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A Profile of Youth Poverty and Opportunity in Southwestern Minnesota

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Like many rural communities across the United States, Southwestern Minnesota (hereafter SW Minnesota; see Box 1) has an aging population, evidenced by a growing share of seniors and a declining share of children and young adults, particularly among the non-Hispanic white population.[1] As the population ages, it is also becoming more diverse, as racial-ethnic minority population is far younger, on average, than the non-Hispanic white population and contains a disproportionate share of children and young adults. Much of the growth in diversity is driven by an expanding population of immigrants. These residents, typically in their young working-age years, often establish themselves in SW Minnesota and go on to have families of their own.

Research on the rural outmigration of the young and working non-Hispanic white population indicates that it is often the most promising youth and young adults who leave and seek opportunities elsewhere.[2] At the same time, the aging population puts pressure on scarce resources, and the immigrant populations often face challenges including low education, lack of English language proficiency, and the inability to garner work authorization.

It is against this demographic backdrop that we explore challenges and opportunities for youth in SW Minnesota. We analyze data on various demographic, economic, educational, and social indicators to gain a better understanding of the circumstances youth face and the opportunity available in SW Minnesota. Wherever possible, we compare conditions in SW Minnesota to the state as a whole and to the entire nation.

KEY FINDINGS

More than 1 in 6, or roughly 11,000 children in Southwestern Minnesota are poor.

As in the United States as a whole, the income gap between high- and low-income families has grown in SW Minnesota over the past 15 years.

12%

The foreign-born population of SW Minnesota has grown since 2000, and many foreign-born residents in the region struggle with English-language proficiency; 12.0 percent do not speak any English.

2X

Among the four school districts in SW Minnesota with sizeable minority populations, racial and ethnic achievement gaps are roughly twice as large as the national average.

Less than a quarter (22.3 percent) of SW Minnesota high school students reported using alcohol or tobacco in the past month or abusing prescription drugs, marijuana, or other illicit substances in the year prior. The rate is slightly lower than for the state as a whole (24.0 percent).

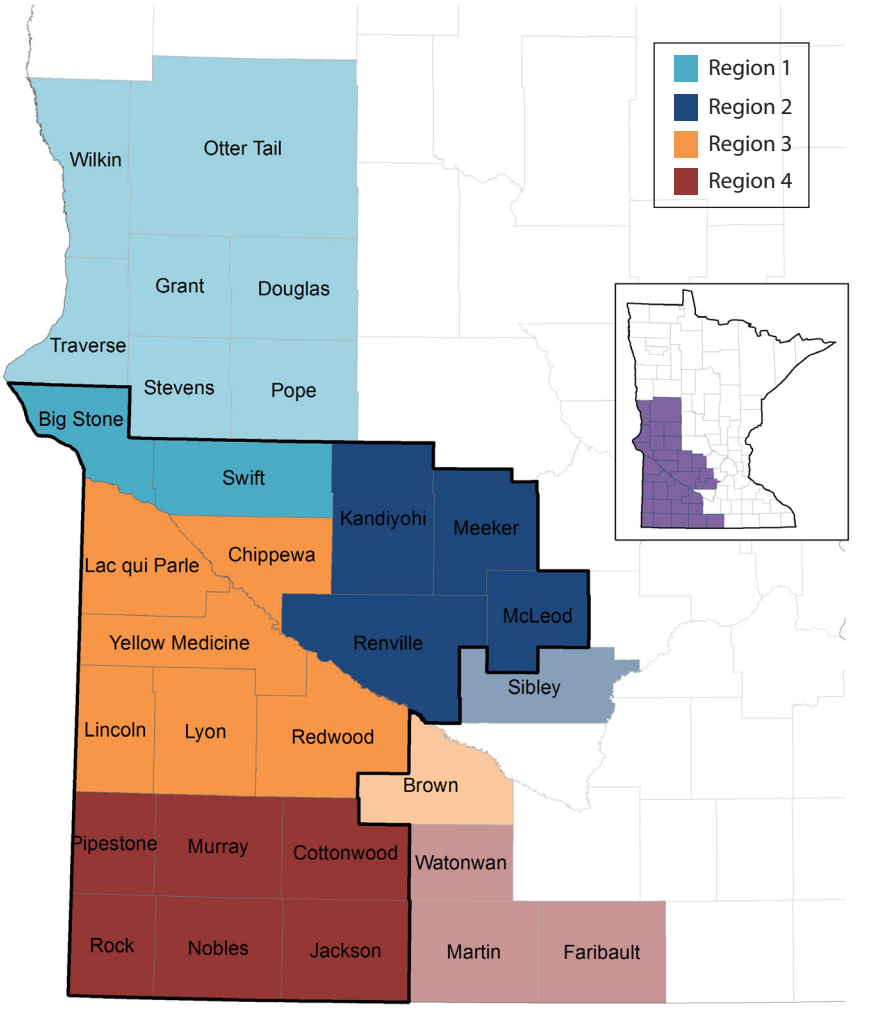
18.9%

Although high school students in SW Minnesota report experiencing a number of risk factors at or below state rates, trends in parental incarceration are particularly concerning: 18.9 percent of SW Minnesota high school students report that a parent has been in jail or prison, a rate 2.5 percentage points higher than for other high school students in the state.

