota has eight established planning regions for the purposes of standardizing the areas being served by state agencies. The North Dakota Department of Public Instruction uses these planning regions for reporting the results of the YRBS. See Appendix Map 1 for the eight North Dakota planning region boundaries.

While the proportion of high school students who were physically hurt by their boyfriend or girlfriend rose 3 percent nationally from 2001 to 2009, the proportion decreased in North Dakota and in all eight planning regions in North Dakota. In fact, in planning regions 1, 4 and 6, the proportion was cut nearly in half.

Within North Dakota, a slightly larger proportion of urban students than rural students reported being hit, slapped, or physically hit on purpose by their boyfriend or girlfriend in the past year in 2009 (9 percent and 7 percent, respectively). Students in Planning Region 3 (with Devils Lake as the major urban center) had the greatest risk of all students statewide in 2009 (9 percent) (see Figure 26 and Appendix Table 13).

Figure 26. Percent of students in grades 9-12 who were ever hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the past 12 months in the United States and in North Dakota by planning region and by urban/rural status, 2009

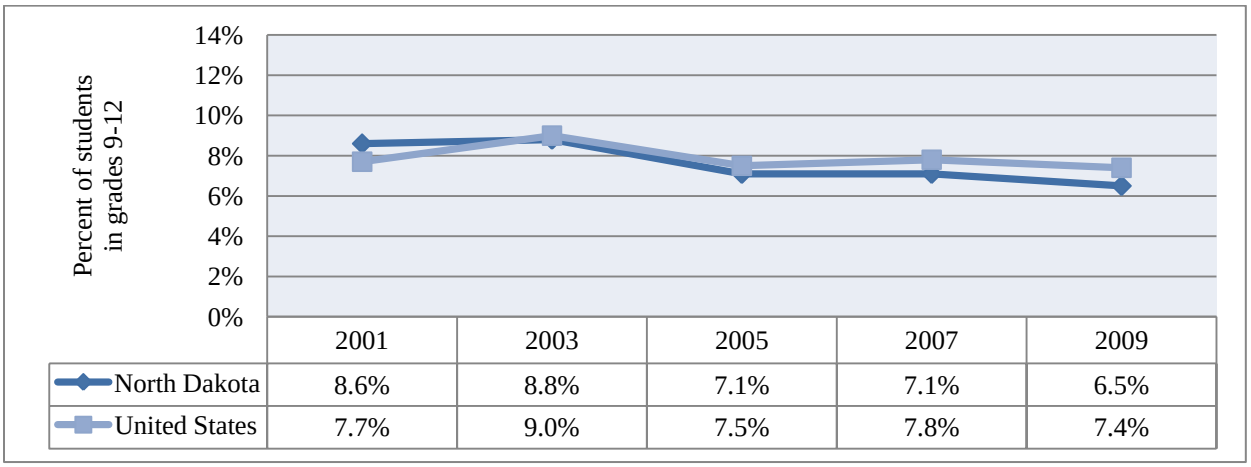


Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Surveillance System (YRBSS)

Sexual Violence

According to 2009 Youth Risk Behavior Survey (YRBS) data, 7 percent of North Dakota students in grades 9-12 had been physically forced to have sexual intercourse when they did not want to. This proportion is down from 9 percent in 2001 (see Figure 27). In terms of gender, the rate is twice as high among females as males (9 percent compared to 4 percent in 2009).

Figure 27. Percent of students in grades 9-12 who had ever been physically forced to have sexual intercourse when they did not want to in North Dakota and the United States, 2001 to 2009

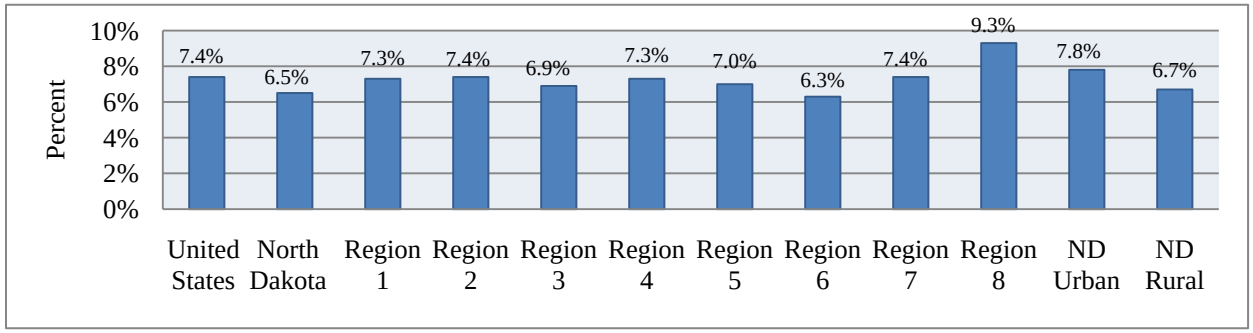


	2001	2003	2005	2007	2009
North Dakota	8.6%	8.8%	7.1%	7.1%	6.5%
United States	7.7%	9.0%	7.5%	7.8%	7.4%

Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBS)

Within North Dakota, a slightly larger proportion of urban students than rural students reported having ever been forced into sexual intercourse (8 percent and 7 percent, respectively in 2009). Students in Planning Region 8 (with Dickinson as the major urban center) had the greatest risk of all students statewide (9 percent) (see Figure 28 and Appendix Table 14).

Figure 28. Percent of students in grades 9-12 who had ever been physically forced to have sexual intercourse when they did not want to in the United States and in North Dakota by planning region and by urban/rural status, 2009



Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Surveillance System (YRBSS)

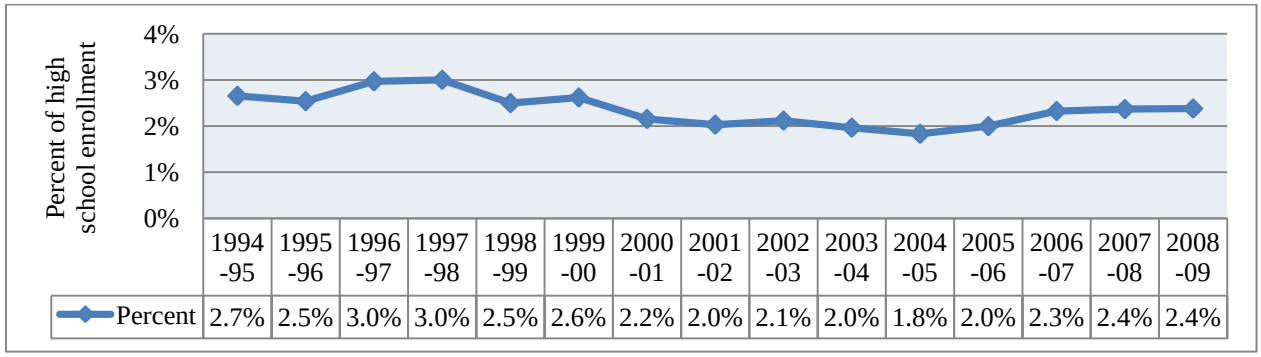
The proportion of students in grades 9-12 who reported ever having been forced to have sexual intercourse decreased in five of North Dakota's eight planning regions from 2001 to 2009 (planning regions 1, 3, 4, 5 and 6). However, the proportion increased in Planning Region 8 – Dickinson (9 percent), Planning Region 2 – Minot (9 percent), and Planning Region 7 – Bismarck (7 percent) (see Appendix Table 14).

HIGH SCHOOL DROPOUTS

The definition of a high school dropout varies widely, with different states, districts, and even schools within districts using the term differently. For the purposes of this needs assessment, dropouts are defined as the number of students who were enrolled in grades 9-12 and then dropped out in a particular school year.

The percentage of North Dakota high school students in grades 9-12 that dropped out of school rose in the latter half of the 1990s to 3.0 percent in 1996-97, fell to 1.8 percent in 2004-05, then rose to 2.4 percent in 2007-08 where it stayed in 2008-09 (see Figure 29).

Figure 29. Percent of students in grades 9-12 who dropped out of school in North Dakota, 1994-95 to 2008-09

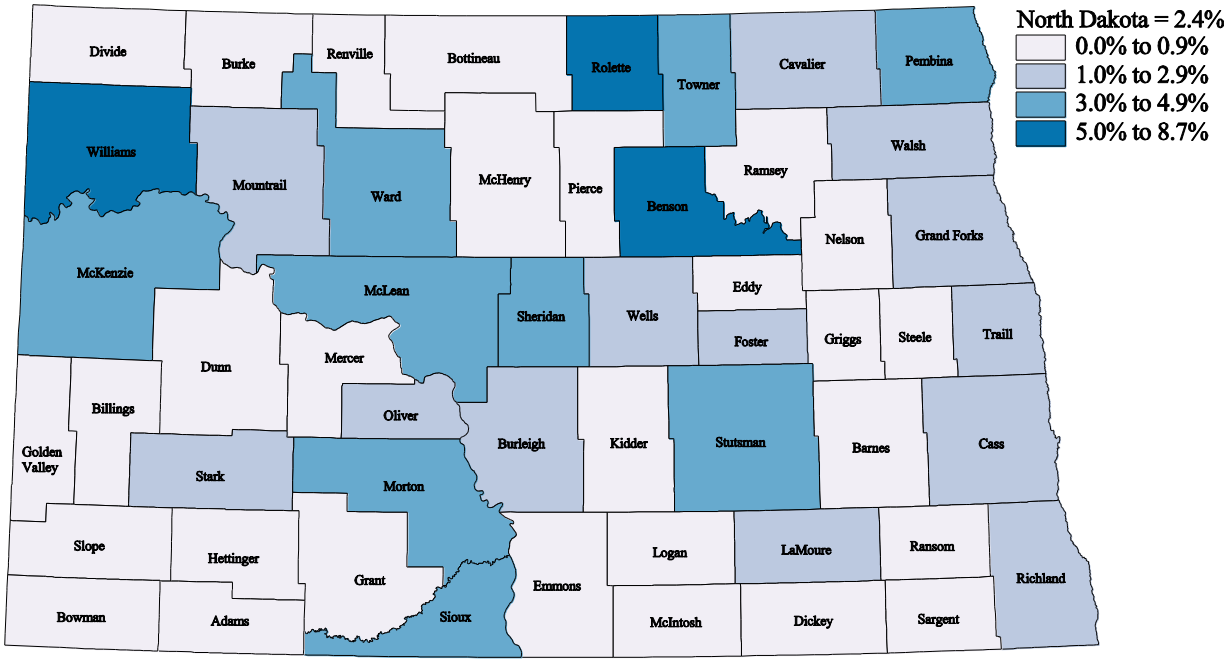


	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Percent	2.7%	2.5%	3.0%	3.0%	2.5%	2.6%	2.2%	2.0%	2.1%	2.0%	1.8%	2.0%	2.3%	2.4%	2.4%

Source: North Dakota Department of Public Instruction

Three counties in North Dakota had dropout rates of at least 5 percent in 2008-09: Rolette (9 percent), Williams (7 percent), and Benson (5 percent) (see Figure 30 and Appendix Table 15). Since 2000-01, Rolette and Benson counties, both reservation counties, have consistently had some of the highest dropout rates statewide. Of additional note is Williams County in which the dropout rate has risen from less than 1 percent in 2000-01. Along with the rising dropout rate in Williams County is an increasing rate of children being referred to juvenile court. In 2009, 15 percent of youth ages 10 to 17 were referred to court in Williams County, which is up from 9 percent in 2000 (see Appendix Table 21).

Figure 30. Percent of students in grades 9-12 who dropped out of school in North Dakota by county, 2008-09



Source: North Dakota Department of Public Instruction

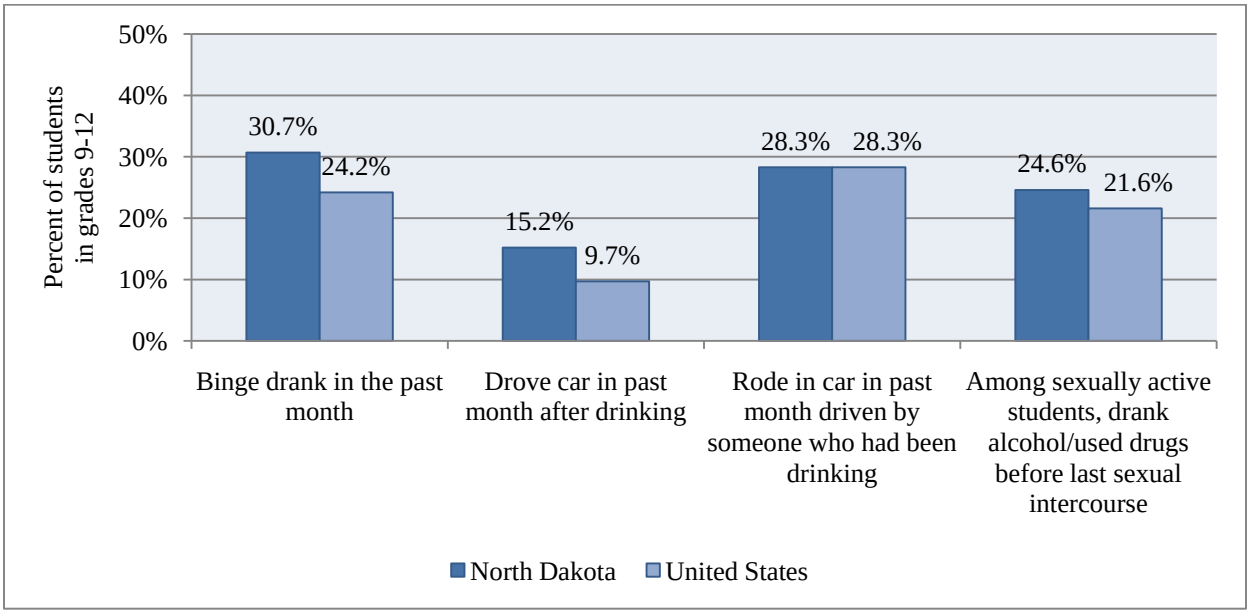
SUBSTANCE ABUSE

Alcohol Use

According to data from the 2009 Youth Risk Behavior Survey (YRBS), nearly three-fourths of students in grades 9-12 in North Dakota had tried alcohol at least once during their life (72 percent). North Dakota consistently has some of the highest rates of risky behavior among youth regarding the consumption of alcohol. Three in 10 North Dakota high school students binge drank in 2009 (defined in YRBS as five or more drinks in a row), which was higher than the national average of 24 percent (see Figure 31). Fifteen percent of North Dakota students had driven a car at least once in the past month when they had been drinking alcohol, which was also higher than the national average of 10 percent. One-fourth of North Dakota high school students had ridden in a car driven by someone who had been drinking alcohol at least once in the past

month in 2009 (28 percent). Among North Dakota students who were sexually active, one-fourth had used alcohol or drugs before their last sexual intercourse in 2009.

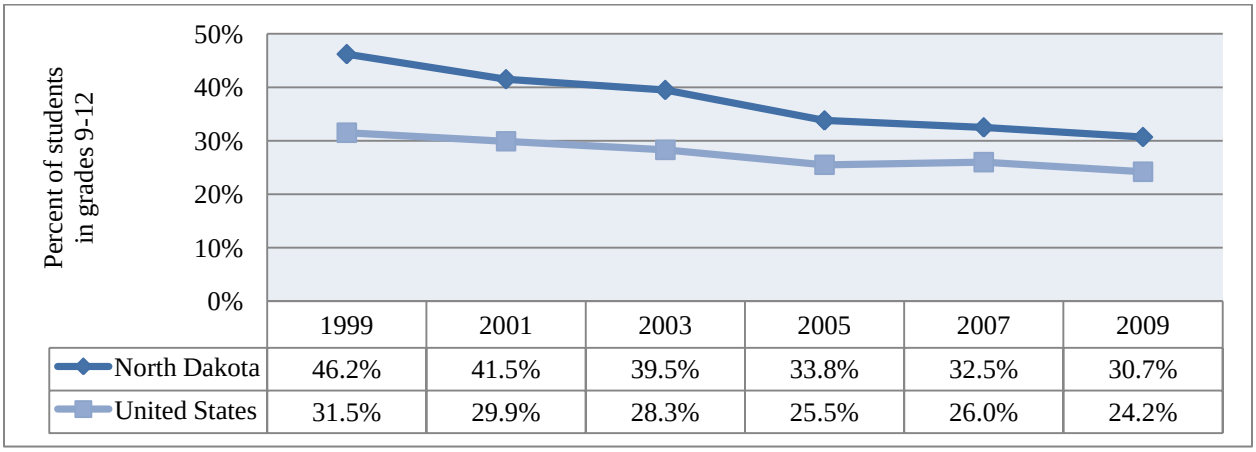
Figure 31. Students in grades 9-12 in North Dakota and the United States: Percent who binge drank, drove a car after drinking, rode in a car driven by someone who had been drinking, and were sexually active and drank/used drugs before sex, 2009



Note: Binge alcohol use, also called episodic heavy drinking, is defined as having five or more drinks in a row, that is, within a couple of hours, on at least 1 day during the 30 days before the survey.
Source: Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Surveillance System (YRBSS)

While North Dakota's high school binge drinking rate is one of the highest nationwide, it has been decreasing throughout the past decade. In 1999, nearly half of all North Dakota high school students binge drank (46 percent). This proportion has steadily decreased to 31 percent in 2009 (see Figure 32).

Figure 32. Percent of students in grades 9-12 who are binge drinkers in North Dakota and the United States, 1999 to 2009

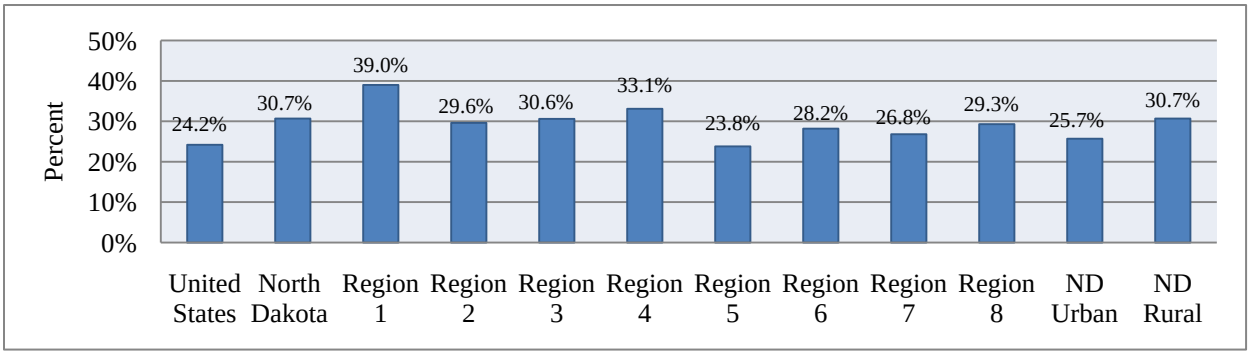


	1999	2001	2003	2005	2007	2009
North Dakota	46.2%	41.5%	39.5%	33.8%	32.5%	30.7%
United States	31.5%	29.9%	28.3%	25.5%	26.0%	24.2%

Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS)

Within North Dakota, rural students had a greater risk for binge drinking than urban students in 2009 (31 percent and 26 percent, respectively). Students in Planning Region 1 – Williston had the largest binge drinking rates statewide (39 percent) in 2009 (see Figure 33 and Appendix Table 16).

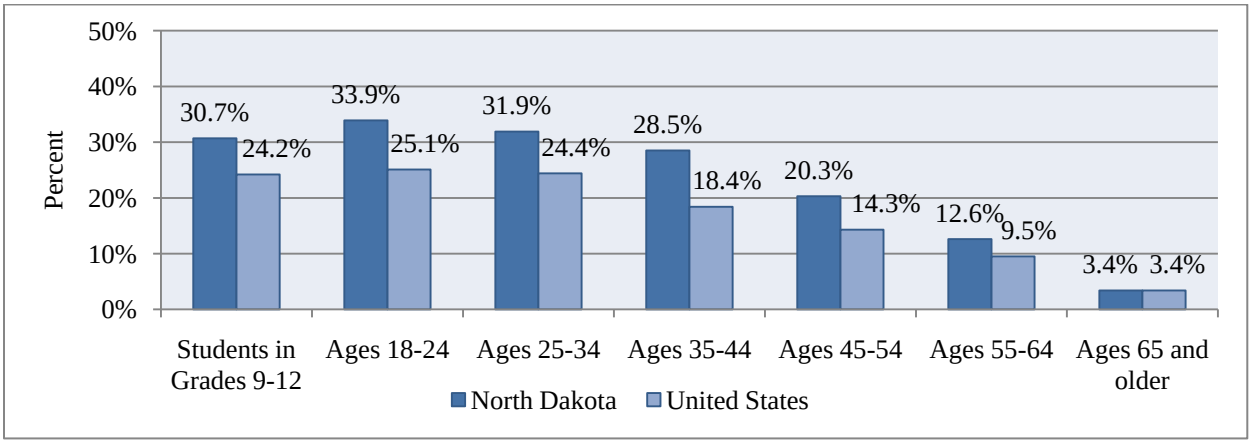
Figure 33. Percent of students in grades 9-12 who are binge drinkers in the United States and in North Dakota by planning region and by urban/rural status, 2009



Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Surveillance System (YRBSS)

The behaviors among North Dakota high school students are carried into adulthood. According to 2009 Behavioral Risk Factor Surveillance System data, binge drinking rates were at their highest among young adults ages 18 to 24 (34 percent) (see Figure 34). Nearly one-third of North Dakota adults ages 25 to 34 (32 percent) and more than one-fourth of adults ages 35 to 44 (29 percent) binge drank in 2009.

Figure 34. North Dakota students in grades 9-12 and North Dakota adults ages 18 and older: Percent who are binge drinkers by grade and age, 2009

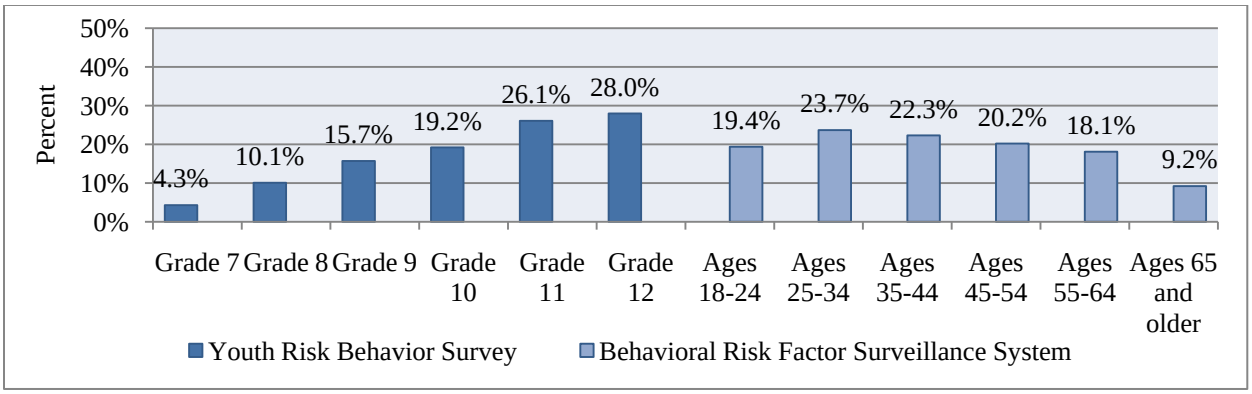


Note: For youth in grades 9-12, binge alcohol use, also called episodic heavy drinking, is defined as having five or more drinks in a row, that is, within a couple of hours, on at least 1 day during the 30 days before the survey. For adults ages 18 and older, binge drinking is defined as four or more drinks on one occasion for females and five or more drinks on one occasion for males.
Source: Data for *grades 9-12* come from the Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Survey (YRBS) and data for *ages 18 and older* come from the 2009 Behavioral Risk Factor Surveillance System (BRFSS)

Tobacco Use

According to 2009 Youth Risk Behavior Survey (YRBS) data, rates of smoking in North Dakota increase substantially throughout high school (see Figure 35). Rates rose from 4 percent to 10 percent between 7th and 8th grade in 2009. By 12th grade, 28 percent of students were smokers. According to the 2009 Behavioral Risk Factor Surveillance System (BRFSS) survey of adults, the highest rates of smoking occur among North Dakota adults ages 25 to 34 (24 percent) and decline among the older age groups.

Figure 35. North Dakota students in grades 7-12 and North Dakota adults ages 18 and older: Percent who are current smokers by grade and age, 2009

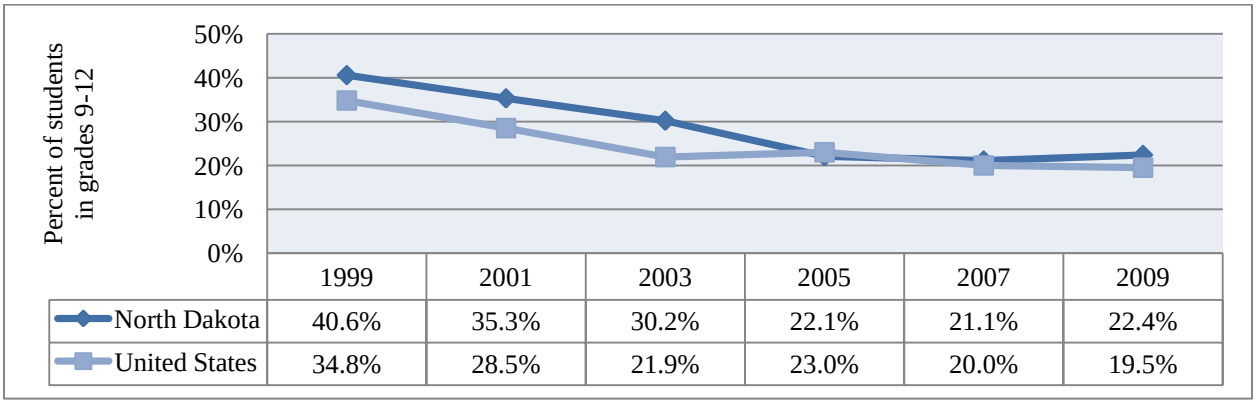


Note: For youth in grades 7-12, a current smoker is defined as having smoked cigarettes on one or more of the past 30 days. For adults ages 18 and older, a current smoker is defined as having ever smoked 100 cigarettes in a lifetime and currently smokes every day or some days.

