# 2015 Childhood Needs Assessment of the Bismarck-Mandan Metro Area, North Dakota

A 2015 assessment of the childhood needs in the Bismarck-Mandan Metro Area consisting of Burleigh and Morton counties.

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Prepared for Missouri Slope Areawide United Way by the Center for Social Research at North Dakota State University





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# **PREFACE**

The 2015 Childhood Needs Assessment of the Bismarck-Mandan Metro Area, North Dakota, was prepared on behalf of the Missouri Slope Areawide (MSA) United Way by the Center for Social Research at North Dakota State University.

This report is available on the MSA United Way website at <a href="http://www.msaunitedway.org/">http://www.msaunitedway.org/</a>. For more information regarding the report, please contact Kendre Israel at <a href="mailto:impact@msaunitedway.org">impact@msaunitedway.org</a> or 701.255.3601.

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The MSA United Way would like to thank the following for their support of this process and for assistance in conducting this needs assessment for the communities of Bismarck and Mandan:

**Bismarck Public Schools** 

Mandan Public Schools

MSA United Way Partner Agencies

MSA United Way Community Impact Committee

MSA United Way Board of Directors

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# **INTRODUCTION**

The purpose of this report is to provide a childhood needs assessment of Bismarck and Mandan, North Dakota, in order to provide context for the Missouri Slope Areawide United Way (MSA) and their strategic planning process.

#### **Approach to the Needs Assessment**

An important component of our approach to this needs assessment was to select a theoretical framework that addresses the causal link between education and behavior or outcomes. In other words, from a community's perspective, how do you identify what needs should be satisfied in order to impact the desired behavior or outcomes?

Drawing upon the developmental literature, we used asset development as our guiding framework. Assets are both internal and external and can be viewed as a combination of skill sets and supportive environment. Internal assets are those positive experiences and qualities that help influence the choices people make in their actions and behaviors as caring and responsible individuals. Similarly, external assets are the supportive components of the community, family, or networks that create a nurturing environment that cultivates the positive experiences of the individual. The key to this conceptual approach is that needs must be viewed from both the individual and support system's perspective.

Following an overview of the developmental assets held by students in Bismarck and Mandan public schools, we provide some demographic context of children in the metro area. The remainder of the report is organized from the perspective of stages of educational development: a) school readiness, b) in-school success, and c) school achievement.

The concept of education offers an important organizational framework for organizing the elements of the needs assessment. Education is an essential element to improving both long-term health and economic conditions. The research literature is unambiguous in demonstrating that improving health conditions within a community is directly linked to education. Similarly, the causal link to improved income among individuals or families within a community is education.

#### **Asset Development**

MSA United Way contracted with the Search Institute to generate a rich database that explores asset development among children in the Bismarck and Mandan public school districts. Data were collected from students in grades 6, 8, 10, and 12 during September 2015. As noted earlier, assets are useful in framing what activities are needed to best improve desired outcomes. Since activities can be easily linked to service providers, we felt this approach would be most useful to the MSA United Way in their deliberations regarding the selection of priorities.

The Search Institute's Developmental Asset Framework consists of 40 assets categorized into two main groups (i.e., internal and external) each containing 20 assets. The 20 assets within these two broad groups are further refined into four sectors. The 20 external assets are clustered into four main groups representing 1) support, 2) empowerment, 3) boundaries and expectations, and 4) constructive use of time. Similarly, the 20 internal assets are clustered into four main groups representing 1) commitment to learning, 2) positive values, 3) social competencies, and 4) positive identity. These sectors are viewed as positive experiences and qualities that help influence the choices young people make in their development to adulthood as caring and responsible individuals.

#### **Stages of Educational Developmental**

School readiness centers on what issues most impact how well prepared a person is to enter the educational system. In this analysis, we addressed the assessment from the perspective of both the parent and the child. For example, we identified indicators representing health, education, and income issues that impact parents and their ability to prepare their child for school. Similarly, we addressed corresponding indicators from the child's perspective with regard to what most influences their ability to be fully prepared for school, including environmental conditions in which students find themselves such as homelessness, foster care, poverty, or abusive situations.

In-school success was our second main stage of analysis. Our emphasis in this section was on indicators that most influence student's performance in school. These indicators include special education as well as a range of risky behaviors of students.

Our last stage of analysis was on formal measures of school achievement. Here we centered our attention on fairly common indicators of success such as proficiency scores, attendance and graduation rates, and educational attainment.

We selected most of our indicators based on national research from Child Trends (http://www.childtrends.org/), a leading organization that specializes in monitoring the health and well-being of children. The value of using this source was that it provided scientific context regarding why each indicator is important for a child's success. In addition, indicators were selected based on their availability at focused levels of geography, since the Bismarck-Mandan metro area was our primary focus.

#### **Data Methodology**

Data sources are noted with each figure, with the exception of the section reporting asset development data, which come from the December 2015 Search Institute report for the MSA United Way (see the Childhood Developmental Assets section beginning on page 11 for more information). The choice of geography for each indicator is a reflection of the lowest level of geography available from the data source. Data for the Bismarck-Mandan metro area (i.e., Burleigh and Morton counties) are provided where possible, with data from Burleigh and Morton counties offered separately for context as well as data for North Dakota and the United States, where available or applicable. In February 2013, the official Bismarck, ND Metropolitan Statistical Area boundaries were expanded and now include the counties of Burleigh, Morton, Oliver and Sioux. For consistency with an assessment conducted in 2011, the Bismarck-Mandan metro area, when referenced in this report, refers to Burleigh and Morton counties only.

Much of the data in the In-School Success section of this report were obtained from the Youth Risk Behavior Survey (YRBS). County-specific data from the YRBS are not readily available due to small sample sizes, thus data for Planning Region VII are offered which include Burleigh, Morton, Emmons, Grant, Kidder, McLean, Mercer, Oliver, Sheridan, and Sioux counties combined. Regional results from the YRBS apply only to those schools and classes that participated in the survey during that year. Thus, changes that occur within a region from one survey year to another may not represent true changes in behavior within the region. The changes may simply result because of differences between the schools and classes that chose to participate in one year versus another. Please use caution when interpreting these results.

# **SUMMARY AND RECOMMENDATIONS**

Results from our needs assessment highlight major themes that should be considered in order to improve the well-being of children and families in the Bismarck-Mandan metro area (i.e., Burleigh and Morton counties). The first theme focuses on strategically improving asset development for children and youth. Since assets are both internal and external, the desired change will require both individual (i.e., youth and parents/guardians) and environmental (e.g., organizational, community) changes. A focus on building assets at the youngest ages, recognizing gender differences, is crucial, along with stemming the drop in asset levels that occurs as youth progress through high school. The second theme centers on improving self-sufficiency among families, and requires improvements or enhancements in services or safety nets. The third theme focuses on safe environments, and also requires strong services and supports for individuals and families. The fourth theme revolves around children's health, the foundation of their overall development. And finally, the fifth theme highlights the academic preparedness and outcomes of children in the metro area.

#### **Youth Asset Development**

#### 2015 Results

The September 2015 Search Institute asset profile of students in Bismarck and Mandan public schools explores risk-taking and thriving behaviors. The 24 risky behaviors included in the Search Institute's youth survey range from alcohol, tobacco, and drug use to sexual intercourse, anti-social behavior, suicide attempts, and various forms of violence, truancy, gambling, eating disorders, and depression. The eight thriving behaviors included in the study range from success in school, helping others, and valuing diversity to healthy eating and resisting danger.

The Search Institute's data indicate a direct correlation between number of assets and lower risk-taking behavior. Youth with 10 or fewer assets engage in seven times as many risky behaviors, on average, as youth with 31 or more assets. The data indicate that with every increase of 10 assets, on average, youth will cut in half the number of risky behaviors in which they engage. A similar correlation was found between assets and thriving behavior. Youth with 10 or fewer assets engage in half as many thriving behaviors, on average, as their counterparts with 31 or more assets. What is key from the analysis is that increasing the number of assets a young person holds, both internal and external, reduces risky behavior and increases the likelihood of positive outcomes in general.

Consideration should be given to strategically selecting categories of assets on which to focus. The data indicate that the greatest need for asset improvement among students in Bismarck and Mandan public schools is in the categories of Support and Empowerment (external assets) and in Social Competencies (internals assets).

For nearly every external asset, there is a systematic decline in the proportion of youth with the asset by grade; 10 of the 20 assets drop by at least 20 percentage points from 6<sup>th</sup> to 12<sup>th</sup> grade. Within the Boundaries and Expectations category, for example, high expectations (asset #16) decreases by 32 percentage points. On average, 81 percent of students in 6<sup>th</sup> grade report that parents and teachers encourage them to do well; however, by 12<sup>th</sup> grade that percentage drops to 49 percent. Within the Support category, parent involvement in schooling (asset #6) decreases by 28 percentage points from 6<sup>th</sup> to 12<sup>th</sup> grade. On average, 57 percent of students in 6<sup>th</sup> grade indicate their parents are actively involved in helping them succeed in school; however, by 12<sup>th</sup> grade 29 percent of students report this asset. Similarly, within the Empowerment category, the perception that adults in the community value youth decreases by 28 points, from 47 percent in 6<sup>th</sup> grade to 19 percent in 12<sup>th</sup> grade.

In general, of the 20 external assets explored in the study, the majority of students in 6<sup>th</sup> grade indicated having at least 14 of the 20 assets. In contrast, by the 12<sup>th</sup> grade, the majority of students only had 6 of the 20 external

assets. Given the strong correlation between increased assets and thriving behavior and, conversely, avoidance of risky behavior, it seems clear that external asset development should be given significant attention.

The difference by grade level among the internal asset development areas is less pronounced, though still present (only 3 of 20 assets drop by at least 20 percentage points from 6<sup>th</sup> to 12<sup>th</sup> grade). While there is a systematic decline in the percentage of youth for most of the internal assets by grade, at least half of 6<sup>th</sup> and 12<sup>th</sup> grade students have a majority of the 20 internal assets explored in this study.

One notable area of concern among internal assets is the Social Competencies category, which contains very important values and competencies that many students across all grade levels appear to be lacking. The majority of students lack the important assets of planning and decision making (asset #32), cultural competence (asset #34), and reading for pleasure (asset #25). The other notable internal asset that deserves attention is believing it is important not to be sexually active or to use alcohol or other drugs (asset #31) in the Positive Values category; the data indicate a decline of 52 percentage points from 6<sup>th</sup> to 12<sup>th</sup> grade for this asset.

Gender differences are more pronounced in internal asset development than external asset development. Notably higher levels of female than male students hold 15 of the 20 assets. Females have at least 5 percentage points higher levels for all of the items in the Commitment to Learning and Positive Values categories and all but one item in Social Competencies category of internal assets. For skills relating to peaceful conflict resolution (asset #36) and empathy, sensitivity, and friendship (#33), the differences are 25 and 24 percentage points, respectively.

Although this analysis specifically focuses on grades 6, 8, 10, and 12, the impact of youth competencies for success in adulthood should be obvious. Attention needs to be given to increasing the skill sets of children and youth while simultaneously expanding the supportive components of the community, family, and networks that create and cultivate a positive environment in order to promote long-term success.

#### Comparison Over Time

A similar developmental asset survey of students in the Bismarck and Mandan public school districts was conducted by the Search Institute in fall/winter 2011. The results from this survey provide an opportunity to explore change in asset development among students between this baseline and the current 2015 results.

While there was little difference in the overall number of assets students reported to have between 2011 and 2015, results of the two surveys show greater development among internal assets than external assets during this time. There was meaningful improvement among public school students in Bismarck and Mandan in three of the four internal asset categories between 2011 and 2015; Commitment to Learning, Positive Values, and Social Competencies. Regarding external assets, the greatest overall improvement among students in Bismarck and Mandan public schools involved Boundaries and Expectations, particularly among students in 12<sup>th</sup> grade.

While more students understand rules and consequences and are committed to learning, hold positive values, and are socially competent, many are struggling with their identity and a sense of purpose. In particular, there was a general decrease in the percentage of females and students in grades 8, 10 and 12 who feel in control over things that happen to them, have high self-esteem, think their life has a purpose, and are optimistic about their future (Positive Identity assets). This is reflected in behavioral change from 2011 to 2015, with an increase in students who are frequently depressed or have attempted suicide, particularly among students with fewer assets overall. An additional area of concern is a decrease in the percentage of students from 2011 to 2015 with Empowerment assets, across gender and grades. Fewer students serve in the community during the week, feel safe in their environment, and perceive that adults in the community value them.

Though students, in general, are more committed and motivated to learn in school, fewer students in the Bismarck and Mandan public schools were reading for pleasure in 2015, across grades and gender. This is important given that reading for pleasure is one of the least held assets among students in both 2011 and 2015.

#### **Self-Sufficiency**

Economic self-sufficiency is a critical element in the long-term success of individuals and families in the Bismarck-Mandan metro area. To help children grow into successful, productive adults, their parents need well-paying jobs, affordable housing, and the ability to invest in their children's future. This needs assessment uncovered several economic indicators that demonstrate areas of concern with regard to self-sufficiency and deserve attention.

Despite most parents being educated and employed, poverty levels among children remain a concern. The poverty threshold for a family of four in 2014 was \$24,230. Research shows that families need an income of approximately twice the official poverty threshold to cover the entire cost of basic expenses for housing, food, transportation, health care and child care<sup>1</sup>. In the Bismarck-Mandan metro area, about one in four children live in families earning less than twice the poverty threshold (i.e., incomes less than 200% of poverty).

While the actual child poverty rate in the Bismarck-Mandan metro area showed some improvement from 2010 to 2014, the rate has shown no change since 2000. In the metro area, 10 percent of all children and 12 percent of children ages 0 to 4 live in poverty. The rate among young children jumps to 42 percent for those living with a single parent, most of whom are single mothers. This is especially important as the percentage of children living with a single parent rose from 19 percent in 2000 to 21 percent in 2014. The poverty rate among American Indian children is especially alarming, at 50 percent.

While the vast majority of new mothers in the metro area have at least some college, more than half of unmarried new mothers have at most a high school degree (54% in 2014). Given this circumstance, these women and their children face much larger challenges to success. Slightly more than one in four women who recently gave birth were unmarried in 2014 and about 6 percent of unmarried mothers were teenagers, i.e., youth who are at high risk of experiencing challenges in economic self-sufficiency.

Affordable housing is another challenge for many families and children in the metro area. Estimates suggest that at least 2,500 children in the metro area live in households spending more than 30 percent of their income on housing; and affordable housing is one of the most frequently cited reasons for homelessness in this area. In the 2014-2015 school year, Bismarck and Mandan public school districts reported 531 school-aged children without a permanent residence. The economic challenges for these children and their parents deserve special attention.

#### **Safe Environments**

Children who live in nurturing families and are part of supportive communities have better social-emotional and learning outcomes. Safe and healthy environments support positive development and pave the way for success in adulthood.

In the metro area, where most adults and most parents are working, there is a concern for parents who need to ensure a safe, quality environment for their children while they are away from home. For 80 percent of young children ages 0 to 5 living with two parents, both parents are working. For 81 percent of young children living with a single parent, that one parent is working. Currently, licensed child care in the metro area can meet only 38 percent of this potential demand.

The rate of child maltreatment in the Bismarck-Mandan metro area has shown some improvement since 2011, decreasing from 13 victims per 1,000 children to 9 victims per 1,000 in 2014. Despite this improvement, 247 children in the metro area were identified as needing services for abuse and neglect in 2014. These children face many challenges, both now and as they mature.

#### **Healthy Children**

Children's health is the foundation of their overall development. Poor health in childhood impacts other critical aspects of a child's life, such as school readiness and attendance, and can have lasting consequences on their future health and well-being. Ensuring that children are born healthy is the first step toward increasing their life chances. Prenatal visits provide such an opportunity. In 2014, approximately 14 percent of births in the metro area were to mothers receiving prenatal care after the first trimester or not at all. This is an increase of 6 percentage points from 8 percent in 2013. Mothers who do not receive prenatal care are more likely to give birth to a baby with a low birth weight (i.e., less than 2,500 grams). The percentage of babies in the metro area born with a low birth weight rose slightly from 6.1 percent in 2013 to 6.7 percent in 2014.

Lack of and access to preventive health care is also critical. The rate of uninsured children in the metro area is trending upward, increasing two percentage points from 2011 to 2013. Current statistics indicate that nearly 2,000 children are without health insurance coverage (7% in 2013). A lack of health insurance can compound already stressful situations by limiting access to health care and negatively affecting a child's school performance and activities.

A child's health and behavior at home, in child care, and in the community are significantly influenced by physical and mental health components. An important trend identified in this study is an increase in the prevalence of children who are overweight or obese in the greater metro area (i.e., planning region VII). In 2013, 1 in 4 high school students were overweight or obese, which is up from 1 in 5 in 2007. Another concerning trend involving the mental health status of children in this area is the percentage of students planning and attempting suicide. More than 1 in 10 high school students attempted suicide in 2013 and a slightly higher proportion of junior high students (1 in 8) made a plan for their suicide.

Some of the risky behaviors and other indicators discussed in this needs assessment show positive or stable trend lines. For example, rates of binge drinking and tobacco use among high school students continue to show improvement, although 1 in 5 students still engage in both. The percentage of junior high students involved in fights at school is down by half since 2005 (8% in 2013). Rates of sexual activity have remained fairly stable over the past decade (at approximately 2 in 5 high school students who have ever had sex). These are successes that should be celebrated and strengthened.

The youth still engaging in these risky behaviors, however, likely have lower levels of assets. Thus, the asset development data provide insight into how to continue to seek improvements, even among risky behaviors that are seeing overall improvement or stability. The power of the asset development framework is that risk-taking behaviors decrease as the cumulative number of assets increases.

#### **Academic Outcomes**

Establishing the conditions that promote successful educational achievement for children begins with quality prenatal care and continues into early educational environments and the elementary school years. With a strong and healthy beginning, children can more easily stay on track to remain in school and graduate, pursue postsecondary education and training, and successfully transition to adulthood.

A concerning trend identified in this study is a gradual decrease in the percentage of students reading proficiently in the Bismarck and Mandan public schools since 2008-09. According to researchers at Yale University, about three-fourths of students who are poor readers in third grade will remain poor readers in high school, which limits their academic achievement and overall potential<sup>2</sup>. Currently, about 1 in 4 students in the metro area is not reading proficiently by the end of 3<sup>rd</sup> grade. This ratio increases significantly for students in low income families, students with disabilities, and Native American students. The percentage of students proficient in math has shown little change, on average, in Bismarck schools, but has decreased over the past few years in Mandan schools. Native American students, students in low income families, and those with a disability struggle more than other students in both reading and math in the metro area.

Students in Bismarck and Mandan who face the most challenges in reading and math are less likely to graduate high school on time. Native American students in the metro area are almost half as likely to graduate in four years as white students; low income students are approximately one-third less likely than students in higher income families. While attendance and high school graduation rates remain high for students overall, fewer than 1 in 4 high school graduates in the metro area are prepared for college level courses in English, math, reading, and science.

# CHILDHOOD DEVELOPMENTAL ASSETS

# **Developmental Assets Framework**

In an effort to assess the health and well-being of children and youth, the Search Institute has developed a framework of developmental assets (see http://www.search-institute.org/developmental-assets). The Developmental Assets Framework consists of 40 positive experiences and qualities that help influence the choices that children and youth make that can help them become caring, responsible adults. The Search Institute has found that the more assets children and youth have, the less likely they are to engage in a wide range of high-risk behaviors and the more likely they are to thrive.

In September 2015, the Missouri Slope Areawide United Way contracted with the Search Institute to administer a generalizable study of public school students in grades 6, 8, 10, and 12 in Bismarck and Mandan, North Dakota, to determine the level of assets students report having in each grade. The results focus on two types of assets: external and internal.

- External assets are positive developmental experiences that surround youth with support, empowerment, boundaries and expectations, and opportunities for constructive use of time. When provided by many different formal and informal systems in a community, they stimulate and nurture positive development in youth.
- Internal assets are a young person's own commitments, values, and competencies. They are grouped into categories of commitment to learning, positive values, social competencies, and positive identity. Similar to the external assets, community is also important for the development of these internal assets.

The 40 external and internal assets for adolescents (i.e., children ages 12 to 18, approximating adolescents in grades 6 through 12) are listed and defined in Table 1.

The 2015 Search Institute survey of public school students in Bismarck and Mandan is a follow up to a similar survey conducted in fall/winter 2011. For results of the 2011 survey, visit <a href="http://www.msaunitedway.org/">http://www.msaunitedway.org/</a> for "2011 Childhood Needs Assessment of Bismarck and Mandan, North Dakota" published in May 2012. A brief comparison of the 2011 and 2015 survey results is included at the end of this section.