Box 1: The Counties Constituting Southwest Minnesota

The Southwest Minnesota (SW Minnesota) coverage area includes Big Stone, Chippewa, Cottonwood, Jackson, Kandiyohi, Lac qui Parle, Lincoln, Lyon, McLeod, Meeker, Murray, Nobles, Pipestone, Redwood, Renville, Rock, Swift, and Yellow Medicine counties. These counties are outlined in black in Figure 1. Due to data restrictions, some analyses (such as those in Figure 2) require the use of broader categories, and these are denoted by the four colored regions in Figure 1. (These broader categories are based on U.S. Census Bureau Public Use Microdata (PUMA) delineations. For more information on PUMAs see the Census Bureau website, census.gov.) Each region is more or less composed of counties in the SW Minnesota coverage area, with some counties outside the area. Region 1 includes Big Stone and Swift counties in the coverage area and Pope, Stevens, Traverse, Grant, Douglas, Otter Tail, and Wilkin counties outside the area; Region 2 includes Kandiyohi, Meeker, McLeod, and Renville counties in the coverage area and Sibley county outside it; Region 3 includes Lyon, Redwood, Chippewa, Yellow Medicine, Lac qui Parle, and Lincoln in the coverage area, and Brown county outside it; Region 4 includes Pipestone, Murray, Cottonwood, Rock, Nobles, and Jackson in the coverage area and Martin, Faribault, and Watonwan counties outside it.