Source: Data for *grades 7-12* come from the Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Survey (YRBS) and data for *ages 18 and older* come from the 2009 Behavioral Risk Factor Surveillance System (BRFSS)

While North Dakota's current smoking rate among high school students is slightly higher than the national average, it has been decreasing throughout the past decade. In 1999, 41 percent of all North Dakota high school students were smokers. This proportion has steadily decreased to 22 percent in 2009 (see Figure 36).

Figure 36. Percent of students in grades 9-12 who are current smokers in North Dakota and the United States, 1999 to 2009

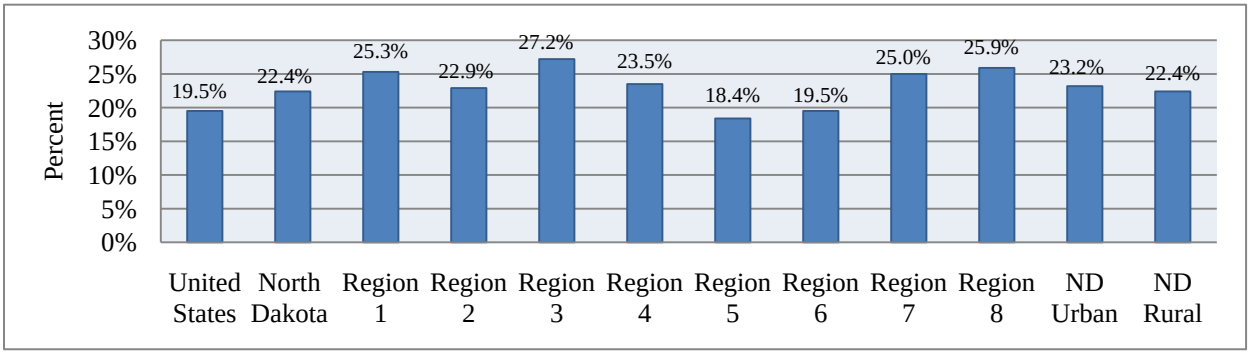


	1999	2001	2003	2005	2007	2009
North Dakota	40.6%	35.3%	30.2%	22.1%	21.1%	22.4%
United States	34.8%	28.5%	21.9%	23.0%	20.0%	19.5%

Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS)

At least one in four high school students in Planning Region 3 – Devils Lake, Planning Region 8 – Dickinson, Planning Region 1 – Williston, and Planning Region 7 – Bismarck was a current smoker in 2009 (see Figure 37 and Appendix Table 17).

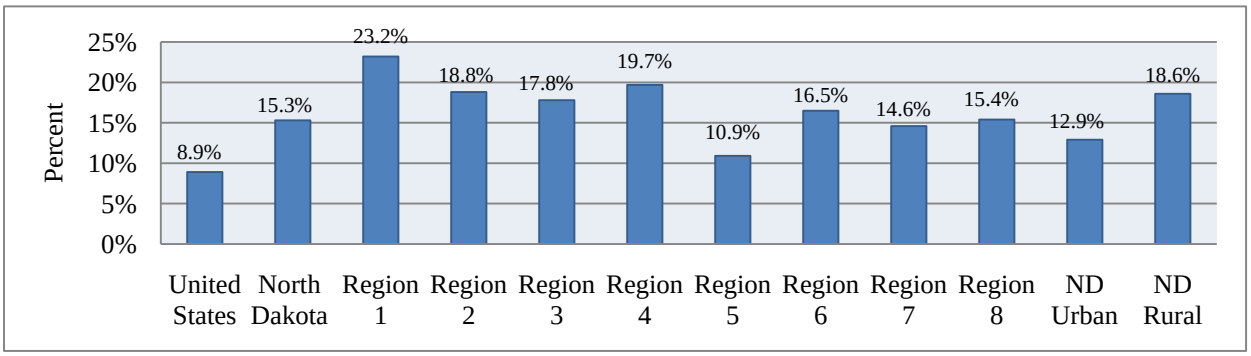
Figure 37. Percent of students in grades 9-12 who are current smokers in the United States and in North Dakota by planning region and by urban/rural status, 2009



Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Surveillance System (YRBSS)

According to 2009 Youth Risk Behavior Survey (YRBS) data, 15 percent of North Dakota students in grades 9-12 used smokeless tobacco (i.e., chewing tobacco, snuff, or dip) on at least one day in the previous month, which is higher than the national rate of 9 percent. High school students in rural areas of North Dakota were more likely to use smokeless tobacco than their urban counterparts (19 percent compared to 13 percent in 2009). Male students were much more likely than female students to use smokeless tobacco products (23 percent of males compared to 7 percent of females). Students in Planning Region 1 – Williston had the highest rate of smokeless tobacco use statewide (23 percent) in 2009 (see Figure 38 and Appendix Table 18).

Figure 38. Percent of students in grades 9-12 who used chewing tobacco, snuff, or dip on one or more of the past 30 days in the United States and in North Dakota by planning region and by urban/rural status, 2009

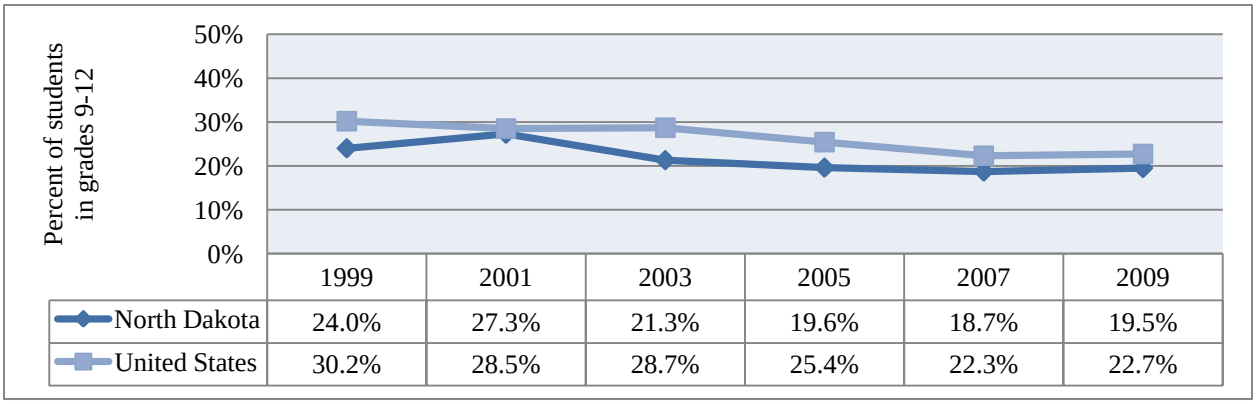


Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Surveillance System (YRBSS)

Drug Use

According to 2009 Youth Risk Behavior Survey (YRBS) data, one in five North Dakota students in grades 9-12 were offered, sold, or given an illegal drug by someone on school property in the past year (20 percent), which is down from 27 percent in 2001 (see Figure 39).

Figure 39. Percent of students in grades 9-12 who were offered, sold, or given an illegal drug by someone on school property in the past year in North Dakota and the United States, 1999 to 2009

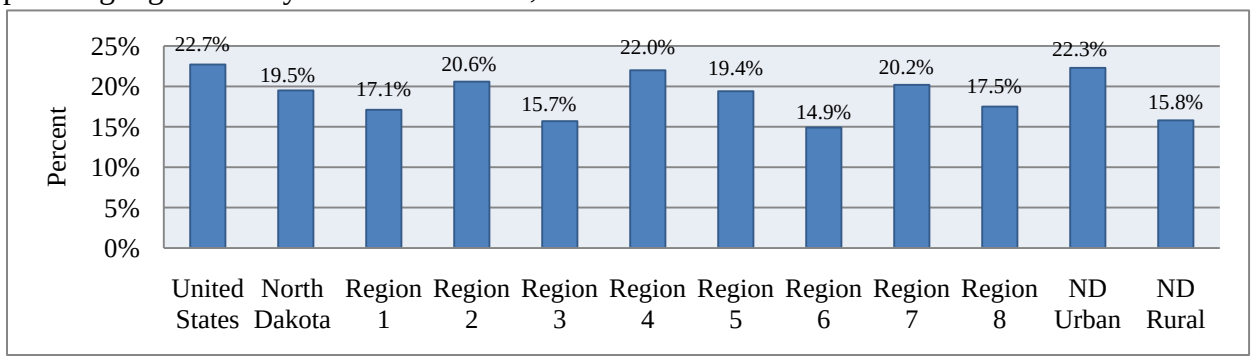


	1999	2001	2003	2005	2007	2009
North Dakota	24.0%	27.3%	21.3%	19.6%	18.7%	19.5%
United States	30.2%	28.5%	28.7%	25.4%	22.3%	22.7%

Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS)

High school students in urban areas of North Dakota were more likely to obtain illegal drugs at school than their rural counterparts (22 percent compared to 16 percent in 2009). Students in Planning Region 4 – Grand Forks had the greatest risk of all students statewide (22 percent in 2009) followed by Planning Region 2 – Minot (21 percent) and Planning Region 7 – Bismarck (20 percent) in 2009 (see Figure 40 and Appendix Table 19).

Figure 40. Percent of students in grades 9-12 who were offered, sold, or given an illegal drug by someone on school property in the past year in the United States and in North Dakota by planning region and by urban/rural status, 2009



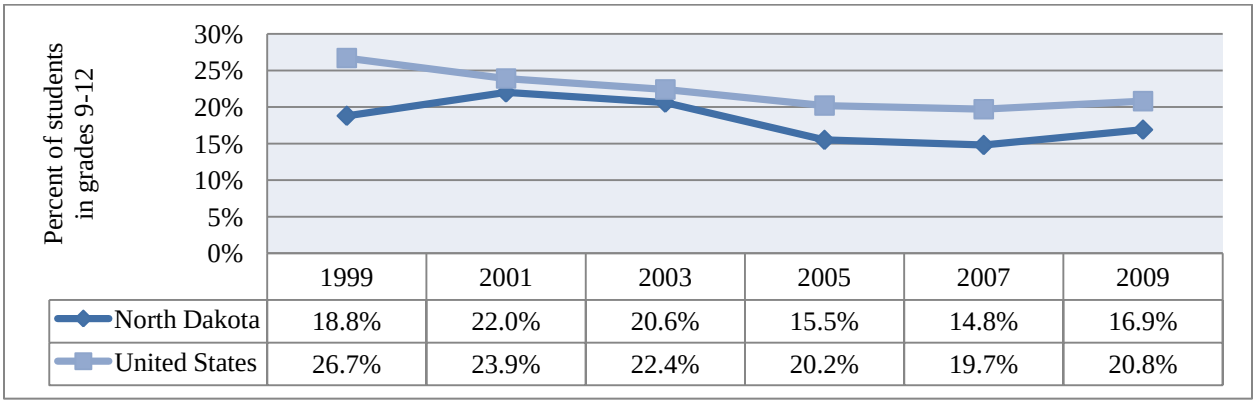
Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Surveillance System (YRBSS)

According to the Youth Risk Behavior Survey (YRBS) data, the drug tried by the most students was marijuana. In 2009, 31 percent of North Dakota students in grades 9-12 reported using marijuana at least once in their lifetime; 15 percent reported taking prescription medicine without a doctor's prescription; 12 percent reported sniffing glue, breathing the contents of aerosol spray

cans, or inhaling paints or sprays to get high at least once during their life; 5 percent used ecstasy at least once; 5 percent used some form of cocaine; and 3 percent reported using methamphetamines.

In 2009, 17 percent of North Dakota students had used marijuana one or more times in the past 30 days. This is lower than the national rate of 21 percent (see Figure 41).

Figure 41. Percent of students in grades 9-12 who used marijuana one or more times in the past 30 days in North Dakota and the United States, 1999 to 2009

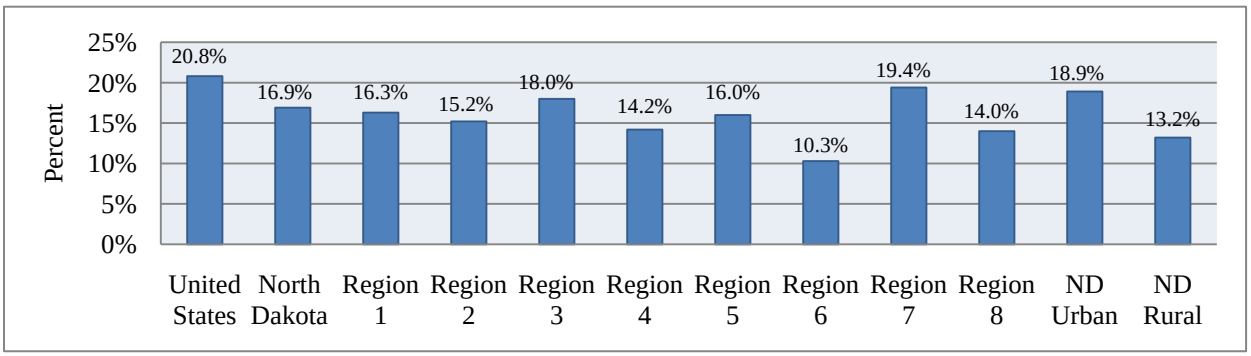


	1999	2001	2003	2005	2007	2009
North Dakota	18.8%	22.0%	20.6%	15.5%	14.8%	16.9%
United States	26.7%	23.9%	22.4%	20.2%	19.7%	20.8%

Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System (YRBSS)

High school students in urban areas of North Dakota were more likely to have used marijuana in the past month than their rural counterparts (19 percent compared to 13 percent in 2009). Male students were only slightly more likely than female students to use marijuana (18 percent of males compared to 16 percent of females). Students in Planning Region 7 – Bismarck had the highest rate of marijuana use statewide (19 percent) in 2009 followed by Planning Region 3 – Devils Lake (18 percent), Planning Region 1 – Williston (16 percent), and Planning Region 5 – Fargo (16 percent) (see Figure 42 and Appendix Table 20).

Figure 42. Percent of students in grades 9-12 who used marijuana one or more times in the past 30 days in the United States and in North Dakota by planning region and by urban/rural status, 2009



Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, 2009 Youth Risk Behavior Surveillance System (YRBSS)

CRIME

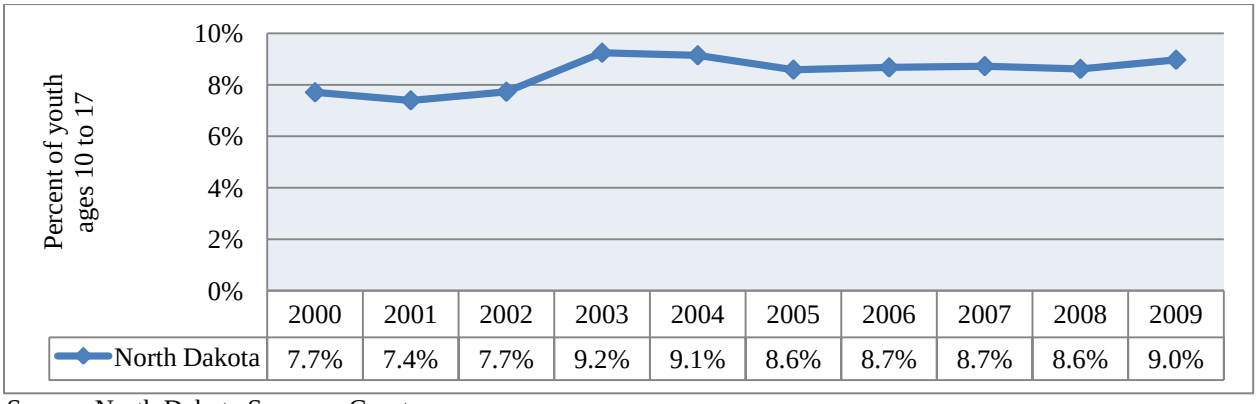
Juvenile Court Referrals

Information available through the North Dakota Supreme Court identifies the number of youth who are referred to court in a given year. In 2009, 5,784 North Dakota youth ages 10 to 17 were referred to court a total of 9,854 times.

While each juvenile court referral may have several charges for multiple offenses, an offense description is provided to us for the major offense only. The major offenses associated with the 9,854 North Dakota juvenile court referrals in 2009 were distributed into five categories: offenses against property (25 percent), unruly behavior (23 percent), alcohol offenses (17 percent), offenses against person (8 percent), controlled substance offenses (8 percent), and other offenses not included in the previously mentioned categories (e.g., disorderly conduct, vehicular, giving false information) (20 percent).

North Dakota youth referred to juvenile court as a proportion of all youth ages 10 to 17 has remained relatively unchanged over the past several years (see Figure 43). In 2009, 9 percent of all children ages 10 to 17 (5,784 youth) were referred to court for various offenses. Counties in the state with the highest juvenile court referral rates were Ramsey (16 percent) and Williams (15 percent) (see Figure 44 and Appendix Table 21).

Figure 43. Percent of youth ages 10 to 17 referred to juvenile court in North Dakota, 2000 to 2009

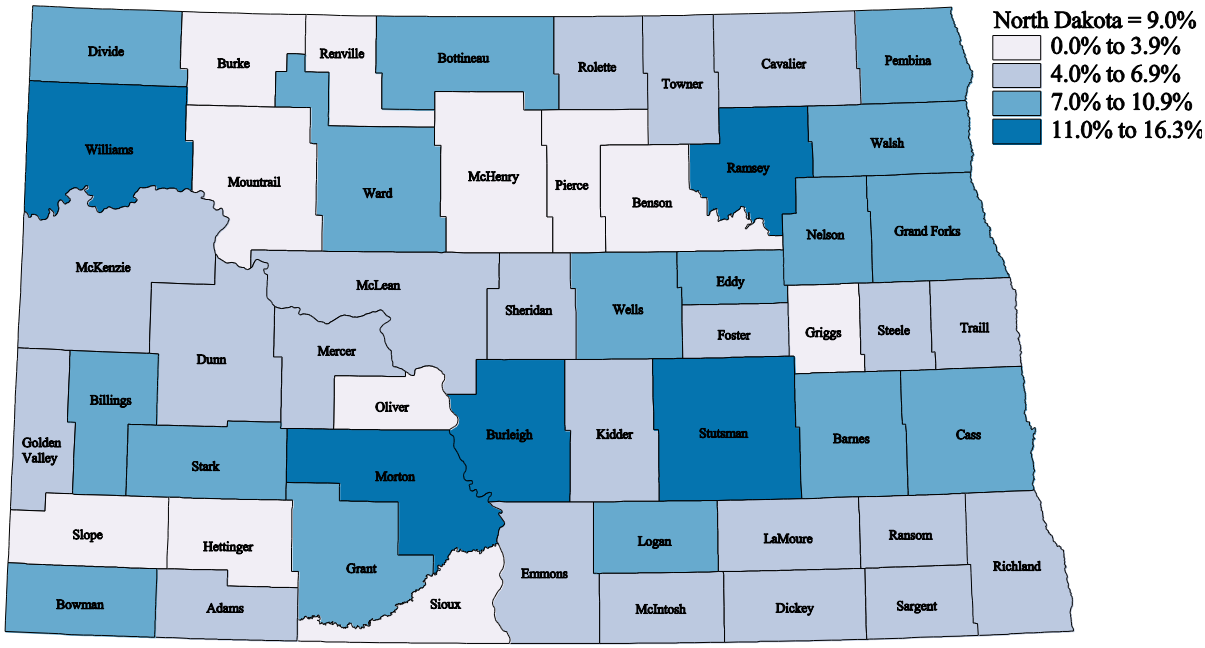


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
North Dakota	7.7%	7.4%	7.7%	9.2%	9.1%	8.6%	8.7%	8.7%	8.6%	9.0%

Source: North Dakota Supreme Court

According to the juvenile court referral data available from the North Dakota Supreme Court, 15 percent of American Indian youth ages 10 to 17 were referred to court in 2009. This proportion is relatively unchanged since 2004. However, it is important to keep in mind that the data from the North Dakota Supreme Court exclude data from the tribal court system. Thus, American Indian youth from reservations are excluded from our dataset.

Figure 44. Percent of youth ages 10 to 17 referred to juvenile court in North Dakota by county, 2009

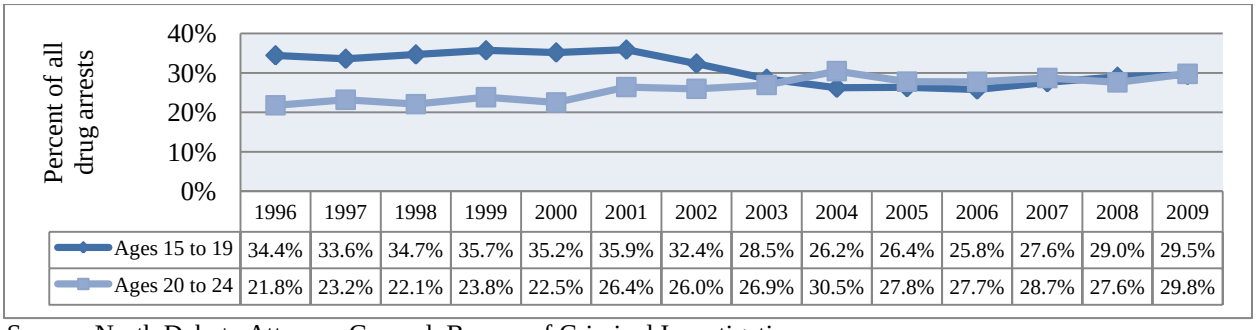


Source: North Dakota Supreme Court

Drug Arrests

The total number of drug arrests in North Dakota doubled from 1996 (1,106 arrests) to 2005 (2,343 arrests). Drug arrests stayed at this level through 2007, after which the numbers began to slowly decrease to 2,063 in 2009. Youth ages 15 to 19 represented the most arrests of any 5-year age cohort in 1996 (approximately one-third). However, young adults ages 20 to 24 began to match or surpass younger youth in drug arrests starting in 2003. In 2009, youth ages 15 to 19 and young adults ages 20 to 24 each represented 30 percent of all drug arrests in North Dakota (see Figure 45).

Figure 45. North Dakota drug arrests by select age groups, 1996 to 2009



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Ages 15 to 19	34.4%	33.6%	34.7%	35.7%	35.2%	35.9%	32.4%	28.5%	26.2%	26.4%	25.8%	27.6%	29.0%	29.5%
Ages 20 to 24	21.8%	23.2%	22.1%	23.8%	22.5%	26.4%	26.0%	26.9%	30.5%	27.8%	27.7%	28.7%	27.6%	29.8%

Source: North Dakota Attorney General, Bureau of Criminal Investigation

REVIEW OF NORTH DAKOTA HEAD START NEEDS ASSESSMENTS

Head Start is a "national program that promotes school readiness by enhancing the social and cognitive development of children through the provision of educational, health, nutritional, social and other services to enrolled children and families." The program provides grants to local agencies, both public and private non-profit, which in turn provide services to economically disadvantaged children from birth to age 5, expectant mothers, and families (see http://www.acf.hhs.gov/programs/ohs/about/).

North Dakota has had Head Start programs since 1965 when the national program began. The Early Head Start Program, which began in 1995, focuses on expectant mothers and children from birth through age 3. Head Start programs are free of charge to participants. At least 90 percent of children enrolled in Head Start programs must meet federal income guidelines. In 2009, the poverty guidelines used by the U.S. Department of Health and Human Services for a family of four was $22,050, which is up slightly from $21,200 in 2008. Ten percent of enrollment must be made available to children with disabilities. Services are delivered in different ways, including center-based programs, home-based options, and combination models.

North Dakota had funded enrollment of 3,353 participants over the 2008-09 program year. Due to turnover throughout the year, actual enrollment for 2008-09 totalled 3,914 which translate into 3,566 families based on data from the Head Start Program Information Report (PIR). The state has 14 Head Start Programs (see Appendix Map 4), four of which serve American Indian communities (Belcourt on the Turtle Mountain reservation, Fort Totten on the Spirit Lake reservation, New Town on the Fort Berthold reservation, and Fort Yates on the Standing Rock Sioux reservation). In addition, the Tri-Valley Opportunity Council, Inc. based in Crookston, Minnesota, serves migrant families in eastern North Dakota. The state's three largest programs are located in some of North Dakota's major urban areas (Fargo, Minot, and Grand Forks). Seven of the 14 programs have Early Head Start Programs (see Appendix Map 5). The names, locations, and enrollment of each program are listed below.

1) **Southeastern North Dakota Community Action Agency (SENDCAA) Head Start Program** is based in *Fargo* and serves Cass, Ransom, Sargent, and Richland counties. Total funded enrollment in 2008-09 was 309 with an additional 60 in Early Head Start.
2) **Minot Public Schools Head Start** is based in *Minot* and serves Ward, Burke, Mountrail, and Renville counties and the Minot Air Force Base. Total funded enrollment in 2008-09 was 270 with an additional 85 in Early Head Start.
3) **Grand Forks Head Start Program** is based in *Grand Forks* and serves Grand Forks, Walsh, Cavalier, and Pembina counties. Total funded enrollment in 2008-09 was 343.
4) **Standing Rock 0-5 Head Start Program** is based in *Fort Yates* and serves the Standing Rock Sioux reservation. This program also has Early Head Start. Total funded enrollment in 2008-09 was 257 with an additional 75 in Early Head Start.

5) **Turtle Mountain Band of Chippewa Indians Head Start** is based in *Belcourt* and serves Rolette County and the Turtle Mountain reservation. Total funded enrollment in 2008-09 was 330.
6) **Early Explorers Head Start Program** is based in *Towner* and serves Bottineau, Towner, McHenry, Pierce, Benson, Ramsey, McLean, Sheridan, and Wells counties. This program also has Early Head Start, which is based in *Devils Lake* and serves Wells, Benson, and Ramsey counties. Total funded enrollment in 2008-09 was 216 with an additional 50 in Early Head Start.
7) **Community Action Agency Region VI Head Start** is based in *Jamestown* and serves Barnes, Dickey, Eddy, Foster, LaMoure, and Stutsman counties. This program also has Early Head Start, which extends services to the additional counties of Griggs, Logan, and McIntosh. Total funded enrollment in 2008-09 was 198 with an additional 36 in Early Head Start.
8) **Head Start at Bismarck Early Childhood Education Program (BECEP)** is based in *Bismarck* and serves Burleigh, Kidder, Logan, McIntosh, and Emmons counties. Total funded enrollment in 2008-09 was 231.
9) **Spirit Lake 0-5 Head Start Program** is based in *Fort Totten* and serves the Spirit Lake reservation. This program also has Early Head Start. Total funded enrollment in 2008-09 was 100 with an additional 75 in Early Head Start.
10) **West River Head Start** is based in *Mandan* and serves Mercer, Oliver, Morton, and Grant counties. Total funded enrollment in 2008-09 was 168.
11) **Three Affiliated Tribes Head Start** is based in *New Town* and serves the Fort Berthold reservation. Total funded enrollment in 2008-09 was 163.
12) **Community Action Head Start** is based in *Dickinson* and serves Adams, Billings, Bowman, Dunn, Golden Valley, Hettinger, Slope, and Stark counties. Total funded enrollment in 2008-09 was 152.
13) **Head Start and Child Development Center at Mayville State University** is based in *Mayville* and serves Traill, Steele, Griggs, and Nelson counties. This program also has Early Head Start, which serves Traill, Steele, and Nelson counties and part of Grand Forks County. Total funded enrollment in 2008-09 was 80 with an additional 40 in Early Head Start.
14) **Williston Head Start** is based in *Williston* and serves Williams County. Total funded enrollment in 2008-09 was 115.