# Table 1. The 40 Developmental Assets for Adolescents (ages 12-18), as Defined by the Search Institute

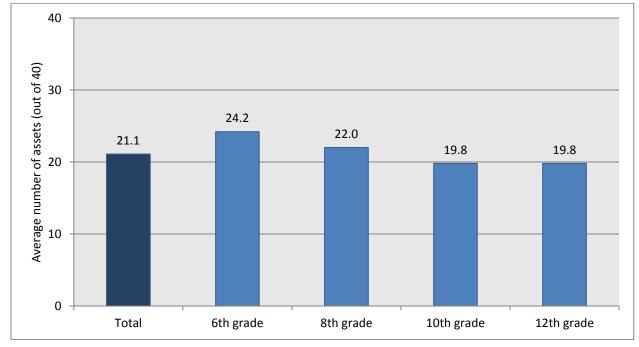
Note: The Search Institute has identified the following building blocks of healthy development that help young people grow up healthy, caring, and responsible (see http://www.search-institute.org/developmental-assets/lists).

	Support	1. Family support—Family life provides high levels of love and support.
		2. Positive family communication—Young person and her or his parent(s) communicate positively, and
		young person is willing to seek advice and counsel from parents.
		3. Other adult relationships—Young person receives support from three or more nonparent adults.
		4. Caring neighborhood—Young person experiences caring neighbors.
		5. Caring school climate—School provides a caring, encouraging environment.
		<b>6. Parent involvement in schooling</b> —Parent(s) are actively involved in helping young person succeed in
		school.
	Empowerment	<b>7. Community values youth</b> —Young person perceives that adults in the community value youth.
		8. Youth as resources—Young people are given useful roles in the community.
		9. Service to others—Young person serves in the community one hour or more per week.
		<b>10. Safety</b> —Young person feels safe at home, school, and in the neighborhood.
<del>-</del>	Boundaries	11. Family boundaries—Family has clear rules and consequences and monitors the young person's
L.	and	whereabouts.
External	Expectations	12. School boundaries—School provides clear rules and consequences.
	Expectations	13. Neighborhood boundaries—Neighbors take responsibility for monitoring young people's behavior.
		<b>14. Adult role models</b> —Parent(s) and other adults model positive, responsible behavior.
		<b>15. Positive peer influence</b> —Young person's best friends model responsible behavior.
		<b>16.</b> High expectations—Both parent(s) and teachers encourage the young person to do well.
	Constructive	17. Creative activities—Young person spends three or more hours per week in lessons or practice in
	Use of Time	music, theater, or other arts.
		<b>18. Youth programs</b> —Young person spends three or more hours per week in sports, clubs, or
		organizations at school and/or in the community.
		19. Religious community—Young person spends one or more hours per week in activities in a religious
		institution.
		<b>20. Time at home</b> —Young person is out with friends "with nothing special to do" two or fewer nights
		per week.
	Commitment	21. Achievement motivation—Young person is motivated to do well in school.
	to Learning	22. School engagement—Young person is actively engaged in learning.
		23. Homework—Young person reports doing at least one hour of homework every school day.
		<b>24. Bonding to school</b> —Young person cares about her or his school.
		<b>25. Reading for pleasure</b> —Young person reads for pleasure three or more hours per week.
	Positive Values	<b>26. Caring</b> —Young person places high value on helping other people.
		<b>27. Equality and social justice</b> —Young person places high value on promoting equality and reducing
		hunger and poverty.
		28. Integrity—Young person acts on convictions and stands up for her or his beliefs.
		29. Honesty—Young person "tells the truth even when it is not easy."
nal		<b>30.</b> Responsibility—Young person accepts and takes personal responsibility.
Interr		<b>31. Restraint</b> —Young person believes it is important not to be sexually active or to use alcohol or other
重		drugs.
	Social	<b>32. Planning and decision making</b> —Young person knows how to plan ahead and make choices.
	Competencies	<b>33.</b> Interpersonal competence—Young person has empathy, sensitivity, and friendship skills.
		<b>34. Cultural competence</b> —Young person has knowledge of and comfort with people of different
		cultural/racial/ethnic backgrounds.
		<b>35. Resistance skills</b> —Young person can resist negative peer pressure and dangerous situations.
		<b>36. Peaceful conflict resolution</b> —Young person seeks to resolve conflict nonviolently.
	Positive	37. Personal power—Young person feels he or she has control over "things that happen to me."
	Identity	38. Self-esteem—Young person reports having a high self-esteem.
	<b>,</b>	39. Sense of purpose—Young person reports that "my life has a purpose."
		<b>40. Positive view of personal future</b> —Young person is optimistic about her or his personal future.
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# **Overall Asset Levels**

Results from the Search Institute study indicate that, on average, adolescents attending Bismarck and Mandan public schools have 21.1 out of 40 assets. While the number of assets children hold decreased as children move from 6<sup>th</sup> grade (24.2) to 8<sup>th</sup> grade (22.0) to 10<sup>th</sup> grade (19.8), there was no loss of assets from 10<sup>th</sup> to 12<sup>th</sup> grade for students in 2015.

Figure 1. Average Number of Assets (Out of 40) that 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Report Having, by Grade: September 2015

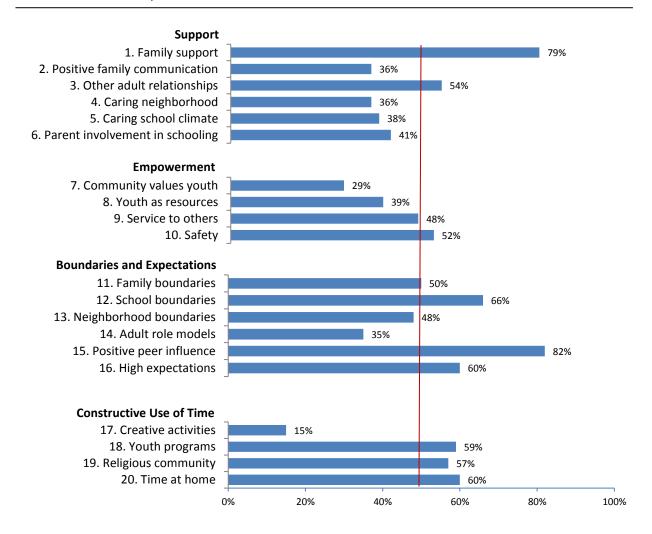


The most common **external** assets held by surveyed students in Bismarck and Mandan public schools are close friends who model positive, responsible behavior (#15) and families that provide a high level of love and support (#1); approximately 80 percent of students report having each of these assets. Two-thirds of students go to a school that provides clear rules and consequences (#12). Approximately 60 percent of students feel that parents and teachers encourage them to do well (#16), have time to spend out with friends a couple evenings per week (#20), spend at least three hours per week in school or community sports, clubs or organizations (#18), and spend one or more hours per week in activities in a religious institution (#19).

Conversely, less than one-third of students perceive that adults in their community value youth (#7) and spend three or more hours per week in creative activities like lessons or practice in music, theater, or other arts (#17). Only 15 percent of students report spending three or more hours per week in creative activities.

Figure 2. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each of the 20 External Assets: September 2015

Note: The red line indicates 50 percent.



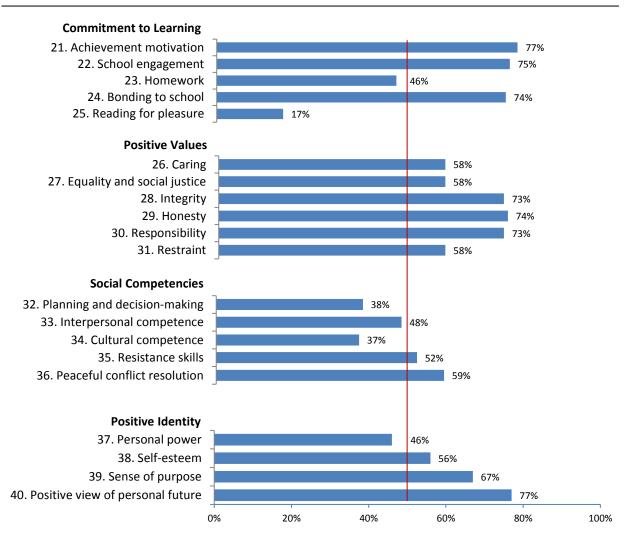
The most common **internal** assets held by students in Bismarck and Mandan public schools include motivation to do well in school (#21), optimism regarding their personal future (#40), being actively engaged in learning (#22), caring about their school (#24), honesty (#29), integrity (#28), and personal responsibility (#30); approximately three-fourths of students report having each of these internal assets.

Conversely, only 17 percent of students read for pleasure at least three hours per week (#25). Also, 37 percent of students have knowledge of and comfort with cultural/racial/ethnic diversity (#34), and 38 percent of students know how to plan ahead and make choices (#32). Two of the lowest items (#32 and #34) fall within the Social Competencies category.

At least 73 percent of students report having 7 of the 20 internal assets compared to having only 2 of the 20 external assets.

Figure 3. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each of the 20 Internal Assets: September 2015





# **External Assets by Grade and Gender**

Table 2 shows the percentages of students in Bismarck and Mandan public schools who report having each of the 20 **external** assets, by grade and gender, in September 2015. Differences of 5 percentage points or more between grade levels or between males and females are meaningful and worthy of thought and consideration (but are not necessarily statistically significant). See Figure 4 for a graphical presentation of external assets by grade and Figure 5 for external assets by gender.

Looking at external asset levels by **grade** shows some stark trends. For nearly every asset, many fewer 12<sup>th</sup> grade youth report having the asset compared to 6<sup>th</sup> grade youth; 10 of the assets drop by at least 20 percentage points from 6<sup>th</sup> to 12<sup>th</sup> grade. The notable exception is feeling safe (#10), which increases by 50 percent from 6<sup>th</sup> to 12<sup>th</sup> grade. The percentage of students involved in youth programs (#18) remains unchanged and those receiving support from at least three adults other than parents (#3) increases by two percentage points.

Looking at external asset levels by **gender** also shows some important differences. With the exception of feeling safe and having time to spend a few evenings per week with friends, female students have higher levels of assets than males.

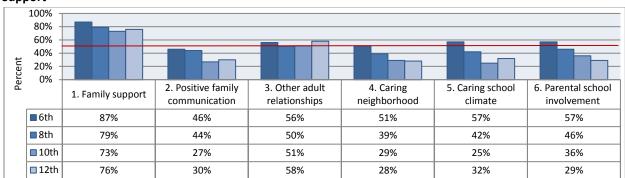
Table 2. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each of the 20 External Assets, by Grade and Gender: September 2015

	Total	By ge	nder				
External Asset	Sample	Male Female		6 <sup>th</sup>	6 <sup>th</sup> 8 <sup>th</sup>		12 <sup>th</sup>
Support							
1. Family support	79%	78%	80%	87%	79%	73%	76%
2. Positive family communication	36%	36%	38%	46%	44%	27%	30%
3. Other adult relationships	54%	53%	55%	56%	50%	51%	58%
4. Caring neighborhood	36%	36%	38%	51%	39%	29%	28%
5. Caring school climate	38%	36%	41%	57%	42%	25%	32%
6. Parent involvement in schooling	41%	39%	43%	57%	46%	36%	29%
Empowerment							
7. Community values youth	29%	28%	31%	47%	34%	19%	19%
8. Youth as resources	39%	37%	41%	49%	40%	31%	36%
9. Service to others	48%	43%	53%	52%	47%	46%	46%
10. Safety	52%	61%	43%	40%	52%	54%	60%
Boundaries and Expectations							
11. Family boundaries	50%	47%	53%	53%	44%	57%	47%
12. School boundaries	66%	65%	69%	80%	69%	63%	55%
13. Neighborhood boundaries	48%	47%	51%	62%	50%	44%	38%
14. Adult role models	35%	32%	40%	45%	40%	27%	34%
15. Positive peer influence	82%	79%	85%	97%	91%	69%	73%
16. High expectations	60%	56%	63%	81%	62%	48%	49%
Constructive Use of Time							
17. Creative activities	15%	9%	20%	20%	14%	13%	12%
18. Youth programs	59%	56%	62%	55%	62%	63%	55%
19. Religious community	57%	52%	62%	67%	62%	55%	44%
20. Time at home	60%	61%	58%	68%	70%	57%	46%

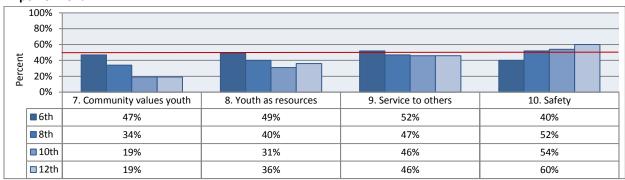
Figure 4. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each External Asset, by Grade: September 2015

Note: The red line indicates 50 percent.

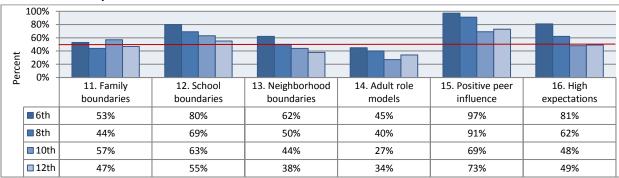
#### Support



#### **Empowerment**



#### **Boundaries and Expectations**



#### **Constructive Use of Time**

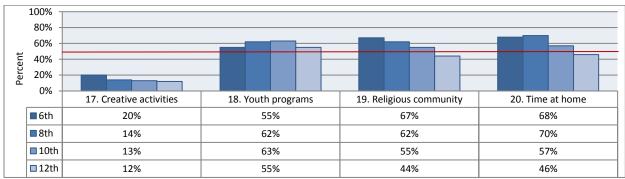
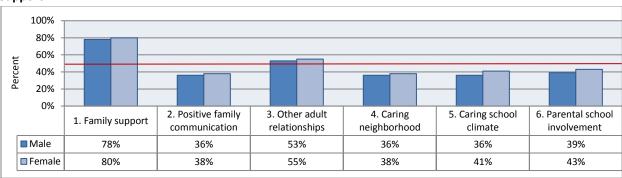


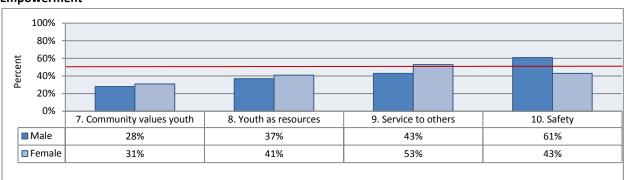
Figure 5. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each External Asset, by Gender: September 2015

Note: The red line indicates 50 percent.

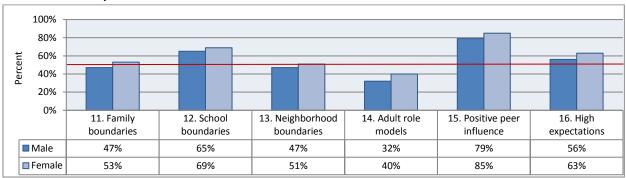
#### Support



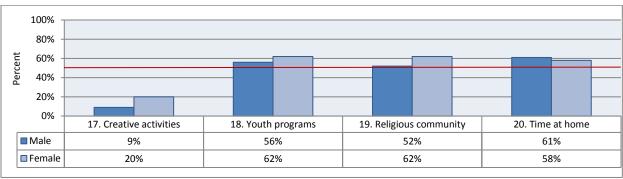
#### **Empowerment**



#### **Boundaries and Expectations**



#### **Constructive Use of Time**



# **Internal Assets by Grade and Gender**

Table 3 contains the percentage of students in Bismarck and Mandan public schools who report having each of the 20 **internal** assets, by grade and gender, in September 2015. Differences of 5 percentage points or more between grade levels or between males and females are meaningful and worthy of thought and consideration (but are not necessarily statistically significant). See Figure 6 for a graphical presentation of internal assets by grade and Figure 7 for internal assets by gender.

Looking at internal asset levels by **grade** shows some interesting trends. The grade level differences are not nearly as stark for internal assets as they are for external assets. However, 12<sup>th</sup> graders have notably fewer assets than 6<sup>th</sup> graders in 12 of the 20 internal assets. Restraint from sexual activity or use of alcohol and drugs (#31) drops 52 percentage points from 6<sup>th</sup> to 12<sup>th</sup> grade. One notable exception, however, is doing at least one hour of homework every school day (#23), which increases 24 percentage points from 6<sup>th</sup> to 12<sup>th</sup> grade.

Looking at internal asset levels by **gender** shows some important differences that are even more notable than the gender differences in external assets. Female students have notably higher levels than male students for 15 of the 20 assets. Females have at least 5 percentage point higher levels for all of the items in the Commitment to Learning and Positive Values categories and all but one item in the Social Competencies category of internal assets. For skills relating to peaceful conflict resolution (#36) and empathy, sensitivity, and friendship (#33), the differences are 25 and 24 percentage points, respectively.

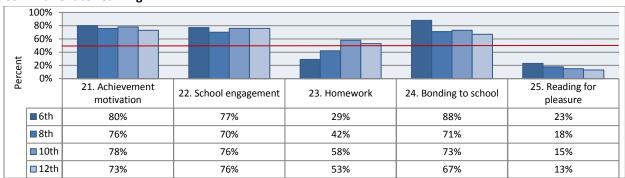
Table 3. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each of the 20 Internal Assets, by Grade and Gender: September 2015

	Total	By ge					
Internal Asset	Sample	Male	Female	6 <sup>th</sup>	8 <sup>th</sup>	10 <sup>th</sup>	12 <sup>th</sup>
Commitment to Learning							
21. Achievement motivation	77%	67%	87%	80%	76%	78%	73%
22. School engagement	75%	68%	81%	77%	70%	76%	76%
23. Homework	46%	38%	53%	29%	42%	58%	53%
24. Bonding to school	74%	70%	78%	88%	71%	73%	67%
25. Reading for pleasure	17%	12%	22%	23%	18%	15%	13%
Positive Values							
26. Caring	58%	49%	68%	64%	56%	59%	55%
27. Equality and social justice	58%	48%	68%	65%	59%	58%	51%
28. Integrity	73%	68%	78%	71%	74%	71%	78%
29. Honesty	74%	69%	81%	80%	78%	66%	74%
30. Responsibility	73%	69%	78%	73%	73%	71%	76%
31. Restraint	58%	53%	63%	77%	81%	49%	25%
Social Competencies							
32. Planning and decision-making	38%	34%	42%	38%	39%	33%	41%
33. Interpersonal competence	48%	36%	60%	58%	45%	43%	47%
34. Cultural competence	37%	35%	39%	40%	42%	36%	32%
35. Resistance skills	52%	47%	56%	59%	63%	41%	44%
36. Peaceful conflict resolution	59%	47%	72%	79%	62%	45%	54%
Positive Identity							
37. Personal power	46%	47%	47%	45%	42%	46%	52%
38. Self-esteem	56%	61%	52%	63%	56%	48%	59%
39. Sense of purpose	67%	72%	62%	73%	67%	62%	66%
40. Positive view of personal future	77%	77%	78%	84%	72%	73%	80%

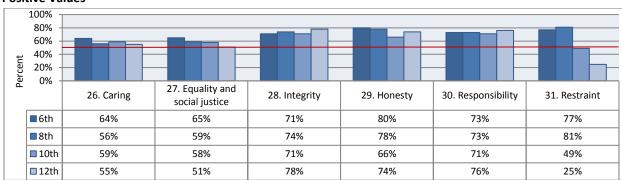
Figure 6. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each Internal Asset, by Grade: September 2015

Note: The red line indicates 50 percent.