FIGURE 1. SOUTHWEST MINNESOTA COUNTIES



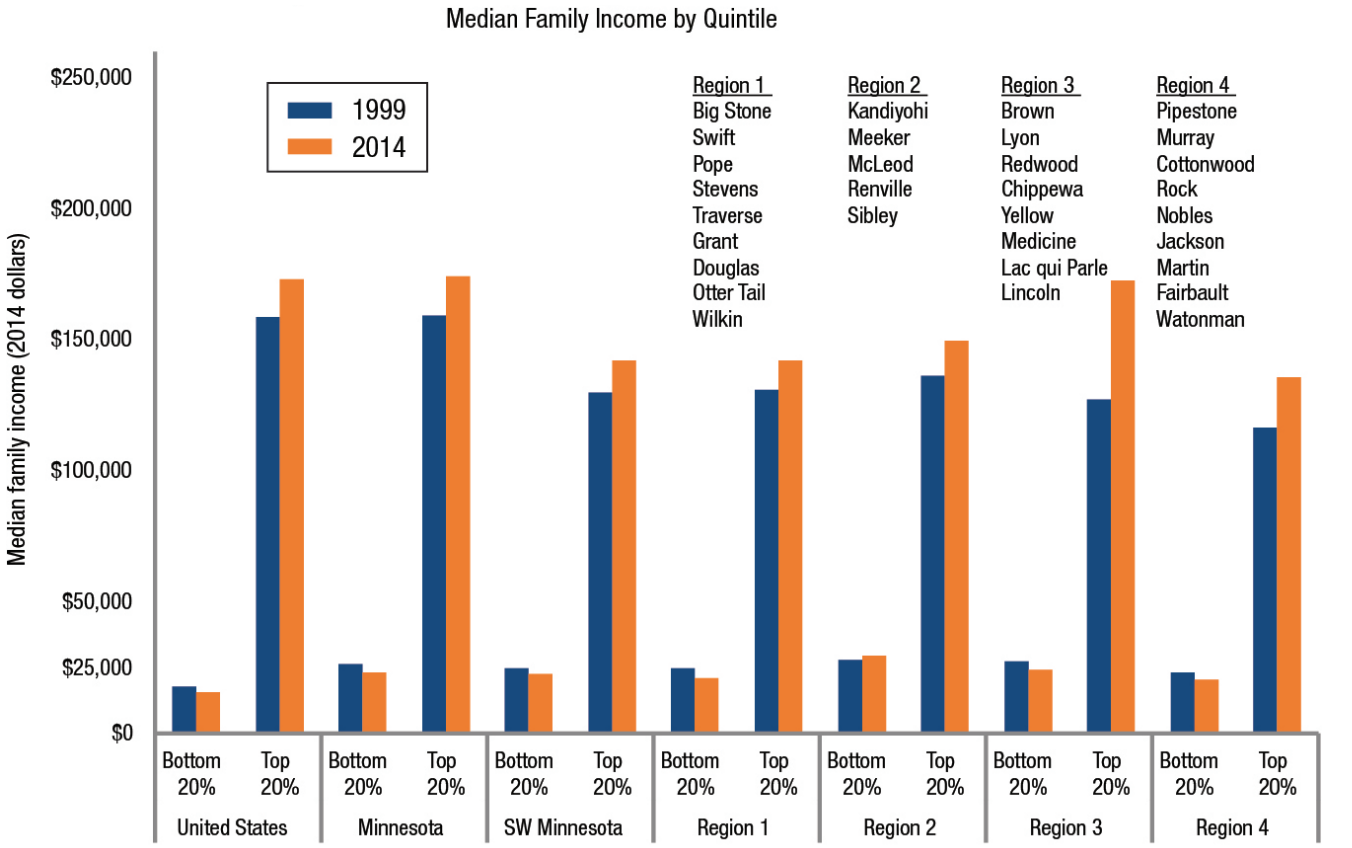
Source: U.S. Census, 2010

Income and Poverty

The cost of living in SW Minnesota is lower than in other areas of the state, and is considerably lower than in central portions of Minnesota.[3] For instance, the estimated cost of living for a family of four with two working adults is roughly $60,000 in SW Minnesota, compared to over $82,000 in east-central Minnesota and over $92,000 in the Minneapolis-St. Paul metropolitan area. However, the relatively low cost of living in SW Minnesota is largely offset by lower pay: while the average hourly wage in the state is nearly $20, it is under $15 in SW Minnesota.

Figure 2, which looks at median income at the top and bottom 20 percent of the income distribution for families with children in 1999 and 2014, documents growing income disparity. Due to data restrictions, the figure does not examine the entire SW Minnesota

FIGURE 2. GROWING INCOME DISPARITY AMONG FAMILIES WITH CHILDREN



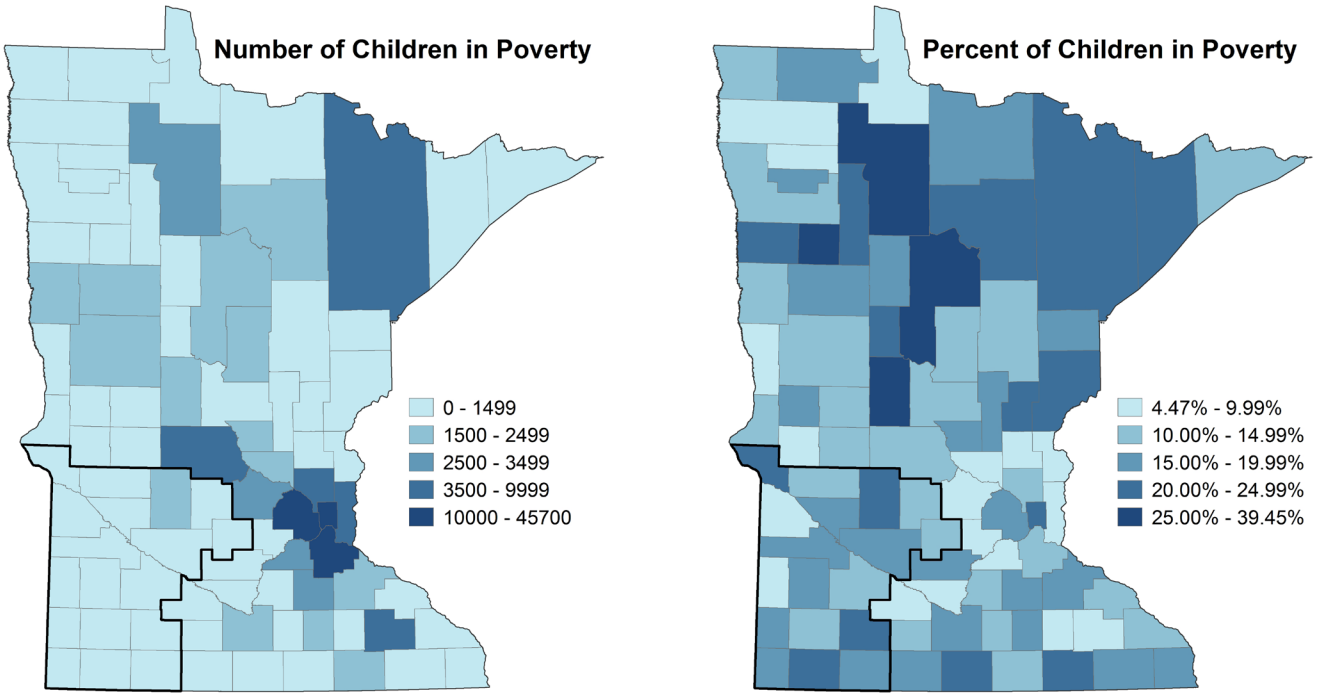
Data: 2000 U.S. Decennial Census (1999); 2010–2014 (2014) ACS 5-Year Estimates. Source: IPUMS-USA, University of Minnesota, www.ipums.org