HEAD START PROGRAM'S NEEDS ASSESSMENTS

Each Head Start and Early Head Start program in North Dakota conducts a periodic needs assessment to gain insight into changing social, economic, and demographic trends. These assessments help program staff identify the strengths, needs and trends that impact the design and implementation of their program. The assessments also serve as an information base for the development of long and short-range program objectives, strategic planning and recruitment, and for selection criteria for children and families. This wealth of information offers a useful profile from which to triangulate the data we assembled for the Home Visiting Program Needs Assessment. This can be accomplished by highlighting the major themes that were discussed in various Head Start Program needs assessments regarding areas of need or concern.

Key Areas of Need or Concern

A review of the various North Dakota Head Start Program needs assessments revealed two key areas of need or concern that have not been addressed in the Home Visiting Program Needs Assessment. These two areas include health services and social/emotional issues. We will briefly highlight each of these two key areas.

Health Services

A common concern raised in the Head Start Program's needs assessments was the rise in childhood obesity and the need for more emphasis on issues such as nutrition, healthy weight, and exercise. Many of the programs have organized nutrition committees, implemented physical activity initiatives, and engaged families, caregivers, and communities in dialogues regarding nutrition and exercise. In addition, they have organized family support coordinator programs to monitor growth charts and other tools that assess healthy lifestyles. This is a significant issue area that should be considered with regard to potential emphasis areas in home visiting programs.

Social/Emotional Issues

A second common issue raised in the various Head Start Program needs assessments centered on social/emotional issues and disabilities among children. Head Start programs are reporting a growing number of children identified with disabilities. Similarly, program staff is reporting an increasing need for training in dealing with the social/emotional needs of children. In some cases, programs are exploring Conscious Discipline initiatives or Education Specialist/Mentor Coaches as possible solutions. These initiatives and observations are indicative of a potential issue that should be explored. Data from the North Dakota Department of Public Instruction indicates that, in 2009, 14 percent of student ages 3 to 21 enrolled in public schools were enrolled in special education. This is up from 13 percent in 2000 and 11 percent in 1995.

NORTH DAKOTA HEAD START STATE COLLABORATION OFFICE NEEDS ASSESSMENT

In addition to the needs assessments conducted by the Head Start and Early Head Start programs in the state, the North Dakota Head Start State Collaboration Office, which is part of the Division of Children and Family Services of the North Dakota Department of Human Services, also conducted a needs assessment. Its goal was to conduct a site-based assessment of Head Start programs with specific focus on cooperation, coordination, and collaboration within nine key activity areas. These nine activity areas are: 1) health care, 2) children experiencing homelessness, 3) family/child assistance, 4) child care, 5) family literacy services, 6) children with disabilities and their families, 7) community services, 8) education, divided into 8A) publicly funded Pre-K partnership development and 8B) Head Start transition and alignment with K-12, and 9) professional development.

Key Findings

Respondents were asked to offer information about issues they have experienced relating to each of the nine key activity areas. The following themes were present in several of the key activity areas and are worth noting.

- Issues for families attempting to access services or resources (e.g., cost, transportation, job training, not fulfilling requirements)
- Shortage of providers or services, especially in rural areas
- Distance to services and resources
- Shortage of affordable housing
- Shortage of quality, affordable child care, especially for infants and toddlers
- Lack of interest among providers/organizations in partnering with Head Start
- Lack of funding (e.g., for programs that benefit Head Start children and families, for outside programs to partner with Head Start, concern for continuity when ARRA funds are gone, Head Start programs not being able to engage equally across their service area, Head Start staff education requirements)
- Need for flexibility in the hours of when programs/services are made available (e.g., family literacy programs, child care)
- Not having enough staff (e.g., staff having to balance multiple roles, having difficulty managing the number of evaluations in the fall)
- Clear communication about Head Start to agencies, school administrators, private entities, and the community

SUMMARY

This report presents a general overview of key performance indicators that are useful in identifying communities in greatest need of a home visiting program in North Dakota, given the indicators selected. The relatively sparsely populated nature of the state requires some flexibility in the use of the term community. In order to be encompassing, the term community must be expanded beyond traditional borders typically viewed as community such as a city or incorporated place. For our purposes, we used counties as the building block for identifying communities of need. In the case of certain indicators, the population base was too small to be both reliable and avoid confidentiality issues, thus we combined counties into a regional analysis. Therefore, we offer two summary reviews. The first will center on counties while the second will focus on regions.

ASSESSMENT OF COUNTY-LEVEL NEEDS

The county-level data tables are found in the Appendix. They encompass eight specific performance indicators. In an attempt to provide a useful way of distilling the vast amount of information contained in these tables for the 53 counties in North Dakota, we designed a composite matrix that displays all indicators for all counties (see Table 1, pg. 47). Additionally, we used a county-based ranking scheme to provide an objective way to determine level of need. This was accomplished by ranking the 53 counties from worst to best with respect to each of the eight indicators. Thus, a value of 1 represents the county with the worst score, relative to the other 52 counties, on that specific indicator. In contrast, a score of 53 represents the county with the best score, relative to the other 52 counties, on that specific indicator. We use the term worst and best only as a point of reference. In the case of this needs assessment, we are using the eight county-based indicators as measures that demonstrate need. Thus, one should equate counties with the worst rankings as those displaying an indicator of greatest need. For example, in the case of the unemployment rate, Rolette County with a ranking of 1 is viewed as the county with greatest need because it had the highest rate of unemployment of all 53 counties; 12 percent of its civilian population 16 years of age and older was unemployed in 2009 (see Appendix Table 1). In contrast, Slope County with a ranking of 53 is viewed as the county with the least need because its unemployment rate in 2009 was 2 percent.

We also color coded the rankings in order to provide a visual representation of the counties that display the greatest need based on the eight indicators. Counties highlighted in light blue represent the five counties with the greatest need (i.e., the counties with rankings of 1 through 5) for that specific indicator. Counties highlighted in light green represent the next tier of counties with the greatest need (i.e., counties whose ranking was 6 through 10). The value of this scheme is that it allows one to quickly review the level of need, both within a specific indicator as well as across indicators and across counties.

Table 1. Rankings of county-level performance measures

Note: A ranking of '1' reflects the worst value (i.e., counties with the greatest need). Shaded cells represent the 10 counties with the greatest need for each indicator; light blue represents a ranking of 1 to 5 and green represents 6 to 10.

	Economic Indicators					Safety, Risk, and Crime Indicators		
Area	Unemployment rate, 2009 (1=largest)	Average wage per job, 2008 (1=smallest)	Children 0-17: % below poverty, 2008 (1=largest)	Children 0-19: % receiving TANF, 2009 (1=largest)	Children enrolled in school: % receiving free/reduced price lunch, 2009-10 (1=largest)	Children 0-17: % requiring services for child abuse and neglect, 2009 (1=largest)	Children in high school: % who dropped out, 2008-09 (1=largest)	Children 10-17: % referred to juvenile court, 2009 (1=largest)
Adams	44	11	28	51	25	23	36	38
Barnes	18	26	43	38	21	27	34	14
Benson	5	23	2	3	2	42	3	51
Billings	52	35	11	52	52	43	37	21
Bottineau	29	19	32	40	29	9	38	6
Bowman	49	33	44	46	49	33	39	10
Burke	45	42	34	21	50	36	40	50
Burleigh	40	43	46	9	47	21	16	4
Cass	30	47	50	16	46	25	13	7
Cavalier	37	40	21	14	42	24	25	32
Dickey	11	15	24	49	34	29	41	33
Divide	35	16	23	47	28	1	42	16
Dunn	23	28	14	22	35	30	43	31
Eddy	7	9	19	31	27	5	44	19
Emmons	4	6	8	42	16	44	32	36
Foster	33	36	48	36	45	40	23	29
Golden Valley	42	5	7	50	7	45	45	30
Grand Forks	36	34	26	8	22	8	19	12
Grant	19	4	3	17	4	17	46	20
Griggs	43	8	35	11	10	26	47	49
Hettinger	34	14	22	13	30	46	48	46
Kidder	15	10	6	25	17	2	27	23
LaMoure	20	24	27	48	9	28	24	28
Logan	38	2	12	41	31	38	49	17
McHenry	13	21	13	43	8	7	50	44
McIntosh	31	3	15	39	18	11	26	42
McKenzie	46	49	9	6	20	10	7	34
McLean	17	45	20	18	26	41	4	22
Mercer	25	51	52	32	51	47	33	26
Morton	21	38	36	10	33	16	6	5
Mountrail	32	37	10	5	6	31	14	48
Nelson	22	18	25	45	13	48	30	9
Oliver	26	53	18	35	44	49	21	43
Pembina	6	46	45	27	23	6	12	8
Pierce	8	13	17	24	32	50	31	45
Ramsey	24	17	16	4	14	3	35	1
Ransom	3	29	40	30	11	35	29	40
Renville	27	30	47	15	36	15	51	47
Richland	12	32	49	20	24	32	18	27
Rolette	1	20	4	2	3	39	1	39
Sargent	2	50	53	44	15	19	52	37
Sheridan	9	1	5	12	5	51	8	35
Sioux	14	31	1	1	1	34	5	52
Slope	53	48	39	53	53	52	53	53
Stark	48	41	41	28	39	12	17	18
Steele	50	44	42	29	43	37	28	24
Stutsman	41	27	33	37	19	13	9	3
Towner	47	12	29	26	38	53	10	41
Traill	28	25	51	23	48	14	22	25
Walsh	16	22	31	7	12	18	15	11
Ward	39	39	37	19	40	20	11	13
Wells	10	7	30	33	41	22	20	15
Williams	51	52	38	34	37	4	2	2

A quick review of the color coded matrix in Table 1 indicates a general pattern of need. Select counties tend to have high levels of need across multiple indicators. For example, if one examines the coding scheme for the counties with greatest need, those highlighted in light blue, a pattern quickly emerges. Seven of the 53 counties have rankings that represent the greatest need in at least three of the eight indicators. These counties include Benson, Grant, Ramsey, Rolette, Sheridan, Sioux, and Williams. It is important to note that half of these seven counties (i.e., Benson, Ramsey, Rolette, and Sioux) include all or portions of American Indian reservations while the remaining three counties are either central or western counties.

Next we expanded our analysis to include the second tier of counties in greatest need. In this case, 15 of the 53 counties have rankings that represent the greatest need (i.e., ranking among the worst 10 counties in the state) in at least three of the eight indicators. These counties include Benson, Eddy, Emmons, Golden Valley, Grant, Kidder, McKenzie, Morton, Mountrail, Pembina, Ramsey, Rolette, Sheridan, Sioux, and Williams. Once again, nearly half of these 15 counties encompass American Indian Reservations (i.e., Benson, Eddy, McKenzie, Mountrail, Ramsey, Rolette, and Sioux) while the remaining eight are central or western counties (with the exception of Pembina County located in the far northeast corner of the state).

Caution is advised when using aggregate rankings as a tool to assess need. First, the assumption behind a matrix of rankings is that every indicator has equal weight. This may not be the case in terms of a specific focus regarding a Home Visiting Program. For example, the eight indicators we are using for the county-based assessment represent different issues. The first five indicators clearly represent issues related to *economics* (i.e., unemployment rate, average wage per job, child poverty rate, percent of children receiving TANF, and percent of school children receiving free and reduced price lunches). In contrast, the remaining indicators represent issues of risk, safety, or crime (i.e., percent of children requiring services for child abuse and neglect, dropout rate, and percent of youth referred to juvenile court). A review of the seven counties noted above as having the greatest need (i.e., a ranking of 1 through 5 in at least three of the eight indicators) shows different patterns with regard to these two different themes nested within our measures of need. For example, the indicators that placed the counties of Benson, Grant, Rolette, Sheridan, and Sioux into the highest need ranking were economic in nature. In contrast, the issues that placed Williams and Ramsey counties in the highest need ranking were *safety, risk, and crime*. Thus, one needs to recognize that using an aggregate ranking technique to determine need may mask some important underlying differences in type of need regarding the counties or communities under review.

ASSESSMENT OF REGIONAL-LEVEL NEEDS

The second approach we used to summarize the data was a regional analysis. Once again, we used a ranking matrix to assist our review as noted in Table 2. We organized the matrix in a similar fashion as the county-based approach with the eight planning regions listed in the rows and the 13 indicators listed in the columns. We maintained the same logic for ranking the

regions. A score of 1 represented the region with the worst value on that specific indicator while a score of eight represented the region with the best comparative ranking on that indicator. Similarly, we used a color coding approach to visually illustrate the rankings. Those regions shaded in light blue represent the worst three regions (i.e., those with the greatest need).

Table 2. Rankings of regional-level performance measures

Note: A ranking of '1' reflects the worst value, not necessarily the highest or lowest value. Shaded cells (light blue) represent the three regions of greatest need for each indicator.

	2005-2009						2009 YRBS - Percent of students in grades 9-12 who were:						
	Birth Outcome		Infant Deaths				Violence		Risky Behavior				
Area	Preterm births: % of total births (1=largest)	Low weight births: % of total births (1=largest)	Infant deaths: rate per 1,000 births (1=largest)	Neonatal deaths: rate per 1,000 births (1=largest)	Post-neonatal deaths: rate per 1,000 births (1=largest)	Perinatal deaths: rate per 1,000 births + fetal deaths (1=largest)	Hit by boyfriend or girlfriend in past year (1=largest)	Ever raped (1=largest)	Binge drinkers (1=largest)	Current smokers (1=largest)	Users of smoke-less tobacco in past month (1=largest)	Offered illegal drugs at school in the past year (1=largest)	Users of marijuana in past month (1=largest)
Region 1	8	6	5	6	--	6	4	4	1	3	1	6	3
Region 2	3	7	4	7	3	8	2	2	4	6	3	2	5
Region 3	2	2	1	1	1	1	1	7	3	1	4	7	2
Region 4	1	3	8	8	4	5	6	5	2	5	2	1	6
Region 5	5	4	6	3	5	4	7	6	8	8	8	4	4
Region 6	7	5	7	4	--	2	8	8	6	7	5	8	8
Region 7	4	1	2	5	2	3	5	3	7	4	7	3	1
Region 8	6	8	3	2	--	7	3	1	5	2	6	5	7

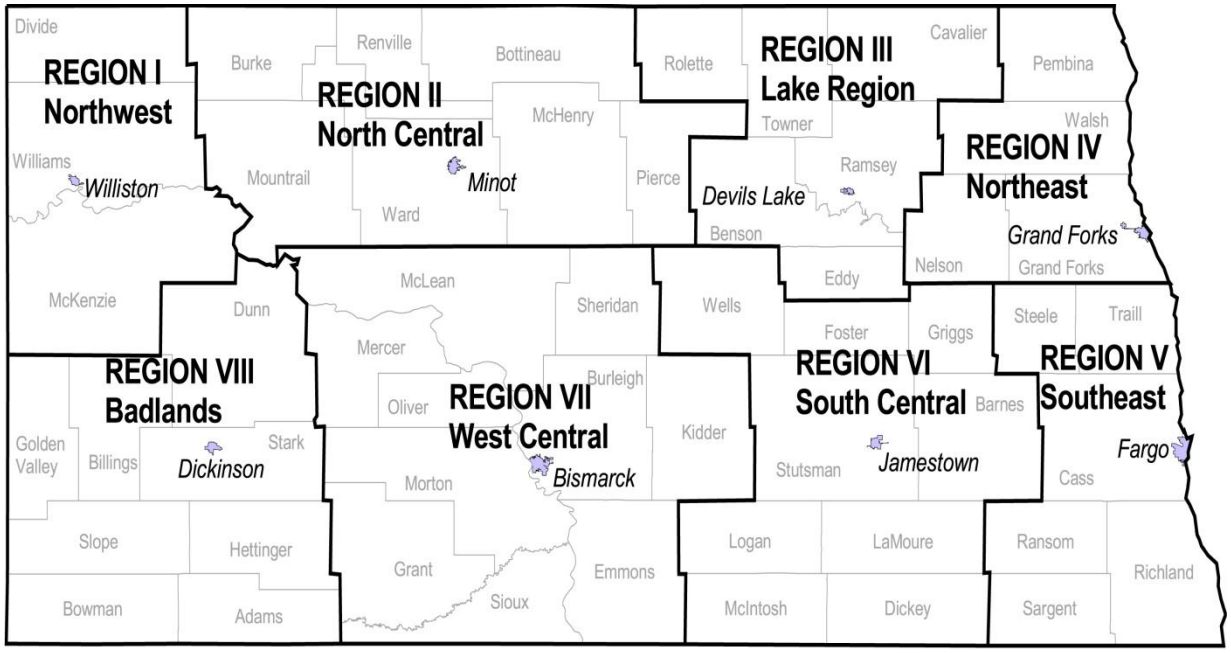
A review of Table 2 clearly indicates that Region 3 has the greatest need. It ranked among the worst three regions in 10 of the 13 indicators selected for the needs assessment. It should be noted that half of the six counties in Region 3 (i.e., Rolette, Ramsey, and Benson) were among the seven counties that were found to have the greatest need at the county level. Each of these three counties includes all or part of an American Indian reservation. In addition, it is important to note that the indicators in the regional analysis center on very different issues than those of the county-based analysis. The regional indicators focus on issues related to birth outcomes, infant deaths, violence, and risky behavior.

When viewed in combination, the county and regional based analyses indicate that the greatest need, from an aggregate perspective is Region 3 and more specifically the counties of Rolette, Ramsey, and Benson. It is important to keep in mind that this area is greatly influenced by the presence of two American Indian reservations. If the Home Visiting Program is not best suited for Native American communities because of parallel programs that specifically target such reservation areas, then Region 7 should be considered. Region 7 had the worst three rankings in 7 of the 13 indicators selected for the needs assessment. Region 7 is composed of 10 counties and includes five of the counties which were recognized as having the greatest need in tiers one and two (Morton, Kidder, Sheridan, Sioux, and Grant), as discussed earlier in the assessment of county-level needs section. It should be noted that all of Sioux County is part of an American Indian reservation.

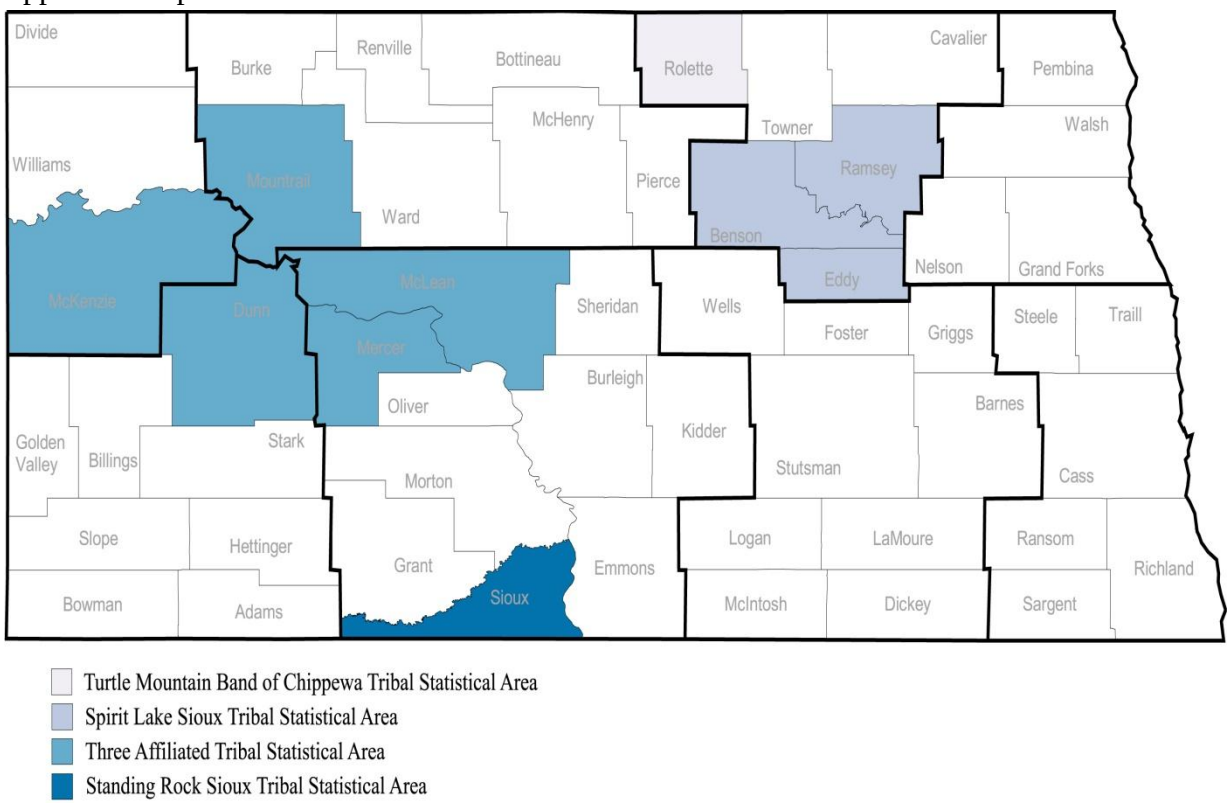
Finally, it is important to consider a tailored approach to a Home Visiting Program. Such an approach would require the investigation of specific indicators rather than a combination or aggregate approach, as noted above. This can be accomplished by reviewing item-specific indicators and using the ranking scheme to expedite the process. Once again, it is important to recognize that, based on availability; the county-based indicators represent very different types of issues of need relative to the regional-based indicators.

APPENDIX

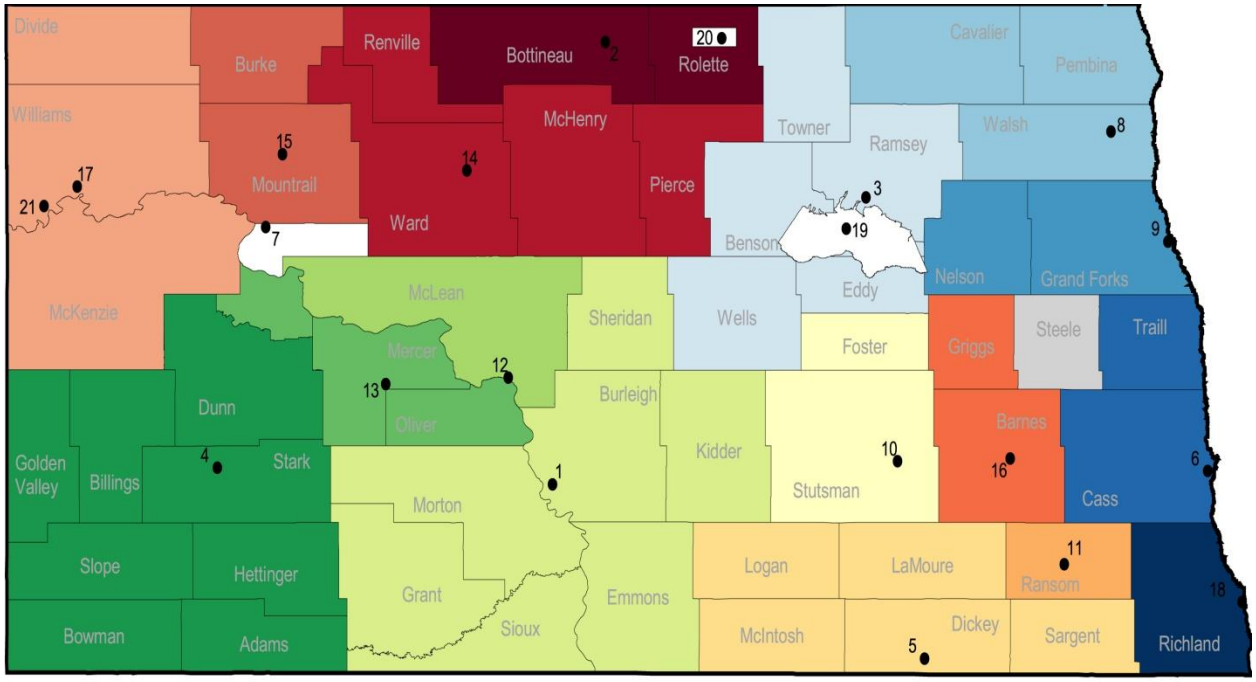
Appendix Map 1. North Dakota statistical planning regions