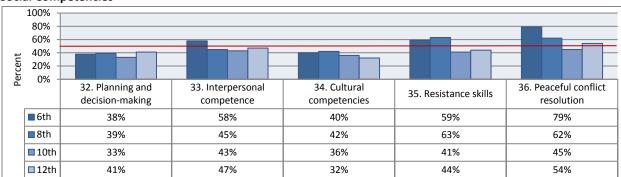
#### **Commitment to Learning**



#### **Positive Values**



#### **Social Competencies**



# **Positive Identity**

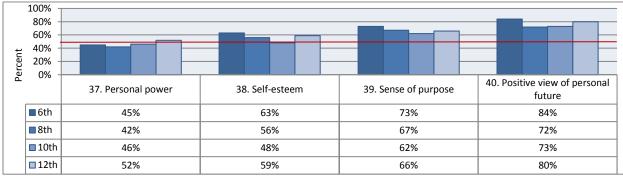
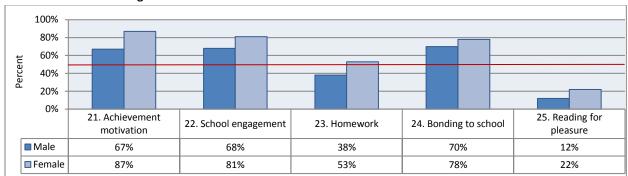


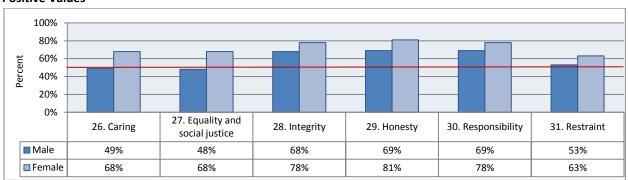
Figure 7. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each Internal Asset, by Gender: September 2015

Note: The red line indicates 50 percent.

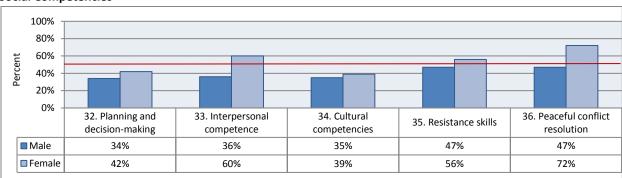
#### **Commitment to Learning**



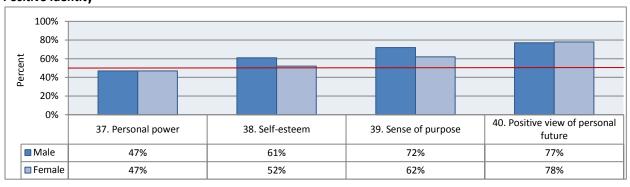
#### **Positive Values**



# **Social Competencies**



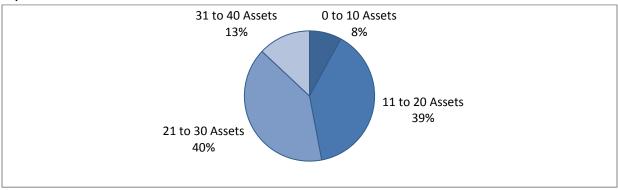
# **Positive Identity**



# **Risky Behaviors and Thriving Behaviors**

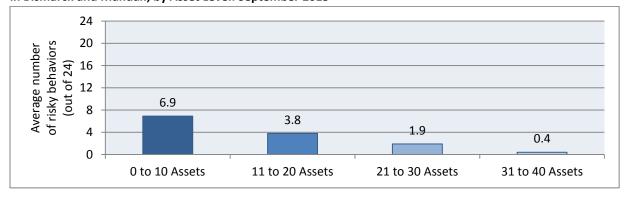
In the Bismarck and Mandan public schools, 13 percent of surveyed students report having 31 or more of the 40 assets. Slightly more than half of students report having at least 21 assets (53%).

Figure 8. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan, by Asset Level: September 2015



There is a powerful relationship between the number of assets students have and the number of risky behaviors they engage in – the more assets, the fewer risky behaviors. The Search Institute survey assessed 24 risky behaviors for students attending Bismarck and Mandan public schools, including various levels of alcohol, tobacco, and drug use; sexual intercourse; anti-social behaviors; various forms of violence; truancy; gambling; eating disorders; depression; and suicide attempts. On average, students with at least 31 of the 40 developmental assets engage in less than one risky behavior. In contrast, those students with 10 or fewer assets engage in, on average, seven risky behaviors.

Figure 9. Average Number of Risky Behaviors (Out of 24) for 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan, by Asset Level: September 2015



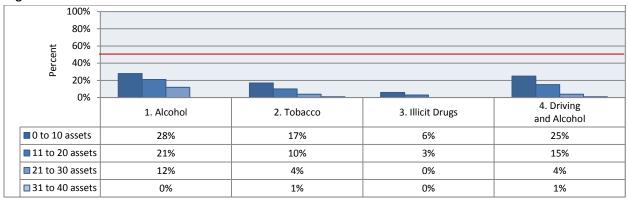
Perhaps more important than a young person's involvement in individual risky behaviors is the repeated involvement in behaviors that compromise well-being. A student who reports using alcohol in the past month is considered to be involved in risky behavior. However, a student who has used alcohol at least three times in the past month (approximately once a week) is considered to be engaging in a high-risk pattern of behavior and is even more likely to experience negative consequences related to the behavior. When negative, and sometimes potentially life-threatening, behaviors among young people become more common, it is especially important to look for root causes and conditions leading to these behaviors. Thus, the 24 risky behaviors assessed by the Search Institute were categorized into 10 high-risk behavior patterns.

The proportion of students in Bismarck and Mandan public schools engaging in high-risk behavior patterns declines systematically with increases in the number of assets they have. The difference in the percentage of students who engage in high-risk-taking behaviors varies as much as 53 percentage points depending on asset level; approximately half of students with 0 to 10 assets have engaged in three or more violent acts of fighting, hitting, injuring a person, carrying or using a weapon, or threatening physical harm in the last 12 months (high-risk behavior pattern #8) compared to none of those students with 31 to 40 assets. In addition, nearly half of students with 0 to 10 assets are frequently depressed or have attempted suicide compared to 3 percent of students with at least 31 assets.

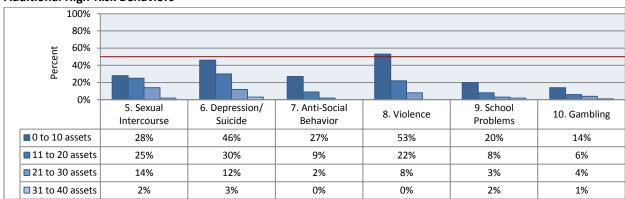
Figure 10. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each High-Risk Behavior Pattern, by Asset Level: September 2015

Note: The red line indicates 50 percent.

**High-Risk Behaviors Related to Substance Use** 



#### **Additional High-Risk Behaviors**



Just as assets protect youth from engaging in risky behaviors, they also promote positive, developmentally appropriate behaviors. As the number of assets increases for students in Bismarck and Mandan public schools, the number of thriving behaviors increases. The eight thriving behaviors for students assessed by the Search Institute include success in school, helping others, valuing diversity, maintaining good health, exhibiting leadership, resisting danger, delaying gratification, and overcoming adversity. On average, students with at least 31 of the 40 developmental assets engage in six thriving behaviors. In contrast, those students with 10 or fewer assets report, on average, three thriving behaviors.

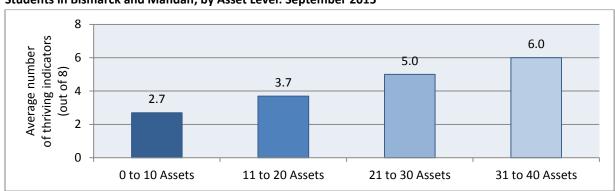
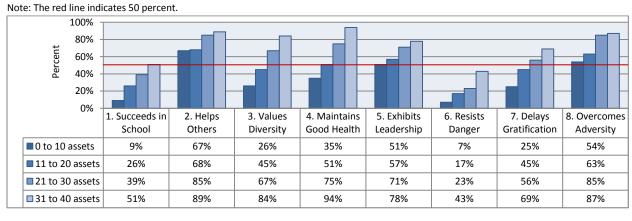


Figure 11. Average Number of Thriving Behaviors (Out of 8) for 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan, by Asset Level: September 2015

The proportion of students in Bismarck and Mandan public schools engaging in thriving behaviors increases systematically with increases in the number of assets they have. The difference in the percentage of students who show a particular thriving behavior varies as much as 59 percentage points depending on asset level; 94 percent of students with 31 to 40 assets maintain good health (thriving behavior #4) compared to 35 percent of students with 0 to 10 assets. Among students with 0 to 10 assets, only 9 percent report succeeding in school (thriving behavior #1) and 7 percent report resisting danger (thriving behavior #6).

Figure 12. Percent of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each Thriving Behavior, by Asset Level: September 2015

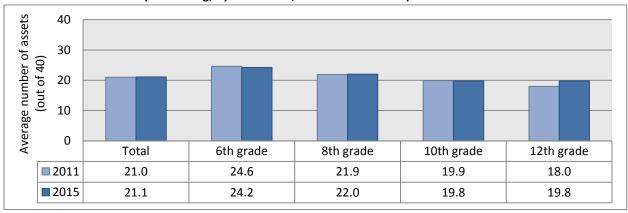


# Comparison of the 2011 and 2015 Search Institute Survey Results

A brief comparison of the 2015 Search Institute survey results and the survey conducted by the Search Institute in fall/winter 2011 (available at <a href="http://www.msaunitedway.org/">http://www.msaunitedway.org/</a>) is included in this section. Differences between the survey results of 5 percentage points or more for the total sample, and of 10 percentage points or more for grade levels or gender are meaningful and worthy of consideration (but are not necessarily statistically significant).

There was little difference from 2011 to 2015 in the average number of assets held by students in the Bismarck and Mandan public schools (21.0 and 21.1, respectively); however, the gradual decrease in assets by each grade level in 2011 was less pronounced in 2015. There was no change in the average number of assets between students in grades 10 and 12 in 2015, resulting in 12<sup>th</sup> grade students in 2015 having, on average, nearly two more assets than 12<sup>th</sup> grade students in 2011.

Figure 13. Average Number of Assets (Out of 40) that 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Report Having, by Grade: Fall/Winter 2011 and September 2015



Regarding external assets, the greatest overall improvement among students in Bismarck and Mandan public schools involved Boundaries and Expectations. A larger percentage of students in 2015 than 2011 reported that schools provide clear rules and expectations and that their best friends as well as parents and other adults model positive, responsible behavior. One additional area of improvement is students spending time at home.

Looking at external asset levels by grade, 12<sup>th</sup> grade youth showed the most meaningful improvement between 2011 and 2015. There was an increase of at least 10 percentage points in 12<sup>th</sup> grade students whose parents were actively involved in school, were given useful roles in the community, and in four of the six Boundaries and Expectations assets. There was a notable decrease in the percentage of 8<sup>th</sup> grade students serving their community and in 12<sup>th</sup> grade students feeling safe. With the exception of youth given useful roles in the community, fewer youth had Empowerment assets, across gender and most grades, in 2015.

Table 4. Percentage of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each of the 20 External Assets, by Grade and Gender: Fall/Winter 2011 and September 2015

( meaningful decrease, meaningful increase)

	То	Total By gender			By grade									
	San	nple	Ma	Male		nale	6 <sup>th</sup>		8 <sup>th</sup>		10 <sup>th</sup>		12	2 <sup>th</sup>
External Assets	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015
Support														
1. Family support	78%	79%	77%	78%	78%	80%	91%	87%	80%	79%	68%	73%	72%	76%
2. Positive family	36%	36%	35%	36%	38%	38%	51%	46%	37%	44%	33%	27%	24%	30%
communication	3070	3070	3370	3070	3070	3070	31/0	1070	3770	1170	3370	2,,,,	2170	3070
Other adult relationships	53%	54%	48%	53%	59%	55%	54%	56%	55%	50%	54%	51%	51%	58%
4. Caring neighborhood	37%	36%	37%	36%	38%	38%	52%	51%	41%	39%	26%	29%	28%	28%
5. Caring school climate	42%	38%	39%	36%	46%	41%	61%	57%	47%	42%	32%	25%	27%	32%
6. Parent involvement in schooling	37%	41%	34%	39%	41%	43%	56%	57%	49%	46%	28%	36%	17%	29%
Empowerment														
7. Community values youth	31%	29%	29%	28%	35%	31%	51%	47%	35%	34%	21%	19%	19%	19%
8. Youth as resources	37%	39%	35%	37%	39%	41%	43%	49%	44%	40%	33%	31%	26%	36%
9. Service to others	51%	48%	46%	43%	57%	53%	58%	52%	57%	47%	51%	46%	40%	46%
10. Safety	54%	52%	62%	61%	46%	43%	35%	40%	52%	52%	58%	54%	72%	60%
<b>Boundaries &amp; Expectations</b>														
11. Family boundaries	49%	50%	45%	47%	53%	53%	57%	53%	53%	44%	49%	57%	36%	47%
12. School boundaries	61%	66%	62%	65%	60%	69%	82%	80%	61%	69%	54%	63%	48%	55%
13. Neighborhood boundaries	46%	48%	46%	47%	46%	51%	64%	62%	54%	50%	40%	44%	27%	38%
14. Adult role models	29%	35%	25%	32%	34%	40%	34%	45%	32%	40%	27%	27%	24%	34%
15. Positive peer influence	75%	82%	73%	79%	77%	85%	95%	97%	79%	91%	70%	69%	58%	73%
16. High expectations	59%	60%	59%	56%	60%	63%	81%	81%	62%	62%	54%	48%	43%	49%
Constructive Use of Time														
17. Creative activities	16%	15%	11%	9%	23%	20%	18%	20%	17%	14%	21%	13%	10%	12%
18. Youth programs	56%	59%	53%	56%	59%	62%	57%	55%	62%	62%	57%	63%	48%	55%
19. Religious community	60%	57%	54%	52%	66%	62%	68%	67%	66%	62%	60%	55%	46%	44%
20. Time at home	53%	60%	54%	61%	51%	58%	69%	68%	56%	70%	47%	57%	39%	46%

Regarding internal assets, there was meaningful improvement among public school students in Bismarck and Mandan in three of the four categories between 2011 and 2015; Commitment to Learning, Positive Values, and Social Competencies. With regard to the Commitment to Learning assets, meaningful improvement was seen in students being motivated to do well in school and doing their homework every day, specifically among females and students in higher grades. Within the Positive Values category, a larger percentage of students in 2015 than in 2011 place high value on helping other people, place high value on promoting equality and reducing hunger and poverty, and place importance on restraint by not being sexually active or using alcohol or other drugs. Students in 2015 are also more likely to have knowledge of and comfort with people of different cultural/racial/ethnic backgrounds, be able to resist negative peer pressure and dangerous situations, and seek to resolve conflict nonviolently.

In contrast, fewer students in the Bismarck and Mandan public schools were reading for pleasure in 2015, across grades and gender. In addition, with the exception of males and students in grade 6, fewer students had all four Positive Identity assets. Specifically, females and students in grades 8, 10, and 12 were less likely in 2015 to feel in control, have high self-esteem, think their life has purpose, and be optimistic about their future.

Table 5. Percentage of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Having Each of the 20 Internal Assets, by Grade and Gender: Fall/Winter 2011 and September 2015

( meaningful decrease, meaningful increase)

`	meaningiui decrease,			increa												
		To		al By gender				By grade								
		Sam	ıple	Ma	ale	Fen	nale	6	th	8 <sup>th</sup>		10 <sup>th</sup>		12	th -	
	Internal Assets	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	
Con	nmitment to Learning															
1.	Achievement motivation	70%	77%	64%	67%	77%	87%	81%	80%	72%	76%	69%	78%	59%	73%	
2.	School engagement	72%	75%	67%	68%	78%	81%	75%	77%	70%	70%	77%	76%	69%	76%	
3.	Homework	36%	46%	31%	38%	42%	53%	29%	29%	37%	42%	47%	58%	31%	53%	
4.	Bonding to school	70%	74%	69%	70%	71%	78%	84%	88%	68%	71%	69%	73%	59%	67%	
5.	Reading for pleasure	24%	17%	16%	12%	32%	22%	33%	23%	26%	18%	19%	15%	18%	13%	
Pos	itive Values															
6.	Caring	51%	58%	43%	49%	61%	68%	59%	64%	47%	56%	50%	59%	48%	55%	
7.	Equality and social justice	52%	58%	43%	48%	64%	68%	63%	65%	51%	59%	46%	58%	49%	51%	
8.	Integrity	73%	73%	66%	68%	82%	78%	72%	71%	70%	74%	75%	71%	76%	78%	
9.	Honesty	72%	74%	68%	69%	76%	81%	75%	80%	71%	78%	68%	66%	74%	74%	
10.	Responsibility	70%	73%	67%	69%	74%	78%	71%	73%	67%	73%	69%	71%	73%	76%	
11.	Restraint	53%	58%	49%	53%	59%	63%	83%	77%	64%	81%	44%	49%	23%	25%	
Soci	ial Competencies															
12.	Planning and decision- making	36%	38%	32%	34%	41%	42%	38%	38%	38%	39%	37%	33%	32%	41%	
13.	Interpersonal	48%	48%	33%	36%	65%	60%	52%	58%	48%	45%	51%	43%	42%	47%	
	competence	4070	4070	33/0	3070	0370	0078	J2/0	3070	4070	4370	31/0	43/0	42/0	47/0	
14.	Cultural competence	32%	37%	28%	35%	37%	39%	36%	40%	32%	42%	30%	36%	30%	32%	
_	Resistance skills	47%	52%	41%	47%	55%	56%	59%	59%	54%	63%	44%	41%	34%	44%	
16.	Peaceful conflict resolution	52%	59%	43%	47%	63%	72%	74%	79%	52%	62%	45%	45%	39%	54%	
Pos	itive Identity															
17.	Personal power	49%	46%	44%	47%	55%	47%	38%	45%	46%	42%	52%	46%	60%	52%	
18.	Self-esteem	57%	56%	56%	61%	57%	52%	58%	63%	60%	56%	50%	48%	57%	59%	
19.	Sense of purpose	71%	67%	70%	72%	72%	62%	73%	73%	75%	67%	67%	62%	68%	66%	
20.	Positive view of personal future	77%	77%	74%	77%	80%	78%	76%	84%	74%	72%	78%	73%	80%	80%	

The 2015 survey results indicate a smaller percentage of students in the Bismarck and Mandan public schools were engaged in high-risk behaviors than in 2011, especially for those students with fewer than 21 assets. The notable exception is students who are frequently depressed or have attempted suicide. Regardless of the number of assets, a larger percentage of students in 2015 than in 2011 were frequently depressed or attempted suicide. The difference between 2011 and 2015 among students engaging in thriving behaviors was mixed. The most meaningful positive change in thriving behavior took place among students with fewer than 11 assets.

Table 6. Percentage of 6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> Grade Public School Students in Bismarck and Mandan Who Report Specific Thriving and High-Risk Behaviors, by Asset Level: Fall/Winter 2011 and September 2015

( meaningful decrease, meaningful increase)

			Asset Level							
	Total Sample		0 to	10	11 to	o <b>20</b>	21 to 30		31 to	o 40
Behavior	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015
Thriving Behaviors										
1. Succeeds in school	30%	31%	8%	9%	18%	26%	41%	39%	58%	51%
2. Helps others	79%	77%	55%	67%	76%	68%	84%	85%	93%	89%
3. Values diversity	55%	58%	31%	26%	47%	45%	62%	67%	74%	84%
4. Maintains good health	64%	65%	27%	35%	51%	51%	77%	75%	94%	94%
5. Exhibits leadership	69%	64%	39%	51%	63%	57%	78%	71%	88%	78%
6. Resists danger	22%	23%	3%	7%	13%	17%	24%	23%	50%	43%
7. Delays gratification	51%	51%	33%	25%	39%	45%	60%	56%	71%	69%
8. Overcomes adversity	74%	73%	56%	54%	65%	63%	83%	85%	90%	87%
High-Risk Behaviors										
1. Alcohol	20%	14%	46%	28%	29%	21%	10%	12%	2%	0%
2. Tobacco	10%	6%	26%	17%	15%	10%	4%	4%	1%	1%
3. Illicit drugs	13%	1%	39%	6%	18%	3%	5%	0%	0%	0%
4. Driving and alcohol	14%	8%	38%	25%	18%	15%	9%	4%	0%	1%
5. Sexual Intercourse	21%	15%	41%	28%	31%	25%	14%	14%	4%	2%
6. Depression/Suicide	16%	19%	38%	46%	21%	30%	8%	12%	2%	3%
7. Anti-social behavior	12%	6%	46%	27%	15%	9%	3%	2%	0%	0%
8. Violence	19%	15%	43%	53%	25%	22%	11%	8%	2%	0%
9. School problems	16%	7%	39%	20%	18%	8%	7%	3%	4%	2%
10. Gambling	7%	5%	9%	14%	8%	6%	7%	4%	0%	1%

# **DEMOGRAPHICS**

Current population estimates for 2014 indicate that residents in the Bismarck-Mandan metro area (i.e., Burleigh and Morton counties) represent 16 percent of the population statewide (120,325 residents). Beginning in 2000, population in the metro area grew approximately 0.5 percent per year, on average, through 2010. Energy development activity in the state has had a significant impact on North Dakota's population, including the Bismarck-Mandan metro area. Since 2010, North Dakota's population has grown 2.4 percent annually, on average – and the Bismarck-Mandan metro has grown 2.6 percent annually from 2010 to 2014.

