**K-12 LEVEL OF FAMILY INCOME | 2017**

Compared to the national average, North Dakota has a lower proportion of students eligible for free- and reduced-price lunch – a common indicator of poverty in schools.

**K-12 RACE & ETHNICITY | 2017**

North Dakota has fewer Black and Hispanic students than the national average and a higher proportion of white students.

**K-12 ENROLLMENT BY LOCALE | 2016**

North Dakota has a higher share of students attending schools in rural areas than the national average and lower percentages of students whose schools are located in suburban areas.
Students in North Dakota have different demographic characteristics than the nation as a whole. The state's schools have about 20 percentage points fewer students who are eligible for free and reduced-price lunch. While 54 percent of all students in the U.S. are students of color, they comprise only 22 percent of all students in North Dakota. The state's students are much more likely to live in less populated areas compared to the country at-large; 61 percent of ND students are located in a town or rural area while only 30 percent of students nationally reside in those areas.

The state generally performs above or near the U.S. average as a whole on student achievement indicators, though state averages mask underperformance by students of color. Over the past 16 years, North Dakota students have scored slightly above the national average on the National Assessment of Educational Progress (NAEP) reading and math assessments in grades four and eight. However, in recent years NAEP reading assessment scores for North Dakota students have fallen to levels slightly below the national averages for grades four and eight. Black, Hispanic, and American Indian/Native American students have consistently had proficiency rates that are well below their white peers.

### NORTH DAKOTA NAEP SCORES BY STUDENT SUBGROUP, 2003-2019

#### Grade 4 | Math
![Graph showing NAEP scores for Grade 4 Math across different years and subgroups.](image)

#### Grade 4 | Reading
![Graph showing NAEP scores for Grade 4 Reading across different years and subgroups.](image)

#### Grade 8 | Math
![Graph showing NAEP scores for Grade 8 Math across different years and subgroups.](image)

#### Grade 8 | Reading
![Graph showing NAEP scores for Grade 8 Reading across different years and subgroups.](image)

### Early Childhood

In recent years, education researchers have come to appreciate the extent to which early learning and developmental disparities begin – and are measurable – as early as infancy, particularly among children from challenged socioeconomic backgrounds.

A 2009 study by ChildTrends and the Council of Chief State School Officers (CCSSO) found that disparities in the cognitive development, general health, and social-emotional development of low-income children are evident at nine months and grow larger by 24 months of age.¹

### Human Brain Development

Neural Connections for Different Functions Develop Sequentially

![Graph showing neural connections for different functions.](image)

Data Source

¹ Data Source
There is little question that both children and taxpayers would be better served by preventing achievement gaps through the delivery of high-quality early childhood supports. Across multiple analyses, Nobel Prize winning economist Dr. James Heckman has found that **for every dollar spent on high-quality birth-to-five programs for disadvantaged children, taxpayers can expect a 13 percent per annum return on investment** — with, perhaps not surprisingly — the greatest returns associated with programs at the earliest stages of life.²

**STUDENT BEHAVIORAL HEALTH AND WELL-BEING**

School readiness is shaped by many factors, each with the power to influence learning and development — both for better and for worse — from the days young children are born. For this reason policymakers interested in promoting the long-term academic and life success of children must be prepared to consider their needs on a holistic basis — addressing not just access to high-quality early learning environments, but their health, safety, social-emotional development, and the economic and other stressors facing their families.

**School Re-Entry Amid the COVID-19 Pandemic**

With the closure of schools around the country beginning in March, most states continue to navigate whether and how reopening should take place. While the physical health of students and school-based staff gathering inside is a concern, there is also a concern for the long-term impact isolation is having on children’s mental health. The impacts include:

- Uncertainty and anxiety related to the disruption of school, physical activities, and opportunities for socialization;
- Boredom and lack of innovative ideas;
- Increase in clinginess, attention-seeking behavior, and dependency on parents and caregivers;
- Increased internet activity, which leads to increased bullying and abuse; and
- Increase in domestic violence, abuse, and harm without access to support and reporting structures.

**Trauma and its Impact on Student Performance and Well-being**

Exposure to community violence, witnessing trauma or learning about trauma that happened to a close friend or relative, and exposure to behavior from others that seeks to harm or intimidate are all common types of childhood traumas that lead to distress, post-traumatic stress disorder (PTSD), and post-traumatic stress symptoms (PTSS). These symptoms are also associated with greater rates of depression and anxiety, antisocial behaviors, and alcohol and substance abuse disorders. Childhood traumas are disproportionately experienced by Black, Native, and socially, and economically-disadvantaged children, who also have less access to protective resources that could address and resolve the stress and impact of these traumas, contributing to achievement gaps.

Studies show that PTSD and witnessing violence are both associated with lower IQ scores and decreased academic achievement. Research demonstrates that childhood trauma prevents the brain from developing in multiple brain regions, which negatively impacts emotional and behavioral regulation, motivation, and cognitive function. Data also reveal a stronger impact on boys who experience trauma than girls, which may lead to impulsive decision-making and less resilience.

<table>
<thead>
<tr>
<th>CHILDREN IN POVERTY, BY RACE, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
</tr>
<tr>
<td>North Dakota</td>
</tr>
<tr>
<td>6%</td>
</tr>
</tbody>
</table>

*Data Source*

*The federal poverty level for a family of four was $24,600. “Low income” is defined as having a family income less than twice the federal poverty level.*
Trauma symptoms can be misread and lead to exacerbation of the resulting loss in learning and engagement. Depression and an inability to concentrate can be interpreted as defiance and a willful refusal to participate in class. The resulting consequences can lead to a cycle of disengagement from learning, as well as behavior problems that result in suspension or expulsion.

TEACHER RECRUITMENT

Like many states, North Dakota faces challenges recruiting and retaining teachers. The state has implemented several initiatives to help schools fill critical positions like a teacher student loan forgiveness program and a first-year teacher mentorship program. Yet, statewide schools continue to report notable teacher shortages, particularly in science and career and technical education fields.

Like many states, North Dakota faces challenges recruiting and retaining teachers. These shortages tend to be either subject-specific, as shown in the table below, or dependent on the type of schools. Rural and/or high-needs schools tend to have difficulty attracting high-quality teachers, and even when they do, there are high rates of turnover.

### NORTH DAKOTA TEACHER SHORTAGES BY SUBJECT, 2019

<table>
<thead>
<tr>
<th>POSITION</th>
<th>PERCENTAGE SHORTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PK-8th Grade Teachers</td>
<td>1.9%</td>
</tr>
<tr>
<td>9th-12th Grade CTE Teachers</td>
<td>7.5%</td>
</tr>
<tr>
<td>9th-12th Grade Science Teachers</td>
<td>6.6%</td>
</tr>
<tr>
<td>9th-12th Grade Social Studies Teachers</td>
<td>2.3%</td>
</tr>
<tr>
<td>9th-12th Grade Foreign Language Teachers</td>
<td>6.6%</td>
</tr>
<tr>
<td>9th-12th Grade All Other Subject Teachers</td>
<td>3.1%</td>
</tr>
<tr>
<td>Special Education Licensed Staff</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

Data Source