Appendix Map 2. North Dakota tribal statistical areas



Appendix Map 3. North Dakota domestic violence agency coverage areas

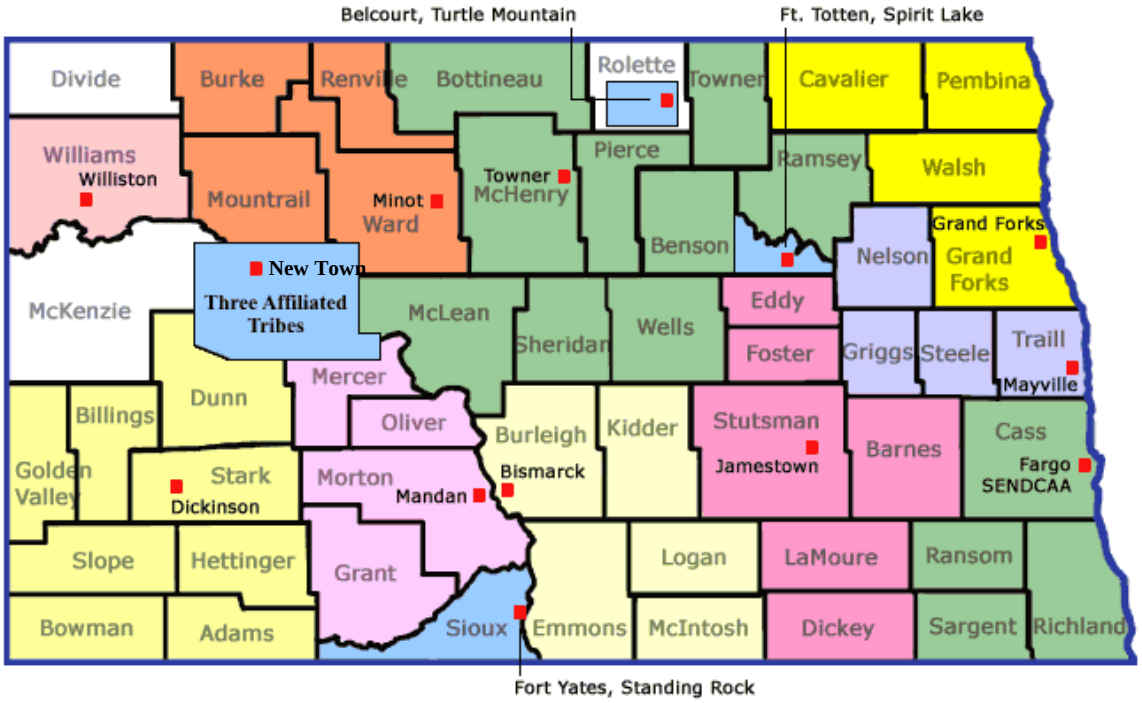


There are no domestic violence services available in Steele County

Physical location of domestic violence agency

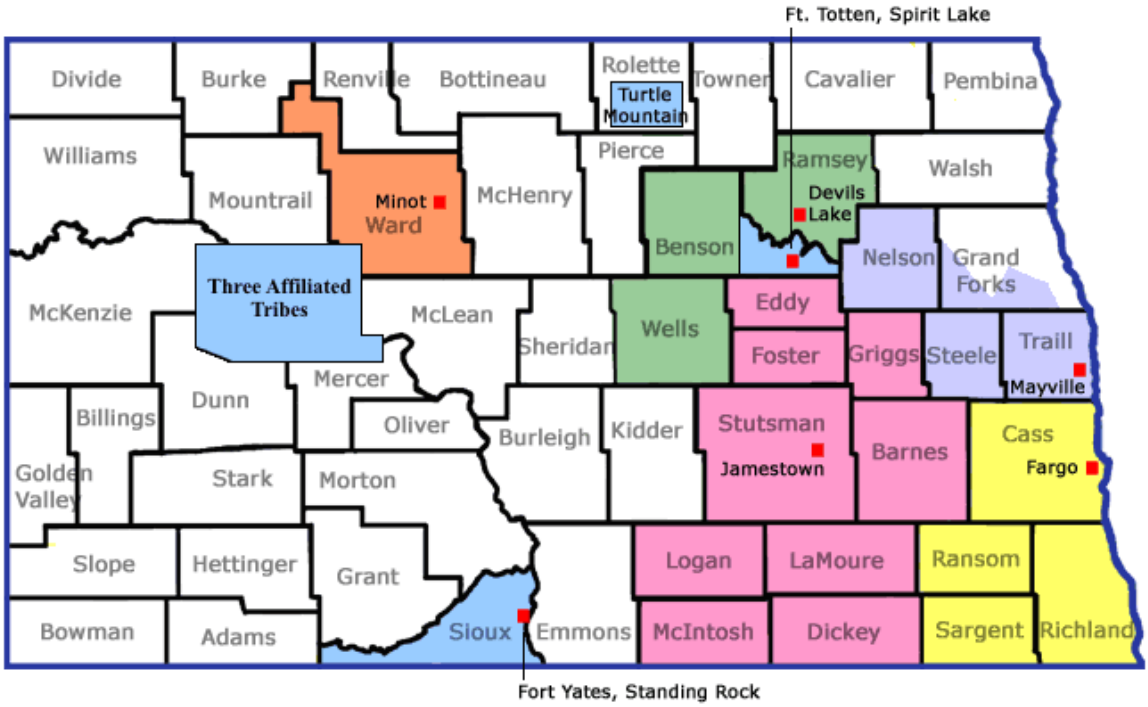
1. Abused Adult Resource Center, Bismarck
2. Family Crisis Center, Bottineau
3. Safe Alternatives for Abused Families, Devils Lake
4. Domestic Violence & Rape Crisis Center, Dickinson
5. Kedish House, Ellendale
6. Rape and Abuse Crisis Center, Fargo
7. Coalition Against Domestic Violence, New Town
8. Domestic Violence & Abuse Center Inc., Grafton
9. Community Violence Intervention Center, Grand Forks
10. Safe Shelter, Jamestown
11. Abuse Resource Network, Lisbon
12. McLean Family Resource Center, Washburn
13. Women's Action & Resource Center, Beulah
14. Domestic Violence Crisis Center, Minot
15. Domestic Violence Program of NW ND, Stanley
16. Abused Persons Outreach Center, Valley City
17. Family Crisis Shelter, Williston
18. Three Rivers Crisis Center, Wahpeton
19. Spirit Lake Victim Assistance, Ft. Totten
20. Hearts of Hope Domestic Violence Shelter, Belcourt
21. Circle of Hope, Trenton

Appendix Map 4. North Dakota Head Start Programs



Source: North Dakota Head Start – State Collaboration Office, Division of Children and Family Services, North Dakota Department of Human Services (http://www.nd.gov/dhs/services/childfamily/headstart/sites.html)

Appendix Map 5. North Dakota Early Head Start Programs



Source: North Dakota Head Start – State Collaboration Office, Division of Children and Family Services, North Dakota Department of Human Services (http://www.nd.gov/dhs/services/childfamily/headstart/earlysites.html)

Appendix Table 1. Unemployment rates in North Dakota by county, 2000 to 2009

Area	Civilian population ages 16 and older who are unemployed											
	Percent of civilian labor force									2009		Annual avg. % change in %
	2000	2001	2002	2003	2004	2005	2006	2007	2008	Number	%	
Adams	2.6%	2.6%	3.3%	2.9%	2.6%	3.3%	3.0%	2.4%	2.3%	44	3.5%	5.6%
Barnes	3.1%	2.8%	3.3%	3.4%	3.4%	3.5%	3.7%	3.1%	2.9%	286	4.6%	6.2%
Benson	5.9%	5.6%	5.6%	5.4%	5.0%	5.7%	6.0%	6.6%	6.4%	170	6.6%	1.5%
Billings	2.4%	2.2%	2.7%	3.0%	2.4%	2.8%	2.5%	2.6%	2.1%	13	2.5%	1.7%
Bottineau	3.8%	3.1%	4.3%	4.7%	4.1%	4.1%	3.8%	3.6%	3.3%	151	4.2%	2.6%
Bowman	2.0%	2.0%	2.3%	2.2%	2.4%	2.4%	2.3%	2.0%	2.1%	57	3.3%	7.2%
Burke	2.9%	3.0%	3.4%	3.2%	3.5%	2.7%	2.7%	2.5%	2.4%	38	3.5%	3.5%
Burleigh	2.3%	2.3%	3.0%	3.0%	2.9%	2.9%	2.6%	2.6%	2.8%	1,777	3.8%	6.7%
Cass	2.1%	2.0%	2.7%	2.9%	2.7%	2.7%	2.6%	2.5%	2.7%	3,601	4.2%	9.6%
Cavalier	3.3%	3.0%	3.7%	3.6%	3.7%	3.7%	3.4%	3.0%	3.1%	76	3.9%	2.6%
Dickey	2.1%	2.3%	2.8%	3.1%	2.8%	2.8%	2.8%	2.7%	3.0%	154	5.6%	14.1%
Divide	2.9%	2.6%	3.3%	3.3%	3.5%	3.3%	3.8%	3.3%	3.2%	35	4.0%	4.5%
Dunn	3.1%	3.2%	3.8%	3.6%	3.6%	3.4%	3.3%	3.8%	3.2%	80	4.5%	5.4%
Eddy	4.1%	4.0%	5.0%	5.0%	5.1%	5.7%	5.2%	5.4%	5.6%	69	5.9%	4.5%
Emmons	4.1%	4.3%	5.4%	5.6%	5.6%	5.3%	5.0%	5.2%	4.8%	121	7.3%	7.9%
Foster	2.8%	2.8%	3.4%	3.5%	3.2%	3.1%	3.4%	3.4%	3.0%	69	4.1%	5.3%
Golden Valley	3.0%	2.3%	2.6%	2.3%	3.1%	3.2%	3.3%	2.7%	2.7%	33	3.7%	4.2%
Grand Forks	2.8%	2.7%	3.5%	3.3%	3.2%	3.2%	3.0%	2.9%	3.0%	1,513	4.0%	4.9%
Grant	3.1%	2.9%	3.6%	4.0%	3.7%	4.1%	3.7%	3.6%	4.1%	55	4.6%	5.1%
Griggs	2.5%	2.3%	3.2%	2.9%	2.6%	3.0%	3.2%	2.6%	2.5%	46	3.7%	6.5%
Hettinger	3.0%	2.7%	3.6%	3.9%	3.6%	3.7%	3.5%	4.0%	3.5%	48	4.1%	4.5%
Kidder	4.5%	4.9%	5.6%	5.8%	6.2%	5.0%	4.8%	4.8%	4.1%	63	5.3%	2.8%
LaMoure	2.8%	2.9%	3.4%	3.5%	3.5%	3.4%	3.2%	3.1%	3.3%	103	4.6%	6.4%
Logan	2.7%	2.8%	3.5%	3.5%	4.3%	3.8%	3.1%	3.5%	3.5%	37	3.9%	5.1%
McHenry	4.8%	4.6%	6.0%	6.5%	5.9%	5.7%	5.0%	5.0%	5.1%	148	5.5%	2.2%
McIntosh	2.9%	2.7%	3.0%	3.2%	2.9%	3.0%	2.9%	2.8%	2.9%	56	4.2%	5.2%
McKenzie	3.1%	2.6%	3.7%	3.8%	3.5%	3.7%	3.2%	3.1%	2.4%	100	3.5%	3.7%
McLean	4.6%	4.6%	5.3%	5.8%	5.7%	5.0%	4.6%	4.6%	4.5%	247	5.0%	1.3%
Mercer	4.3%	3.9%	4.5%	4.6%	4.6%	4.6%	3.8%	4.1%	4.6%	232	4.4%	0.7%
Morton	3.0%	3.0%	3.7%	3.8%	3.7%	3.6%	3.3%	3.3%	3.5%	685	4.6%	5.5%
Mountrail	4.6%	4.0%	5.3%	5.3%	5.4%	6.0%	6.1%	5.7%	4.2%	154	4.2%	0.1%
Nelson	3.8%	3.5%	4.3%	4.0%	3.9%	4.3%	4.3%	4.1%	3.4%	77	4.6%	3.3%
Oliver	4.0%	3.6%	4.3%	3.9%	3.8%	4.8%	4.1%	4.3%	4.5%	56	4.4%	1.8%
Pembina	5.2%	4.1%	5.9%	6.7%	8.3%	6.6%	6.2%	5.6%	5.2%	247	6.3%	4.2%
Pierce	3.3%	4.1%	4.7%	5.2%	4.9%	4.7%	4.5%	4.5%	4.4%	109	5.9%	7.5%
Ramsey	3.3%	3.1%	3.8%	4.1%	4.1%	3.9%	4.1%	3.9%	3.8%	255	4.5%	4.0%
Ransom	2.3%	2.2%	2.7%	3.0%	3.0%	3.2%	4.0%	3.1%	3.6%	251	8.7%	21.8%
Renville	2.4%	2.3%	2.9%	3.0%	2.7%	3.2%	3.1%	3.0%	2.6%	54	4.3%	8.8%
Richland	2.7%	2.9%	3.4%	3.6%	3.4%	3.4%	3.5%	3.3%	3.9%	481	5.6%	9.3%
Rolette	9.4%	8.0%	11.6%	10.6%	9.6%	9.5%	9.3%	9.0%	9.6%	608	12.4%	4.6%
Sargent	2.3%	3.0%	3.3%	2.8%	3.0%	2.7%	3.8%	3.6%	4.7%	224	11.5%	25.9%
Sheridan	5.1%	5.1%	6.1%	5.2%	6.3%	5.9%	5.4%	5.1%	4.1%	38	5.9%	3.3%
Sioux	5.6%	4.7%	5.1%	5.2%	6.9%	6.8%	6.9%	6.4%	5.3%	70	5.5%	0.7%
Slope	2.6%	2.3%	2.2%	2.8%	3.2%	2.3%	2.3%	1.6%	1.3%	13	2.4%	3.7%
Stark	2.8%	2.6%	3.3%	3.3%	3.2%	3.0%	2.6%	2.5%	2.4%	488	3.4%	3.4%
Steele	1.9%	1.8%	2.2%	2.2%	2.3%	2.7%	2.6%	2.3%	2.2%	35	3.2%	7.2%
Stutsman	2.5%	2.4%	3.2%	3.6%	3.3%	3.2%	3.0%	2.8%	2.9%	450	3.8%	5.8%
Towner	2.8%	2.8%	3.6%	3.9%	4.4%	5.1%	5.3%	3.9%	3.3%	37	3.5%	3.8%
Traill	2.8%	2.9%	3.9%	3.6%	3.8%	3.8%	3.7%	3.3%	3.3%	170	4.3%	5.9%
Walsh	3.6%	3.1%	4.2%	4.1%	4.8%	4.9%	4.7%	4.2%	4.4%	294	5.3%	5.4%
Ward	3.2%	3.1%	3.7%	3.9%	3.6%	3.5%	3.2%	3.0%	3.0%	1,147	3.9%	2.9%
Wells	3.9%	3.7%	4.4%	4.7%	4.8%	4.8%	4.7%	4.6%	4.3%	116	5.8%	5.2%
Williams	2.9%	2.3%	3.1%	3.1%	2.7%	2.3%	2.1%	1.9%	1.7%	393	2.7%	1.8%
North Dakota	2.9%	2.8%	3.5%	3.6%	3.5%	3.4%	3.2%	3.1%	3.2%	15,874	4.3%	5.3%

Source: Job Service North Dakota, Labor Market Information Center, LAUS Unit

Appendix Table 2. Average wage per job in North Dakota by county, 2000 to 2008

	Average wage per job									
	2000	2001	2002	2003	2004	2005	2006	2007	2008	Annual average percent change
Adams	$19,342	$20,802	$20,966	$21,795	$22,533	$23,124	$23,992	$25,447	$26,731	4.1%
Barnes	$19,505	$20,042	$21,051	$22,031	$23,469	$24,089	$25,271	$26,909	$30,161	5.6%
Benson	$21,386	$22,748	$23,499	$23,731	$25,030	$25,608	$27,018	$28,603	$29,833	4.3%
Billings	$17,110	$18,493	$18,291	$20,350	$20,803	$22,613	$24,865	$29,290	$32,871	8.6%
Bottineau	$18,480	$19,252	$19,995	$20,943	$22,721	$24,332	$24,979	$26,772	$28,697	5.7%
Bowman	$18,072	$19,976	$20,862	$23,003	$23,339	$24,826	$28,100	$30,437	$32,822	7.8%
Burke	$21,138	$22,073	$22,773	$25,543	$26,616	$28,555	$30,050	$31,909	$35,035	6.6%
Burleigh	$25,799	$27,008	$27,947	$29,537	$30,979	$31,664	$32,569	$34,240	$35,554	4.1%
Cass	$27,289	$28,148	$29,216	$30,268	$31,853	$32,765	$34,109	$35,671	$37,250	4.0%
Cavalier	$19,997	$21,566	$22,084	$22,919	$23,734	$25,131	$25,856	$28,991	$33,925	6.9%
Dickey	$19,067	$19,953	$20,857	$21,940	$23,576	$23,997	$25,008	$26,501	$27,627	4.8%
Divide	$15,563	$16,706	$18,099	$19,343	$19,435	$20,632	$22,223	$24,235	$27,663	7.5%
Dunn	$19,717	$20,279	$19,882	$21,677	$21,706	$22,786	$24,514	$25,873	$30,871	5.9%
Eddy	$19,104	$18,868	$20,005	$20,325	$21,522	$21,942	$22,589	$24,597	$26,510	4.2%
Emmons	$17,792	$18,609	$19,038	$20,090	$21,977	$22,324	$22,599	$23,927	$25,763	4.8%
Foster	$21,633	$22,389	$23,673	$25,077	$26,314	$27,119	$29,045	$30,419	$32,956	5.4%
Golden Valley	$17,551	$17,651	$18,153	$18,657	$20,674	$21,584	$22,760	$23,629	$25,299	4.7%
Grand Forks	$24,580	$25,321	$26,254	$27,218	$28,211	$28,964	$30,129	$31,571	$32,865	3.7%
Grant	$16,378	$17,142	$17,952	$18,962	$20,287	$20,908	$22,040	$23,521	$24,582	5.2%
Griggs	$20,596	$20,846	$21,146	$21,380	$22,531	$23,188	$23,573	$23,850	$26,331	3.2%
Hettinger	$18,632	$19,862	$20,270	$20,968	$22,112	$22,091	$23,590	$25,030	$27,456	5.0%
Kidder	$18,619	$20,663	$21,568	$22,258	$23,451	$23,556	$23,809	$25,572	$26,527	4.6%
LaMoure	$18,321	$19,342	$20,314	$21,870	$23,620	$24,523	$25,695	$27,132	$29,949	6.4%
Logan	$16,217	$17,659	$18,854	$18,986	$19,309	$20,423	$20,901	$21,799	$24,305	5.2%
McHenry	$18,670	$20,658	$20,480	$21,421	$22,929	$25,121	$25,723	$28,467	$29,505	6.0%
McIntosh	$16,885	$17,821	$18,761	$19,228	$20,313	$20,750	$21,363	$23,327	$24,311	4.7%
McKenzie	$22,527	$23,776	$23,453	$24,744	$25,966	$27,593	$31,411	$35,402	$41,326	8.0%
McLean	$25,146	$26,247	$27,359	$28,209	$30,306	$31,890	$33,419	$36,374	$36,462	4.8%
Mercer	$35,044	$37,089	$36,631	$38,322	$41,148	$41,502	$44,322	$45,971	$46,958	3.8%
Morton	$24,049	$25,831	$26,037	$27,199	$27,975	$29,080	$30,884	$32,052	$33,190	4.1%
Mountrail	$20,841	$21,360	$22,946	$25,333	$28,212	$28,348	$27,387	$28,906	$32,962	6.0%
Nelson	$17,344	$18,199	$19,902	$20,284	$20,361	$21,015	$22,430	$24,197	$28,571	6.6%
Oliver	$40,017	$43,336	$39,213	$40,386	$43,786	$41,937	$43,692	$46,474	$47,932	2.5%
Pembina	$25,209	$26,267	$26,908	$27,921	$28,613	$29,412	$30,985	$33,801	$37,182	5.0%
Pierce	$18,048	$19,951	$21,020	$23,094	$23,891	$24,410	$24,435	$25,319	$27,313	5.4%
Ramsey	$19,587	$20,825	$21,306	$22,098	$23,219	$24,461	$25,230	$26,746	$28,252	4.7%
Ransom	$21,865	$22,795	$23,921	$24,257	$25,045	$26,524	$26,279	$27,329	$30,889	4.5%
Renville	$18,867	$19,997	$20,484	$21,078	$22,488	$23,506	$26,098	$27,809	$31,210	6.5%
Richland	$24,454	$25,182	$25,994	$26,652	$27,787	$28,864	$29,908	$32,068	$32,777	3.7%
Rolette	$21,826	$22,606	$22,944	$24,426	$25,786	$26,491	$27,240	$28,054	$29,323	3.8%
Sargent	$33,597	$33,336	$35,198	$39,093	$39,807	$40,410	$40,336	$41,742	$44,640	3.7%
Sheridan	$18,282	$18,374	$18,133	$20,376	$19,429	$21,262	$20,547	$20,928	$21,787	2.4%
Sioux	$23,502	$25,179	$25,433	$27,121	$28,767	$29,197	$29,965	$31,481	$32,489	4.2%
Slope	$17,089	$18,630	$19,225	$20,113	$21,886	$22,123	$25,195	$36,831	$40,124	12.0%
Stark	$21,229	$22,394	$23,259	$24,313	$24,952	$26,209	$28,473	$30,476	$34,233	6.2%
Steele	$22,261	$22,462	$22,453	$24,106	$25,514	$26,498	$28,102	$29,537	$36,436	6.6%
Stutsman	$22,883	$23,973	$24,676	$25,349	$26,473	$27,422	$27,937	$29,434	$30,771	3.8%
Towner	$19,388	$19,655	$20,081	$20,316	$21,392	$22,557	$23,196	$24,959	$26,831	4.2%
Traill	$21,667	$22,181	$22,897	$23,835	$24,830	$25,587	$26,648	$28,148	$30,117	4.2%
Walsh	$19,699	$20,763	$21,473	$21,771	$23,113	$24,190	$25,027	$27,099	$29,632	5.3%
Ward	$24,100	$25,254	$26,598	$27,349	$28,595	$29,683	$30,648	$32,012	$33,450	4.2%
Wells	$19,144	$20,183	$21,078	$21,528	$22,591	$23,794	$23,752	$24,364	$26,180	4.0%
Williams	$22,281	$24,494	$24,545	$26,309	$28,273	$31,188	$36,482	$40,590	$47,478	10.0%
North Dakota	$24,417	$25,475	$26,359	$27,498	$28,854	$29,829	$31,190	$32,898	$34,846	4.5%

Source: U.S. Bureau of Economic Analysis, Regional Economic Accounts

Appendix Table 3. Children ages 0 to 17 living below poverty in North Dakota by county, 2000 to 2008

Area	Children ages 0 to 17 living below poverty										
	Percent of children ages 0 to 17								2008		Annual avg. % change in %
	2000	2001	2002	2003	2004	2005	2006	2007	Number	%	
Adams	11.1%	14.7%	15.2%	12.2%	13.4%	14.9%	14.9%	15.7%	55	14.2%	4.2%
Barnes	11.0%	14.0%	13.9%	12.5%	12.1%	12.4%	11.2%	11.5%	238	11.7%	1.3%
Benson	39.2%	40.2%	33.8%	31.4%	29.8%	41.5%	39.5%	38.0%	866	38.7%	0.9%
Billings	11.0%	22.4%	18.4%	15.1%	11.0%	11.5%	17.4%	17.6%	29	20.0%	14.0%
Bottineau	12.3%	15.6%	15.1%	14.3%	14.7%	15.8%	15.6%	15.3%	154	13.8%	1.9%
Bowman	9.9%	13.2%	12.9%	11.2%	9.3%	9.9%	9.6%	10.3%	66	11.5%	2.9%
Burke	17.3%	17.4%	12.0%	13.3%	11.6%	12.9%	12.2%	14.6%	45	13.4%	-1.9%
Burleigh	9.1%	9.8%	10.3%	10.7%	10.6%	9.7%	10.5%	9.2%	1,852	11.0%	2.9%
Cass	9.5%	9.9%	9.8%	9.9%	9.9%	10.4%	8.8%	10.3%	3,102	9.8%	0.8%
Cavalier	16.8%	15.5%	13.6%	13.0%	14.3%	15.9%	18.4%	18.1%	108	16.2%	0.0%
Dickey	21.0%	17.9%	17.4%	15.9%	15.8%	18.1%	16.5%	16.1%	179	15.7%	-3.3%
Divide	19.5%	21.4%	14.2%	13.0%	14.4%	16.4%	18.6%	16.5%	47	15.8%	-1.2%
Dunn	22.4%	22.2%	17.5%	15.6%	15.6%	18.0%	17.7%	18.5%	133	19.1%	-1.4%
Eddy	11.5%	14.6%	12.5%	12.3%	13.2%	14.5%	14.7%	14.5%	76	16.4%	5.2%
Emmons	23.4%	25.0%	17.2%	16.7%	16.9%	20.2%	19.0%	17.3%	143	21.6%	0.4%
Foster	11.2%	12.3%	9.7%	10.5%	9.3%	9.8%	11.6%	11.5%	71	10.0%	-0.6%
Golden Valley	21.4%	21.5%	16.9%	16.8%	15.6%	18.9%	20.8%	24.5%	71	22.2%	1.4%
Grand Forks	12.4%	13.0%	12.9%	13.0%	12.8%	13.6%	13.5%	13.3%	2,121	15.0%	2.6%
Grant	29.1%	31.4%	25.7%	25.9%	25.0%	27.0%	32.7%	29.7%	132	35.5%	3.3%
Griggs	10.3%	13.5%	13.3%	14.5%	12.9%	13.6%	16.7%	14.1%	54	13.4%	4.3%
Hettinger	21.2%	18.1%	13.5%	15.7%	15.6%	17.4%	16.7%	17.8%	59	16.2%	-2.4%
Kidder	20.8%	25.1%	18.7%	15.7%	14.3%	17.9%	18.0%	18.8%	97	23.4%	3.1%
LaMoure	17.0%	14.8%	13.0%	12.7%	12.6%	13.7%	15.9%	13.0%	112	15.0%	-0.8%
Logan	16.2%	25.6%	20.2%	14.0%	13.2%	15.6%	16.3%	19.5%	69	19.8%	5.6%
McHenry	18.5%	24.4%	19.5%	18.8%	17.1%	19.4%	19.8%	21.0%	195	19.5%	1.7%
McIntosh	15.2%	19.0%	17.4%	17.8%	17.3%	19.4%	22.0%	20.7%	75	18.4%	3.1%
McKenzie	22.6%	21.1%	19.0%	18.3%	18.2%	22.0%	20.2%	18.4%	272	21.1%	-0.3%
McLean	17.5%	19.2%	18.5%	16.3%	16.6%	18.6%	17.9%	15.8%	248	16.4%	-0.5%
Mercer	5.2%	7.8%	8.2%	8.2%	8.1%	7.5%	7.7%	8.3%	125	8.2%	6.8%
Morton	11.4%	13.1%	12.4%	12.1%	12.1%	14.4%	13.3%	12.8%	795	13.2%	2.2%
Mountrail	23.6%	25.1%	21.6%	18.7%	18.6%	20.5%	23.4%	22.0%	347	20.5%	-1.2%
Nelson	12.4%	17.8%	16.0%	13.2%	13.4%	13.8%	16.3%	16.3%	73	15.2%	4.0%
Oliver	23.6%	15.2%	12.4%	11.5%	12.8%	14.7%	14.8%	17.6%	51	16.7%	-2.6%
Pembina	11.0%	11.2%	11.3%	11.1%	11.1%	12.0%	12.0%	11.7%	160	11.4%	0.4%
Pierce	12.8%	18.4%	16.6%	15.0%	15.5%	17.5%	19.4%	17.5%	140	17.5%	5.3%
Ramsey	18.3%	19.0%	18.3%	17.5%	18.1%	19.2%	19.0%	19.5%	462	18.2%	0.0%
Ransom	10.9%	9.6%	9.0%	9.4%	10.0%	10.3%	10.9%	10.1%	149	12.3%	2.0%
Renville	14.1%	14.3%	13.9%	12.9%	12.8%	13.3%	11.9%	11.0%	41	10.4%	-3.7%
Richland	8.6%	10.0%	10.2%	11.0%	10.7%	11.4%	10.7%	9.7%	352	9.9%	2.0%
Rolette	39.5%	34.7%	34.0%	30.9%	31.8%	34.6%	34.9%	38.1%	1,552	34.5%	-1.4%
Sargent	8.9%	9.9%	7.1%	9.0%	8.1%	8.3%	7.7%	7.6%	64	7.5%	-1.0%
Sheridan	24.9%	32.8%	28.2%	22.8%	24.6%	27.9%	28.8%	27.0%	46	27.5%	2.3%
Sioux	45.2%	36.4%	32.5%	32.0%	33.5%	50.1%	42.3%	43.1%	778	53.3%	4.1%
Slope	17.2%	22.9%	15.9%	13.8%	12.1%	13.7%	18.5%	16.5%	15	12.7%	-1.0%
Stark	12.1%	12.9%	13.1%	13.6%	13.9%	13.0%	14.0%	12.4%	579	12.1%	0.2%
Steele	8.9%	13.7%	10.7%	8.6%	11.6%	12.0%	12.8%	11.4%	40	11.9%	6.3%
Stutsman	13.3%	14.2%	13.9%	12.8%	14.5%	14.1%	14.0%	14.0%	519	13.7%	0.5%
Towner	10.0%	15.3%	13.4%	13.5%	12.9%	14.1%	17.0%	16.9%	49	14.2%	6.3%
Traill	9.8%	9.1%	10.6%	10.4%	10.6%	10.9%	11.7%	10.0%	150	9.0%	-0.6%
Walsh	12.6%	14.7%	14.0%	13.8%	14.1%	14.7%	15.5%	15.5%	320	13.9%	1.5%
Ward	13.3%	13.3%	13.2%	12.8%	13.4%	12.9%	12.0%	13.0%	1,902	13.1%	-0.1%
Wells	11.3%	14.5%	14.0%	13.7%	14.1%	15.0%	14.4%	16.1%	100	14.1%	3.4%
Williams	17.1%	16.6%	16.5%	15.5%	15.1%	16.1%	14.9%	13.7%	548	12.8%	-3.4%
North Dakota	14.0%	14.5%	13.8%	13.5%	13.5%	14.5%	14.0%	14.0%	20,023	14.2%	0.3%