region but instead breaks it down into the four regions outlined in Figure 1. In each of the four regions, as well as throughout Minnesota and the country as a whole, median family income for families with children remained the same or declined between 1999 and 2014 for the bottom 20 percent. In 1999, median family income for those in the bottom 20 percent of SW Minnesota families was $24,746, compared to just $22,500 in 2014. Conversely, median family income increased for those in the top 20 percent, from $129,916 in 1999 to $142,296 in 2014. In other words, the income gap for families in each of these groups has grown, a change driven largely by increases in income for families at the top and stagnation or a slight decline for families at the bottom.

Figure 3 displays child poverty in 2014 for Minnesota counties in terms of number and percent poor.[4] In percentage terms, poverty tends to be high in rural areas in the state; indeed, in many counties within SW Minnesota more than one in five children are poor. In absolute numbers the region is home to about 11,000 poor children, but the county numbers are low compared to other counties in the state—most SW Minnesota counties have fewer than 1,500 poor children. For this reason, small investments in SW Minnesota can reach a large share of the poor population in ways that are unattainable in counties with larger populations.

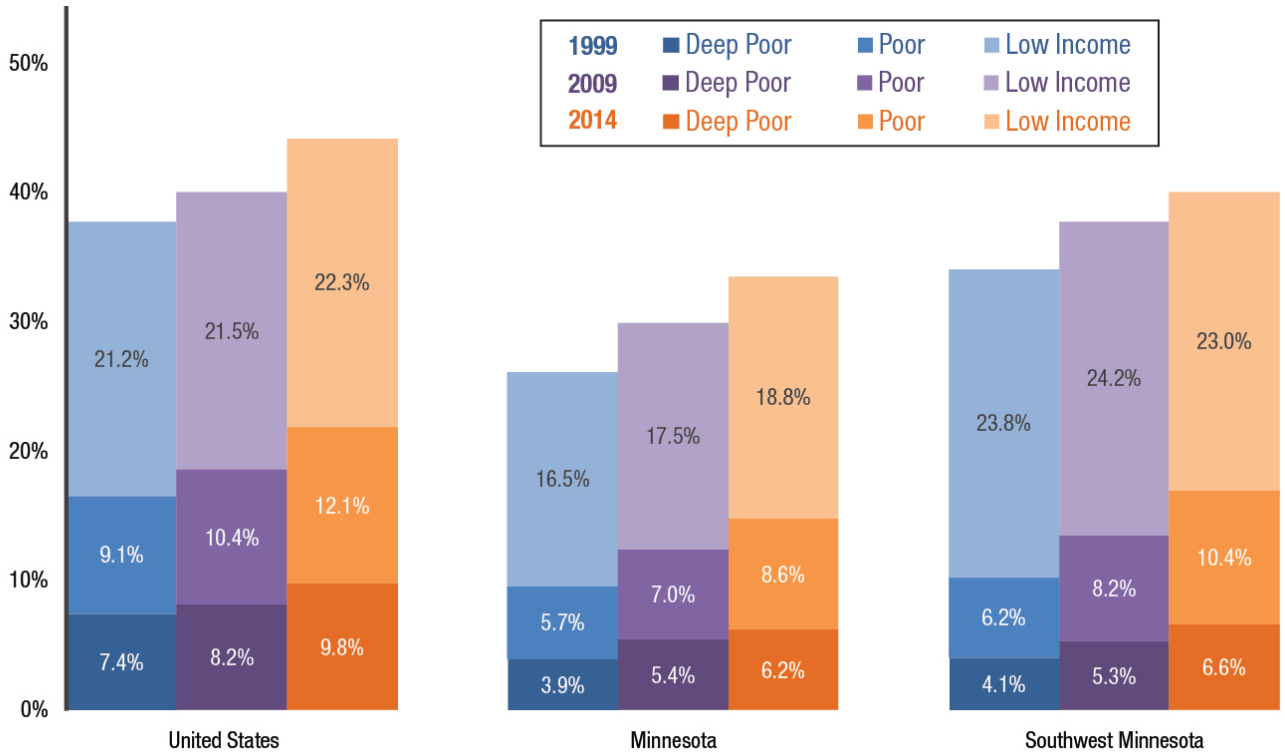
Figure 4, which looks at increases in child poverty over time, includes three categories: deep poor, or those children living in families with total incomes below half the official poverty threshold; poor, or those children living in families with total incomes below 100 percent of poverty; and low income, or those children living in families with incomes between 100 and 200 percent of poverty.[5] Children in Minnesota and SW Minnesota fare better than children across the nation in terms of poverty. Nonetheless, poverty increased steadily across SW Minnesota between 1999 and 2014.