The demographics section of this report provides a discussion of the total child population by age, race/ethnicity, and family type, as well as births and low birth weight babies for the Bismarck-Mandan metro area.

#### Age

According to current population estimates, children ages 0 through 17 in the Bismarck-Mandan metro area totaled 27,492 in 2014, which is 23 percent of all metro area residents. Since 2010, growth in the number of children has mirrored changes in the total population overall (i.e., 2.5% per year on average). Over the past 14 years, the child population in the metro has increased by 15 percent, from 23,998 children in 2000 to 27,492 in 2014.

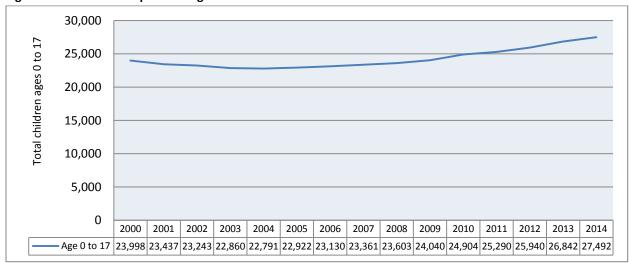


Figure 14. Total Child Population Ages 0 to 17 in the Bismarck-Mandan Metro Area: 2000 to 2014

Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2000 to July 1, 2014

While the child population overall in the metro has been increasing since 2010, the distribution of the child population by age has remained relatively the same. In 2014, young children ages 0 to 4 represented 7 percent of the metro population overall, a percentage which has shown little change since 1990. Also showing little change over the past few decades is the number of older children ages 15 to 17 who captured 4 percent of the metro population in 2014. Children ages 5 to 14 represented 13 percent of the metro population in 2014, which is down from 17 percent in 1990; however, there was little change in this percentage from 2010.

Figure 15. Children Ages 0 to 17, by Age Group, as a Percent of Total Population in the Bismarck-Mandan Metro Area: 1990, 2000, 2010, and 2014



Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

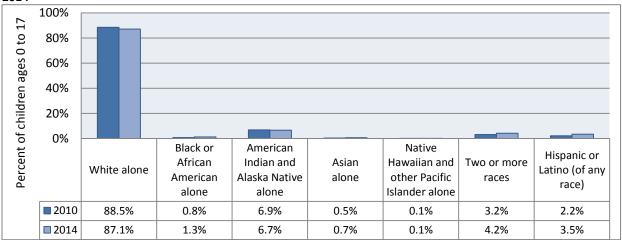
Sources: 2014 Data – U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2014. 2010 Data - U.S. Census Bureau, 2010 Census Summary File 1, Table QT-P1. 2000 Data - U.S. Census Bureau, Census 2000 Summary File 1, 100-Percent Data, Table QT-P1. 1990 Data - U.S. Census Bureau, Census

# **Race and Ethnicity**

Race and ethnicity have important implications for culture, identity, and well-being. Children of different races and ethnicities often show large variation in well-being, including health, mortality, school performance and attainment, and access to family and community resources. These and other disparities are also evident in adulthood<sup>3</sup>.

While minority children continue to represent a relatively small percentage of the Bismarck-Mandan metro's child population overall, the metro area is becoming more racially diverse. Minority children (i.e., American Indian, Black, Asian, Native Hawaiian, and children reporting two or more races) comprised 13 percent of all children in the metro area in 2014; which is a slight increase from 12 percent in 2010. American Indian children represent the largest minority group at 7 percent of all children in the metro. Black and Hispanic children, while small in number, saw the fastest growth in population among racial groups in the Bismarck-Mandan metro, nearly doubling in number from 2010 to 2014.

Figure 16. Children Ages 0 to 17 by Race and Hispanic Origin in the Bismarck-Mandan Metro Area: 2010 and 2014



 ${\bf Note: \ Bismarck-Mandan \ metro \ area \ includes \ Burleigh \ County \ and \ Morton \ County, \ ND.}$ 

Source: U.S. Census Bureau, Population Division, Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin: April 1, 2010 to July 1, 2014.

# **Family and Community**

When children are nurtured and well cared for during their first five years, they have better social-emotional, language and learning outcomes. These lead to more positive behavior and academic achievement in their later years. But when families and neighborhoods lack sufficient human and social resources, children's well-being can suffer<sup>4</sup>. For example, children growing up in single-parent families typically have access to fewer economic or emotional resources than children in two-parent families. Compared with children in married-couple families, children raised in single-mother households are more likely to drop out of school, to have or cause a teen pregnancy, and to experience a divorce in adulthood<sup>5</sup>.

While the majority of children in the Bismarck-Mandan metro area live with both parents, the composition of families continues to change. The percentage of children ages 0 to 17 who live with both parents decreased from 82 percent in 1990 to 72 percent in 2014. At the same time, the percentage of children living with a single parent rose from 15 percent in 1990 to 21 percent in 2014.

Most of the metro children living with a single parent live with their mother; the percentage of children who live with a single mother increased from 13 percent in 1990 to 16 percent in 2014. During the same time, the percentage of children living with a single father increased from 2 percent to 4 percent. An additional 3 percent of children in the metro area lived with a grandparent in 2014. According to data from the North Dakota Department of Human Services, 258 children in the Bismarck-Mandan metro area received foster care services in 2014 (see Figure 38).

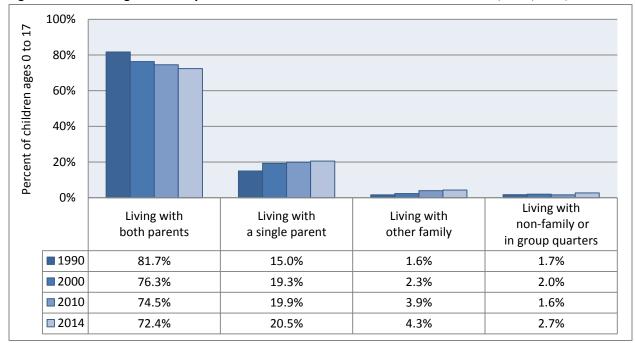


Figure 17. Children Ages 0 to 17 by Residence in the Bismarck-Mandan Metro Area: 1990, 2000, 2010, and 2014

Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Sources: 2010 and 2014 Data - U.S. Census Bureau, American Community Survey 5-Year Estimates, Tables B09001, B09002, and B09018. 2000 Data - U.S. Census Bureau, Census 2000 Summary File 1, Table P28. 1990 Data - U.S. Census Bureau, Census 1990 Summary Tape File 1, P21.

#### **Births**

Teenage childbearing can have long-term negative effects for both the mother and newborn. Teens are at higher risk of bearing low-birthweight and preterm babies. And, their babies are far more likely to be born into families with limited educational and economic resources, which function as barriers to future success<sup>6</sup>.

According to the North Dakota Department of Health, Division of Vital Records, there were 1,828 births in the Bismarck-Mandan metro area in 2014 (i.e., 1,371 births in Burleigh County and 457 in Morton County). Total resident births in the metro area increased an average of 3.3 percent per year since 2000 – a pace slightly faster than the statewide average of 2.9 percent per year. The number of teen births in the metro area fluctuated during the 2000s, but currently equals the 2000 number of 93 teen births.

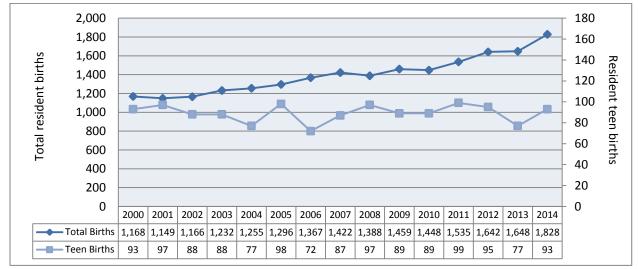


Figure 18. Total and Teenage Resident Births in the Bismarck-Mandan Metro Area: 2000 to 2014

Source: North Dakota Department of Health, Division of Vital Records

According to the American Community Survey, most women who recently gave birth in the Bismarck-Mandan metro area were ages 20 to 34 in 2014 (82%); 3 percent were teenagers (i.e., ages 15 to 19).

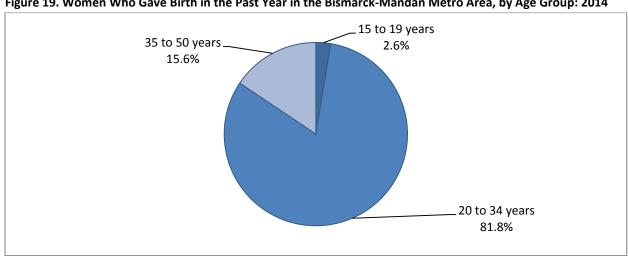
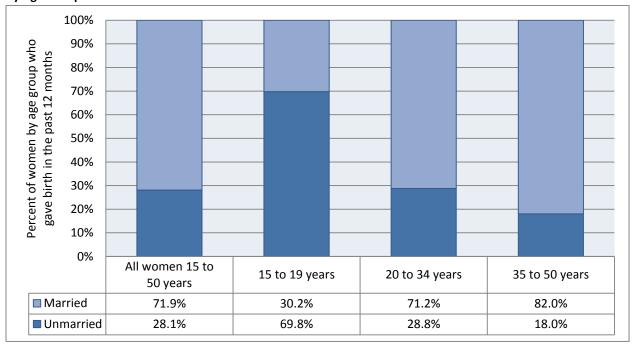


Figure 19. Women Who Gave Birth in the Past Year in the Bismarck-Mandan Metro Area, by Age Group: 2014

Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND. Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates, Table S1301. Overall, just over one-fourth of women who recently gave birth in the Bismarck-Mandan metro area in 2014 were unmarried (28%). New teenage moms are more than twice as likely to be unmarried than older women who just gave birth. More than two-thirds of teenagers who gave birth in the Bismarck-Mandan metro area were unmarried (70%).

Figure 20. Women Who Gave Birth in the Past Year in the Bismarck-Mandan Metro Area by Marital Status and by Age Group: 2014



Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

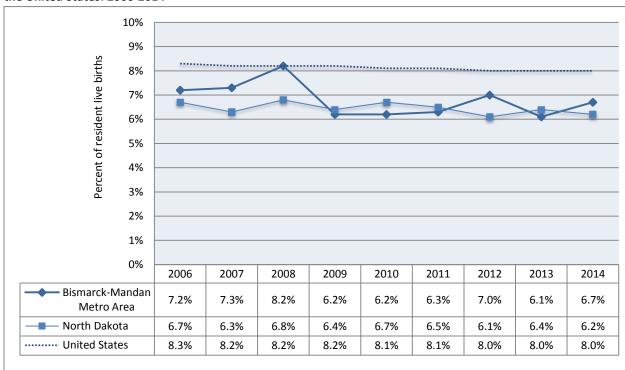
Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates, Table S1301.

# **Low Birth Weight Babies**

Infants born at a low birth weight (i.e., less than 2,500 grams) are at increased risk of long-term disability and impaired development. Infants born under 2,500 grams are more likely than heavier infants to experience delayed motor and social development. Lower birth weight also increases a child's likelihood of having a school-age learning disability, being enrolled in special education classes, having a lower IQ, and dropping out of high school. Risk for many of these outcomes increases substantially as birth weight decreases, with very low birth weight babies being most at risk. Being born with a low birth weight also incurs enormous economic costs, including higher medical expenditures, special education and social service expenses, and decreased productivity in adulthood<sup>7</sup>.

Infants born at a low birth weight comprised 6.7 percent of all births in the Bismarck-Mandan metro area in 2014, a rate slightly higher than the statewide average of 6.2 percent. However, both North Dakota and the metro area trend below the national average of 8 percent.

Figure 21. Resident Live Births with a Low Birth Weight in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2006-2014



Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Sources: National Data - The Annie E. Casey Foundation, KIDS COUNT Data Center website, http://datacenter.kidscount.org/data/bystate.

State and County Data - North Dakota Department of Health, Division of Vital Records, Vital Events Summary, http://www.ndhealth.gov/vital/.

## **SCHOOL READINESS**

School readiness can be defined as the skills, knowledge, behaviors, and accomplishments that children know and can do as they enter kindergarten in the areas of physical well-being and motor development, social and emotional development, approaches to learning, language development, cognition and general knowledge, and creativity and the arts.

This section of the report looks at parental and child characteristics that have an impact on the early development of children and affect the child's readiness for school.

#### **Prenatal Care**

Prenatal visits are important for the health of both infant and mother. Health care providers can educate mothers on important health issues, such as their diet and nutrition, exercise, immunizations, weight gain, and abstaining from drugs and alcohol. Health professionals also have an opportunity to instruct expecting parents on nutrition for their newborn, the benefits of breastfeeding, and injury and illness prevention, as well as monitor for health-compromising conditions, and help them prepare for the new emotional challenges of caring for an infant. Mothers who receive late or no prenatal care are more likely to have babies with health problems. Mothers who do not receive prenatal care are three times more likely to give birth to a low birth weight baby, and their baby is five times more likely to die<sup>8</sup>.

In 2014, approximately 14 percent of resident live births in the Bismarck-Mandan metro area were to mothers receiving prenatal care which began after the first trimester or not at all. This represents an increase of nearly 6 points from 8 percent in 2013, reversing a generally downward trend since 2009.

The rate of late or no prenatal care in the metro area, while slightly lower, mirrored the statewide trend from 2006 through 2013. Current data for 2014 indicate these rates are now similar at 14 percent.

20% 18% Percent of resident live births 16% 14% 12% 10% 8% 6% 4% 2% 0% 2006 2007 2008 2009 2010 2011 2012 2013 2014 Bismarck-Mandan 10.0% 11.0% 11.6% 12.1% 10.2% 10.7% 10.5% 8.4% 13.9% Metro Area 16.3% - North Dakota 16.8% 17.6% 17.2% 15.9% 16.3% 16.3% 13.2% 14.1%

Figure 22. Resident Live Births to Mothers Receiving Prenatal Care Beginning After the First Trimester or Not at All in the Bismarck-Mandan Metro Area and North Dakota: 2006-2014

Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND. Source: North Dakota Department of Health, Division of Vital Records, special request.

#### **Parental Education**

Higher levels of parent educational attainment are strongly associated with positive outcomes for children in many areas including school readiness, educational achievement, incidence of low birth weight, health-related behaviors including smoking and binge drinking, and pro-social activities such as volunteering. Children of more educated parents are also likely to have access to greater material, human, and social resources9.

In 2014, three-fourths of women ages 15 to 50 who gave birth in the past 12 months in the Bismarck-Mandan metro area were educated beyond high school (75%). Nearly two-fifths of new mothers in the Bismarck-Mandan metro area had at least a Bachelor's degree (39%), which is slightly higher than the statewide and national averages (36% and 30%, respectively). Another 36 percent of new mothers in the metro area had at least some college or an Associate's degree in 2014.

100% in the past 12 months Percent of all women 80% who gave birth 60% 40.8% 38.4% 39.0% 36.0% 36.0% 31.6% 40% 29.9% 25.0% 23.3% 20% 0% **United States** North Dakota Bismarck-Mandan Metro Area A high school ■ Some college or ■ Bachelor's degree

Associate's degree

or higher

Figure 23. Women Ages 15 to 50 Who Gave Birth in the Past 12 Months, by Educational Attainment, in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2014

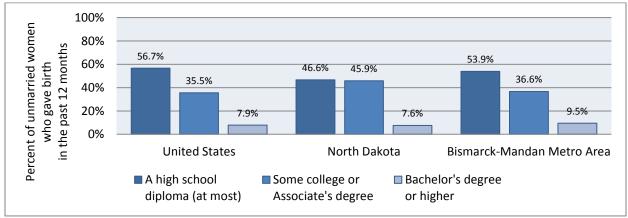
Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

diploma (at most)

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates, Table B13014.

In 2014, about half of unmarried women ages 15 to 50 who gave birth in the past 12 months in the Bismarck-Mandan metro area had, at most, a high school education (54%), which is more than twice the percentage of new mothers in general (25%). Slightly more than one-third of new unmarried mothers in the metro area had some college or an Associate's degree (37%) in 2014. Approximately 1 in 10 had a Bachelor's degree or higher (10%).





Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

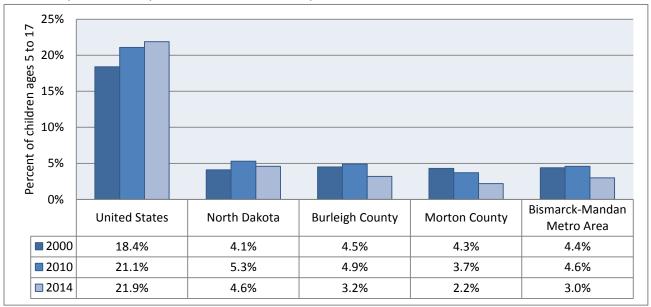
## **Language Spoken at Home**

Parental involvement in school can lead to increased academic performance and positive social outcomes for children, as well as enable teachers to identify learning problems at an earlier age. Teachers' lack of understanding of cultural context can hinder child development. Parents who do not speak English well may feel less comfortable or less welcome getting involved in their children's school<sup>10</sup>.

Less than 5 percent of school-age children in the Bismarck-Mandan metro area spoke a language other than English at home in 2014 (3%). This percentage is down slightly from 5 percent in 2010. Of children who speak a foreign language at home, nearly all of them speak English well or very well (98%).

Nationally, one in five children speak a foreign language at home. The vast majority of these children speak English well or very well (93%).

Figure 25. Children Ages 5 to 17 Who Speak a Language Other Than English at Home in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2000, 2010 and 2014



Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Sources: 2010 and 2014 Data - U.S. Census Bureau, American Community Survey 5-Year Estimates, Table B16004. 2000 Data - U.S. Census Bureau, Census 2000 Summary File 3 - Sample Data, Table P19.

#### **Parents in the Labor Force**

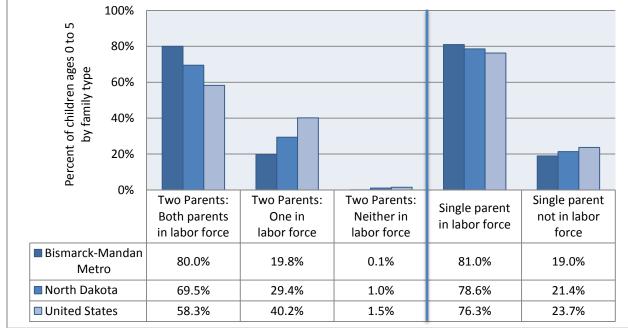
Having full-time, year-round employment (i.e., secure employment) is a major contributor to financial stability and well-being for families. Higher income, in turn, is associated with many positive child outcomes including better health, behavior, academic achievement, and financial well-being as adults. In particular, deep, persistent and early poverty are related to poorer child development, though, in some cases, long hours of employment among mothers with very young children has been associated with modestly negative child outcomes. One study found large drops in family income, and fluctuating incomes, to be associated with a greater risk of behavioral problems and lower reading scores, compared with children in families who had not been poor<sup>11</sup>.

In the Bismarck-Mandan metro area, the percentage of mothers with young children (ages 0 to 5) who are in the labor force grew from 81 percent in 2000 to 85 percent in 2014. This percentage is higher than the statewide average of 76 percent, and North Dakota has the eighth highest rate among states in the nation<sup>12</sup>.

The majority of young children in the Bismarck-Mandan metro area have working parents, and rates of labor force participation are higher in the metro area than they are in the state and the nation overall. In 2014, for 80 percent of metro area children ages 0 to 5 who live with both parents, both parents were working; an additional 20 percent had at least one parent in the labor force. For most children ages 0 to 5 living with a single parent, that parent was in the labor force (81%).

Participants in the labor force reflect both employed and unemployed persons. Unemployment in the Bismarck-Mandan metro area and North Dakota overall is much lower than the national average (3% each compared to 6%, respectively in 2014)<sup>13</sup>.

Figure 26. Children Ages 0 to 5 by Family Type and Parental Work Status in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2014 100% 80%



Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates, Table B23008.

## **Child Care and Early Education**

A substantial percentage of children spend time in either center- or home-based child care. There is no conclusive evidence that child care is either better or worse for children than being cared for solely by a parent. However, researchers have found that consistent, developmentally sound, and emotionally supportive care has a positive effect on both children and families. In general, high quality child care is more beneficial for children's cognitive, language, and social development than low quality child care.