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

Appendix Table 4. Children ages 0 to 19 receiving TANF in North Dakota by county, SFY 2000 to SFY 2009

Area	TANF recipients ages 0 to 19									
	Percent of all children ages 0 to 19								SFY 2009	
	SFY 2000	SFY 2001	SFY 2003*	SFY 2004	SFY 2005	SFY 2006	SFY 2007	SFY 2008	Number	% of all children ages 0 to 19
Adams	0.5%	0.7%	0.5%	1.1%	1.8%	1.9%	0.2%	0.2%	1	0.2%
Barnes	4.1%	3.2%	3.3%	3.1%	3.0%	2.4%	3.5%	2.2%	33	1.3%
Benson	27.8%	26.8%	28.9%	28.0%	28.2%	26.7%	27.5%	22.8%	769	30.1%
Billings	0.0%	0.4%	0.0%	0.0%	0.6%	0.6%	0.0%	0.0%	0	0.0%
Bottineau	2.7%	2.0%	2.3%	1.7%	2.0%	1.5%	2.6%	1.2%	17	1.3%
Bowman	0.8%	1.6%	0.7%	1.1%	0.3%	0.0%	0.8%	0.0%	4	0.6%
Burke	3.1%	5.9%	6.0%	5.0%	1.7%	2.1%	3.4%	2.2%	11	3.0%
Burleigh	5.0%	5.5%	5.5%	6.2%	5.4%	5.8%	5.9%	4.3%	969	4.9%
Cass	5.0%	5.3%	3.9%	3.7%	3.5%	3.6%	3.6%	2.7%	1,360	3.7%
Cavalier	3.5%	3.2%	3.9%	3.7%	3.6%	5.0%	2.7%	2.3%	31	4.0%
Dickey	1.7%	0.7%	2.0%	1.8%	1.6%	1.1%	1.0%	0.1%	7	0.5%
Divide	2.2%	1.5%	1.2%	0.2%	1.3%	1.9%	1.4%	0.0%	2	0.6%
Dunn	5.2%	2.9%	3.3%	2.5%	2.2%	2.5%	2.5%	0.8%	23	2.9%
Eddy	2.8%	3.8%	2.7%	4.0%	5.6%	4.5%	4.0%	2.2%	12	2.4%
Emmons	0.0%	0.2%	0.8%	1.0%	0.7%	1.5%	1.7%	0.3%	9	1.2%
Foster	1.5%	0.6%	4.0%	3.1%	2.9%	3.0%	1.1%	1.4%	12	1.5%
Golden Valley	1.9%	0.4%	3.5%	1.5%	1.5%	0.7%	0.5%	0.0%	2	0.5%
Grand Forks	4.1%	4.2%	4.4%	4.9%	5.1%	4.7%	5.1%	3.9%	936	5.0%
Grant	2.1%	2.4%	5.5%	3.4%	3.0%	2.3%	3.7%	3.6%	17	3.6%
Griggs	1.4%	1.8%	1.4%	1.1%	4.1%	4.4%	4.1%	3.3%	21	4.7%
Hettinger	0.9%	1.6%	0.7%	0.2%	1.0%	1.3%	1.6%	2.4%	17	4.1%
Kidder	0.3%	0.0%	1.0%	1.3%	2.1%	0.8%	0.4%	1.1%	13	2.8%
LaMoure	1.8%	2.5%	2.2%	1.4%	1.0%	1.2%	0.2%	1.0%	5	0.6%
Logan	0.2%	0.4%	1.0%	0.0%	0.0%	0.0%	1.0%	1.3%	5	1.3%
McHenry	2.7%	3.0%	4.6%	3.2%	1.3%	2.4%	1.7%	1.0%	13	1.1%
McIntosh	1.6%	1.2%	2.3%	2.4%	2.0%	2.4%	1.2%	1.5%	6	1.3%
McKenzie	14.6%	12.3%	12.9%	12.3%	11.6%	8.4%	8.3%	6.8%	97	6.7%
McLean	6.9%	7.4%	7.1%	6.1%	5.6%	4.7%	5.2%	3.3%	60	3.5%
Mercer	2.4%	2.7%	2.9%	2.8%	2.0%	2.7%	2.2%	2.4%	37	2.1%
Morton	5.3%	6.3%	6.3%	7.1%	6.5%	5.6%	4.6%	3.8%	321	4.8%
Mountrail	16.9%	17.2%	15.5%	15.7%	13.1%	13.4%	12.5%	9.0%	150	8.0%
Nelson	1.6%	2.0%	2.2%	2.3%	2.5%	1.6%	3.0%	0.7%	4	0.7%
Oliver	2.3%	3.3%	1.4%	0.6%	1.4%	0.3%	2.2%	0.9%	6	1.7%
Pembina	2.6%	2.0%	2.9%	3.5%	2.8%	3.2%	2.7%	1.3%	41	2.6%
Pierce	4.1%	1.2%	2.6%	3.2%	3.2%	3.6%	2.4%	3.1%	26	2.9%
Ramsey	7.4%	8.4%	9.7%	12.1%	12.8%	11.8%	9.7%	6.1%	261	8.8%
Ransom	1.3%	0.9%	2.2%	4.7%	2.6%	3.4%	3.4%	1.8%	32	2.4%
Renville	1.3%	2.0%	0.7%	1.6%	0.6%	1.0%	0.8%	1.4%	17	3.9%
Richland	2.8%	2.6%	3.5%	3.7%	3.4%	2.7%	3.4%	1.8%	134	3.0%
Rolette	39.0%	40.4%	40.6%	39.9%	39.8%	37.8%	36.2%	34.0%	1,775	34.8%
Sargent	1.1%	0.6%	1.4%	0.7%	0.8%	0.8%	1.3%	1.4%	8	0.8%
Sheridan	2.8%	1.7%	4.2%	0.4%	0.8%	0.4%	0.0%	3.6%	8	4.1%
Sioux	33.4%	36.6%	40.1%	41.5%	40.5%	36.9%	35.6%	31.7%	599	35.6%
Slope	0.5%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0	0.0%
Stark	3.3%	3.8%	4.0%	3.2%	3.4%	2.8%	2.8%	2.2%	146	2.6%
Steele	0.9%	0.3%	0.9%	0.6%	1.2%	0.4%	1.0%	0.5%	10	2.5%
Stutsman	3.9%	3.6%	3.6%	3.9%	3.7%	3.2%	2.3%	1.1%	62	1.4%
Towner	2.5%	2.5%	2.9%	4.0%	2.9%	4.7%	4.6%	1.5%	11	2.7%
Traill	3.7%	4.3%	3.9%	2.7%	2.1%	3.1%	2.5%	1.7%	56	2.9%
Walsh	4.0%	4.8%	6.2%	7.6%	6.7%	5.0%	4.7%	3.5%	140	5.4%
Ward	5.0%	5.2%	5.3%	4.9%	4.7%	4.5%	4.1%	3.0%	574	3.5%
Wells	1.3%	2.6%	3.4%	3.7%	2.0%	2.4%	1.9%	2.1%	17	2.1%
Williams	6.3%	6.5%	4.7%	5.2%	4.2%	3.3%	2.4%	1.9%	96	1.9%
North Dakota	6.1%	6.4%	6.4%	6.5%	6.2%	5.9%	5.8%	4.5%	8,983	5.4%

Note: *Non-consecutive year. State Fiscal Year (SFY) 2002 data are not available. SYF is July 1 to June 30.
Source: North Dakota Department of Human Services

Appendix Table 5. School children receiving free and reduced price lunches in North Dakota by county, 2000-01 to 2009-10

Area	Children receiving free and reduced price lunches											
	Percent of enrollment									2009-10		Annual avg. % change in %
	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	Number	%	
Adams	26.6%	31.9%	31.3%	27.1%	33.8%	31.7%	29.9%	25.4%	28.2%	102	36.2%	4.6%
Barnes	27.6%	29.3%	31.5%	32.6%	30.6%	33.5%	37.0%	35.0%	35.9%	611	37.1%	3.5%
Benson	75.0%	69.9%	72.0%	72.8%	72.0%	71.6%	74.0%	70.3%	75.7%	1,075	76.4%	0.3%
Billings	32.9%	30.3%	27.4%	39.5%	30.9%	49.0%	40.4%	32.6%	25.6%	7	15.9%	-3.6%
Bottineau	34.8%	30.0%	29.8%	28.9%	31.5%	31.8%	32.5%	34.0%	35.8%	283	35.4%	0.4%
Bowman	30.1%	29.2%	28.5%	30.7%	31.8%	24.4%	24.8%	25.6%	22.3%	139	23.7%	-2.1%
Burke	32.3%	27.8%	31.6%	25.9%	25.9%	25.6%	26.8%	26.6%	25.6%	55	22.6%	-3.4%
Burleigh	18.0%	18.4%	18.1%	18.6%	21.4%	18.8%	19.9%	22.4%	23.3%	3,158	25.5%	4.2%
Cass	17.1%	18.1%	17.6%	18.0%	18.5%	20.7%	21.5%	22.1%	23.1%	5,554	25.8%	4.8%
Cavalier	26.8%	23.9%	25.7%	27.8%	26.8%	29.8%	31.9%	32.8%	32.1%	190	30.6%	1.7%
Dickey	34.2%	31.5%	31.0%	29.6%	28.1%	31.2%	27.7%	24.9%	26.8%	257	32.4%	-0.1%
Divide	43.4%	35.5%	38.4%	37.3%	42.5%	34.6%	32.2%	31.6%	29.3%	83	35.8%	-1.3%
Dunn	34.5%	35.9%	39.0%	38.5%	35.5%	34.6%	36.3%	31.8%	33.4%	140	32.2%	-0.6%
Eddy	27.9%	30.6%	34.7%	33.1%	38.0%	37.9%	35.9%	33.4%	32.5%	116	35.8%	3.2%
Emmons	46.0%	44.1%	42.5%	41.2%	40.1%	39.2%	39.0%	37.9%	40.0%	235	39.5%	-1.6%
Foster	22.4%	23.9%	22.6%	20.9%	18.5%	26.7%	28.4%	26.8%	26.2%	143	26.6%	2.9%
Golden Valley	58.4%	55.5%	52.5%	59.2%	56.6%	59.1%	56.8%	49.0%	49.7%	188	49.7%	-1.5%
Grand Forks	26.2%	24.4%	26.4%	27.7%	30.9%	29.8%	30.8%	33.7%	33.9%	3,181	36.5%	3.9%
Grant	65.9%	63.5%	62.2%	61.3%	54.6%	61.0%	54.2%	59.5%	58.1%	183	60.8%	-0.6%
Griggs	39.3%	36.9%	43.4%	45.9%	47.9%	46.2%	49.3%	52.0%	42.9%	165	43.9%	1.7%
Hettinger	44.2%	43.6%	43.7%	40.7%	36.2%	37.8%	39.1%	34.7%	30.8%	129	34.8%	-2.3%
Kidder	37.2%	39.5%	42.8%	46.2%	37.3%	44.0%	41.6%	38.4%	40.5%	160	39.3%	1.2%
LaMoure	41.5%	43.0%	43.7%	40.4%	40.5%	41.1%	42.2%	43.5%	43.8%	286	44.8%	0.9%
Logan	38.2%	38.6%	37.4%	38.3%	34.6%	36.7%	35.5%	32.5%	30.5%	113	33.7%	-1.2%
McHenry	34.8%	36.2%	38.7%	36.6%	38.8%	39.2%	45.7%	45.9%	46.7%	415	48.4%	3.9%
McIntosh	38.3%	36.4%	38.4%	37.6%	37.4%	37.4%	38.3%	38.5%	32.1%	148	38.1%	0.3%
McKenzie	40.9%	20.2%	39.8%	40.2%	41.3%	40.3%	34.5%	36.9%	31.9%	318	37.1%	4.8%
McLean	31.4%	33.1%	35.1%	34.5%	34.7%	34.7%	34.9%	37.3%	35.9%	533	36.2%	1.6%
Mercer	13.1%	13.0%	15.3%	14.9%	13.9%	14.4%	17.1%	16.8%	17.9%	253	19.9%	5.1%
Morton	28.9%	28.6%	29.0%	29.6%	30.0%	30.4%	30.7%	30.7%	30.0%	1,483	32.6%	1.4%
Mountrail	51.4%	51.7%	48.9%	51.4%	48.7%	51.0%	50.8%	50.4%	50.8%	755	49.9%	-0.3%
Nelson	32.0%	32.4%	32.1%	31.9%	31.1%	38.5%	47.5%	44.6%	39.6%	198	41.0%	3.4%
Oliver	16.7%	17.9%	18.6%	21.0%	20.4%	26.4%	23.9%	20.8%	23.4%	52	26.7%	6.1%
Pembina	24.6%	24.6%	24.4%	28.5%	32.4%	32.9%	35.3%	36.4%	35.9%	457	36.4%	4.6%
Pierce	29.0%	31.1%	29.6%	26.8%	28.9%	30.4%	31.6%	32.3%	34.8%	222	32.8%	1.6%
Ramsey	33.6%	30.8%	34.0%	34.1%	37.8%	38.4%	37.5%	38.1%	39.7%	815	40.5%	2.3%
Ransom	17.4%	20.5%	20.9%	19.2%	23.3%	23.3%	25.9%	30.2%	32.4%	404	42.4%	11.0%
Renville	35.9%	34.7%	33.9%	33.9%	38.5%	34.7%	34.0%	30.1%	31.8%	187	32.1%	-1.0%
Richland	25.6%	26.2%	29.2%	28.8%	29.0%	30.8%	31.3%	30.9%	32.6%	921	36.2%	4.0%
Rolette	69.7%	73.9%	65.2%	72.2%	71.0%	71.8%	71.9%	73.9%	72.2%	2,368	73.3%	0.7%
Sargent	21.6%	22.8%	21.1%	25.9%	26.3%	26.5%	30.9%	27.4%	36.7%	282	39.9%	7.9%
Sheridan	45.5%	53.8%	48.8%	45.9%	46.2%	40.9%	47.9%	56.3%	48.9%	63	50.0%	1.8%
Sioux	72.4%	75.6%	73.3%	57.2%	69.8%	70.7%	70.7%	70.2%	70.4%	813	77.2%	1.3%
Slope	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0	0.0%	0.0%
Stark	28.8%	27.5%	29.2%	29.2%	30.2%	27.4%	29.4%	29.3%	28.6%	1,169	30.9%	0.9%
Steele	24.5%	25.4%	27.4%	31.0%	28.0%	25.8%	26.2%	27.4%	25.5%	80	30.4%	2.9%
Stutsman	26.3%	28.6%	30.2%	31.3%	33.7%	34.0%	35.7%	35.0%	36.9%	1,065	37.3%	4.0%
Towner	34.7%	40.4%	37.1%	40.4%	38.2%	35.8%	39.1%	36.6%	34.6%	90	31.9%	-0.5%
Traill	23.4%	20.4%	25.1%	26.3%	22.3%	24.3%	24.6%	27.1%	24.5%	330	24.4%	1.1%
Walsh	31.3%	43.4%	33.7%	34.6%	38.3%	37.9%	38.8%	42.5%	37.3%	725	41.8%	4.5%
Ward	27.2%	29.6%	29.9%	30.5%	28.7%	28.5%	30.4%	30.9%	31.5%	2,759	30.8%	1.5%
Wells	28.1%	30.8%	31.7%	32.6%	32.4%	32.0%	34.3%	37.2%	32.6%	171	30.7%	1.2%
Williams	27.6%	28.7%	29.6%	29.7%	32.5%	30.8%	31.3%	31.2%	28.9%	1,060	31.9%	1.8%
North Dakota	28.5%	29.1%	28.8%	29.6%	30.4%	30.4%	31.4%	32.0%	32.1%	34,689	34.1%	2.0%

Source: North Dakota Department of Human Services

Appendix Table 6. Total live births that are less than 37 weeks gestation (i.e., preterm) in North Dakota's statistical planning regions by race, CY 2000-2004 and CY 2005-2009

Area	Total				White				American Indian			
	CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009	
	Number	% of total births	Number	% of total births	Number	% of total births	Number	% of total births	Number	% of total births	Number	% of total births
North Dakota	3,705	9.4%	4,164	9.5%	3,159	9.5%	3,451	9.4%	472	9.9%	538	10.9%
Region 1	117	8.0%	146	8.1%	92	7.9%	121	7.8%	25	8.7%	23	10.6%
Region 2	528	8.9%	638	9.7%	441	8.7%	530	9.6%	69	12.3%	78	12.8%
Region 3	299	9.3%	352	10.4%	112	9.2%	119	10.4%	186	9.4%	228	10.4%
Region 4	542	9.9%	621	10.5%	498	10.2%	551	10.9%	29	7.6%	30	9.7%
Region 5	1,048	9.8%	1,163	9.4%	973	9.8%	1,067	9.6%	40	11.2%	30	9.2%
Region 6	239	8.4%	235	8.1%	230	8.4%	224	7.9%	8	9.5%	--	--
Region 7	776	10.1%	830	9.5%	662	10.2%	668	9.0%	111	10.5%	140	12.0%
Region 8	156	8.0%	179	8.6%	151	8.2%	171	8.7%	--	--	6	8.1%
Turtle Mountain Statistical Area	119	8.3%	150	9.8%	14	7.4%	17	12.5%	104	8.4%	130	9.4%
Spirit Lake Statistical Area	146	9.6%	179	11.2%	65	8.5%	80	10.4%	81	11.0%	97	12.1%
Three Affiliated Statistical Area	182	10.9%	181	9.8%	111	9.8%	104	8.1%	71	13.4%	73	13.8%
Standing Rock Statistical Area	46	9.7%	57	10.6%	--	--	--	--	43	9.9%	52	10.6%

Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region. " -- " Data for geographies in which the event number was five or fewer are not shown. Calendar Year (CY) is January to December.
Source: North Dakota Department of Health, Division of Vital Records

Appendix Table 7. Total live births that are less than 2,500 grams (i.e., low birth weight) in North Dakota's statistical planning regions by race, CY 2000-2004 and CY 2005-2009

Area	Total				White				American Indian			
	CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009	
	Number	% of total births	Number	% of total births	Number	% of total births	Number	% of total births	Number	% of total births	Number	% of total births
North Dakota	2,562	6.5%	2,850	6.5%	2,147	6.4%	2,348	6.4%	338	7.1%	352	7.1%
Region 1	87	6.0%	113	6.2%	72	6.2%	93	6.0%	15	5.2%	17	7.9%
Region 2	380	6.4%	407	6.2%	315	6.2%	336	6.1%	44	7.9%	44	7.2%
Region 3	225	7.0%	224	6.6%	81	6.7%	73	6.4%	142	7.2%	150	6.8%
Region 4	329	6.0%	385	6.5%	292	6.0%	335	6.6%	23	6.0%	18	5.8%
Region 5	705	6.6%	788	6.4%	639	6.4%	703	6.3%	29	8.1%	21	6.4%
Region 6	194	6.8%	184	6.3%	189	6.9%	179	6.4%	--	--	--	--
Region 7	537	7.0%	626	7.2%	457	7.0%	511	6.9%	79	7.5%	99	8.5%
Region 8	105	5.4%	123	5.9%	102	5.5%	118	6.0%	--	--	--	--
Turtle Mountain Statistical Area	101	7.1%	110	7.2%	15	7.9%	14	10.3%	85	6.9%	96	6.9%
Spirit Lake Statistical Area	97	6.4%	101	6.3%	41	5.4%	46	6.0%	56	7.6%	54	6.7%
Three Affiliated Statistical Area	123	7.4%	122	6.6%	84	7.4%	76	5.9%	39	7.3%	43	8.1%
Standing Rock Statistical Area	28	5.9%	46	8.6%	--	--	--	--	25	5.8%	43	8.8%

Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region. " -- " Data for geographies in which the event number was five or fewer are not shown. Calendar Year (CY) is January to December.
Source: North Dakota Department of Health, Division of Vital Records

Appendix Table 8. Total infant deaths in North Dakota's statistical planning regions by race, CY 2000-2004 and CY 2005-2009

Area	Total				White				American Indian			
	CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009	
	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births
North Dakota	275	7.0	271	6.2	211	6.3	198	5.4	53	11.1	68	13.8
Region 1	15	10.3	11	6.1	11	9.4	7	4.5	--	--	--	--
Region 2	42	7.1	40	6.1	33	6.5	31	5.6	6	10.7	7	11.5
Region 3	36	11.2	38	11.3	7	5.8	--	--	29	14.7	33	15.0
Region 4	23	4.2	25	4.2	21	4.3	23	4.5	--	--	--	--
Region 5	57	5.3	68	5.5	48	4.8	63	5.7	--	--	--	--
Region 6	29	10.2	13	4.5	29	10.6	13	4.6	--	--	--	--
Region 7	58	7.6	63	7.2	49	7.5	46	6.2	8	7.6	17	14.5
Region 8	15	7.7	13	6.2	13	7.0	10	5.1	--	--	--	--
Turtle Mountain Statistical Area	18	12.6	21	13.7	--	--	--	--	18	14.6	19	13.7
Spirit Lake Statistical Area	18	11.9	16	10.0	7	9.1	--	--	11	15.0	14	17.4
Three Affiliated Statistical Area	23	13.8	14	7.6	16	14.1	--	--	7	13.2	10	18.9
Standing Rock Statistical Area	--	--	6	11.2	--	--	--	--	--	--	6	12.3

Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region. " -- " Data for geographies in which the event number was five or fewer are not shown. Calendar Year (CY) is January to December.
Source: North Dakota Department of Health, Division of Vital Records

Appendix Table 9. Total neonatal deaths in North Dakota's statistical planning regions by race, CY 2000-2004 and CY 2005-2009

Area	Total				White				American Indian			
	CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009	
	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births
North Dakota	198	5.0	181	4.1	153	4.6	144	3.9	38	7.9	33	6.7
Region 1	12	8.2	7	3.9	9	7.7	--	--	--	--	--	--
Region 2	27	4.6	25	3.8	23	4.5	21	3.8	--	--	--	--
Region 3	26	8.1	23	6.8	6	4.9	--	--	20	10.1	19	8.6
Region 4	18	3.3	12	2.0	17	3.5	11	2.2	--	--	--	--
Region 5	37	3.4	57	4.6	30	3.0	53	4.8	--	--	--	--
Region 6	26	9.2	13	4.5	26	9.5	13	4.6	--	--	--	--
Region 7	41	5.4	34	3.9	33	5.1	30	4.1	7	6.6	--	--
Region 8	11	5.6	10	4.8	9	4.9	7	3.6	--	--	--	--
Turtle Mountain Statistical Area	13	9.1	14	9.2	--	--	--	--	13	10.6	13	9.4
Spirit Lake Statistical Area	13	8.6	8	5.0	6	7.8	--	--	7	9.5	6	7.5
Three Affiliated Statistical Area	17	10.2	7	3.8	13	11.5	--	--	--	--	--	--
Standing Rock Statistical Area	--	--	--	--	--	--	--	--	--	--	--	--

Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region. " -- " Data for geographies in which the event number was five or fewer are not shown. Neonatal deaths are those deaths among infants less than 28 days old. Calendar Year (CY) is January to December.
Source: North Dakota Department of Health, Division of Vital Records

Appendix Table 10. Total post-neonatal deaths in North Dakota's statistical planning regions by race, CY 2000-2004 and CY 2005-2009