FIGURE 3. NUMBER AND PERCENT OF CHILDREN IN POVERTY



Source: U.S. Census, ACS 5-Year Estimates, 2010–2014

FIGURE 4. INCREASED POVERTY OVER TIME: PERCENT OF CHILDREN IN DEEP POOR, POOR, AND LOW INCOME FAMILIES



Note: Deep poor= < 50% federal poverty line (FPL); poor= 50–99% FPL; low income= 100–199% FPL. **Data:** 2000 U.S. Census (1999); 2005–2009 (2009) and 2010–2014 (2014) ACS 5-Year Estimates. **Source:** IPUMS-USA, University of Minnesota, www.ipums.org

In 1999, 10.3 percent of children in SW Minnesota were either poor (6.2 percent) or deep poor (4.1 percent). By 2014, the combined share had risen to 17.0 percent (10.4 percent poor and 6.6 percent deep poor). An additional 23.0 percent of children lived in low-income families above the poverty line. This is troubling, considering that studies suggest that families need between 1.5 and 3.5 times the poverty threshold, depending on where they live, to meet their basic needs for food, housing, child care, health insurance and medical care, and transportation.[6] This means that more than four in ten children in SW Minnesota live in families that are likely struggling to meet their basic needs.

Youth Opportunity

Table 1 shows measures of educational opportunity and achievement for SW Minnesota school districts (broken down into four poverty quartiles[7]) in comparison to state and national rates. Overall, we see few examples of disparity in opportunity at the district level, whether looking across district poverty within SW Minnesota or when comparing SW Minnesota to all of Minnesota and the nation. For instance, poorer districts in Minnesota report per-pupil expenditures on par with those of the state and the nation, and higher funding levels than more affluent districts in the SW Minnesota region. Sports participation is high in SW Minnesota, and especially so in poorer districts, compared to the nation. An exception is student-to-counselor ratios: poorer districts in SW Minnesota have roughly half the level of access to school counselors as do more affluent districts in the region. The low ratios are particularly striking compared to the median ratio in the nation (411:1) and the maximum ratio recommended by the American School Counselor Association (250:1).[8]

Although the measures of educational inputs shown in Table 1 generally portray equal access to important opportunity markers in SW Minnesota, there are two caveats to keep in mind. First, these measures are district-level, and therefore cannot capture any within-district disparities that may exist. Second, while these measures constitute a proxy for educational opportunity, there are significant aspects of school quality that they do not capture. Perhaps more importantly, there are marked disparities in achievement by both poverty quartile and race. Table 1 indicates higher achievement in affluent districts than in poorer districts, a relationship that is evident across the United States and may reflect the compounding disadvantages faced by poor students rather than unequal school quality. Further, of the four districts with sizeable Hispanic populations, white-Hispanic achievement gaps are exceedingly large—roughly twice the magnitude of the national average.[9] A similarly large gap exists for the one SW Minnesota district with a population of black students large enough to calculate a white-black achievement gap.

TABLE 1. MEASURES OF EDUCATIONAL OPPORTUNITY AND ACHIEVEMENT, TRENDS BY SOUTHWEST MINNESOTA POVERTY QUARTILE, MINNESOTA, AND ALL U.S. SCHOOL DISTRICTS[7]

	SW MN school districts				All MN districts	All U.S. districts
Poverty quartile	1st	2nd	3rd	4th		
Poverty rate	9.6%	11.6%	14.2%	17.4%	12.8%	19.8%
Percent novice teachers	14.9%	11.0%	18.5%	10.9%	10.4%	8.9%
Percent highly absent teachers	24.0%	23.1%	7.8%	21.8%	23.3%	20.0%
Percent of secondary schools with AP/DE access	73.5%	86.8%	100%	62.0%	75.2%	82.6%
Percent of secondary students who play sports	58.8%	60.7%	88.5%	85.6%	68.7%	50.2%
Student-to-counselor ratio	535 to 1	581 to 1	1238 to 1	715 to 1	710 to 1	411 to 1
Per-pupil expenditures	$10,612	$10,873	$12,224	$11,723	$11,792	$11,698
Pooled mathematics and English language arts achievement (SD)	0.27	0.23	0.18	0.17	0.21	0.04

Notes: There are 61 school districts categorized as being in southwestern Minnesota. All statistics in this table are district median rates for that category. A "novice" teacher is defined as a teacher in his/her first or second year. A "highly absent" teacher is defined as a teacher missing 10 or more days in a school year. "AP/DE access" refers to offering advanced placement coursework and/or a dual enrollment option. Achievement statistics are pooled across years (2009–2013), grades (3–8), and subject (mathematics and English language arts).
Sources: 2013–2014 CRDC, 2013–2014 CCD, 2009–2013 SEDA.