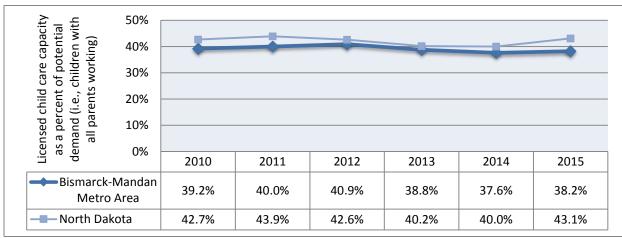
Low-income children who attend intensive, high quality early education programs have greater school success, higher graduation rates, lower levels of juvenile crime, decreased need for special education services, and lower teen pregnancy rates than their peers<sup>14</sup>.

The vast majority of children ages 0 to 13 in the Bismarck-Mandan metro area live in families where all the parents in the household are working (83% or 16,361 children in 2014). While not all children with working parents need care, this is a relatively good proxy for identifying potential need or demand.

In February 2015, the Bismarck-Mandan metro area had 244 licensed child care providers with the capacity to serve 6,249 children. Thus, licensed child-care options meet only 38 percent of the potential demand for children needing care in the metro area.

The capacity of licensed child care to meet potential demand in the metro area mirrors the statewide trend and has seen little change overall since 2010.

Figure 27. Extent That Licensed Child Care Capacity is Meeting Potential Demand for Child Care in the Bismarck-Mandan Metro Area and North Dakota: 2010 to 2015



Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Sources: Licensed child care capacity - Child Care Aware of North Dakota, special request. Potential demand - U.S. Census Bureau, American Community Survey 5-Year Estimates, Table B23008 and calculations by North Dakota KIDS COUNT.

High quality early education programs for 3-and 4-year-olds play an important role in preparing children for success and lead to higher levels of educational attainment, career advancement and earnings. Current data suggest that 41 percent of 3- and 4-year-olds in the Bismarck-Mandan metro area were enrolled in some form of early education (i.e., licensed child care setting, preschool, pre-kindergarten, or Head Start) in 2014 (compared to 36% statewide)<sup>15</sup>.

### **Head Start**

Head Start is a federally funded program designed for children in low-income families to help prepare them for school. In addition to educational services, Head Start provides health and social services, and encourages parental involvement in all aspects of the program. One rigorous national evaluation, the Head Start Impact Study, found gains for Head Start children in pre-reading, pre-writing, vocabulary, and literacy skills. Children assigned to participate in Head Start also had fewer behavior problems, better overall physical health, less hyperactivity, and more access to dental care than did children with comparable backgrounds who did not participate. More positive effects were found for children who entered the program as three-year-olds than for those entering as four-year-olds. Another study found that four-year-olds participating in Head Start did better in receptive language and phonemic awareness than four-year-olds of similar backgrounds who were wait-listed for the Head Start program<sup>16</sup>.

The Head Start Program at the Bismarck Early Childhood Education Program (BECEP) in Bismarck, North Dakota, serves the counties of Burleigh, Emmons, Kidder, Logan, and McIntosh. The West River Head Start Program located in Mandan, North Dakota, serves the counties of Morton, Grant, Mercer, and Oliver. These programs serve children primarily ages 3 and 4.

The number of funded enrollment slots in these two programs has decreased over the past few years. In program year 2013-2014, BECEP had 207 funded slots and West River had 152 funded slots (down from 231 and 160 funded slots in 2010-11, respectively). Statewide, there were 3,118 funded slots among 13 Head Start programs (serving children ages 3 and 4) and seven Early Head Start programs (serving pregnant women and children ages 0 to 2) reporting in 2013-14 (Spirit Lake Head Start and Early Head Start are not included in the reporting).

Actual enrollment numbers of children in Head Start programs include some turnover throughout the year resulting in numbers that are higher than funded slots. In 2014, 227 children ages 3 and 4 were enrolled in BECEP, which is down from a high or 271 in 2010. In West River Head Start, 176 children ages 3 and 4 were enrolled in 2014, a number relatively unchanged from 2010.

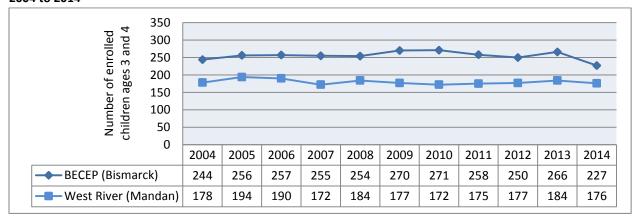


Figure 28. Enrollment of Children Ages 3 and 4 in Head Start Programs Serving Burleigh and Morton Counties: 2004 to 2014

Notes: The Head Start Program at the Bismarck Early Childhood Education Program (BECEP) is located in Bismarck, ND, and serves the counties of Burleigh, Kidder, Logan, Emmons, and McIntosh. West River Head Start is located in Mandan, ND, and serves the counties of Morton, Mercer, Oliver, and Grant. Data are actual enrollment figures and reflect turnover within a program year, as opposed to the number of funded enrollment slots.

Source: Head Start Program Information Report (PIR), PIR Summary Report – Program and State Level, U.S. Department of Health and Human Services, https://hses.ohs.acf.hhs.gov/.

In 2014, the BECEP and West River Head Start programs served 383 families. Three-fourths of these families accessed at least one family service through Head Start (74%).

Parenting education was the most commonly accessed service by families with children enrolled in Head Start programs serving the Bismarck-Mandan metro area in 2014 (64%), followed by health education (63%). Emergency and crisis intervention services were accessed by 19 percent of families. Approximately one in 10 families accessed housing assistance (13%), adult education (8%), and mental health services (8%). Fewer than 5 percent of families accessed job training (3%), domestic violence services (3%), relationship and marriage education (3%), substance abuse prevention or treatment (2%), assistance to families of incarcerated individuals (2%), English as a Second Language training (1%), and child support assistance (1%).

While utilization of the most common family services by families served by the BECEP and West River Head Start programs is similar to the state, many of the other services are much more commonly utilized by families served by other Head Start and Early Head Start programs across the state. This could be due to a variety of factors. For example, fewer families using a service may reflect less need (such as for ESL training) or it may reflect an issue of diminished access to services, especially in the more rural counties served by the BECEP and West River programs.

Received at Least One Family Service Parenting Education Health Education Emergency/Crisis Intervention Relationship/Marriage Education Mental Health Services **Housing Assistance** Substance Abuse Prevention Child Abuse and Neglect Services **Domestic Violence Services** Substance Abuse Treatment Child Support Assistance Adult Education Job Training Assistance to Families of Incarcerated Individuals English as a Second Language (ESL) Training 0% 20% 40% 60% 80% 100% Percent of families with children enrolled in Head Start programs All North Dakota ■ Programs serving Burleigh and Morton Programs counties (i.e., BECEP, West River)

Figure 29. Types of Family Services Received by Families in Head Start Programs Serving North Dakota Overall and Burleigh and Morton Counties: 2013-2014

Notes: The Head Start Program at the Bismarck Early Childhood Education Program (BECEP) is located in Bismarck, ND, and serves the counties of Burleigh, Kidder, Logan, Emmons, and McIntosh. West River Head Start is located in Mandan, ND, and serves the counties of Morton, Mercer, Oliver, and Grant.

Source: Head Start Program Information Report (PIR), PIR Summary Report – Program and State Level, U.S. Department of Health and Human Services, https://hses.ohs.acf.hhs.gov/.

### **Poverty**

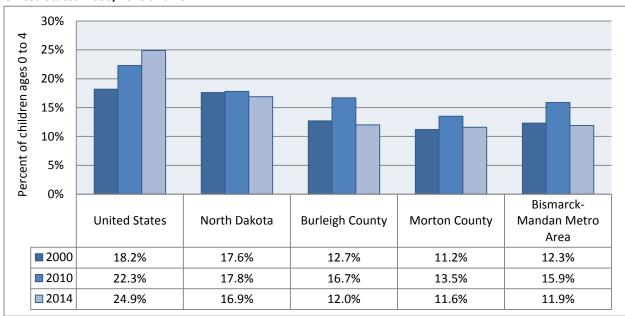
Aside from physical and mental health, poverty in childhood and adolescence is associated with a higher risk for poorer cognitive and academic outcomes, lower school attendance, lower reading and math test scores, increased distractibility, and higher rates of grade failure and early high school dropout. Poor children are also more likely than other children to have externalizing and other behavior problems, emotional problems, and are more likely to engage in delinquent behaviors during adolescence. Finally, growing up in poverty is associated with lower occupational status and lower wages in adulthood<sup>17</sup>.

Current data suggest that 2,512 children are living in poverty in the Bismarck-Mandan metro area (10% of all children). Another 3,508 children are living in families with lower incomes (from 100% to 200% of the poverty level). Together, about one in four children ages 0 to 17 in the metro area are living in families with incomes near or below poverty (24% in 2014).

From 2000 to 2014, the Bismarck-Mandan metro area saw no change in the percentage of children ages 0 to 17 living in poverty (10% in both years). The poverty rate for all children in the metro area was below the state and national averages in 2014 (10% compared to 15% and 22%, respectively).

Young children ages 0 to 4 are more likely to live in poverty than older children. In the Bismarck-Mandan metro area, the poverty rate for younger children ages 0 to 4 was 12 percent in 2014 compared to 9 percent for children ages 5 to 17. Statewide, the poverty rate for young children ages 0 to 4 was five points higher at 17 percent in 2014.

Figure 30. Children Ages 0 to 4 Living in Poverty in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2000, 2010 and 2014

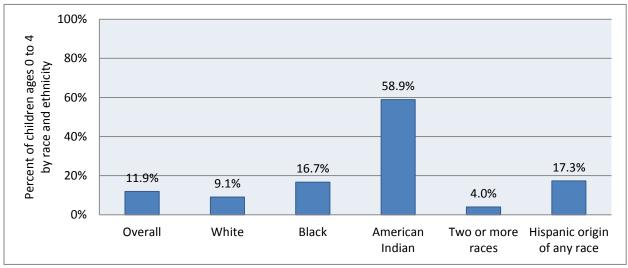


Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Sources: 2010 and 2014 Data - U.S. Census Bureau, American Community Survey 5-Year Estimates, Table B17001. 2000 Data - U.S. Census Bureau, Census 2000 Summary File 3 - Sample Data, Table P087.

Large disparities with respect to child poverty exist among racial groups. Within the metro area, Native American children ages 0 to 4 are six times more likely than White children to live in poverty (59% compared to 9% in 2014); Black and Hispanic children are nearly twice as likely as their white counterparts. Data were unavailable for Asian and Native Hawaiian children.

Figure 31. Children Ages 0 to 4 Living in Poverty, by Race and Ethnicity, in the Bismarck-Mandan Metro Area: 2014

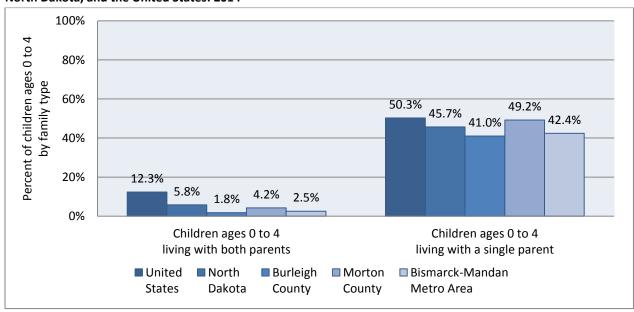


 ${\bf Note: Bismarck-Mandan\ metro\ area\ includes\ Burleigh\ County\ and\ Morton\ County,\ ND.}$ 

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, Table B17001A-I.

Child poverty also varies depending on family type. The poverty rate for young children ages 0 to 4 in the Bismarck-Mandan metro area in 2014 was 14 times higher for children living with a single parent than for children living with both parents (42% compared to 3%, respectively).

Figure 32. Children Ages 0 to 4 Who Are Living in Poverty, by Family Type, in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2014



Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

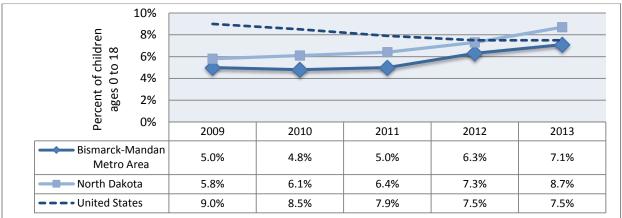
Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates, Table B17006.

#### **Health Insurance**

Children not covered by health insurance are less likely than those with insurance to have a regular source of health care and are less likely than the privately insured to have used prescription medicines. Children without health insurance are also more likely than others to receive late or no care for health problems, putting them at greater risk for hospitalization. In addition to resulting in reduced access to health care, a lack of health insurance can also negatively influence children's school attendance and participation in extracurricular activities, and increase parental financial and emotional stress<sup>18</sup>.

In 2013, 7 percent of children ages 0 to 18 (i.e., nearly 2,000 children) in the Bismarck-Mandan metro area were without health insurance coverage, a rate which is slightly lower than the statewide and national averages. However, the rate of uninsured children in the metro area is trending upward, increasing by 2 percentage points since 2010.

Figure 33. Children Ages 0 to 18 without Health Insurance in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2009-2013

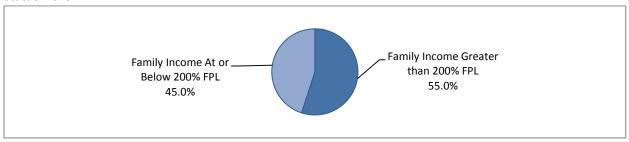


Notes: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Source: U.S. Census Bureau, Small Area Health Insurance Estimates, Health Insurance Coverage Status for States and for Counties, <a href="http://www.census.gov/did/www/sahie">http://www.census.gov/did/www/sahie</a>.

Nearly half of uninsured children in the Bismarck-Mandan metro area live in families with low to moderate incomes and are potentially eligible for coverage programs such as Medicaid, Healthy Steps, or Caring for Children. In 2013, 870 children in the Bismarck-Mandan metro area were living at or below 200 percent of poverty (i.e., with incomes up to twice the level of poverty), which is 45 percent of all uninsured children in the metro.

Figure 34. Children Ages 0 to 18 without Health Insurance in the Bismarck-Mandan Metro Area, by Income Status: 2013



Notes: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND. FPL refers to the Federal Poverty Level. Source: U.S. Census Bureau, Small Area Health Insurance Estimates, Health Insurance Coverage Status for States and for Counties, <a href="http://www.census.gov/did/www/sahie">http://www.census.gov/did/www/sahie</a>.

## **Affordable Housing**

According to the U.S. Housing and Urban Development Department, families who pay more than 30 percent of their income for housing are "cost burdened"<sup>19</sup>. In 2013, this was true for 31,000 children in North Dakota households<sup>20</sup>. Housing is typically one of the largest expenses that families face. Low income families in particular are unlikely to be able to meet all of their basic needs if housing consumes one-third or more of their income. Not only does affordable housing free up household income for other critical needs, but it also helps provide economic and housing stability. According to a January 2012 Point-in-Time survey in Planning Region 7 (which includes the Bismarck-Mandan metro area), affordable housing was one of the most frequently cited reasons for homelessness<sup>21</sup>. Homelessness influences every facet of a child's life – from conception to young adulthood. The experience of homelessness inhibits the physical, emotional, cognitive, social, and behavioral development of children<sup>22</sup>. Children who lack a stable home are vulnerable to a number of adverse outcomes. Some threats, such as poverty and hunger, may precede episodes of homelessness; others stem directly from living without a home<sup>23</sup>.

Currently in North Dakota, nearly 1 in 5 children live in households with a high housing cost burden (i.e., families are spending more than 30% of their income on housing)<sup>19</sup>. Within the Bismarck-Mandan metro area, the data are less reliable; however, at least 9 percent of children (and as many as 24%) live in families spending nearly a third of their income on housing<sup>24</sup>. If the burden exceeds a family's capacity to cover costs, the result can lead to instability or homelessness. Nationally, about 2.5 million children experienced homelessness in 2013. This represents one in every 30 children in the U.S., a historic high<sup>25</sup>. In North Dakota, approximately 2,800 public school children lacked a permanent residence in 2014 – meaning that about 3 percent of school children were living in motels, hotels, campgrounds, cars, parks, or were doubled up with family and friends<sup>26</sup>.

The number of school children in Bismarck and Mandan public school districts experiencing homelessness has nearly doubled since 2008-2009. During the 2014-2015 school year, Bismarck reported 429 homeless children enrolled in school, which is up from 223 homeless children in 2008-2009. Mandan reported 106 homeless children enrolled in school in 2014-2015, which is up from 53 in 2008-2009.

While these numbers are significant, they do not fully represent the homeless youth population in the metro area. The North Dakota Coalition for Homeless People found that in 2012, approximately 54 percent of homeless children in the Bismarck-Mandan area were ages 5 or younger and not enrolled in school. Thus, there is some likelihood of an additional 500 young children in the metro area without permanent housing.

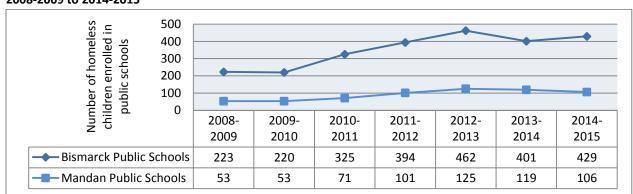


Figure 35. Number of Homeless Children Enrolled in Bismarck and Mandan Public Schools: 2008-2009 to 2014-2015

Source: North Dakota Department of Public Instruction, North Dakota Homeless Counts – LEA's reporting to STARS, special request.

### Hunger

Inadequate food intake in children is associated with a number of serious health, behavior, and cognitive deficits. Children who are food insecure are in poorer health and are more likely to be developmentally "atrisk" than non-food insecure children, according to parental reports. Children in food insecure households have more stomach aches, frequent headaches, and colds than children who are in food secure households. Higher rates of hospitalization, iron deficiency anemia, and chronic health conditions are reported among food insecure children<sup>27</sup>.

The Great Plains Food Bank is an important source of food for agencies addressing hunger in North Dakota and western Minnesota. The Great Plains Food Bank pantries, soup kitchens, and shelters continue to serve more clients each year. In just the past year, approximately 13 million pounds of food were distributed to 87,720 people across North Dakota and Clay County, MN – and the majority of people served were children<sup>28</sup>. In the Bismarck-Mandan metro area, the number of visits to food pantries increased from 7,314 in 2011 to 13,711 in 2014, which is an increase of 87 percent. Across the metro, approximately 1.2 million pounds of food were distributed in 2014, an increase of 102 percent since 2011<sup>29</sup>. Within the past five years, the Great Plains Food Bank started a new BackPack Program, a Summer Feeding Program, and a Senior Commodity Program which have greatly increased their capacity to improve food security in the metro area.

SNAP (formerly referred to as the Food Stamp Program) is a uniform, nationwide entitlement program to supplement the nutritional needs of people whose income is at or below poverty. If one uses SNAP to estimate food insecurity, nearly one in five children living in the Bismarck-Mandan metro area is food insecure (17% in 2014). The percentage of SNAP recipients rose gradually from 2003 to 2010, from 17 percent up to 21 percent. Since the beginning of the decade however, the percentage has fallen back to 17 percent in 2014.

While mirroring the statewide trend since 2003, the percentage of SNAP recipients in the metro area has remained a few percentage points lower than the statewide average.

30% 25% Percent of children ages 0 to 18 20% 15% 10% 5% 0% 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 Bismarck-Mandan 17% 18% 18% 18% 18% 19% 20% 21% 21% 20% 18% 17% Metro Area - North Dakota 19% 21% 24% 23% 22% 20% 21% 20% 20% 22% 24% 21%

Figure 36. Children Ages 0 to 18 Receiving SNAP Benefits in the Bismarck-Mandan Metro Area and North Dakota: 2003 to 2014

Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Source: North Dakota Department of Human Services.

## **Social and Emotional Development**

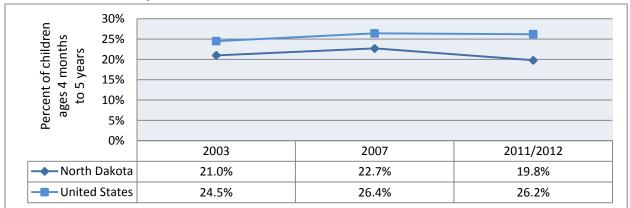
Children enter school with a range of knowledge and skills in multiple domains—physical, social, emotional, linguistic, and cognitive. There is no exact profile of a child who is "ready" for school. Nevertheless, children whose skills are far behind those of their new classmates do enter school at a disadvantage. If they are unable to catch up, they face greater challenges throughout their school careers. Social development is an important, often over-looked factor in children's transition to kindergarten. A child who is socially ready for school should be able to make friends, get along with peers, and communicate well with peers and teachers. Children who arrive at kindergarten with social competencies generally have an easier time forming relationships with their peers and have better school outcomes<sup>30</sup>.