Area	Total				White				American Indian			
	CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009		CY 2000-2004		CY 2005-2009	
	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births	Number	Rate per 1,000 births
North Dakota	77	2.0	89	2.0	58	1.7	53	1.4	15	3.1	35	7.1
Region 1	--	--	--	--	--	--	--	--	--	--	--	--
Region 2	15	2.5	15	2.3	10	2.0	10	1.8	--	--	--	--
Region 3	10	3.1	15	4.4	--	--	--	--	9	4.5	14	6.4
Region 4	--	--	12	2.0	--	--	12	2.4	--	--	--	--
Region 5	20	1.9	10	0.8	18	1.8	9	0.8	--	--	--	--
Region 6	--	--	--	--	--	--	--	--	--	--	--	--
Region 7	17	2.2	29	3.3	16	2.5	16	2.2	--	--	13	11.1
Region 8	--	--	--	--	--	--	--	--	--	--	--	--
Turtle Mountain Statistical Area	--	--	7	4.6	--	--	--	--	--	--	6	4.3
Spirit Lake Statistical Area	--	--	8	5.0	--	--	--	--	--	--	8	10.0
Three Affiliated Statistical Area	6	3.6	7	3.8	--	--	--	--	--	--	--	--
Standing Rock Statistical Area	--	--	--	--	--	--	--	--	--	--	--	--

Note: See Appendix Maps 1 and 2 for geographic boundaries of each statistical planning region. " -- " Data for geographies in which the event number was five or fewer are not shown. Post-neonatal deaths are those deaths among infants from the end of their first month to a year after their birth. Calendar Year (CY) is January to December. Source: North Dakota Department of Health, Division of Vital Records

Appendix Table 11. Children impacted by domestic violence in North Dakota by reporting agency, CY 2006 to CY 2009

Domestic violence agency	Children impacted by domestic violence				
	CY 2006	CY 2007	CY 2008	CY 2009	
				Number	% of children ages 0-17
Bismarck - Abused Adult Resource Center	1,533	1,651	1,725	1,884	6.9%
Bottineau - Family Crisis Center	62	49	48	40	0.7%
Devils Lake - Safe Alternatives for Abused Families	106	136	103	102	1.6%
Dickinson - Domestic Violence & Rape Crisis Center	92	211	177	165	2.1%
Ellendale - Kedish House	31	24	21	13	0.4%
Fargo - Rape and Abuse Crisis Center	321	577	677	645	2.0%
New Town - Coalition Against Domestic Violence	--	--	--	175	--
Ft. Totten - Spirit Lake Victim Assistance	257	186	113	180	--
Grafton - Domestic Violence & Abuse Center, Inc.	98	72	78	82	1.7%
Grand Forks - Community Violence Intervention Center	779	755	814	898	6.6%
Jamestown - Safe Shelter	119	70	73	95	2.0%
Washburn - McLean Family Resource Center	113	107	119	125	7.6%
Beulah - Women's Action & Resource Center	61	70	61	88	4.3%
Minot - Domestic Violence Crisis Center	351	313	304	221	1.4%
Lisbon - Abuse Resource Network	68	61	53	38	3.0%
Stanley - Domestic Violence Program of NW ND	21	15	17	34	1.5%
Trenton - Circle of Hope	--	--	--	--	--
Belcourt - Hearts of Hope Domestic Violence Shelter	--	--	--	60	1.3%
Valley City - Abused Persons Outreach Center	82	150	147	160	6.2%
Wahpeton - Three Rivers Crisis Center	38	73	74	72	2.0%
Williston - Family Crisis Shelter	168	154	165	145	2.2%
North Dakota	4,300	4,674	4,769	5,222	3.4%

Note: See Appendix Map 3 for geographic boundary coverage areas of North Dakota's domestic violence agencies. " -- " Data are not available. Calendar Year (CY) is January to December. Source: North Dakota Council on Abused Women's Services

Appendix Table 12. Children ages 0 to 17 requiring immediate services for child abuse and neglect in North Dakota by county, FFY 2000 to FFY 2009

Area	Children ages 0 to 17 requiring immediate services for child abuse and neglect										
	Percent of all children ages 0 to 17									FFY 2009	
	FFY 2000	FFY 2001	FFY 2002	FFY 2003	FFY 2004	FFY 2005	FFY 2006	FFY 2007	FFY 2008	Number	% of all children ages 0 to 17
Adams	0.7%	1.4%	1.3%	0.6%	2.6%	1.1%	0.5%	1.0%	0.8%	3	0.8%
Barnes	0.9%	1.0%	0.8%	1.3%	1.5%	1.3%	2.1%	1.0%	1.0%	13	0.6%
Benson	0.2%	0.1%	0.0%	0.3%	0.3%	0.1%	0.2%	0.3%	0.4%	2	0.1%
Billings	0.0%	0.0%	0.5%	0.0%	3.5%	0.0%	2.0%	0.0%	0.7%	0	0.0%
Bottineau	0.9%	0.4%	1.1%	0.7%	0.4%	0.2%	0.2%	0.5%	0.6%	14	1.2%
Bowman	0.3%	0.6%	1.0%	0.3%	3.4%	1.2%	1.6%	1.3%	1.0%	2	0.3%
Burke	0.0%	0.9%	0.0%	0.8%	0.0%	0.0%	1.4%	0.0%	0.0%	1	0.3%
Burleigh	0.9%	0.8%	0.9%	0.8%	0.8%	0.9%	0.8%	1.1%	1.1%	145	0.8%
Cass	0.7%	0.7%	0.9%	1.0%	1.0%	0.9%	0.9%	0.8%	0.7%	237	0.7%
Cavalier	0.3%	1.2%	0.5%	0.5%	1.3%	1.1%	1.2%	0.7%	0.3%	5	0.7%
Dickey	0.6%	0.8%	1.0%	0.3%	0.8%	1.2%	1.8%	0.5%	0.3%	5	0.4%
Divide	1.3%	0.9%	2.3%	1.1%	1.6%	1.8%	0.6%	0.0%	0.3%	17	5.7%
Dunn	0.5%	0.6%	1.0%	1.4%	0.7%	0.3%	0.7%	0.7%	0.1%	3	0.4%
Eddy	0.0%	0.0%	0.5%	0.2%	0.2%	1.0%	0.8%	0.6%	0.2%	9	1.9%
Emmons	0.0%	0.2%	0.2%	0.3%	0.8%	0.4%	0.4%	0.4%	0.6%	0	0.0%
Foster	0.5%	1.4%	0.9%	0.9%	1.4%	1.0%	0.5%	0.1%	0.4%	1	0.1%
Golden Valley	0.0%	1.2%	0.6%	0.6%	1.1%	0.5%	0.2%	3.0%	0.0%	0	0.0%
Grand Forks	1.8%	1.7%	1.9%	1.6%	1.7%	1.5%	1.8%	1.2%	1.5%	183	1.3%
Grant	0.5%	0.0%	1.6%	1.8%	1.0%	0.8%	0.0%	2.1%	2.2%	4	1.0%
Griggs	0.6%	0.5%	0.4%	0.4%	0.0%	0.0%	0.5%	1.0%	0.7%	3	0.7%
Hettinger	0.8%	0.0%	1.1%	0.4%	0.6%	0.2%	1.2%	0.8%	0.3%	0	0.0%
Kidder	0.2%	0.0%	0.9%	1.1%	0.2%	0.2%	0.2%	1.2%	1.7%	14	3.4%
LaMoure	0.0%	0.4%	1.6%	1.4%	1.0%	0.9%	0.7%	0.1%	1.5%	4	0.5%
Logan	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	1	0.3%
McHenry	0.0%	0.4%	0.4%	1.2%	1.8%	1.6%	0.8%	0.0%	0.2%	13	1.3%
McIntosh	0.6%	0.0%	1.3%	0.7%	4.2%	0.2%	1.9%	2.1%	1.5%	5	1.2%
McKenzie	0.8%	0.1%	0.5%	0.2%	0.3%	0.4%	0.7%	0.0%	0.3%	16	1.2%
McLean	0.4%	0.2%	0.5%	0.4%	0.3%	0.0%	0.4%	0.0%	0.2%	2	0.1%
Mercer	1.1%	0.4%	0.5%	0.4%	0.3%	0.2%	0.3%	0.1%	0.3%	0	0.0%
Morton	0.9%	1.2%	0.8%	1.2%	1.0%	0.7%	0.6%	1.2%	1.2%	62	1.0%
Mountrail	0.0%	0.4%	0.8%	0.2%	0.2%	0.6%	1.2%	0.4%	0.8%	7	0.4%
Nelson	1.5%	0.8%	0.7%	2.3%	1.6%	0.7%	0.2%	0.2%	0.6%	0	0.0%
Oliver	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0	0.0%
Pembina	1.2%	1.1%	2.0%	1.7%	1.9%	1.1%	0.8%	0.8%	0.7%	20	1.4%
Pierce	0.4%	0.0%	0.1%	0.7%	0.4%	0.8%	0.8%	0.0%	0.5%	0	0.0%
Ramsey	2.2%	1.9%	3.4%	3.4%	2.2%	2.7%	2.4%	1.7%	1.4%	65	2.5%
Ransom	0.1%	0.0%	0.0%	0.0%	0.5%	1.1%	0.1%	0.0%	0.0%	4	0.3%
Renville	0.0%	0.0%	0.0%	0.8%	0.2%	1.9%	2.2%	1.4%	0.0%	4	1.0%
Richland	0.7%	0.8%	0.6%	0.5%	0.6%	0.6%	0.8%	0.6%	0.8%	13	0.4%
Rolette	0.5%	0.3%	0.3%	0.7%	0.9%	0.5%	0.4%	0.2%	0.3%	12	0.3%
Sargent	0.6%	0.3%	0.2%	0.0%	1.0%	0.0%	0.2%	0.2%	0.2%	8	0.9%
Sheridan	0.0%	0.0%	0.0%	0.4%	1.6%	0.0%	0.0%	0.0%	0.0%	0	0.0%
Sioux	0.0%	0.0%	0.1%	0.4%	0.6%	0.0%	0.0%	0.0%	0.4%	5	0.3%
Slope	0.0%	0.5%	0.0%	0.0%	0.7%	1.5%	0.0%	1.7%	0.0%	0	0.0%
Stark	2.4%	2.1%	2.1%	3.3%	1.9%	2.3%	1.9%	1.5%	1.6%	56	1.2%
Steele	0.6%	0.2%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.6%	1	0.3%
Stutsman	1.2%	1.5%	1.1%	1.3%	1.4%	0.8%	1.0%	0.7%	0.8%	40	1.0%
Towner	0.3%	1.4%	0.5%	1.0%	1.7%	0.4%	1.6%	0.0%	0.0%	0	0.0%
Traill	0.2%	0.0%	0.3%	0.0%	0.2%	0.7%	0.9%	0.4%	0.8%	17	1.0%
Walsh	1.4%	1.3%	1.9%	1.6%	1.9%	3.0%	1.5%	2.2%	1.1%	22	0.9%
Ward	0.4%	0.7%	0.5%	1.0%	1.3%	1.0%	1.2%	1.0%	0.9%	127	0.9%
Wells	0.7%	2.1%	1.0%	0.5%	1.4%	0.2%	0.8%	1.2%	2.0%	6	0.8%
Williams	1.1%	1.3%	1.3%	1.9%	1.2%	1.5%	1.4%	1.8%	1.6%	86	2.0%
North Dakota	0.9%	0.9%	1.0%	1.1%	1.1%	1.0%	1.0%	0.9%	0.9%	1,257	0.9%

Note: Federal Fiscal Year (FFY) is October 1 to September 30.

Source: North Dakota Department of Human Services, Children and Family Services

Appendix Table 13. Students in grades 9-12 who were ever hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the past 12 months in the United States and in North Dakota by planning region and by urban/rural status, 2001 to 2009

	Percent of students in grades 9-12 who were ever hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the past 12 months						
	2001	2003	2005	2007	2009	Annual average percent change: 2001 to 2009	Percent change: 2001 to 2009
United States	9.5%	8.9%	9.2%	9.9%	9.8%	0.9%	3.2%
North Dakota	11.7%	9.8%	8.8%	8.6%	8.5%	-7.5%	-27.4%
Region 1	15.2%	11.0%	9.5%	9.4%	8.1%	-14.0%	-46.7%
Region 2	10.8%	9.7%	10.0%	8.2%	8.7%	-4.7%	-19.4%
Region 3	11.2%	11.1%	10.0%	10.2%	9.2%	-4.7%	-17.9%
Region 4	14.7%	8.2%	7.6%	8.9%	7.6%	-12.3%	-48.3%
Region 5	11.9%	9.3%	10.1%	8.5%	7.3%	-10.8%	-38.7%
Region 6	9.6%	8.2%	9.5%	7.5%	5.3%	-12.3%	-44.8%
Region 7	10.3%	9.8%	9.8%	8.5%	8.1%	-5.7%	-21.4%
Region 8	13.3%	9.3%	8.4%	8.0%	8.4%	-9.9%	-36.8%
ND urban areas	12.2%	9.9%	9.8%	8.1%	8.5%	-8.1%	-30.3%
ND rural areas	11.2%	8.9%	9.5%	8.9%	7.2%	-9.8%	-35.7%

Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System

Appendix Table 14. Students in grades 9-12 who had ever been physically forced to have sexual intercourse when they did not want to in the United States and in North Dakota by planning region and by urban/rural status, 2001 to 2009

	Percent of students in grades 9-12 who had ever been physically forced to have sexual intercourse when they did not want to						
	2001	2003	2005	2007	2009	Annual average percent change: 2001 to 2009	Percent change: 2001 to 2009
United States	7.7%	9.0%	7.5%	7.8%	7.4%	-0.2%	-3.9%
North Dakota	8.6%	8.8%	7.1%	7.1%	6.5%	-6.4%	-24.4%
Region 1	10.6%	10.9%	8.9%	7.7%	7.3%	-8.5%	-31.1%
Region 2	6.8%	7.9%	8.4%	7.3%	7.4%	2.7%	8.8%
Region 3	8.8%	9.4%	7.7%	7.8%	6.9%	-5.4%	-21.6%
Region 4	11.4%	8.7%	8.2%	7.9%	7.3%	-10.2%	-36.0%
Region 5	8.5%	8.5%	7.6%	6.1%	7.0%	-3.9%	-17.6%
Region 6	8.7%	7.3%	8.4%	7.8%	6.3%	-6.8%	-27.6%
Region 7	6.9%	8.1%	7.6%	7.8%	7.4%	2.2%	7.2%
Region 8	8.5%	7.2%	7.8%	9.7%	9.3%	3.3%	9.4%
ND urban areas	8.6%	8.6%	8.6%	7.2%	7.8%	-2.0%	-9.3%
ND rural areas	8.2%	8.0%	7.4%	7.4%	6.7%	-4.8%	-18.3%

Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System

Appendix Table 15. Students in grades 9-12 who dropped out of school in North Dakota by county, 2000-01 to 2008-09

Area	Students in grades 9-12 who dropped out of school									
	Percent of all students enrolled in grades 9-12								2008-09	
	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Number	% of all students enrolled in grades 9-12
Adams	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0	0.0%
Barnes	0.5%	0.7%	0.9%	1.1%	2.1%	0.7%	1.6%	0.0%	2	0.4%
Benson	3.3%	7.6%	1.7%	6.7%	7.3%	5.9%	4.9%	4.5%	20	5.0%
Billings	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0	0.0%
Bottineau	0.8%	0.5%	0.8%	0.0%	0.8%	0.0%	0.0%	0.0%	0	0.0%
Bowman	0.4%	1.1%	0.0%	0.4%	0.4%	0.8%	0.4%	0.0%	0	0.0%
Burke	2.0%	0.0%	0.0%	1.0%	0.0%	1.1%	0.0%	0.0%	0	0.0%
Burleigh	1.9%	1.3%	1.1%	0.8%	1.0%	0.8%	1.9%	4.6%	74	1.9%
Cass	2.9%	3.0%	4.0%	3.8%	3.3%	3.2%	2.5%	2.0%	173	2.7%
Cavalier	0.3%	0.3%	1.4%	0.0%	1.1%	0.7%	0.7%	1.7%	2	1.0%
Dickey	1.7%	0.4%	2.2%	0.4%	2.0%	2.4%	1.1%	0.4%	0	0.0%
Divide	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	1.0%	0.9%	0	0.0%
Dunn	0.0%	0.0%	0.6%	0.0%	0.6%	2.0%	0.7%	0.0%	0	0.0%
Eddy	0.0%	0.5%	1.8%	0.6%	0.6%	0.0%	0.0%	0.7%	0	0.0%
Emmons	0.7%	0.0%	0.4%	1.6%	1.3%	0.0%	0.4%	0.0%	1	0.4%
Foster	0.4%	0.0%	0.0%	0.4%	0.0%	2.3%	1.4%	1.0%	2	1.0%
Golden Valley	0.0%	0.0%	0.0%	1.2%	1.4%	1.4%	0.8%	0.8%	0	0.0%
Grand Forks	1.7%	1.3%	1.2%	0.9%	0.9%	0.7%	1.3%	1.2%	40	1.4%
Grant	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.7%	0.0%	0	0.0%
Griggs	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.7%	0.7%	0	0.0%
Hettinger	1.1%	1.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0	0.0%
Kidder	1.1%	2.3%	1.7%	1.8%	0.0%	1.3%	0.7%	0.8%	1	0.8%
LaMoure	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	2	1.0%
Logan	0.0%	0.0%	0.0%	0.0%	0.8%	0.0%	0.0%	0.9%	0	0.0%
McHenry	0.8%	1.3%	0.5%	1.0%	0.3%	0.6%	0.6%	0.3%	0	0.0%
McIntosh	0.0%	0.0%	0.6%	1.6%	1.8%	0.6%	1.5%	0.8%	1	0.8%
McKenzie	2.3%	2.4%	1.2%	1.6%	0.0%	1.4%	0.8%	3.4%	9	3.6%
McLean	1.8%	0.9%	1.1%	1.0%	1.3%	1.1%	3.2%	0.8%	21	4.2%
Mercer	0.7%	0.7%	0.4%	0.7%	0.7%	1.4%	1.5%	0.4%	2	0.4%
Morton	4.0%	1.9%	1.2%	1.4%	3.0%	2.9%	2.2%	2.5%	51	3.8%
Mountrail	2.3%	2.4%	2.2%	0.2%	2.2%	1.5%	3.2%	2.5%	10	2.5%
Nelson	0.7%	0.8%	0.5%	0.5%	0.5%	1.1%	0.5%	0.0%	1	0.6%
Oliver	0.0%	4.3%	0.9%	0.0%	0.0%	0.0%	0.0%	3.3%	1	1.3%
Pembina	1.0%	0.9%	1.2%	1.1%	0.9%	1.2%	0.9%	1.2%	12	3.0%
Pierce	2.0%	0.0%	1.5%	0.8%	1.2%	1.3%	0.4%	1.2%	1	0.4%
Ramsey	5.4%	2.9%	1.2%	2.8%	1.9%	3.5%	0.9%	1.0%	2	0.3%
Ransom	1.1%	1.4%	0.6%	1.2%	0.9%	1.2%	1.2%	0.9%	2	0.6%
Renville	0.0%	1.1%	0.7%	0.0%	0.0%	0.4%	0.0%	0.5%	0	0.0%
Richland	2.2%	1.6%	2.5%	1.0%	1.2%	2.8%	1.2%	1.3%	13	1.6%
Rolette	11.0%	9.9%	7.6%	8.7%	5.1%	7.7%	10.9%	7.8%	86	8.7%
Sargent	1.1%	0.4%	0.4%	0.8%	0.0%	0.0%	0.4%	0.0%	0	0.0%
Sheridan	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	3.3%	1.9%	2	3.5%
Sioux	5.3%	7.8%	16.9%	10.1%	6.5%	0.0%	7.9%	9.7%	12	4.2%
Slope	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0	0.0%
Stark	1.5%	1.8%	2.1%	1.8%	1.7%	1.2%	1.8%	1.7%	22	1.7%
Steele	1.7%	0.0%	1.3%	0.6%	0.0%	0.0%	0.7%	0.0%	1	0.7%
Stutsman	1.1%	1.4%	1.9%	1.3%	0.8%	1.3%	2.0%	1.7%	30	3.2%
Towner	0.5%	0.0%	1.1%	1.2%	0.0%	0.8%	4.3%	1.8%	3	3.0%
Traill	0.8%	2.1%	1.7%	1.3%	0.6%	0.0%	1.5%	0.4%	6	1.2%
Walsh	3.3%	1.3%	2.0%	1.6%	1.7%	1.3%	1.3%	2.4%	13	2.3%
Ward	1.6%	2.0%	1.7%	1.1%	1.5%	2.4%	3.0%	2.9%	83	3.0%
Wells	1.4%	0.6%	0.6%	0.6%	0.0%	2.1%	0.0%	0.8%	3	1.4%
Williams	0.8%	2.2%	3.5%	4.4%	3.1%	4.8%	7.5%	5.9%	71	6.5%
North Dakota	2.2%	2.0%	2.1%	2.0%	1.8%	2.0%	2.3%	2.4%	775	2.4%

Source: North Dakota Department of Public Instruction

Appendix Table 16. Students in grades 9-12 who had five or more drinks of alcohol in a row, that is, within a couple of hours, on one or more of the past 30 days in the United States and in North Dakota by planning region and by urban/rural status, 2001 to 2009

	Percent of students in grades 9-12 who had five or more drinks of alcohol in a row, that is, within a couple of hours, on one or more of the past 30 days						
	2001	2003	2005	2007	2009	Annual average percent change: 2001 to 2009	Percent change: 2001 to 2009
United States	29.9%	28.3%	25.5%	26.0%	24.2%	-5.1%	-19.1%
North Dakota	41.5%	39.5%	33.8%	32.5%	30.7%	-7.2%	-26.0%
Region 1	52.5%	45.5%	42.4%	35.1%	39.0%	-6.6%	-25.7%
Region 2	40.0%	34.9%	33.7%	30.4%	29.6%	-7.2%	-26.0%
Region 3	46.8%	43.6%	35.5%	32.4%	30.6%	-9.9%	-34.6%
Region 4	46.4%	43.7%	29.4%	30.5%	33.1%	-6.6%	-28.7%
Region 5	41.2%	36.4%	29.2%	28.8%	23.8%	-12.5%	-42.2%
Region 6	41.8%	40.9%	35.6%	32.8%	28.2%	-9.3%	-32.5%
Region 7	45.5%	38.7%	30.0%	33.4%	26.8%	-11.5%	-41.1%
Region 8	49.8%	44.5%	33.5%	35.9%	29.3%	-11.6%	-41.2%
ND urban areas	43.4%	38.1%	28.4%	29.2%	25.7%	-11.7%	-40.8%
ND rural areas	45.4%	41.5%	35.9%	33.2%	30.7%	-9.3%	-32.4%

Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System

Appendix Table 17. Students in grades 9-12 who smoked cigarettes on one or more of the past 30 days in the United States and in North Dakota by planning region and by urban/rural status, 2001 to 2009

	Percent of students in grades 9-12 who smoked cigarettes on one or more of the past 30 days						
	2001	2003	2005	2007	2009	Annual average percent change: 2001 to 2009	Percent change: 2001 to 2009
United States	28.5%	21.9%	23.0%	20.0%	19.5%	-8.4%	-31.6%
North Dakota	35.3%	30.2%	22.1%	21.1%	22.4%	-9.9%	-36.5%
Region 1	48.7%	37.1%	30.3%	22.4%	25.3%	-13.8%	-48.0%
Region 2	31.6%	29.3%	27.8%	20.3%	22.9%	-6.6%	-27.5%
Region 3	43.3%	36.9%	31.7%	29.1%	27.2%	-10.9%	-37.2%
Region 4	39.3%	33.1%	20.1%	19.7%	23.5%	-9.4%	-40.2%
Region 5	35.1%	31.3%	22.1%	17.4%	18.4%	-13.9%	-47.6%
Region 6	29.5%	26.2%	26.1%	18.6%	19.5%	-8.9%	-33.9%
Region 7	39.2%	33.4%	24.2%	22.8%	25.0%	-9.6%	-36.2%
Region 8	38.4%	31.5%	22.8%	26.3%	25.9%	-7.9%	-32.6%
ND urban areas	37.9%	32.5%	24.7%	20.7%	23.2%	-10.6%	-38.8%
ND rural areas	36.1%	31.3%	25.8%	21.2%	22.4%	-10.8%	-38.0%

Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System

Appendix Table 18. Students in grades 9-12 who used chewing tobacco, snuff, or dip on one or more of the past 30 days in the United States and in North Dakota by planning region and by urban/rural status, 2001 to 2009

	Percent of students in grades 9-12 who used chewing tobacco, snuff, or dip on one or more of the past 30 days						
	2001	2003	2005	2007	2009	Annual average percent change: 2001 to 2009	Percent change: 2001 to 2009
United States	8.2%	6.7%	8.0%	7.9%	8.9%	3.1%	8.5%
North Dakota	13.2%	10.3%	11.2%	11.7%	15.3%	5.5%	15.9%
Region 1	21.9%	15.6%	20.1%	17.0%	23.2%	5.3%	5.9%
Region 2	9.6%	9.9%	11.6%	10.1%	18.8%	23.4%	95.8%
Region 3	18.2%	12.5%	12.6%	11.2%	17.8%	4.3%	-2.2%
Region 4	12.1%	11.6%	13.9%	14.2%	19.7%	14.1%	62.8%
Region 5	11.1%	7.5%	8.6%	9.4%	10.9%	1.9%	-1.8%
Region 6	11.2%	12.9%	12.0%	11.3%	16.5%	12.1%	47.3%
Region 7	14.2%	12.1%	11.3%	10.9%	14.6%	2.3%	2.8%
Region 8	16.0%	13.8%	15.7%	18.2%	15.4%	0.1%	-3.8%
ND urban areas	12.0%	8.9%	9.0%	8.3%	12.9%	5.7%	7.5%
ND rural areas	14.5%	13.7%	14.2%	13.4%	18.6%	7.8%	28.3%

Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System

Appendix Table 19. Students in grades 9-12 who were offered, sold, or given an illegal drug by someone on school property in the past year in the United States and in North Dakota by planning region and by urban/rural status, 2001 to 2009