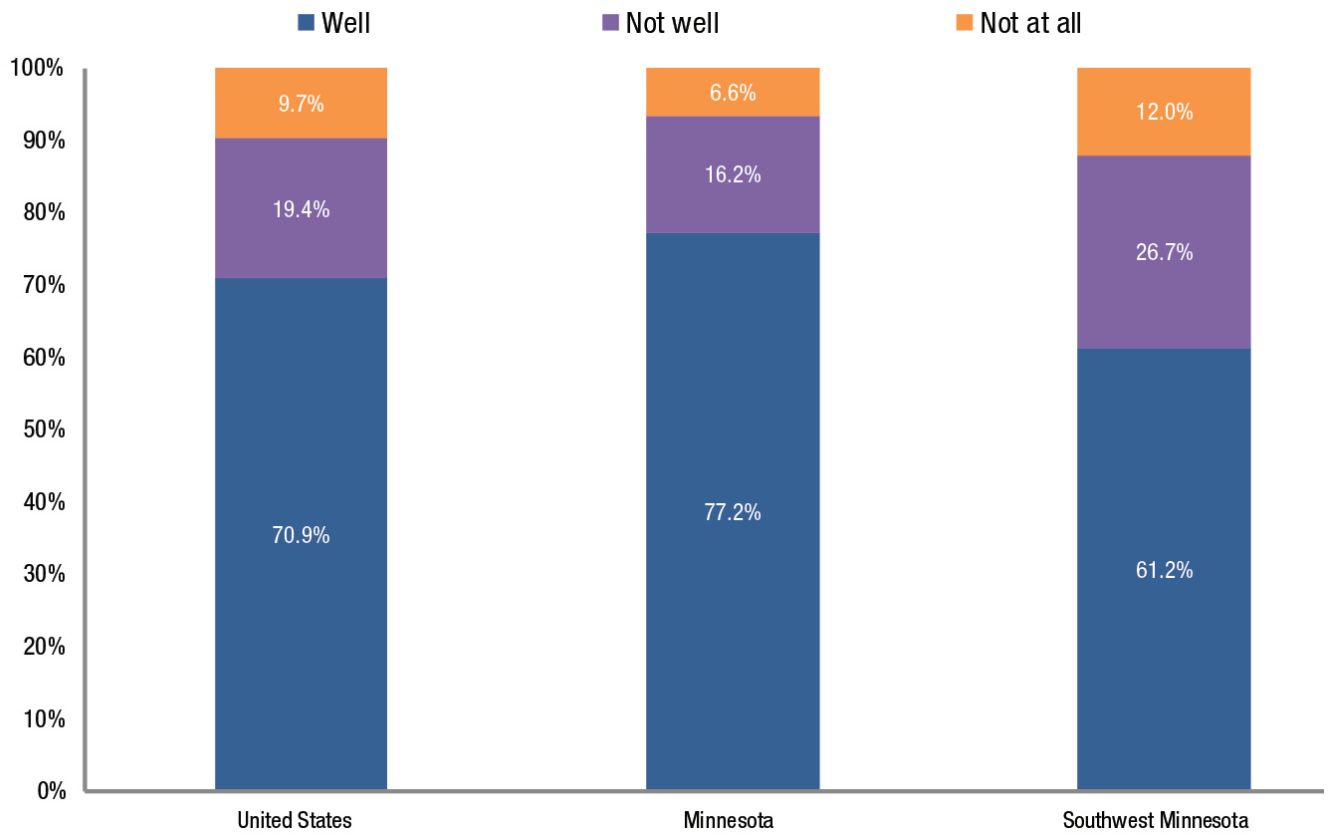
Challenges, Risks, and Safety

This section highlights some of the challenges faced by children, other residents, and service providers in SW Minnesota as well as student risk factors like mental health, substance abuse, and physical abuse.

One factor that can present challenges for service providers and residents of SW Minnesota is the English-language ability of foreign-born residents. Figure 5 documents the percent of the foreign-born population in the United States, Minnesota, and SW Minnesota that speaks English well, not well, or not at all. Compared to the foreign-born population in other parts of the country, the foreign-born population in SW Minnesota is less likely to speak English well or to speak it at all. In SW Minnesota 12.0 percent of the foreign-born population does not speak English at all, compared to just 6.6 percent in Minnesota as a whole.

Table 2 shows the exposure of high school students in Minnesota to a variety of risk factors. SW Minnesota high school students have slightly lower reported rates of substance abuse than their peers in the state. SW Minnesota students who abuse one form of drug are more likely to abuse others: 5.7 percent of students report using two or more substances, while 77.7 percent of students report no substance use. SW Minnesota high school students visit doctors and dentists less regularly than do other students in the state, but also report lower rates of mental health treatment and suicide attempts. Nearly one in five (18.9 percent) SW Minnesota high school students report having had a parent in jail or prison, clearly representing a significant risk factor.