Information at a local level relating to a child's physical, behavioral, and social development is difficult to obtain. In lieu of data specific to the Bismarck-Mandan metro area, this report offers comparisons between national and state level data from the National Survey of Children's Health.

Parents were asked if they had concerns about their child's development; in 2012 more than one-third of North Dakota children had parents with one or more concerns about their child's physical, behavioral, or social development (36%).

Based on parental responses to specific, age-appropriate questions about their child's development, nearly one-fifth of North Dakota children ages 4 months to 5 years were considered to be at moderate to high risk for developmental, behavioral, or social delays in 2012 (20%), which is slightly lower than the national average of 26 percent.

Figure 37. Children Ages 4 Months to 5 Years Who Are at a Moderate to High Risk for Developmental, Behavioral, or Social Delays in North Dakota and the United States: 2003, 2007 and 2011/2012



Note: 2003 data exclude children ages 4 months to 12 months.

Source: 2003, 2007 and 2011/2012 National Survey of Children's Health. Data Resource Center for Child and Adolescent Health website, http://childhealthdata.org/.

#### **Foster Care**

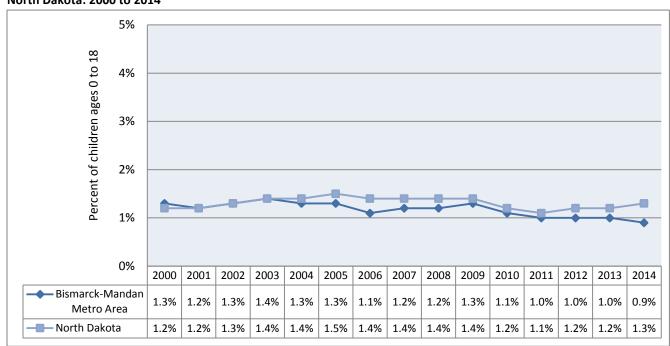
Children in foster care are more likely than other children to exhibit high levels of behavioral and emotional problems. They are also more likely to be suspended or expelled from school and to exhibit low levels of school engagement and involvement with extracurricular activities. Children in foster care are also more likely to have received mental health services in the past year, to have a limiting physical, learning, or mental health condition, or to be in poor or fair health.

Youth who "age out" of foster care instead of returning home may face challenges to making a successful transition to adulthood. As adults, children who spent long periods of time in multiple foster care homes were more likely than other children to encounter problems such as unemployment, homelessness, and incarceration, as well as to experience early pregnancy<sup>31</sup>.

Approximately 1 percent of children in the Bismarck-Mandan metro area were served by the foster care system in in 2014 (258 children). Statewide, 2,183 children were in foster care. These percentages have remained relatively unchanged since 2000.

The majority of children served by foster care in North Dakota and in the Bismarck-Mandan metro area are placed in family homes (80% and 73%, respectively in 2014).

Figure 38. Children Ages 0 to 18 Served by the Foster Care System in the Bismarck-Mandan Metro Area and North Dakota: 2000 to 2014



Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Source: North Dakota Department of Human Services, The Adoption and Foster Care Analysis and Reporting System (AFCARS). Special request.

## **Child Abuse and Neglect**

Child maltreatment (a term that encompasses both abuse and neglect) is associated with physical injuries, delayed physical growth, and neurological damage. Child maltreatment is also associated with psychological and emotional problems, such as aggression, depression, and post-traumatic stress disorder.

In addition, child abuse is linked to an increased risk of substance abuse, eating disorders, obesity, depression, suicide, and sexual promiscuity later in life. Women who were victims of physical assault as children are twice as likely to be victims of physical assault as adults. Also, some evidence suggests that victims of child maltreatment may be more likely than others to engage in deviant or criminal behavior as juveniles and adults.

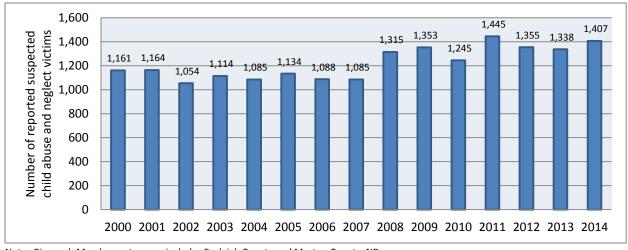
Child maltreatment is influenced by a number of factors, including poor knowledge of child development, substance abuse, other forms of domestic violence, and mental illness. Although maltreatment occurs in families at all economic levels, abuse and, especially, neglect are more common in poor and extremely poor families than in families with higher incomes<sup>32</sup>.

Overall, the number of children in the Bismarck-Mandan metro area who are being reported as suspected victims of child abuse and neglect is up from a decade ago. In 2014, 1,407 children were suspected of being abused or neglected in the Bismarck-Mandan metro area. These suspected victims represented 5 percent of all children in the metro area, which is slightly higher than the state average of 4 percent.

The number of suspected child abuse and neglect victims in the metro area fluctuated little from 2000 to 2007, averaging approximately 1,100 children per year. The trend shifted in the late 2000s, increasing 30 percent from 1,085 in 2007 to 1,407 in 2014.

In North Dakota, 6,397 children were suspected victims of abuse and neglect in 2014.

Figure 39. Number of Suspected Child Abuse and Neglect Victims Reported in the Bismarck-Mandan Metro Area: 2000 to 2014



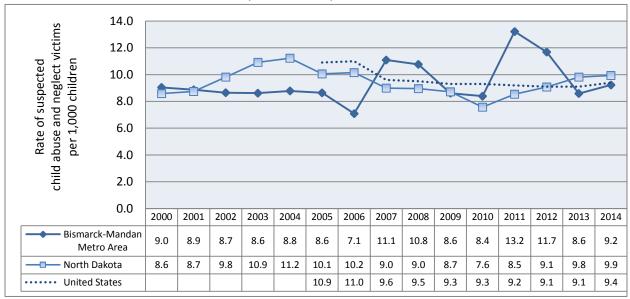
Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND. Source: North Dakota Department of Human Services, Division of Children and Family Services.

When reports are made regarding suspected cases of child abuse and neglect, Child Protection Service (CPS) social workers become involved in the intervention and assessment process and ultimately determine if services are required. For nearly one-fifth of the children in the metro area who were suspected of being maltreated, their cases were substantiated and they received services for abuse and neglect in 2014 (18% or 247 children). Statewide, 1,616 children required services for abuse and neglect in 2014 (25% of all suspected children).

The rate of child abuse and neglect (i.e., victims per 1,000 children) in the Bismarck-Mandan metro area nearly doubled during the latter half of the 2000s, from 7 victims per 1,000 in 2006 to 13 per 1,000 in 2011. The metro rate has since dropped back to 9 per 1,000 in 2014, a rate similar to what was seen in the early 2000s.

Rates of abuse and neglect in the metro area are similar to those seen nationally and in North Dakota overall.

Figure 40. Suspected Child Abuse and Neglect Victims That Required Immediate Services Per 1,000 Children Ages 0 to 17 in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2000 to 2014



Notes: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND. Blank cells indicate that data were not available. Sources: Metro and North Dakota - North Dakota Department of Human Services, Division of Children and Family Services. United States – Children's Bureau, An Office of the Administration for Children and Families, *Child Maltreatment*. Available at http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/child-maltreatment

## **IN-SCHOOL SUCCESS**

As discussed earlier, the more assets a child has, the fewer risky behaviors the child exhibits. In this section we explore data regarding factors that influence students' success in school. We begin with students enrolled in special education, followed by a variety of behaviors that can negatively influence academic success such as fighting and violence; alcohol, tobacco, and marijuana use; and sexual activity. This section also provides a summary of data on television viewing, physical activity, obesity, and suicide.

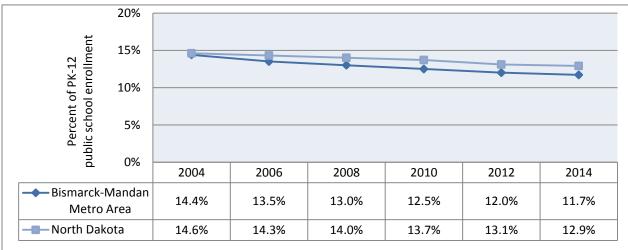
#### **Special Education**

Learning disabilities include a number of discrete disorders that affect children's ability to learn. A learning disability can be a life-long condition affecting many aspects of life including education and employment, family life, and daily routines. However, persons with learning disabilities can learn. Academic supports and accommodations can help the learning process, as can medical treatment for certain disorders<sup>33</sup>.

In 2014, approximately 2,000 children were enrolled in special education in the Bismarck-Mandan metro area (12% of total public school enrollment). Of the children enrolled in special education, 29 percent had a specific learning disability, 29 percent had a speech impairment, and 6 percent each had an intellectual disability, autism, or were emotionally disturbed.

Overall, the percentage of children enrolled in special education in the Bismarck-Mandan metro area decreased slightly over the past decade, from 14 percent in 2004 to 12 percent in 2014, mirroring the statewide trend (15% down to 13%).

Figure 41. Children Ages 3 to 21 Enrolled in Special Education as a Percent of Public School PK-12 Enrollment in the Bismarck-Mandan Metro Area and North Dakota: 2004 to 2014



Note: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

 $Source: \ North\ Dakota\ Department\ of\ Public\ Instruction.$ 

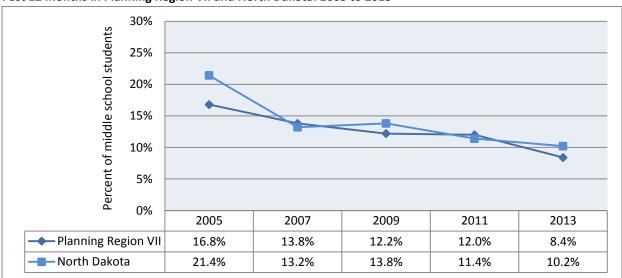
## **Fighting and Violence**

Physical fighting by youth can lead to serious injury and even death. Risk factors that predict violence by youth include substance abuse, conflict and abuse at home, harsh or inattentive parenting, antisocial and delinquent peers, and neighborhoods where crime and drug use are prevalent. Youth who are involved in physical fighting are also often engaged in other high-risk activities, such as illegal drug use, binge drinking, carrying weapons, and unsafe sex.

Youth attending schools where fighting is common may be unable to maintain the focus necessary for academic success. Adolescents who are victims of violence are also more likely to be victims or perpetrators of violence during adulthood. The likelihood of drug use, property offenses, and stress during adulthood also all increase in association with youth violence. A high grade-point average and connectedness to family and peers have been cited as protective factors against youth violence<sup>34</sup>.

From 2005 to 2013, there was a significant decrease in the percentage of middle school students who had been in a physical fight on school property in the past 12 months in Planning Region VII (from 17% to 8%), mirroring a similar statewide trend (from 21% to 10%). Planning Region VII is one of eight regions within North Dakota established for the purposes of standardizing the areas being served by state agencies. The Bismarck-Mandan metro area is located within Planning Region VII. For a map of the eight regions in North Dakota, see Appendix B.

Figure 42. Middle School Students in 7<sup>th</sup> and 8<sup>th</sup> Grades Who Were in a Physical Fight on School Property in the Past 12 months in Planning Region VII and North Dakota: 2005 to 2013

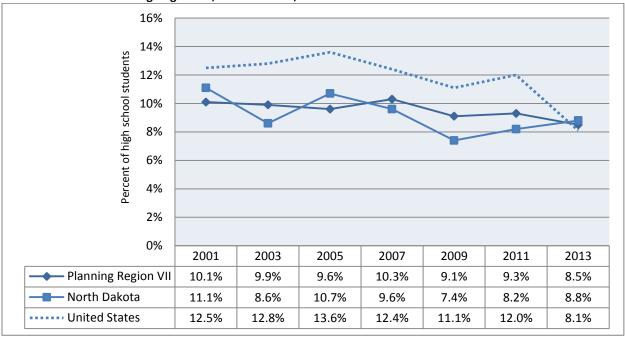


Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Source: The North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/.

Approximately 9 percent of high school students in Planning Region VII and in North Dakota overall were involved in a physical fight on school property at least once in the past year. While Planning Region VII and North Dakota have historically trended below the national average in high school students involved in fights at school, 2013 data indicate that the gap has disappeared as the national average dropped 4 percentage points in 2013 to 8 percent (down from 12 percent in 2011).

Figure 43. High School Students in 9<sup>th</sup>-12<sup>th</sup> Grades Who Were in a Physical Fight on School Property at Least Once in the Past Year in Planning Region VII, North Dakota, and the United States: 2001 to 2013



Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Sources: State and Regional Data - North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/. National Data - Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System, http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

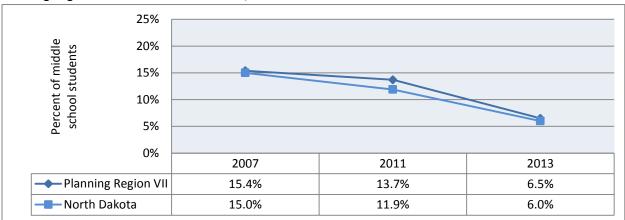
### **Alcohol Use**

Alcohol use among youth is associated with a wide variety of other risky behaviors and poor outcomes, including unprotected sexual intercourse, vulnerability to coerced sexual activity, the use of marijuana, and poor academic performance. Binge-drinking, in particular, is associated with poor school performance and involvement in other health risk behaviors, such as riding with a driver who has been drinking, cigarette smoking, sexual activity, being a victim of dating violence, attempting suicide, and using illicit drugs.

Consuming larger quantities of alcohol is also associated, among young women, with benign breast disease, a risk factor for cancer<sup>35</sup>.

From 2007 to 2013, the percentage of middle school students who reported having ever engaged in binge drinking (i.e., five or more drinks in a row within a couple hours) decreased considerably in Planning Region VII (from 15% to 7%). North Dakota showed similar decrease over the same time period (from 15% to 6%).

Figure 44. Middle School Students in 7<sup>th</sup> and 8<sup>th</sup> Grades Who Reported Having Ever Engaged in Binge Drinking in Planning Region VII and North Dakota: 2007, 2011 and 2013



Notes: Binge drinking is defined as consuming five or more drinks in a row, within a couple of hours. Data for 2009 are not available. Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

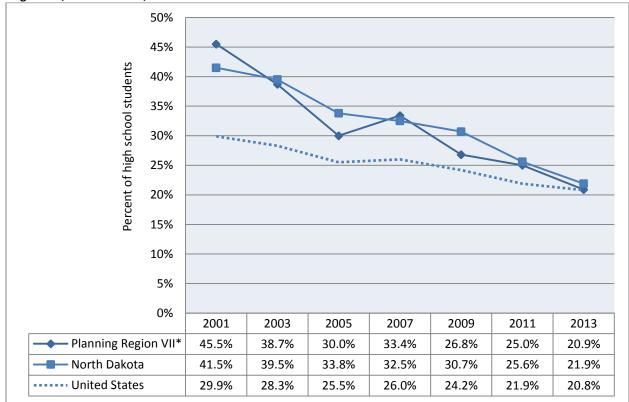
Source: North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/.

Historically, the binge drinking rate among high school students in North Dakota, and specifically in Region VII, has trended higher than the national average. Current data suggest that the gap has disappeared.

The percentage of high school students who reported binge drinking in the past month has shown a fairly consistent decline over the past decade in Planning Region VII (from 46% in 2001 to 21% in 2013). This trend mirrors the overall downward trend in North Dakota during the same time (42% in 2001 to 22% in 2013).

Nationally, 21 percent of high school students reported binge drinking in 2013 (down from 30% in 2001).

Figure 45. High School Students in 9<sup>th</sup>-12<sup>th</sup> Grades Who Reported Binge Drinking in the Past Month in Planning Region VII, North Dakota, and the United States: 2001 to 2013



Notes: Binge drinking is defined as consuming five or more drinks in a row, within a couple of hours. Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Sources: State and Regional Data - North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/. National Data - Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System, http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

### **Tobacco Use**

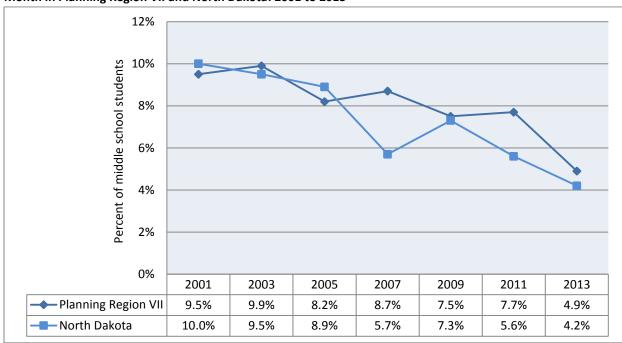
Cigarette smoking, which usually starts in adolescence, is the leading preventable cause of premature death in the United States. More than 430,000 Americans die each year from tobacco-related illnesses.

Youth who smoke are more likely to drink, to use other drugs, and to engage in a variety of other risky behaviors. They are also less likely to be physically fit and more likely to suffer from respiratory problems.

Factors identified as associated with the progression to daily smoking among youth who initiated smoking by eighth grade include youths' antisocial behavior and smoking among parents and peers. Parents' positive family management was associated with lower likelihood of escalation to daily smoking<sup>36</sup>.

Over the past decade, smoking among middle school students in Planning Region VII dropped in half. In 2013, 5 percent of middle school students reported that they had smoked cigarettes on at least one day in the past month, which is down from 10 percent in 2001. This mirrors a similar statewide trend.

Figure 46. Middle School Students in 7<sup>th</sup> and 8<sup>th</sup> Grades Who Smoked Cigarettes on at Least One Day in the Past Month in Planning Region VII and North Dakota: 2001 to 2013



Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

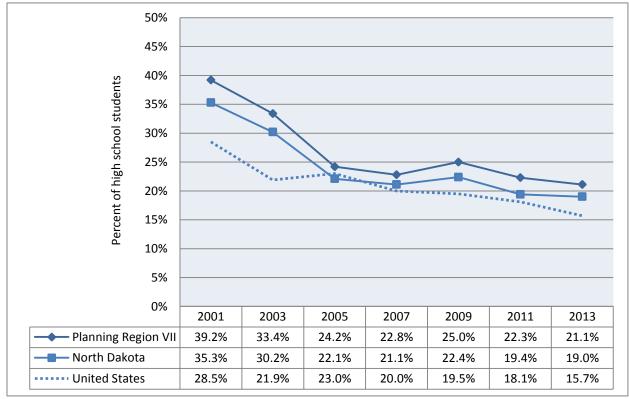
 $Source: North\ Dakota\ Youth\ Risk\ Behavior\ Survey,\ https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/.$ 

58

With the exception of a slight increase in 2009, the percentage of high school students in North Dakota and in Planning Region VII who smoke has decreased considerably over the last decade and a half. In 2013, 21 percent of high school students in Planning Region VII smoked cigarettes on at least one day in the past month, which is down from 39 percent in 2001.

The percentage of high school students that reported they had smoked cigarettes on at least one day in the past month has been consistently higher in Planning Region VII than in the state and nation overall (21% compared to 19% and 16%, respectively in 2013).

Figure 47. High School Students in 9<sup>th</sup>-12<sup>th</sup> Grades Who Smoked Cigarettes on at Least One Day in the Past Month in Planning Region VII, North Dakota, and the United States: 2001 to 2013



Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

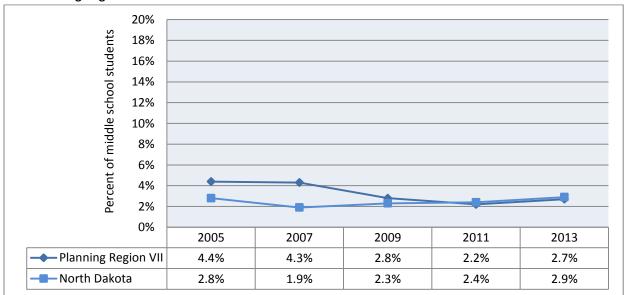
Sources: State and Regional Data - North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/. National Data - Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System, http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

## Marijuana Use

For most youth, marijuana is not difficult to obtain. Many youth think marijuana is not as harmful as other illicit drugs, though in fact it has both short- and long-term negative health effects. The former include memory problems, loss of coordination, anxiety attacks, and increased heart rate. Possible long-term effects include respiratory problems, a weakened immune system, testicular cancer, and cognitive deficits. While attributing causality is complicated by the frequent co-occurrence of other risk factors, teens who use marijuana are also more likely to have lower academic achievement, more delinquent behavior and aggression, and weaker relationships with parents, compared to non-users<sup>37</sup>.