	Percent of students in grades 9-12 who were offered, sold, or given an illegal drug by someone on school property in the past year						
	2001	2003	2005	2007	2009	Annual average percent change for years shown	Percent change: 2001 to 2009
United States	28.5%	28.7%	25.4%	22.3%	22.7%	-5.3%	-20.4%
North Dakota	27.3%	21.3%	19.6%	18.7%	19.5%	-7.6%	-28.6%
Region 1	-	-	20.4%	21.5%	17.1%	-7.5%	-
Region 2	-	-	20.7%	18.8%	20.6%	0.2%	-
Region 3	-	-	18.2%	20.7%	15.7%	-5.2%	-
Region 4	-	-	16.0%	18.7%	22.0%	17.3%	-
Region 5	-	-	18.6%	19.3%	19.4%	2.1%	-
Region 6	-	-	15.7%	17.7%	14.9%	-1.5%	-
Region 7	-	-	16.7%	17.9%	20.2%	10.0%	-
Region 8	-	-	18.4%	21.6%	17.5%	-0.8%	-
ND urban areas	-	-	21.4%	20.5%	22.3%	2.3%	-
ND rural areas	-	-	15.2%	17.8%	15.8%	2.9%	-

Note: See Appendix Map 1 for geographic boundaries of each statistical planning region. "-" indicates that data are not available.
Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System

Appendix Table 20. Students in grades 9-12 who used marijuana one or more times during the past 30 days in the United States and in North Dakota by planning region and by urban/rural status, 2001 to 2009

	Percent of students in grades 9-12 who used marijuana one or more times during the past 30 days						
	2001	2003	2005	2007	2009	Annual average percent change: 2001 to 2009	Percent change: 2001 to 2009
United States	23.9%	22.4%	20.2%	19.7%	20.8%	-3.2%	-13.0%
North Dakota	22.0%	20.6%	15.5%	14.8%	16.9%	-5.4%	-23.2%
Region 1	21.4%	20.8%	16.9%	14.9%	16.3%	-6.0%	-23.8%
Region 2	17.1%	19.9%	16.1%	14.6%	15.2%	-2.0%	-11.1%
Region 3	21.4%	25.6%	16.7%	18.6%	18.0%	-1.7%	-15.9%
Region 4	24.3%	25.8%	9.7%	12.4%	14.2%	-3.5%	-41.6%
Region 5	23.8%	23.5%	16.1%	13.2%	16.0%	-7.4%	-32.8%
Region 6	14.3%	13.4%	10.8%	6.2%	10.3%	-0.5%	-28.0%
Region 7	24.6%	22.4%	15.9%	18.2%	19.4%	-4.2%	-21.1%
Region 8	19.5%	13.5%	11.1%	10.3%	14.0%	-5.0%	-28.2%
ND urban areas	27.5%	26.3%	17.5%	16.9%	18.9%	-7.4%	-31.3%
ND rural areas	14.0%	15.6%	12.4%	12.1%	13.2%	-0.6%	-5.7%

Note: See Appendix Map 1 for geographic boundaries of each statistical planning region.
Source: Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System

Appendix Table 21. Youth ages 10 to 17 referred to juvenile court in North Dakota by county, CY 2000 to CY 2009

Area	Children ages 10 to 17 referred to juvenile court										
	Percent of all children ages 10 to 17									CY 2009	
	CY 2000	CY 2001	CY 2002	CY 2003	CY 2004	CY 2005	CY 2006	CY 2007	CY 2008	Number	% of all children ages 10 to 17
Adams	4.2%	1.9%	4.3%	2.7%	3.7%	7.3%	4.5%	5.3%	5.9%	11	5.0%
Barnes	8.2%	9.7%	9.3%	15.2%	16.1%	11.0%	11.5%	10.7%	9.3%	80	8.1%
Benson	2.2%	4.0%	3.2%	3.3%	4.1%	2.1%	2.0%	2.3%	1.3%	9	0.9%
Billings	0.0%	3.3%	1.7%	1.8%	7.1%	7.1%	7.6%	4.1%	11.3%	5	7.0%
Bottineau	6.4%	7.0%	9.1%	8.7%	7.0%	5.9%	5.0%	7.1%	8.0%	59	10.3%
Bowman	4.2%	3.6%	4.5%	9.1%	6.6%	1.5%	6.9%	7.4%	5.7%	25	9.4%
Burke	3.2%	1.2%	3.5%	4.4%	2.3%	4.8%	3.4%	1.5%	3.3%	3	1.6%
Burleigh	9.8%	9.5%	9.7%	10.3%	10.4%	11.0%	11.8%	12.5%	11.3%	912	12.1%
Cass	7.8%	6.9%	7.7%	10.5%	10.0%	9.9%	9.1%	9.2%	9.7%	1,349	10.2%
Cavalier	5.8%	4.2%	3.4%	5.8%	4.0%	6.5%	6.5%	7.2%	6.7%	21	5.6%
Dickey	5.1%	4.6%	4.6%	7.5%	7.3%	5.3%	3.5%	7.9%	3.7%	29	5.6%
Divide	9.5%	3.4%	1.6%	2.5%	1.7%	3.9%	5.5%	5.2%	3.3%	12	7.8%
Dunn	2.5%	1.8%	4.1%	3.1%	5.1%	2.9%	1.2%	6.2%	2.6%	22	5.7%
Eddy	9.3%	5.7%	9.6%	17.7%	12.2%	4.3%	11.9%	11.0%	4.5%	18	7.4%
Emmons	2.8%	3.3%	5.1%	4.9%	5.8%	6.2%	8.0%	8.5%	8.7%	21	5.2%
Foster	6.7%	5.0%	4.3%	7.8%	7.1%	10.3%	8.0%	7.2%	8.7%	22	6.0%
Golden Valley	7.6%	11.7%	15.5%	14.0%	12.4%	10.9%	14.8%	9.5%	6.9%	15	5.8%
Grand Forks	9.4%	9.0%	8.7%	9.9%	10.1%	9.4%	9.0%	8.8%	8.5%	549	8.9%
Grant	3.4%	1.8%	4.9%	6.7%	3.5%	2.4%	8.8%	4.7%	5.8%	19	7.4%
Griggs	1.2%	1.5%	2.7%	2.9%	4.5%	3.2%	3.3%	3.9%	3.5%	4	1.8%
Hettinger	3.0%	2.9%	4.9%	2.3%	8.0%	1.9%	8.4%	4.4%	1.5%	6	2.9%
Kidder	5.9%	2.4%	4.8%	4.9%	6.7%	4.9%	10.8%	4.7%	5.4%	14	6.9%
LaMoure	2.8%	2.6%	7.8%	8.2%	5.8%	7.9%	4.4%	5.8%	2.8%	24	6.2%
Logan	4.2%	3.9%	5.2%	3.4%	2.6%	1.4%	1.3%	4.4%	6.2%	15	7.7%
McHenry	5.3%	2.9%	4.1%	6.0%	6.1%	6.1%	2.9%	4.5%	7.9%	16	3.3%
McIntosh	6.7%	6.6%	3.3%	6.1%	7.6%	7.7%	9.0%	9.6%	7.0%	9	4.2%
McKenzie	5.2%	5.4%	5.3%	6.1%	5.8%	5.0%	4.4%	3.8%	4.0%	36	5.4%
McLean	5.2%	4.3%	2.6%	3.2%	4.7%	4.1%	6.8%	7.6%	7.8%	54	6.9%
Mercer	4.9%	5.4%	5.6%	5.5%	4.8%	5.2%	4.8%	6.2%	6.5%	59	6.8%
Morton	9.7%	9.9%	10.1%	11.3%	10.7%	9.3%	10.0%	11.0%	11.6%	319	11.0%
Mountrail	3.1%	3.1%	3.4%	4.8%	5.6%	5.2%	3.6%	4.3%	2.2%	14	1.9%
Nelson	4.3%	3.4%	2.8%	5.5%	4.2%	4.1%	5.7%	5.2%	4.7%	24	9.4%
Oliver	6.3%	1.8%	2.0%	1.8%	5.0%	4.7%	7.7%	4.5%	1.6%	7	3.7%
Pembina	8.3%	5.0%	6.6%	9.7%	8.9%	9.6%	8.0%	5.0%	6.6%	69	9.6%
Pierce	4.6%	3.4%	6.6%	5.2%	5.0%	4.3%	10.1%	2.5%	3.3%	13	3.1%
Ramsey	21.7%	19.7%	20.4%	20.2%	21.4%	22.0%	19.2%	16.1%	17.7%	195	16.3%
Ransom	5.5%	5.6%	7.4%	7.0%	10.0%	8.1%	8.7%	9.0%	8.2%	29	4.9%
Renville	4.5%	5.0%	6.4%	4.3%	3.7%	9.5%	1.7%	5.5%	1.9%	6	2.8%
Richland	7.1%	7.2%	6.2%	8.0%	7.8%	7.2%	7.6%	5.3%	5.1%	113	6.6%
Rolette	6.2%	6.1%	7.1%	7.5%	5.4%	4.4%	4.2%	2.9%	2.1%	97	5.0%
Sargent	6.6%	5.8%	3.8%	4.4%	8.2%	4.6%	5.6%	7.1%	7.1%	24	5.2%
Sheridan	2.3%	1.5%	4.9%	2.4%	1.3%	2.1%	1.5%	5.5%	6.2%	6	5.3%
Sioux	1.6%	0.0%	0.4%	0.3%	0.1%	0.1%	0.2%	0.0%	0.0%	2	0.3%
Slope	1.7%	3.7%	7.1%	1.2%	7.8%	1.5%	1.5%	3.2%	0.0%	0	0.0%
Stark	8.7%	8.4%	7.5%	9.7%	8.2%	8.2%	7.6%	9.6%	9.0%	167	7.5%
Steele	1.2%	0.6%	4.3%	1.4%	7.9%	8.3%	4.4%	4.2%	2.3%	15	6.8%
Stutsman	10.0%	11.3%	12.0%	12.8%	14.4%	10.6%	15.4%	11.7%	12.9%	237	12.8%
Towner	3.6%	6.2%	8.2%	16.0%	12.5%	11.3%	4.7%	6.6%	11.4%	11	4.8%
Traill	4.3%	5.8%	6.0%	6.2%	6.4%	4.7%	4.4%	4.0%	3.2%	55	6.8%
Walsh	7.0%	7.5%	10.8%	11.5%	11.2%	9.2%	11.1%	10.2%	9.4%	101	9.2%
Ward	8.3%	8.0%	6.6%	9.7%	9.2%	8.5%	8.2%	8.8%	8.2%	533	8.6%
Wells	3.8%	7.8%	6.5%	5.6%	7.2%	5.8%	5.9%	7.6%	11.4%	31	7.9%
Williams	8.8%	9.6%	10.2%	11.9%	11.5%	10.8%	11.3%	12.2%	13.9%	298	15.0%
North Dakota	7.7%	7.4%	7.7%	9.2%	9.1%	8.6%	8.7%	8.7%	8.6%	5,784	9.0%

Note: Calendar Year (CY) is January to December.

Source: North Dakota Supreme Court

B. EXISTING PROGRAMS

Since North Dakota does not have a statewide home visiting system, gathering information on existing programs in the state is challenging. Through inquiries with a variety of agencies and programs targeting early childhood, the following programs are currently functioning in the state of North Dakota and include home visiting services:

- ***Nurse Family Partnership*** serves families in the city of Fargo, ages prenatal to two years. The program is funded with city and county funds, Medicaid reimbursement and state aide (MCH dollars). The program capacity is 119 and there is a waiting list at times. In the past the program served a total of five counties, enabling them to offer services to rural areas. Due to funding cuts, they no longer are able to provide services to areas outside of the city. Upon enrolling, a client is seen by an RN weekly for four weeks then every two weeks until the baby is born. Once the baby is born, they are seen weekly for four weeks and then every two weeks until they are 21 months, at which time they are seen monthly until discharge when they turn two years of age. The program operates out of the Fargo-Cass Public Health Unit. They served 182 children under the age of two in 2008. All clients are first time mothers and of low income.
- ***Healthy Families*** is a program of Lutheran Social Services of North Dakota. It is funded in large part by the North Dakota Department of Human Services. The program has sites in Bismarck and Grand Forks. The Bismarck site serves Burleigh and Morton counties. The Grand Forks site serves Grand Forks and Nelson counties. In 2009, the Bismarck site served 32 clients and the Grand Forks site served 34 clients. Between both sites the capacity is 90 clients. Women are admitted either prenatal or within two weeks of birth until the age of three. Services are voluntary and not based on income alone, but rather based on a comprehensive screening process to identify risk factors within the family. Frequency of visits varies based on the individual client needs.
- ***Parents as Teachers*** is currently administered through the Family and Child Education (FACE) program for American Indians through Theodore Jamison Elementary School in Bismarck. American Indian families are served ages prenatal through five. Eligibility is not based on income; however, the majority of the clients are college students and are low income. In 2008, this program served 41 families (under the age of two).
- ***Head Start/Early Head Start Programs*** that offer home-based services include:
    - Bismarck Head Start: 18 children are being served in Kidder, Logan, Emmons and McIntosh counties.
    - Early Explorers Head Start (based in Devils Lake): Seven children are being served in Harvey (Wells County).
    - Community Action Agency Region VI 0-5 Head Start (based in Jamestown): 39 children are being served between the towns of Valley City, Jamestown, New Rockford and Medina. An additional 20 children are receiving services through Early Head Start Home Base Option in Jamestown.
    - Mayville State University Child Development Program: offers a home-based option serving children prenatal to age five.
    - Community Action Partnership Head Start (based in Dickinson): provides home-based head start services for 30 preschool children in Adams, Billings, Bowman, Dunn, Golden Valley, Hettinger, Slope and Stark counties.
    - The Standing Rock 0-5 Program offers home-based programming.

- ***Healthy Start*** has three sites in North Dakota to serve American Indian clients. The program is administered through the Aberdeen Area Tribal Chairman's Health Board. The focus is to decrease infant mortality, depression and fetal alcohol spectrum disorders. Curriculum varies from site to site, as does the frequency of home visits.
    - Spirit Lake Healthy Start: serves American Indians on the Spirit Lake Indian Reservation in Benson County. In the past year, the program has served approximately 25 prenatal clients and 45 postpartum families.
    - Turtle Mountain Healthy Start: serves American Indians on the Turtle Mountain Indian Reservation in Rolette County. In the past year, the program has served approximately 30 prenatal clients and 70 postpartum families.
    - Trenton Healthy Start: serves American Indian families in the Trenton Indian Service Area in Williams, McKenzie and Divide counties in North Dakota and Roosevelt, Sheridan and Richland counties in Montana. In the past year, they have served approximately 16 prenatal clients and 55 postpartum families.

Various forms of home visiting services are currently in place in 25 of the 53 counties in North Dakota. There are no counties in which there more than one program in existence. Many of the programs are very limited in scope and capacity. For example, the Healthy Start and FACE/PAT programs exist only to serve American Indian families. Home-based Head Start/Early Head Start programs each have a limited number of available slots based on their funding. The frequency of home visits, as well as the curriculum or model, varies between each program. In addition to Head Start/Early Head Start and Healthy Start, there are two other home visiting programs in the state. Family Nurse Partnership serves only the city of Fargo (the state's largest city), while Healthy Families have two sites, each site serving two counties. There are obviously many gaps in services for the 28 counties in the state without any home visiting services. Of special concern is the lack of adequate funding and staffing for the Healthy Start programs in the state to meet the needs of pregnant women and infants on the reservations and tribal services areas.

C. STATEWIDE SUBSTANCE ABUSE, COUNSELING AND TREATMENT

Alcohol is the most commonly used substance in the United States (SAMHSA, 2005). Studies have demonstrated that rural and frontier areas of the United States are prone to substance use and abuse. Egan (2006) gives several reasons why residents of rural/frontier states and regions abuse alcohol. Some of the reasons are: boredom, stress, anxiety, depression, for use as a depressant and sleep aid, genetic predisposition to and family history of substance abuse/addiction, unemployment and underemployment, poverty, poor far/ranch economy, peer pressure, feelings of isolation (especially in the winter), and a rite of passage. In regard to rates of past month alcohol use, North Dakota was ranked in the top five of all states for all three age groups (12 to 17; 18 to 25; and, 26 or older) (National Survey on Drug Use and Health, 2004-05). Nationally, the highest rates of binge alcohol use occurred among people ages 18 to 25. North Dakota had the highest rate in this age group at 58.1 percent, almost double the highest rate among persons ages 26 or older and almost four times the highest rate among youth ages 12 to 17 (NSDUH, 2004-05). In assessing perceptions of the risk of binge alcohol drinking use to the actual rates of usage, the national study concluded that although North Dakota had the highest rate of binge drinking among all 50 states, the perceived risk of binge drinking was among the lowest.

The earlier that one begins drinking alcohol, the more likely one will become a heavy chronic user of alcohol (SAMHSA, 2006b). The results of the 2009 Youth Risk Behavior Survey for Middle School (grades 7-8) show that 12.1 percent of students had their first drink of alcohol (other than a few sips) before age 11 years (YRBS, 2009). The two regions of the state that we will be focusing on in this narrative as communities at risk had results higher than the state average with 13 percent for Region 1 and 15.6 percent for Region 3 (see page 51 Appendix Map 1).

Some studies have found that members of some ethnic/racial minority groups have alcohol consumption rates that are higher than white populations. In North Dakota, it is somewhat difficult to measure alcohol differences by ethnicity, given that few such studies have been conducted in the state. In 2004, the University of North Dakota Center for Health Promotion and Prevention Research (CHPPR) conducted a BRFSS-like survey of a randomly selected group of 100 American Indian respondents from each of the four main American Indian reservation areas (N=400) in North Dakota (Holm et al., 2004). The questionnaire included items that assessed alcohol use. Findings from this study indicated that American Indian sample members were less likely to be drinkers compared to the aggregate BRFSS sample of North Dakotans. But among drinkers, the American Indian sample was more likely to report heavy drinking than participants from the North Dakota sample.

The NSDUH (2005) assessed the extent to which U.S. and state residents ages 12 and older were dependent on or had abused alcohol in the past year. North Dakotans were either dependent on or abused alcohol in the past year at the following rates by age cohort: 12 and older (9.8 percent); 12-17 years (8.2 percent); 18-25 years (24.2 percent); and, 26 years or older (1 percent). For each of these age cohorts, North Dakota was in the top 20 percent of all U.S. states for alcohol dependence or abuse. The same survey assessed the percent of residents that needed but did not receive treatment for alcohol use. North Dakotans were in the top 20 percent of all U.S. states for needing but not receiving alcohol treatment in all age groups: 12 years and older (8.4-9.6 percent); 12-17 years (6.8-8.1 percent); 18-25 years (20.2-24 percent); and, 26 years and older (6.6-8.2 percent) (OAS, 2007).

In the NSDUH (2004-2005), respondents are asked whether they had used any illicit drug in the past 30 days. North Dakotans ages 12 and older used any illicit drug at a rate that warranted classification into the lowest ranked U.S. state grouping which had rates of 5.9-7.2 percent (OAS, 2007). The YRBS indicated that 6.4 percent of North Dakota high school students in 2009 had tried marijuana for the first time before the age of 13 years. This is up from 5.4 percent in 2007. In Region 1, the rate is 8.3 percent and in Region 3, it is 11.3 percent.

Page 51, Appendix Map 1 shows the eight service regions in North Dakota and the location of each human service center. Each region has a human service center to provide assistance to individuals and families with concerns including family and relationship issues, mental illness, addiction, disabilities and other needs. Preference is given to individuals acquiring addiction services at all regional Human Service Centers in the following order: (1) those who are pregnant and inject drugs; (2) those who are pregnant and abuse substances; (3) those who inject drugs; (4) all others.

Treatment capacity for the eight human service centers in the state as of January 2010 include 271 slots for residential and detox programs and 1,127 slots for outpatient programs.

In the NSDUH (2005-2006), respondents were asked whether they needed drug treatment but did not receive it in the past year. North Dakotans ages 12 and older warranted classification into the lowest-ranked U.S. state grouping which had prevalence of 1.9-2.3 percent.

Note: Information contained in Section C was obtained from the *Alcohol, Tobacco, and Illicit Drug Consumption and Consequences in North Dakota, the North Dakota Epidemiological Profile, March 2008* and the *2009 Youth Risk Behavior Survey*.

1. STATEWIDE DATA REPORT:

Communities of Need in North Dakota

Table 3. North Dakota Statewide Summary

Indicator	Title V	CAPTA	Head Start	SAMHSA	Other	Comments
Premature births Live births less than 37 weeks gestation as a percent of total live births (%): 2005-2009					9.5%	North Dakota Department of Health, Division of Vital Records
Low birth weight births Live births less than 2,500 grams as a percent of total live births (%): 2005-2009					6.5%	North Dakota Department of Health, Division of Vital Records
Infant mortality Infant deaths per 1,000 live births (rate): 2005-2009					6.2	North Dakota Department of Health, Division of Vital Records
Poverty Children ages 0-17 below 100% of the FPL as a percent of all children ages 0-17 (%): 2008					14.2%	U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE)
Crime Youth ages 10-17 referred to juvenile court as a percent of all youth ages 10-17 (%): 2009					9.0%	North Dakota Supreme Court (data from the tribal court system are not included)
Domestic Violence Children impacted by domestic violence (#): 2009					5,222	North Dakota Council on Abused Women's Services
School Dropout Rates Students in grades 9-12 who dropped out of school as a percent of total enrollment in grades 9-12 (%): 2008-2009					2.4%	North Dakota Department of Public Instruction
Substance Abuse Binge Drinking: Percent of students in grades 9-12 who binge drank in past month (%): 2009					30.7%	Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System
Current Smoker: Percent of students in grades 9-12 who smoked cigarettes in past month (%): 2009					22.4%	
Smokeless Tobacco User: Percent of students in grades 9-12 who used chewing tobacco, snuff, or dip in past month (%): 2009					15.3%	
Marijuana User: Percent of students in grades 9-12 who used marijuana in past month (%): 2009					16.9%	
Drugs at School: Percent of students in grades 9-12 who were offered, sold, or given an illegal drug by someone on school property in past year (%): 2009					19.5%	
Unemployment Unemployed and seeking work as a percent of civilian labor force (%): 2009					4.3%	Job Service North Dakota, Labor Market Information Center, LAUS Unit
Child maltreatment Children requiring immediate services for child abuse and neglect as a percent of all children ages 0-17 (%): 2009					0.9%	North Dakota Department of Human Services, Children and Family Services (data from tribal areas are not included)

2. SELECTION OF COMMUNITIES

Given the rural nature and sparsely populated context of North Dakota, we approached defining "communities of need" from a pragmatic perspective. Our approach was to use the smallest geographic building block that was meaningful from both a program perspective and from a data collection standpoint. There are only fifteen cities in North Dakota with a population base of at least 2,500 people. We felt that using cities or incorporated places as the basis for "communities of need" would greatly bias our statewide assessment, thus we opted to select counties as the basic unit of analysis. However, even the majority of counties in North Dakota are relatively small in population. The latest population estimates indicate that 29 of the 53 counties in the state have a population base below 5,000 residents. This has significant consequences on our ability to report various indicators due to issues of confidentiality or because of instability within the data due to small numbers. Trend lines or one's ability to correctly interpret change over time periods is greatly hampered by small numbers. Very modest numeric changes translate into what can appear to be very significant proportional changes if the population base is very small. For example, in a county where only a handful of births are recorded annually, it doesn't take many new births to create rather dramatic swings in the percentage change in births.

In an attempt to accommodate the unique data limitations in North Dakota, we profile "communities" for this needs assessment in two distinct ways:
First, we use counties as our geographic area for "communities of need" and present eight indicators for which county-level data are appropriate. Five of these eight indicators represent economic issues (i.e., unemployment, average wage per job, children in poverty, children receiving TANF, and children receiving free or reduced lunches) while the remaining three indicators represent issues of safety (i.e., children needing services for abuse and neglect), risk (i.e., high school dropouts), and crime (i.e., children referred to juvenile court).

Second, we expanded our geographic dimension of "communities of need" to the regional level for 13 additional indicators which include birth outcomes (i.e., preterm births and low weight births), issues of mortality (i.e., neonatal deaths, post-neonatal deaths, perinatal deaths, and infant deaths), maltreatment (i.e., rape or abuse by boy/girlfriend), and behavioral risk indicators (i.e., binge drinking, smoking, smokeless tobacco use, marijuana use, and illegal substance use). The regions consist of groups of counties and coincide with the planning region boundaries established by the state of North Dakota for the purposes of standardizing areas being served by state agencies. The boundaries of North Dakota's eight established planning regions and four tribal statistical areas can be seen in Appendix Maps 1 and 2.

On September 1, 2010, the Home Visiting Data Committee was assembled to discuss the results of the data compiled in the report. Members include data specialists and epidemiologists from the Department of Health (NDDoH), the Department of Human Services (NDDHS), Child Maltreatment Prevention Services Administrator, State Title V Director, State Head Start

Collaboration Director, Director of the Division of Children's Special Health Services, Director of the North Dakota Data Center and Director of Fargo-Cass Nurse Family Partnership.

After reviewing the data and discussing the limitations, a general consensus was reached that for the purpose of this program, our definition of "community" will be a county. Despite the lack of data (or incomplete data) from American Indian reservations throughout the state, it is evident that counties which contain a reservation are at higher risk in several of the indicators. A review of the seven counties noted as having the greatest need shows different patterns with regard to the two different themes nested within our measure of need. For example, the indicators that placed the counties of Benson, Grant, Rolette, Sheridan and Sioux into the highest need ranking were economic in nature. In contrast, the issues that placed Williams and Ramsey counties in the highest need ranking were safety, risk and crime. The data committee discussed this issue at length and the obvious fact that many of the counties in our state have serious issues that could be addressed with an evidenced based home visiting program.

We considered the overlapping data available on both the county and the regional level when making our decision on which counties to focus on for this response. Using this logic, it is easy to see how the group discussion led to the selection of Benson and Rolette counties. Both of these counties were ranked within the five neediest counties for the following indicators: unemployment rate, children in poverty, children receiving TANF, children receiving free or reduced lunch and high school dropout rates. When looking at the data that was compiled by region, both of these counties are in Region 3. This region had a total of ten out of 13 indicators that were within the five worst (compared to the other regions of the state); the most of any region of the state.