FIGURE 5. PERCENT OF THE FOREIGN-BORN POPULATION THAT SPEAKS ENGLISH



Note: Among those age 5 and older. **Source:** U.S. Census Bureau American Community Survey 2010–2014 (2014) 5-Year Estimates.

TABLE 2. PERCENT OF HIGH SCHOOL STUDENTS WHO REPORT EXPOSURE TO VARIOUS RISK FACTORS

	RISK FACTOR	SW MN	REST OF MN
SUBSTANCE ABUSE	Used tobacco in the past month*	11.0%	13.0%
	Used alcohol in the past month	13.1%	13.9%
	Abused prescription drugs in the past year*	3.7%	5.2%
	Used marijuana in the past year*	9.5%	12.1%
	Used other illicit drugs in the past year*	4.4%	5.6%
PHYSICAL AND MENTAL HEALTH	Last saw a doctor more than 2 years ago*	15.3%	13.3%
	Last saw a dentist more than 2 years ago*	12.1%	10.0%
	Been treated for a mental health problem*	15.4%	18.2%
	Seriously considered attempting suicide	17.4%	19.9%
	Attempted suicide*	6.6%	7.2%
OTHER RISK FACTORS	Have had a parent in jail or prison*	18.9%	16.4%
	Live with someone who drinks too much alcohol	9.3%	9.8%
	Live with someone who abuses drugs*	3.7%	4.7%
	Are regularly insulted by parent(s)	13.0%	13.6%
	Have been hit by parent*	10.4%	11.9%
	Have witnessed domestic abuse	5.9%	6.5%

Note: * Denotes a statistically significant difference between groups. Source: 2016 Minnesota Student Survey.

Summary, Implications, and Discussion

Mirroring trends across the United States, SW Minnesota has experienced dramatic demographic changes over the past 15 to 20 years. The population is older, likely due to a number of factors, including lower fertility among non-Hispanic whites, who comprise the vast majority (89.4 percent) of SW Minnesotans; fewer non-Hispanic white women of child-bearing age; and a large migration of youth out of the region. Combined, these trends result in a much larger share of the population at the top of the age distribution than in previous decades and a hollowing out of the population in younger age groups. There is also a growth in the young racial-ethnic minority population as well as in the population of foreign-born adults, changes that are creating a more diverse region.

In terms of income and poverty, children in SW Minnesota are in a position of relative strength compared to children across the nation. While wages tend to be lower across SW Minnesota, the cost of living and rate of poverty are also lower. Nonetheless, there has been a general trend in Minnesota, SW Minnesota, and across the United States toward higher child poverty and higher deep child poverty over the past fifteen years. Further, the income gap between families at the top and bottom of the income spectrum has widened. We do not analyze data specifically on the young child (under age 6) population, but it is important to note the long-term negative impact that economic deprivation can have among the youngest children. Children who experience poverty early in life, especially deep poverty, are at risk for deleterious physical and mental health outcomes, as well as lower cognitive scores and academic achievement and increased behavioral problems.[10]

Along with growing inequality of opportunity in SW Minnesota, we document several challenges for the region as a whole, including high shares of foreign-born residents struggling with English-language proficiency and teens facing acute risks such as mental health problems, drug use, and the incarceration of their parents. Mirroring trends in the state and the nation, there are significant gaps in achievement between affluent and poor districts in SW Minnesota, and in some cases between racial and ethnic groups.

In light of the challenges facing SW Minnesota, it is important to highlight opportunities for success. For example, SW Minnesota is starting from a position of relative strength in terms of poverty and youth engagement compared to the nation as a whole. Preserving and protecting this advantage should be a high priority for policy makers and service providers in the region. Additionally, SW Minnesota counties have relatively small populations, meaning that relatively small investments can reach a large proportion of the disadvantaged population in ways that might not be possible in other areas.[11]

Data

American Community Survey (ACS): The ACS is conducted by the U.S. Census Bureau. Each year, 1 percent of U.S. households are sampled and asked a variety of questions about each person living in that household. These questions include basic demographics like age, sex, race, ethnicity, and nativity, as well as economic-related questions like total family income from various sources, poverty, and employment status. For the area of interest, we use two 5-year samples of the ACS, 2005–2009 (2009) and 2010–2014 (2014).

U.S. Decennial Census (Census): The Census is conducted by the U.S. Census Bureau. Every ten years, each household across the United States is asked basic questions about age, sex, race, and ethnicity. We use these data in our discussion of the age and racial-ethnic breakdown of the area of interest.

Civil Rights Data Collection (CRDC): The CRDC is a mandatory survey issued biannually to all public school districts in the United States. We use 2013–2014 data in examining educational opportunity in schools, including measures of teacher quality, sports participation, and access to school counselors.

Small Area Income and Poverty Estimates (SAIPE): The SAIPE provides district-level estimates of the proportion of school-aged children (5–17) residing within a school district that live in poverty.