Approximately 3 percent of middle school students in Planning Region VII and in North Dakota tried marijuana for the first time before the age of 11 in 2013. There is very little change in this percentage since 2005.

Figure 48. Middle School Students in 7<sup>th</sup> and 8<sup>th</sup> Grades Who Tried Marijuana for the First Time Before the Age of 11 in Planning Region VII and North Dakota: 2005 to 2013



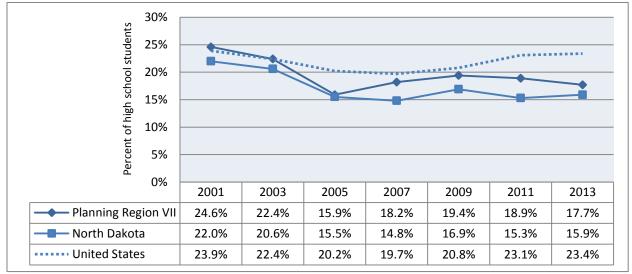
Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Sources: State and Regional Data - North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/. National Data - Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System, http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

Marijuana use among high school students in Planning Region VII has decreased over the past decade. In 2013, 18 percent of high school students in Planning Region VII used marijuana at least once in the past month, which is down from 25 percent in 2001. However, the current rate is up from a low of 16 percent in 2005.

Over the past decade, the rate for Planning Region VII has trended slightly higher than in North Dakota overall, but lower than the national average.

Figure 49. High School Students in 9<sup>th</sup>-12<sup>th</sup> Grades Who Used Marijuana at Least Once in the Past Month in Planning Region VII, North Dakota, and the United States: 2001 to 2013



Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Sources: State and region data - North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/. National data - Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System, http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

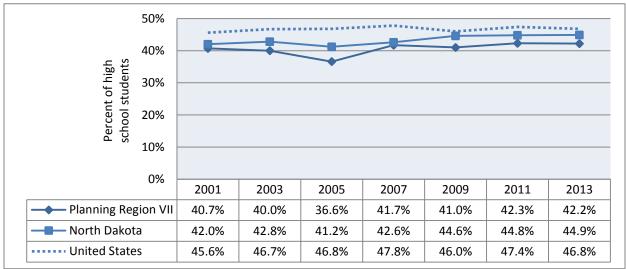
## **Sexual Activity**

Sexually active teenagers—defined as those who have had sexual intercourse in the past three months—are at immediate risk of unintended pregnancy and sexually transmitted infections (STIs). Teens who engage in certain sexual behaviors—for example, teens who don't use contraceptives, use contraceptives inconsistently, or have multiple sex partners—have an even higher risk. Sexually active youth are also more likely than youth who are not sexually active to report problems with substance abuse and depression, as well as have lower levels of educational attainment.

Research has identified several factors associated with delaying the onset of sexual activity among teens. Teens who grow up in stable families with more resources, who communicate with their parents about sex, and who are more connected to their schools are more likely to delay sexual intercourse, whereas those who engage in delinquent activities, or who have higher levels of externalizing behaviors, have an increased risk of early sexual activity<sup>38</sup>.

The percentage of high school students who have had sexual intercourse has changed little over the past decade in Planning Region VII, mirroring similar statewide and national trends. In 2013, 42 percent of high school students in Planning Region VII had engaged in sexual intercourse, which is relatively unchanged from 41 percent in 2001.

Figure 50. High School Students in 9<sup>th</sup>-12<sup>th</sup> Grades Who Had Ever Had Sexual Intercourse in Planning Region VII, North Dakota, and the United States: 2001 to 2013



Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Sources: State and region data - North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/. National data - Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System, http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

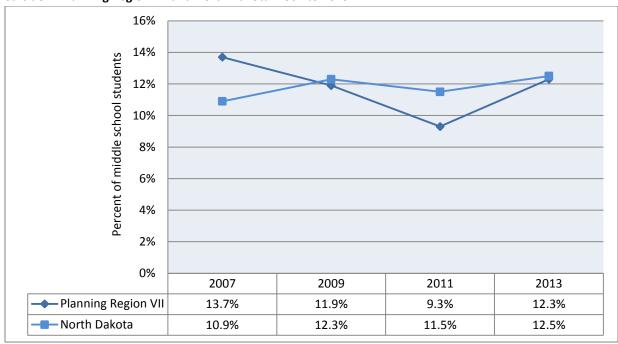
### Suicide

Nationally, suicide was the second leading cause of death among teenagers ages 15-19 in 2011. Considering or attempting suicide is often indicative of serious mental health problems, and may signal other traumatic life events such as physical or sexual abuse. Youth are much more likely to think about and attempt suicide if they are depressed. Other risk factors for suicide include co-occurring substance or alcohol abuse and mental disorders; a family history of suicide; physical illness; relational, social, work, or financial loss; and easy access to lethal methods, especially guns. Finally, youth who have experienced stressful life events, who have poor levels of communication with their parents, and who have been exposed to the suicidal behaviors of others are more likely than others to commit suicide<sup>39</sup>.

Within Planning Region VII, the percentage of middle school students in grades 7 and 8 who ever made a plan about how they would attempt suicide decreased 5 percentage points from 2007 to 2011 (14% down to 9%); however, in 2013, the percentage increased to 12 percent.

Statewide, there was a slight increase in the percentage of middle school students who ever made a plan about how they would attempt suicide from 2007 to 2013 (11% to 13%, respectively).

Figure 51. Middle School Students in 7<sup>th</sup> and 8<sup>th</sup> Grades Who Ever Made a Plan About How They Would Attempt Suicide in Planning Region VII and North Dakota: 2007 to 2013



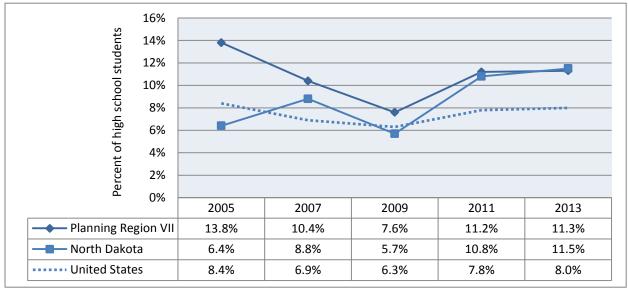
Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Source: North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/.

The percentage of high school students attempting suicide in Planning Region VII decreased during the latter half of the 2000s, from 14 percent in 2005 to 8 percent in 2009. It then rose to 11 percent in 2011 and showed no change in 2013. In North Dakota overall, the percentage of students attempting suicide has doubled, from 6 percent in 2005 to 12 percent in 2013.

Nationally, the percentage of high school students attempting suicide has trended lower than both North Dakota and Planning Region VII (8% in 2013).

Figure 52. High School Students in 9<sup>th</sup>-12<sup>th</sup> Grades Who Attempted Suicide in the Past Year in Planning Region VII, North Dakota, and the United States: 2005 to 2013



Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

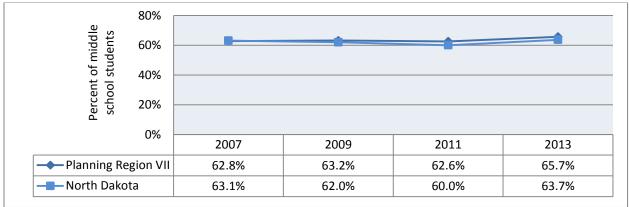
Sources: State and Regional Data - North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/. National Data - Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System, http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

## **Physical Activity**

Regular physical activity has both short- and long-term health benefits. For adolescents, participation in sports, physical education classes, or any other type of regular exercise helps to build and maintain healthy bones and muscles, controls weight, and has positive psychological benefits. Adolescents who exercise also improve their long-term health. Participation in physical activity decreases the risk of developing diabetes, heart disease, and hypertension. Additionally, people who are active in their youth tend to remain active and physically fit as adults<sup>40</sup>.

In 2013, two-thirds of middle school students in Planning Region VII were physically active for a total of at least 60 minutes per day on five or more of the past seven days (66%). Percentages of active youth in Planning Region VII from 2007 to 2013 mirror the statewide trend very closely.

Figure 53. Middle School Students in 7<sup>th</sup> and 8<sup>th</sup> Grades Who Were Physically Active for a Total of at Least 60 Minutes Per Day on Five or More of the Past Seven Days in Planning Region VII and North Dakota: 2007 to 2013



Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

 $Source: North\ Dakota\ Youth\ Risk\ Behavior\ Survey,\ https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/.$ 

In 2013, half of high school students in Planning Region VII and in North Dakota overall were physically active for a total of at least 60 minutes per day on five or more of the past seven days (49% and 51%, respectively).

Figure 54. High School Students in 9<sup>th</sup>-12<sup>th</sup> Grades Who Were Physically Active for a Total of at Least 60 Minutes Per Day on Five or More of the Past Seven Days in Planning Region VII and North Dakota: 2007 to 2013



Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Source: North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/.

## **Television Viewing**

Television is available to nearly all children ages 8 to 18 in the United States (99% in 2009), and most of these children have a television in their bedroom (71% in 2009). Conventional television viewing has decreased over the past 20 years. But, when one includes TV content displayed on computers, and handheld media devices, such as iPods or cell phones, viewing actually increased by 38 minutes per day from 1999 to 2009, according to a national study. The average amount of television 8 to 18-year-olds watch is 4.5 hours per day. Total daily media exposure is equivalent to 10 hours, squeezed (through multi-tasking) into about 7.5 hours of time.

Although current evidence falls short of establishing causal relationships, excessive television viewing is associated with a number of negative outcomes for children. Children watching high levels of television are less likely to experience feelings of contentment, to participate in after-school activities, to engage actively in other intellectually stimulating activities, to have mostly "A" or "B" grades, and to do well on math achievement tests. Activities that contribute to positive development may be neglected. When mothers watch educational programs with their infant, they tend to engage in less conversation. In addition, when extensive television viewing is coupled with another risk factor, such as low parental involvement, this is linked to higher levels of children's behavior problems<sup>41</sup>.

One-fourth of middle school students in Planning Region VII reported watching three or more hours of television per school day in 2013 (25%). This percentage has fluctuated slightly; however, the most current data show a decrease from 31 percent in 2005.

A slightly smaller percentage of middle school students in Planning Region VII than in the state overall reported watching at least three hours of television per school day in 2013 (25% and 27%, respectively).

It is worth noting that while television viewing is down slightly among middle school students, the percentage of middle school students who spend at least three hours per school day playing video/computer games or using a computer for something other than schoolwork has increased in Planning Region VII, from 22 percent in 2005 to 32 percent in 2013.

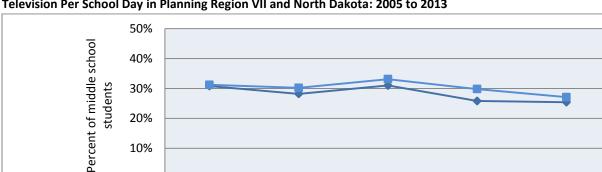


Figure 55. Middle School Students in 7<sup>th</sup> and 8<sup>th</sup> Grades Who Reported Watching Three or More Hours of Television Per School Day in Planning Region VII and North Dakota: 2005 to 2013

Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

2007

28.2%

30.2%

Source: North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/.

2005

30.8%

31.2%

0%

Planning Region VII

North Dakota

2009

31.0%

33.1%

2011

25.8%

29.8%

2013

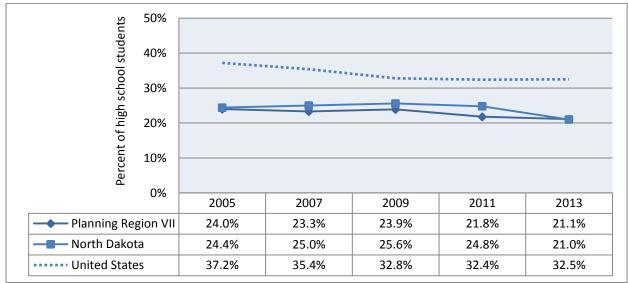
25.4%

27.1%

Approximately one-fifth of high school students in Planning Region VII and in North Dakota overall reported watching three or more hours of television per school day in 2013 (21% each). Both percentages are down from 24 percent in 2005. Nationally, one-third of high school students watched three or more hours of television per school day in 2013 (33%).

As with middle school students, it is worth noting that while television viewing is down slightly among high school students, the percentage of high school students who spend at least three hours per school day playing video/computer games or using a computer for something other than schoolwork has increased in Planning Region VII, from 19 percent in 2005 to 34 percent in 2013, mirroring the statewide trend. In the United States overall, the percentage has doubled from 21 percent in 2005 to 41 percent in 2013.

Figure 56. High School Students in 9<sup>th</sup>-12<sup>th</sup> Grades Who Reported Watching Three or More Hours of Television Per School Day in Planning Region VII, North Dakota, and the United States: 2005 to 2013



Notes: Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Sources: State and Regional Data - North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/. National Data - Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System, http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

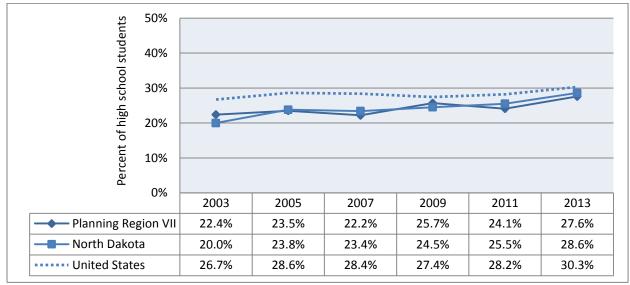
## Obesity

The health threats posed by being overweight as a child can be long-lasting. Children and adolescents who are overweight are at risk for becoming overweight adults. Overweight adults face many problems due to their weight, such as decreased productivity, social stigma, high health care costs, and premature death. In addition, overweight adults are at increased risk for type-2 diabetes, coronary heart disease, elevated blood pressure, high cholesterol levels, stroke, respiratory problems, gallbladder disease, osteoarthritis, sleep apnea, and some types of cancer. Reducing child and adolescent obesity requires efforts by families, schools, communities, government and industry<sup>42</sup>.

In 2013, slightly more than one-fourth of high school students were overweight or obese in Planning Region VII (28%), which is up from 22 percent in 2003.

The percentage of high school students who are overweight or obese in Planning Region VII has closely mirrored the statewide trend since 2003 – and trended just below the national average.

Figure 57. High School Students in 9<sup>th</sup>-12<sup>th</sup> Grades Who Are Overweight or Obese in Planning Region VII, North Dakota, and the United States: 2003 to 2013



Notes: Weight status is based on the BMI index. Overweight or obese indicates a BMI of 25.0 or higher. Planning Region VII in North Dakota includes the counties of McLean, Sheridan, Mercer, Oliver, Burleigh, Kidder, Morton, Grant, Sioux, and Emmons. For a map of the eight planning regions in North Dakota, see Appendix B.

Sources: State and Regional Data - North Dakota Youth Risk Behavior Survey, https://www.nd.gov/dpi/schoolstaff/safehealthy/yrbs/. National Data - Centers for Disease Control and Prevention, Youth Risk Behavior Surveillance System, http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

# **SCHOOL ACHIEVEMENT**

This section of the report looks at indicators representing achievement in school, including reading and math proficiency, ACT scores, graduation and attendance rates, idle youth, and educational attainment.

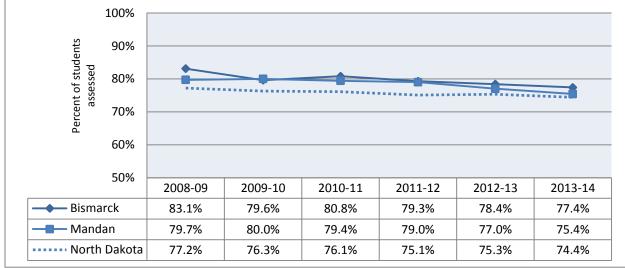
## **Reading Proficiency**

The ability to read proficiently is a fundamental skill that affects the learning experiences and school performance of children and adolescents. Students who are competent readers, as measured by their performance on reading tests, are more likely to perform well in other subjects, such as math and science. Children who struggle with reading and reading comprehension often have deficits in spoken language. Students with reading difficulties are also much less likely to be academically engaged. Reading achievement can predict the likelihood of graduating from high school and attending college.

Reading skills also influence students' well-being as adults. Adults with poor literacy skills find it difficult to function in society, because many basic decision-making skills require reading proficiency. People who are not able to fill out an application because of limited reading or writing skills are likely to have difficulty finding a job or accessing social services. Strong reading skills protect against unemployment in early adulthood<sup>43</sup>.

During the 2013-2014 school year, approximately three-fourths of students across all grades in the Bismarck and Mandan public schools were proficient or advanced in reading (77% and 75%, respectively). Both rates of proficiency were slightly higher than the statewide average of 74 percent. However, since 2008-09, the percentage of students who are proficient or advanced in reading has been gradually decreasing in both districts and the state.

Figure 58. Students Who Are Proficient or Advanced in Reading in Bismarck and Mandan Public School Districts and North Dakota Overall: 2008-09 to 2013-14



Notes: Reading and math assessments were administered in grades 3-8 and 11. See Appendix A for a map of district boundaries. Source: North Dakota Department of Public Instruction, https://www.nd.gov/dpi/report/Profile/.

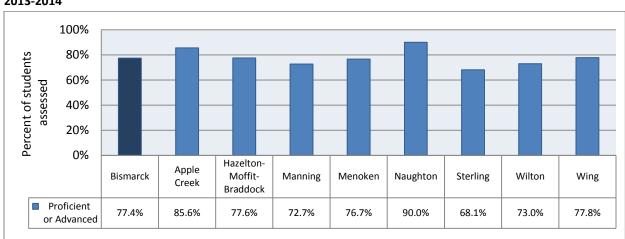


Figure 59. Students Who Are Proficient or Advanced in Reading by Public School District in Burleigh County: 2013-2014

Notes: Reading and math assessments were administered in grades 3-8 and 11. See Appendix A for a map of district boundaries. Source: North Dakota Department of Public Instruction, <a href="https://www.nd.gov/dpi/report/Profile/">https://www.nd.gov/dpi/report/Profile/</a>.

100% Percent of students 80% 60% assessed 40% 20% 0% New Little Sweet Mandan Flasher Glen Ullin Hebron Salem-Solen Heart Briar Almont Proficient 75.4% 77.6% 65.3% 72.3% 64.7% 80.4% 22.4% 84.6% or Advanced

Figure 60. Students Who Are Proficient or Advanced in Reading by Public School District in Morton County: 2013-2014

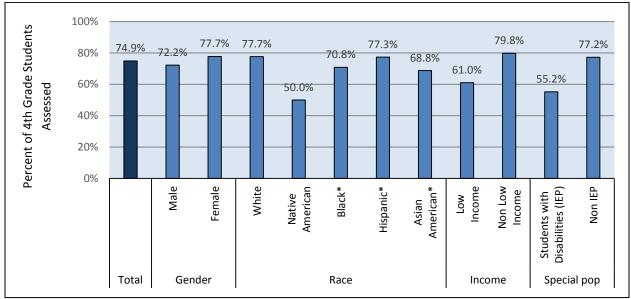
Notes: Reading and math assessments were administered in grades 3-8 and 11. See Appendix A for a map of district boundaries. Source: North Dakota Department of Public Instruction, https://www.nd.gov/dpi/report/Profile/.

The ability to read proficiently by the end of third grade is a critical benchmark in a child's educational development. By fourth grade, children use reading to learn other subjects. Therefore, mastery of reading is critical for them to keep up academically. Children who reach fourth grade without being able to read proficiently are more likely to disengage and drop out of school. Low reading proficiency also reduces their earning potential and chances for career success as adults<sup>44</sup>.

Gaps in reading proficiency among fourth grade students in Bismarck and Mandan public schools exist by gender, race, ethnicity, income levels, and disability status. In 2013-14, female students were slightly more likely than males to be reading proficiently by fourth grade (78% and 72%, respectively). Native American students in the Bismarck and Mandan public schools face particular challenges, as only half are reading proficiently by fourth grade. Students in lower income families are less likely to be reading proficiently by fourth grade than students

from higher income families (61% and 80%, respectively), and fourth grade students with a disability are less likely to be reading proficiently than students without a disability (55% and 77%, respectively).