Williams County has some unique issues right now due to the oil boom taking place in that area of the state. This county showed need in the indicators classified as safety, risk and crime. The county's economic factors are not showing a need for concern based on the data currently available. However, the message from the partners around the table is that caution needs to be taken when looking at the data. For example, according to the Williston/Trenton Head Start 2009-2010 Community Assessment (in Williams County), the population influx due to the oil boom has created a housing shortage. According to one Williston realtor, houses are being sold before they are even listed; families are making offers way above the asking price to ensure that they are able to purchase the home; and, hotels are full of oil field workers. Many newcomers to the state are forced to live in their vehicles or camp in the city park. A Housing Committee has been assembled to look into the problem and develop an action plan. The more than 180 companies involved in the oil operations are concerned about housing. Some have rented out entire motels, and others are bringing in large, portable housing units known as man camps for workers to live on site. Many new houses are being built, new apartment complexes have been built and more are in development. It is anticipated that these new homes and apartment complexes will be very expensive. At this time, there are waiting lists for low-income housing.

The Head Start Program has seen five families move to smaller communities within the state because they were unable to afford housing in Williston and some single mothers have moved back into their parent's homes because of the high cost of rental property. The Head Start assessment for this area also identifies methamphetamine and teen-age drinking as some of the biggest issues facing the community. These substance abuse issues have resulted in an increase in foster care; over-crowded jails, an increase in infant development caseloads and a local decision to move cold medicines behind locked cabinets.

The Williston Wire also reports a shortage of childcare providers due to the population increase and because childcare providers are quitting for higher paying jobs. North Dakota Child Care Resource and Referral (CCR&R) is involved in two projects to help with the shortage. Funds are available to help enhance the quality of existing programs and to recruit new providers so more kids have a consistent place to go.

3. COMMUNITY DATA REPORTS

Table 4: Benson County, North Dakota

Indicator	Title V	CAPTA	Head Start	SAMHSA	Other	Comments
Premature births Live births less than 37 weeks gestation as a percent of total live births (%): 2005-2009					10.4%[1]	North Dakota Department of Health, Division of Vital Records
Low birth weight births Live births less than 2,500 grams as a percent of total live births (%): 2005-2009					6.6%[1]	North Dakota Department of Health, Division of Vital Records
Infant mortality Infant deaths per 1,000 live births (rate): 2005-2009					11.3[1]	North Dakota Department of Health, Division of Vital Records
Poverty Children ages 0-17 below 100% of the FPL as a percent of all children ages 0-17 (%): 2008					38.7%	U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE)
Crime Youth ages 10-17 referred to juvenile court as a percent of all youth ages 10-17 (%): 2009					0.9%	North Dakota Supreme Court (data from the tribal court system are not included)
Domestic Violence Children impacted by domestic violence (#): 2009					282[2]	North Dakota Council on Abused Women's Services
School Dropout Rates Students in grades 9-12 who dropped out of school as a percent of total enrollment in grades 9-12 (%): 2008-2009					5.0%	North Dakota Department of Public Instruction
Substance Abuse Binge Drinking: Percent of students in grades 9-12 who binge drank in past month (%): 2009					30.6%[1]	Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System
Current Smoker: Percent of students in grades 9-12 who smoked cigarettes in past month (%): 2009					27.2%[1]	
Smokeless Tobacco User: Percent of students in grades 9-12 who used chewing tobacco, snuff, or dip in past month (%): 2009					17.8%[1]	
Marijuana User: Percent of students in grades 9-12 who used marijuana in past month (%): 2009					18.0%[1]	
Drugs at School: Percent of students in grades 9-12 who were offered, sold, or given an illegal drug by someone on school property in past year (%): 2009					15.7%[1]	
Unemployment Unemployed and seeking work as a percent of civilian labor force (%): 2009					6.6%	Job Service North Dakota, Labor Market Information Center, LAUS Unit
Child maltreatment Children requiring immediate services for child abuse and neglect as a percent of all children ages 0-17 (%): 2009					0.1%	North Dakota Department of Human Services, Children and Family Services (data from tribal areas are not included)

Notes: [1]Data represent North Dakota Planning Region 3 which comprises Benson, Cavalier, Eddy, Ramsey, Rolette, and Towner counties. [2]Data represent the coverage area for Safe Alternatives for Abused Families in Devils Lake which serves Benson, Eddy, Ramsey, Towner and Wells counties and the Spirit Lake Victim Assistance program in Fort Totten which serves the Spirit Lake Reservation.

Table 5: Rolette County, North Dakota

Indicator	Title V	CAPTA	Head Start	SAMHSA	Other	Comments
Premature births Live births less than 37 weeks gestation as a percent of total live births (%): 2005-2009					10.4%[1]	North Dakota Department of Health, Division of Vital Records
Low birth weight births Live births less than 2,500 grams as a percent of total live births (%): 2005-2009					6.6%[1]	North Dakota Department of Health, Division of Vital Records
Infant mortality Infant deaths per 1,000 live births (rate): 2005-2009					11.3[1]	North Dakota Department of Health, Division of Vital Records
Poverty Children ages 0-17 below 100% of the FPL as a percent of all children ages 0-17 (%): 2008					34.5%	U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE)
Crime Youth ages 10-17 referred to juvenile court as a percent of all youth ages 10-17 (%): 2009					5.0%	North Dakota Supreme Court (data from the tribal court system are not included)
Domestic Violence Children impacted by domestic violence (#): 2009					100[2]	North Dakota Council on Abused Women's Services
School Dropout Rates Students in grades 9-12 who dropped out of school as a percent of total enrollment in grades 9-12 (%): 2008-2009					8.7%	North Dakota Department of Public Instruction
Substance Abuse Binge Drinking: Percent of students in grades 9-12 who binge drank in past month (%): 2009					30.6%[1]	Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System
Current Smoker: Percent of students in grades 9-12 who smoked cigarettes in past month (%): 2009					27.2%[1]	
Smokeless Tobacco User: Percent of students in grades 9-12 who used chewing tobacco, snuff, or dip in past month (%): 2009					17.8%[1]	
Marijuana User: Percent of students in grades 9-12 who used marijuana in past month (%): 2009					18.0%[1]	
Drugs at School: Percent of students in grades 9-12 who were offered, sold, or given an illegal drug by someone on school property in past year (%): 2009					15.7%[1]	
Unemployment Unemployed and seeking work as a percent of civilian labor force (%): 2009					12.4%	Job Service North Dakota, Labor Market Information Center, LAUS Unit
Child maltreatment Children requiring immediate services for child abuse and neglect as a percent of all children ages 0-17 (%): 2009					0.3%	North Dakota Department of Human Services, Children and Family Services (data from tribal areas are not included)

Notes: [1]Data represent North Dakota Planning Region 3 which comprises Benson, Cavalier, Eddy, Ramsey, Rolette, and Towner counties. [2]Data represent the coverage area for Hearts of Hope Domestic Violence Shelter in Belcourt which serves the Turtle Mountain Reservation and the Family Crisis Center in Bottineau which serves Bottineau and Rolette counties.

Table 6: Williams County, North Dakota

Indicator	Title V	CAPTA	Head Start	SAMHSA	Other	Comments
Premature births Live births less than 37 weeks gestation as a percent of total live births (%): 2005-2009					8.1%[1]	North Dakota Department of Health, Division of Vital Records
Low birth weight births Live births less than 2,500 grams as a percent of total live births (%): 2005-2009					6.2%[1]	North Dakota Department of Health, Division of Vital Records
Infant mortality Infant deaths per 1,000 live births (rate): 2005-2009					6.1[1]	North Dakota Department of Health, Division of Vital Records
Poverty Children ages 0-17 below 100% of the FPL as a percent of all children ages 0-17 (%): 2008					12.8%	U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE)
Crime Youth ages 10-17 referred to juvenile court as a percent of all youth ages 10-17 (%): 2009					15.0%	North Dakota Supreme Court (data from the tribal court system are not included)
Domestic Violence Children impacted by domestic violence (#): 2009					145[2]	North Dakota Council on Abused Women's Services
School Dropout Rates Students in grades 9-12 who dropped out of school as a percent of total enrollment in grades 9-12 (%): 2008-2009					6.5%	North Dakota Department of Public Instruction
Substance Abuse Binge Drinking: Percent of students in grades 9-12 who binge drank in past month (%): 2009					39.0%[1]	Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System
Current Smoker: Percent of students in grades 9-12 who smoked cigarettes in past month (%): 2009					25.3%[1]	
Smokeless Tobacco User: Percent of students in grades 9-12 who used chewing tobacco, snuff, or dip in past month (%): 2009					23.2%[1]	
Marijuana User: Percent of students in grades 9-12 who used marijuana in past month (%): 2009					16.3%[1]	
Drugs at School: Percent of students in grades 9-12 who were offered, sold, or given an illegal drug by someone on school property in past year (%): 2009					17.1%[1]	
Unemployment Unemployed and seeking work as a percent of civilian labor force (%): 2009					2.7%	Job Service North Dakota, Labor Market Information Center, LAUS Unit
Child maltreatment Children requiring immediate services for child abuse and neglect as a percent of all children ages 0-17 (%): 2009					2.0%	North Dakota Department of Human Services, Children and Family Services (data from tribal areas are not included)

Notes: [1]Data represent North Dakota Planning Region 1 which comprises Divide, McKenzie, and Williams counties. [2]Data represent the coverage area for the Family Crisis Shelter in Williston, North Dakota, which serves Divide, McKenzie, and Williams counties.

4. EXISTING HOME VISITING PROGRAMS

Numerous e-mail inquires and phone calls were made in an attempt to gather all requested data on each home visiting program located within the three counties that were chosen as those in highest need. After many conversations with staff working in such areas as local public health, Indian Health Services, private clinics, Head Start and infant development programs; it is apparent that there are very few home visiting programs functioning in the identified counties. Each person I talked with voiced many unmet needs, especially for American Indian families in their county. Common concerns focused around poverty, teenage pregnancy rates, drug and alcohol abuse, rural issues with transportation, lack of availability of phones (for potential clients), poor parenting skills, lack of adequate housing, lack of health-care providers and difficulty with "getting into" the homes of the most vulnerable families.

A. Benson County:

Located in the northeastern part of North Dakota, Benson County covers an area spanning 1,389 square miles with a population of 6,968. According to the 2000 census, the two prominent races include white (50.8 percent) and American Indian (48 percent). Minnewaukan is the county seat. Fort Totten is the largest town in the county with a population of 941. The Spirit Lake Indian Reservation is located in the southeast corner of Benson County and extends into a small portion of Eddy County and covers 405 square miles.

Spirit Lake Healthy Start serves as the single provider for maternal and early childhood home visiting in Benson County. The program serves American Indians living on the Spirit Lake Reservation and surrounding areas. This program is a part of the Northern Plains Healthy Start administered by the Aberdeen Area Tribal Chairman's Health Board out of Rapid City South Dakota. The Northern Plains Healthy Start Mission Statement reads as follows: "Northern Plains Healthy Start is committed to the mission of promoting healthy families and improving birth outcomes for Native American women by providing Targeted Case Management (TCM) Services. TCM services are a culturally relevant program, which empowers individuals to make better health care choices. Services are planned and coordinated through needs assessments, case service planning, referrals and assessing community services, advocating for women and children, and monitoring progress and outcomes. Northern Plains Healthy Start and the TCM program is a holistic approach respecting the importance of family, extended family, physical, emotional, psycho-social and spiritual health and the continued support for Indian family values."

According to the staff in Fort Totten, which serves the Spirit Lake Reservation, the Healthy Start program does not follow a specific program model to deliver services, but instead focuses on the main goal of reducing infant mortality. They also expressed that special attention is paid to assessing for and intervening for Fetal Alcohol Syndrome. According to the Federal Healthy Start Initiative: A National Network for Effective Home Visitation and Family Support Services,

all of the 104 federal Healthy Start programs in the country deliver home visitation services as a key method of delivering perinatal case management, risk assessment, depression screening, health education, and outreach core services. A vast majority of the federal Healthy Start programs use a foundational model of home visitation that includes mixed provider types. The Spirit Lake program strives to provide weekly home visits to pregnant women and children to the age of two. Clients are generally low income, at high risk of poor maternal outcomes, living in poverty, mostly single mothers and many teenage mothers. Clients are not required to be enrolled members of the tribe and they may be of another race if associated with an American Indian family (i.e., a white pregnant mother married to an American Indian man). The program serves an estimated 20 to 30 prenatal clients and 45 postpartum clients per year. Priority is given to first time moms. In 2005, there were 153 births in Benson County. Local staff estimates that the majority of these families would benefit from participation in a comprehensive home visiting program.

Staff indicated that the program is severely underfunded. While the Healthy Start Program has been in existence for 20 years, the funding has steadily declined and is now grossly inadequate to support even the basic functions. For example, the program currently doesn't have enough funding for gas to make home visits. In addition, the van for making visits is old and not working properly. Currently, clients are being asked to travel to the Healthy Start office to be seen. However, this approach is generally not successful due to the lack of transportation experienced by many clients. Complicating matters further is the continued issues with the flooding of Devils Lake, which is leading to the closure of many roads and causing families to become isolated.

The Early Explorers Early Head Start and Head Start which serves families in Benson County (not including the Reservation), currently doesn't have a home visiting component. The Home Based Early Head Start was discontinued four years ago due to a lack of enrollment. Spirit Lake Head Start does not offer a home based component on the Spirit Lake Reservation.

B. Rolette County:

Located in north central North Dakota, Rolette County covers 902 square miles with a population of 13,968 (2000 Census). The county seat is Rolla. The largest town in Rolette County is Belcourt with a population of 2,240. The Turtle Mountain Indian Reservation is located entirely within Rolette County and covers 72 square miles. According to the 2000 Census, the population of Rolette County is 13,674 with the two major races being white at 25.1 percent and American Indian at 73 percent.

Turtle Mountain Healthy Start is also part of the Northern Plains Healthy Start administered by the Aberdeen Area Tribal Chairman's Health Board out of Rapid City South Dakota. The program services American Indians throughout the entire Rolette County. The mission statement for this program is quoted above in the discussion of Benson County. Staff states that the two main goals of the Turtle Mountain program are to decrease infant mortality and to increase

enrollment. Again, there is no specific program model that is followed. There are several subjects that the case manager covers with each client, such as alcohol use during pregnancy and breastfeeding. Pamphlets are usually used as teaching aids and are obtained from the regional Healthy Start office or from other entities, as available. Pregnant women and children up to the age of two receive services. The program requires a total of 10 visits per client. Echoing the issues seen in Benson County, budget restrictions are preventing staff from making home visits as intended by the program. Due to the lack of funds available for gasoline, clients are asked to come into the office to be seen now. This method, however, is not effective due to the lack of phones among many of the participants. Staff strives to make contact of some kind with clients at least once per month. Pregnant women are ideally seen two times per month, then weekly toward the end of the pregnancy. The program serves 25-35 prenatal and 65-75 postpartum clients per year. This program has one staff member who is serving as both Program Coordinator and Case Manager. Obviously, this is not sufficient to meet the needs of American Indians in the county. It is worth noting that program staff completed an application for the Affordable Care Act (ACA) Tribal Maternal, Infant, and Early Childhood Home Visiting Grant Program. As of submission, they do not know if they have been selected as recipients of this grant.

The Quentin Burdick Health Care Facility is a part of Indian Health Services. The Public Health Division offers a home visiting program though this facility to enrolled American Indians (or descendents) in Rolette County. The program does not have a formal name, and is known informally as the Prenatal/Postpartum Home Visiting Program. Contact with an offer of a home visit is made to each new mother that delivers at the facility (250-300 per year). After the postpartum visit, subsequent visits are made only if a problem is identified to warrant additional visits. Families are then seen anywhere from weekly to monthly depending on the need. Prenatal clients are seen based on a referral from a health-care provider indicating a high risk pregnancy. There is no specific model that is followed. The focus of the program is to provide education based on the individual needs of the client. Using a variety of materials; topics such as growth and development, breastfeeding, and having a healthy pregnancy are covered. Staffing and funding shortages limit the number of visits. “Getting into the homes” is mentioned as a main obstacle to the program. Staff feels that the highest risk families are not accepting home visits. Drug and alcohol abuse is a known problem for the target population and is seen as a main obstacle to obtaining access to the home.

Turtle Mountain Band of Chippewa Indians Head Start does not offer a home based option. There is no Early Head Start in Rolette County.

C. Williams County:

Williams County is located in the northwest corner of North Dakota. The county has a population of 19,456 and covers 2,070 square miles. The county seat, as well as the largest town, is Williston.

The Trenton Indian Service Area is a recognized service area for the Trenton American Indian Community and a charter of the Turtle Mountain Band of Chippewa Indians and is located southeast of Williston. The service area is able to serve the Trenton, Williston, and Bainville (MT) communities and surrounding area. According to the 2000 Census, the population of Williams County is 19,761. The two main races represented in the county are white at 92.9 percent and American Indian at 4.4 percent.

Trenton Healthy Start exists to provide home visiting services to American Indian pregnant mothers and babies up to age two. Like the Healthy Start Programs in Benson and Rolette Counties, this program is a part of the Northern Plains Healthy Start program. The program serves clients living in Williams, Divide, McKenzie, Roosevelt (MT), Sheridan (MT) and Richland (MT). As with the other two Healthy Start programs, there is no specific model or approach that is used. The book, "Baby Basics" is distributed when there are funds available to provide it. The goals/outcomes are the same as mentioned in the discussion of Benson County. The client load averages 15-18 prenatal and 40-50 postpartum clients per year. When the program is in operating with an adequate staff and budget, prenatal clients are visited at least once per month. Postpartum, families are visited within two days, then at two weeks, six weeks, three months and periodically throughout the first year. As with the other Healthy Start Programs in the state, lack of funding is mentioned as the main obstacle for providing services now. Because of programming cuts, the Case Manager was lost and there remains only one employee (the coordinator). Because of budget cuts, home visits are not completed on a regular basis. Clients are encouraged to travel into the office for services. Again, lack of transportation is a big issue in this area and prevents clients from accessing services. It is worth mentioning that the staff member currently running this program states that she frequently receives inquires about providing services to non-American Indian clients. There are not any other home visiting programs that clients of other races can be referred to and she feels that this is an area of great need.

Williams County does not have an Early Head Start program. Head Start does not have a home based option.

Upper Missouri Public Health used to work collaboratively with Mercy Home Care to offer home visits to high risk families prenatal and postpartum at no cost. The collaboration is no longer in existence between the two agencies due to administrative changes at Mercy Home Care. Public Health continues to do a very limited number of prenatal and postpartum visits in response to referrals from health-care providers. Staff indicates that due to the influx of population with the oil boom there is an increased need for services. Public Health is seeing a real increase in the number of STD's, crime rates and clients struggling to find affordable housing.

5. REGIONAL SUBSTANCE ABUSE, COUNSELING AND TREATMENT

Region 3 (**Rolette**, Towner, **Benson**, Cavalier, Ramsey and Eddy Counties)

1. Fifth Generation in Belcourt. Provides low-intensity residential adult care.
2. Allery, Patty DUI Seminar Program in Belcourt. Provides DUI seminar.
3. Center for Solutions, P.C. in Cando. Provides adult and adolescent outpatient services, day treatment, low and high intensity residential care and social detoxification.
4. Blooming Prairie Assessment and Therapy Center, P.C. in Devils Lake. Provides outpatient adult services.
5. Lake Counseling in Devils Lake. Provides DUI seminar and adult outpatient services.
6. Lake Region Human Service Center in Devils Lake. Provides adult and adolescent outpatient services, adult and adolescent intensive outpatient treatment, adult day treatment, adult low-intensity residential care, social detoxification and adult high-intensity residential care.
7. Lake Region Law Enforcement Center Chemical Dependency Program in Devils Lake. Provides adolescent outpatient services for youth within the correctional facility.
8. Cornerstone II in Dunseith. Provides DUI seminar, adult and adolescent outpatient services, and adult and adolescent intensive outpatient treatment.
9. Spirit Lake Nation Recovery and Wellness Program in Fort Totten. Provides DUI seminar, adult and adolescent outpatient services and adult and adolescent intensive outpatient treatment.
10. Spirit Lake Tribe Youth Healing and Wellness Center in Fort Totten. Provides adolescent outpatient services.
11. Valleyview Recovery in Langdon. Provides DUI seminar and adult outpatient services.
12. Lake Region Human Services Center in Rolla. Provides adult and adolescent outpatient services, adult and adolescent intensive outpatient treatment, adult day treatment, adult low-intensity residential care, social detoxification and adult high-intensity residential care.

Region 1 (Divide, **Williams** and McKenzie Counties)

1. Native American Resource Center in Trenton. Provides DUI seminar and adult and adolescent outpatient services.
2. Basin Alcohol and Drug Services in Williston provides DUI seminar, and adult and adolescent outpatient services.
3. Choices DUI Seminar in Williston provides DUI seminar.
4. Mercy Recovery Center in Williston. Provides adult and adolescent outpatient services, adult and adolescent intensive outpatient treatment, adult and adolescent day treatment, adult and adolescent low-intensity residential care, adult high-intensity residential care, adolescent medium-intensity residential care and adult intensive inpatient treatment.

Region 3 is the service region containing two or our identified at risk communities/counties (Rolette and Benson) and is serviced by the Lake Region Human Service Center in Devils Lake. According to the North Dakota Department of Human Services, the total population in need of treatment services for Region 3 is 4,206 and it is estimated that 1,624 would seek treatment. 58 residents of this region are potentially in need of treatment for intravenous drug use and it's estimated that 22 would seek treatment. The service center has treatment slots for 13 in the residential/detox programs and 70 in the outpatient programs. According to 2008 North Dakota Treatment Episode Data Set (TEDS), which monitors admissions for substance abuse treatment, there were 83 admits from Benson County and 156 from Rolette County,

Region 1 contains our other community/county of need, (Williams) and is served by Northeast Human Service Center in Williston. The total population in need of treatment services for Region 1 is 3,120 and it is estimated that 1,138 would seek treatment. 86 residents of this region are potentially in need of treatment for intravenous drug use and it's estimated that 31 would seek treatment. The service center has treatment slots for 30 in the residential/detox programs and 191 in the outpatient programs. According to 2008 North Dakota (TEDS), there were 122 admits from Williams County.

6. SUMMARY OF NEEDS ASSESSMENT RESULTS:

- In an effort to present a thorough representation of the key performance indicators for identifying communities in greatest need of a home visiting program in North Dakota, a collaboration was formed with the North Dakota State University Data Center. It was decided to use the smallest geographic building block that was meaningful from both a program perspective and from a data collection standpoint. The rural nature of the state has placed some important limitations on the data that can be presented. There are only fifteen cities in North Dakota with a population base of at least 2,500 people. It was obvious that using cities or incorporated places as the basis for "communities of need" would greatly bias our statewide assessment, thus we opted to select counties as the basic unit of analysis. However, even the majority of counties in North Dakota are relatively small in population. This has significant consequences on our ability to report various indicators because of confidentiality issues or because of instability within the data due to small numbers.

  In an attempt to accommodate the unique data limitations in North Dakota, we profile "communities" for this assessment in two distinct ways. First, we use counties as our geographic area and present eight indicators for which county-level data are appropriate. Five of the eight indicators represent economic issues and the remaining three indicators represent issues of safety, risk and crime. Second, we expanded our geographic dimension of "communities of need" to the regional level for an additional 13 indicators, which include birth outcomes, issues of mortality, maltreatment and behavioral risk indicators. Twenty-one indicators were selected for analysis. We were able to collect county-level data for eight indicators and regional-level data for 13 indicators.

- Benson, Rolette and Williams Counties have been selected as counties in greatest need of home visiting services. In making our decision on which counties to focus on for this response, we considered the overlapping data available on both the county and the regional level. Please refer to Table 1 on page 47 and Table 2 on page 49. Using this logic, it is easy to see how the group discussion led to the selection of Benson and Rolette counties. Both of these counties were ranked within the five neediest counties for the following indicators: unemployment rate, children in poverty, children receiving TANF, children receiving free or reduced lunch and high school dropout rates. When looking at the data that was compiled by region, both of these counties are in Region 3. This region had a total of ten indicators that were within the five worst (compared to the other regions of the state); the most of any region of the state. Williams County has some unique issues right now due to the oil boom taking place in that area of the state. This county showed need in the indicators classified as safety, risk and crime. The county's economic factors are not showing a need for concern based on the data currently available. However, the message from the partners around the table is that caution needs to be taken when looking at the data. For example, according to the Williston/Trenton Head Start 2009-2010 Community Assessment (in Williams County), the population influx due to the oil boom has created a housing shortage. According to one Williston realtor, houses are being sold before they are even listed; families are making offers way above the asking price to ensure that they are able to purchase the home; and, hotels are full of oil field workers.

- There are many gaps in services in the identified communities. It is obvious that the each of the directors of the Healthy Start programs in each of the counties are very concerned about continuing budget cuts. Programs are severely underfunded and understaffed. Each site has stated that the key delivery method of home visiting is either no longer possible for all clients, or is prioritized to the most needy clients. Often home visits are based on "emergent" needs, such as transporting women in their last trimester of pregnancy to their physician because they do not have any other mode of transportation. Because of these issues, many American Indian clients are not receiving the services that the program was established to deliver. Another gap that has been identified through this process is the lack of services available to families of other races.

- In order to address the multiple needs facing the residents of the identified counties, the state will take a very purposeful approach in selecting an evidence based home visiting program appropriate for the population at risk. Since all of the identified counties contain Indian Reservations or Indian Service Areas, collaboration with tribal entities will be a key component in the success of home visiting programs. A stakeholder group comprised of key leaders from early childhood, home visiting and tribal entities will be assembled. Of special importance will be the inclusion of representatives from the key counties identified as highest in need. Initial work has been done to gather members for this group. This group will plan to carefully review the third Supplemental Information Request when it is released and discussions will ensue around possible evidence based programs

as outlined in the forthcoming SIR. Establishing relationships with the key partners in the identified counties will be key. It will be important to have more in depth discussions about the data identified in the needs assessment as well as the perceived needs of the community. Staff will also need to pay close attention to each community's readiness for change in respect to the establishment or expansion of home visiting programs. There is an obvious lack of evidence based programming in the target areas. Of special concern is the Healthy Start programs that exist in each of the identified counties. Additional information is needed about the problems identified in administering the programs effectively, especially in respect to adequate funding and staffing issues. After the background work is completed and key partners are identified, it is likely that request for proposals for evidenced based home visiting programs will be issued in the identified service areas.

At the current time, the North Dakota Department of Health does not have spending authority for the Maternal, Infant, and Early Childhood Home Visiting funds. Substantial efforts are being made to receive spending authority which will allow for continued work efforts.