Stanford Education Data Archive (SEDA): First made available in 2016, SEDA provides a range of data on measures of academic achievement and achievement gaps for U.S. school districts. Data are constructed using approximately 215 million test scores in mathematics and English-language arts assessments for 3rd through 8th graders in the 2009–2013 school years. Scores are transformed so that they may be compared across time and place.

Common Core of Data (CCD): The CCD, made available by the U.S. Department of Education's National Center for Education Statistics, is an extensive archive of publicly available education data. Included in this brief are measures of district urbanicity and expenditures provided by the CCD.

Minnesota Student Survey: The Minnesota Student Survey is administered jointly by the Minnesota Departments of Education and Health, Human Services, and Public Safety to high school students, most recently in 2016. This survey gathers student perception data on a number of constructs within the categories of school, activities, family and relationships, risk factors, health and safety, mental health, substance abuse, and sexual health.

Minnesota Cost of Living Tool: The Minnesota Department of Employment and Economic Development makes available cost-of-living estimates for all counties in the state. This data set includes estimates of yearly costs and wages, as well as individual costs for child care, food, health care, housing, transportation, taxes, and "other," for a handful of hypothetical family scenarios.

Endnotes

1. Data in this paragraph are based on Carsey analysis of Census and American Community Survey data not shown.

2. See P.J. Carr and M.J. Kefalas, *Hollowing Out the Middle: The Rural Brain Drain and What It Means for America* (Boston, MA: Beacon Press, 2009).

3. Analyses of costs of living and wages in Minnesota are conducted using data from the Minnesota Department of Employment and Economic Development's Cost of Living Tool. These estimates are made at the Economic Development Region (EDR) level. For more information, see https://mn.gov/deed/data/data-tools/col/.

4. Poverty is a family-level construct. A family's total income is compared to a threshold based on number of adults and children in a family. Families with total incomes below their assigned threshold are considered poor, or in poverty. If a family is classified as poor, then everyone in the family is considered poor.

5. For families of four with two adults and two children in 2014, deep-poor is defined as income below $12,004, poor as $12,004 to $24,008, and low income as $24,008 to $48,016.

6. See, for example, Kinsey Alden Dinan, "Budgeting for Basic Needs: A Struggle for Working Families" (New York, NY: National Center for Children in Poverty, Mailman School of Public Health, Columbia University, 2009), http://academiccommons.columbia.edu/catalog/ac%3A126290.

7. There are 61 public school districts categorized as being in southwestern Minnesota. To understand how the poverty of a school district relates to educational opportunity in the area, we divide these districts into poverty quartiles, each containing roughly 15 districts. Thus, the first quartile represents the most affluent 15 or so districts, while the fourth quartile represents the 15 or so poorest districts.

8. American School Counselor Association, "The Role of the Professional School Counselor," https://www.schoolcounselor.org/asca/media/asca/home/RoleStatement.pdf.

9. White-Hispanic achievement gaps range from 0.80 standard deviation to 0.95 standard deviation among these four districts, compared to 0.48 standard deviation for the average district with a sizeable Hispanic enrollment in the United States. To put the size of such gaps in perspective, S.F. Reardon et al. (*Stanford Education Data Archive, 2016,* http://purl.stanford.edu/db586ns4974) suggest that 1 standard deviation in achievement may be very roughly equated to 3 grade equivalents of learning.

10. See, for example, Jeanne Brooks-Gunn and Greg J. Duncan, "The Effects of Poverty on Children," *The Future of Children* 7, no. 2 (1997): 55–71; J.D. McLeod and M.J. Shanahan, "Poverty, Parenting, and Children's Mental Health," *American Sociological Review* 58 (1993): 351–66; Jeanne Brooks-Gunn, T. Leventhal, and Greg J. Duncan, "Why Poverty Matters for Young Children: Implications for Policy," in J.D. Osofsky and H.E. Fitzgerald, eds., *WAIMH Handbook of Infant Mental Health: Vol. 3. Parenting and Child Care* (New York, NY: Wiley, 1999); J.R. Smith, Jeanne Brooks-Gunn, and P.K. Klebenov, "The Consequences of Living in Poverty for Young Children's Cognitive and Verbal Ability and Early School Achievement," in G.J. Duncan and J. Brooks-Gunn, eds., *Consequences of Growing Up Poor* (New York, NY: Russell Sage, 1997); and R. Gabriela Barajas, Nina Philipsen, and Jeanne Brooks-Gunn, "Cognitive and Emotional Outcomes for Children in Poverty," in D.R. Crane and T.B. Heaton, eds., *Handbook of Families & Poverty* (New York, NY: SAGE Publications, 2007).

11. See T. Collins, *Attracting and Retaining Teachers in Rural Areas* (Charlestown, WV: ERIC Clearinghouse on Rural and Small Schools, 1999).

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