Figure 61. 4<sup>th</sup> Grade Students Who Are Proficient or Advanced in Reading in Bismarck and Mandan Public School Districts by Characteristic: 2013-14



Note: \*Proficiency data for Asian American, Black, and Hispanic youth reflect Bismarck public schools only, as data for Mandan were suppressed.

Source: North Dakota Department of Public Instruction, https://www.nd.gov/dpi/report/Profile/.

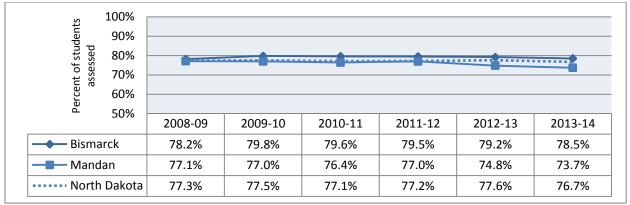
## **Math Proficiency**

Competence in mathematics is essential for functioning in everyday life, as well as for success in our increasingly technological workplace. Students who take higher level mathematics and science courses, which require strong fundamental skills in mathematics, are more likely to attend and to complete college. One study of high school females found that one difference between those who later dropped out of high school and those who graduated was lower math scores among the former group.

The importance of mathematics extends beyond the academic domain. Young people who transition to adulthood with limited mathematics skills are likely to find it difficult to function in society. Basic arithmetic skills are required for everyday computations, and sometimes for job applications. Additionally, competence in mathematics skills is related to higher levels of employability. Since 1976, the influence of high school students' mathematics skills on later earnings has grown steadily<sup>45</sup>.

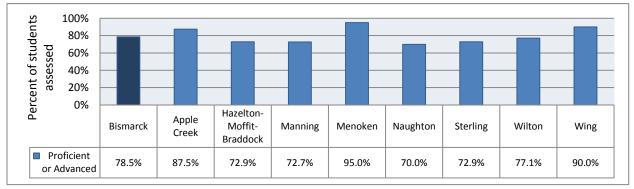
During the 2013-2014 school year, 79 percent of students across all grades in the Bismarck public school district were proficient or advanced in math. A slightly smaller percentage of students in the Mandan Public School District were proficient or advanced in math (74%). Since 2008-09, the percentage of students in the metro area who are proficient or advanced in math experienced little change in Bismarck but dipped slightly in Mandan schools.

Figure 62. Students Who Are Proficient or Advanced in Math in Bismarck and Mandan Public School Districts and North Dakota Overall: 2008-09 to 2013-14



Notes: Reading and math assessments were administered in grades 3-8 and 11. See Appendix A for a map of district boundaries. Source: North Dakota Department of Public Instruction, https://www.nd.gov/dpi/report/Profile/.

Figure 63. Students Who Are Proficient or Advanced in Math by Public School District in Burleigh County: 2013-2014



Notes: Reading and math assessments were administered in grades 3-8 and 11. See Appendix A for a map of district boundaries. Source: North Dakota Department of Public Instruction, https://www.nd.gov/dpi/report/Profile/.

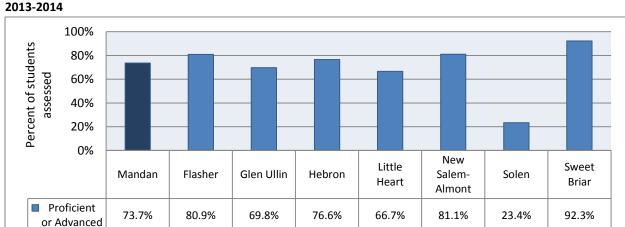
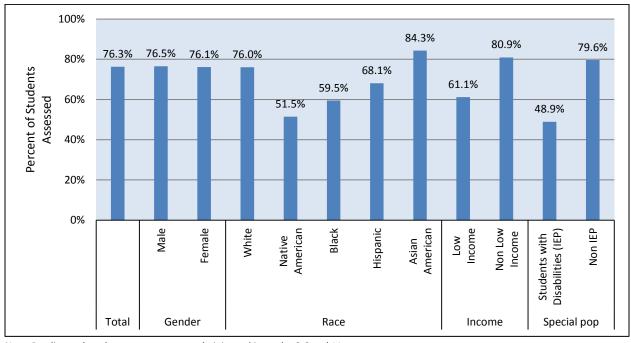


Figure 64. Students Who Are Proficient or Advanced in Math by Public School District in Morton County: 2013-2014

Notes: Reading and math assessments were administered in grades 3-8 and 11. See Appendix A for a map of district boundaries. Source: North Dakota Department of Public Instruction, https://www.nd.gov/dpi/report/Profile/.

Gaps in math proficiency exist by race, ethnicity, income, and disability status in both Bismarck and Mandan public schools. Asian students out performed all other racial and ethnic groups in meeting math proficiency standards in 2013-14 (84% proficient or advanced). In contrast, about half of Native American students were proficient or advanced in math (52%). Students with disabilities and those in low income families also face challenges in math, with 61 percent of low-income students at proficiency levels and 49 percent of students with disabilities considered proficient.

Figure 65. Students Who Are Proficient or Advanced in Math in Bismarck and Mandan Public School Districts by Characteristic: 2013-14



Note: Reading and math assessments were administered in grades 3-8 and 11.

Source: North Dakota Department of Public Instruction, https://www.nd.gov/dpi/report/Profile/.

#### **ACT Scores**

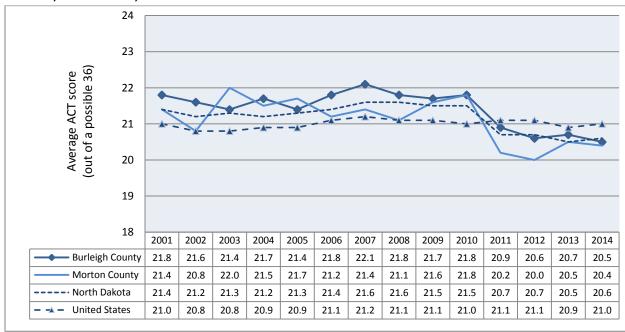
The ACT test is a national college admissions examination. Scores are designed to predict a student's potential for success in college and help guide students as they navigate the transition into higher education. ACT research shows that students who take rigorous or core curricula are more prepared to graduate from high school ready for college<sup>46</sup>. In addition, the research finds that becoming college and workplace ready is a process that begins early in a child's life. Students who are on target in the eighth grade face fewer obstacles in high school and are more likely to be prepared for college than students who are not on target in the eighth grade<sup>47</sup>.

In a labor market transformed by globalization and technology, employers are requiring higher skills – more than a high school diploma. Students receiving rigorous curricula, on-going college and career planning, and necessary supports to succeed in school are better positioned to succeed in college and 21<sup>st</sup> century careers<sup>48</sup>.

Nearly every North Dakota high school graduate takes the ACT test due to a law passed by the 2009 North Dakota Legislative Assembly making the exam a requirement. As an alternative to the ACT exam, students have the option of taking the WorkKeys assessment, which is a job skills assessment system measuring "real-world" skills that employers believe are critical to job success. As a result of the new requirement, average ACT scores in North Dakota noticeably dropped in 2011 after implementation.

The highest possible score on the ACT is 36. The average ACT composite score for North Dakota was 20.6 in 2014, which is relatively unchanged from 2012. Average composite scores in Burleigh and Morton counties were very close to the statewide average in 2014 (20.5 and 20.4, respectively). All three scores were lower than the national average of 21.0 in 2014.

Figure 66. Average ACT Composite Scores of ACT-Tested High School Graduates in Burleigh and Morton Counties, North Dakota, and the United States: 2001 to 2014



 $Source: ACT, Department \ of \ Program \ Evaluation \ and \ Institutional \ Research \ Services, \ special \ request.$ 

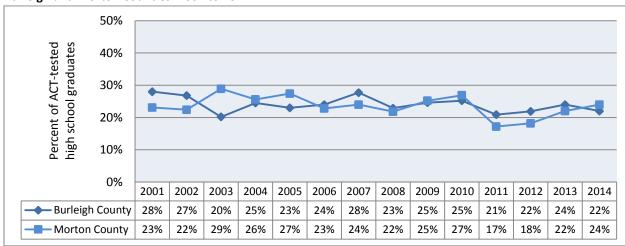
In addition to the overall composite score, the non-profit organization ACT, Inc. reports the percentage of high school students meeting benchmarks in the areas of English, math, reading, and science that reflect what it takes to be successful in standard first-year college courses.

At least one-fifth of 2014 high school graduates who took the ACT test met the college benchmark scores in all four subject areas in Burleigh County (22%) and Morton County (24%). Statewide, 23 percent of 2014 ACT-tested high school graduates met all four college benchmark scores in 2014. Nationally, 26 percent met all four benchmarks.

Students tend to score much better for individual course areas. In Burleigh County, 63 percent of the 2014 ACT-tested high school graduates were ready for college English, 41 percent were ready for college math, 39 percent were ready for college reading, and 34 percent were ready for college science. However, only 22 percent were ready for all four courses.

Students in Morton County showed similar results. Just over half of the 2014 ACT-tested high school graduates were ready for college English (57%), 35 percent were ready for college math, 41 percent were ready for college reading, and 35 percent were ready for college science. Just 24 percent of students were ready for all four courses.

Figure 67. ACT-Tested High School Graduates Meeting ACT College Benchmark Scores in All Four Subject Areas in Burleigh and Morton Counties: 2001 to 2014



Source: ACT, Department of Program Evaluation and Institutional Research Services, special request.

#### **Attendance Rates**

Attendance is an important factor in school success among youth. Studies show that better attendance is related to higher academic achievement for students of all backgrounds, but particularly for children with lower socio-economic status. Beginning in kindergarten, students who attend school regularly score higher on tests than their peers who are frequently absent.

Chronic truancy (frequent unexcused absence) in particular is a predictor of undesirable outcomes in adolescence, including academic failure, school dropout, substance abuse, gang involvement and criminal activity<sup>49</sup>.

Attendance rates for Bismarck and Mandan public school districts were at least 94 percent in the 2013-2014 school year, regardless of race, ethnicity, income, or disability status. Similar attendance rates were found for students overall in other school districts serving children in Burleigh and Morton counties.

#### **Graduation Rates**

Young people who drop out of high school are unlikely to have the minimum skills and credentials necessary to function in today's increasingly complex society and technology-dependent workplace. The completion of high school is required for accessing post-secondary education, and is a minimum requirement for most jobs. High school dropouts are more likely than high school completers to be unemployed. Additionally, a high school diploma leads to higher income and occupational status. Interestingly, however, many youth who drop out of high school eventually earn a diploma or a GED. One study found that 63 percent of students who dropped out had earned a diploma or GED within eight years of the year they should have originally graduated. Studies have found that young adults with low education and skill levels are more likely to live in poverty and to receive government assistance. High school dropouts are likely to stay on public assistance longer than those with at least a high school degree. Further, high school dropouts are more likely to become involved in crime<sup>50</sup>.

During the 2013-2014 school year, nearly 90 percent of students in the Bismarck and Mandan public school districts graduated from high school in four years (89% and 88%, respectively).

92.9% 92.3% 92.3% 100% 89.3% 90.0% 87.9% Percent of graduation cohort 85.7% 78.6% 80% 60% 47.8% 40% 20% 0% Bismarck Hazelton-Wilton Wing Flasher Glen Hebron Mandan Solen New Moffit-Ullin Salem-**Braddock** Almont

Figure 68. Four-Year Cohort High School Graduation Rates by School District in Burleigh and Morton Counties: 2013-2014

Notes: In North Dakota, the four-year cohort graduation rate is defined as the percentage of students in a cohort, adjusted for transfers into and out of the school, district, or state, that graduate with a standard diploma within four years of entering high school. Graduation rates were unavailable for the Apple Creek, Manning, Menoken, Naughton, Sterling, Little Heart, and Sweet Briar school districts. See Appendix A for a map of district boundaries. Source: North Dakota Department of Public Instruction, https://www.nd.gov/dpi/report/Profile/.

Graduation rates for public school students in Bismarck and Mandan vary by gender, race, ethnicity, income levels, and disability status. Asian American and white youth were the most likely to graduate on time in 2013-14 (>95% and 92%, respectively). Native American youth were almost half as likely to graduate with 51 percent of students graduating in four years. With regard to income levels, students in the Bismarck and Mandan public schools living in low-income families are about one-third less likely to graduate on time than students in higher income families (63% and 93%, respectively). A gap in high school graduate rates also exists for students with and without a disability. Three-fourths of students with a disability graduated on time in 2013-14, compared to 90 percent of students without a disability.

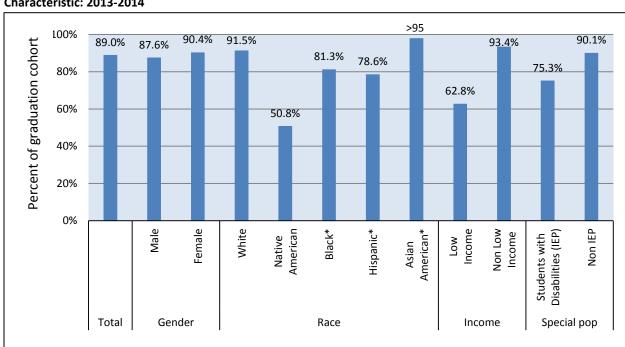


Figure 69. Four-Year Cohort High School Graduation Rates in Bismarck and Mandan Public School Districts by Characteristic: 2013-2014

Notes: In North Dakota, the four-year cohort graduation rate is defined as the percentage of students in a cohort, adjusted for transfers into and out of the school, district, or state, that graduate with a standard diploma within four years of entering high school. \*Graduation rates for Asian American, Black, and Hispanic youth reflect Bismarck public schools only, as data for Mandan were suppressed.

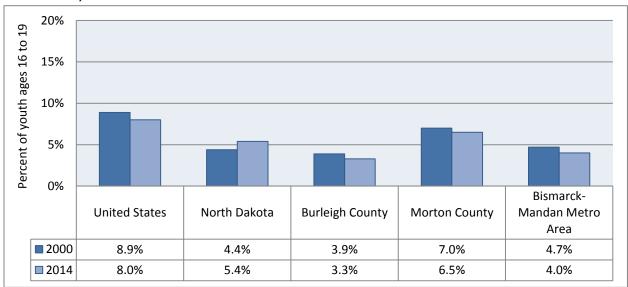
Source: North Dakota Department of Public Instruction, https://www.nd.gov/dpi/report/Profile/.

### **Idle Youth**

The transition from youth into independent adulthood involves many challenges, one of the most important of which is gaining secure employment. While there are multiple pathways to success, the consequences of unemployment, under-employment, or not acquiring post-secondary education can be damaging and enduring. Males who are neither enrolled in school nor working are more likely to engage in delinquent behavior or illegal activities. Females in this group are more likely to become dependent on welfare. Young adults in the juvenile justice, foster care, and special education systems are particularly vulnerable, since they tend to drop out of the workforce and school at an early age, leaving them ineligible for services meant to aid in the transition to adulthood. Even if these youth eventually do obtain jobs, their earnings tend to be low. In short, youth neither enrolled in school nor working are on the sidelines of achieving economic self-sufficiency, and at risk for multiple, additional poor outcomes<sup>51</sup>.

In the Bismarck-Mandan metro area, 4 percent of youth ages 16 to 19 were considered idle teens (i.e., teens who were neither working nor enrolled in school) in 2014 – half the rate of idle youth nationwide. The rate of idle teens was twice as high in Morton County as it was in Burleigh County (7% and 3%, respectively).

Figure 70. Youth Ages 16 to 19 Not Enrolled in School and Not Working in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2000 and 2014



Notes: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND.

Source: 2014 data - U.S. Census Bureau, American Community Survey 5-Year Estimates, Table B14005. 2000 data – U.S. Census Bureau, Census 2000 Summary File 4, Sample Data, Table PCT066.

### **Educational Attainment of Young Adults**

10%

5%

0%

■ Total

Males

■ Females

**United States** 

14.4%

11.9%

17.1%

Educational attainment is a powerful predictor of well-being. Young adults who have completed higher levels of education are more likely to achieve economic success than those who have not. In addition to qualifying for a broader range of jobs, completing more years of education also protects against unemployment. Further, higher levels of educational attainment often lead to higher wages and income: in 2012, Americans with bachelor's degrees or higher earned a median income that was more than 65 percent higher than that of their peers with only high school diplomas. In the past few decades, earning differentials by education level have been increasing, especially among men. Adults with higher levels of education also report being in better health and having higher levels of socio-emotional well-being. They are also less likely to divorce, or be incarcerated<sup>52</sup>.

In the Bismarck-Mandan metro area, nearly one-fourth of young adults ages 18 to 24 had a higher education degree (i.e., Associate's degree, Bachelor's degree, Graduate or other Professional degree) in 2014 (24%) - a rate higher than North Dakota and the United States overall (19% and 14%, respectively).

More females than males ages 18 to 24 in the metro area had a higher education degree in 2014 (25% and 22%, respectively). The percentage of male youth ages 18 to 24 with a post high school degree was higher in Morton County than in Burleigh County (31% and 19%, respectively). Conversely, somewhat more females had a higher education degree in Burleigh County than in Morton County (27% and 21%, respectively) in 2014.

35% Percent of youth ages 18 to 24 by gender 30% 25% 20% 15%

Figure 71. Youth Ages 18 to 24 with a Post-High School Higher Education Degree\*, by Gender in the Bismarck-Mandan Metro Area, North Dakota, and the United States: 2014

Notes: Bismarck-Mandan metro area includes Burleigh County and Morton County, ND. \*A post-high school higher education degree includes individuals with an Associate's degree, a Bachelor's degree, and a Graduate or other professional degree. Source: U.S. Census Bureau, American Community Survey 5-Year Estimates, Table B15001.

**Burleigh County** 

22.9%

19.0%

26.5%

Morton County

26.0%

30.6%

21.2%

North Dakota

18.7%

17.0%

20.7%

Bismarck-

Mandan Metro Area

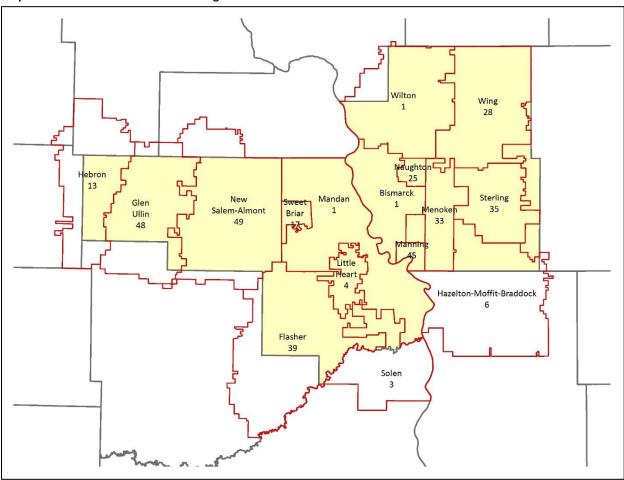
23.5%

21.5%

25.4%

# **APPENDIX A**

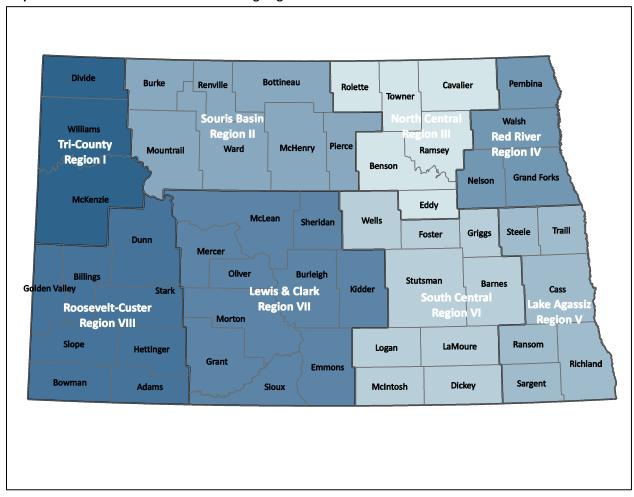
## Map of Public School Districts in Burleigh and Morton Counties



Source: North Dakota GIS Hub Data Portal, School Districts 2013 Data File. Retrieved August 2015 from http://www.nd.gov/gis/

# **APPENDIX B**

### Map of North Dakota Human Service Planning Regions



## **REFERENCE NOTES**

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