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SURVEYING THE POSTSECONDARY LANDSCAPE IN RURAL AMERICA



This project was supported by Ascendium Education Group, which is the nation's largest federal student loan guarantor, a leading postsecondary education philanthropy and a provider of student success services for postsecondary institutions. A 501(c)(3) nonprofit organization, it provides information, tools and counseling to help millions of borrowers nationwide avoid default and keep the door to re-enrollment open. Ascendium's philanthropic mission is to elevate opportunities and outcomes for learners from low-income backgrounds so they can better achieve postsecondary educational and career success.

FOREWORD

This report explores the intersection of two key education issues today: the opportunities and achievement of students in rural America and the availability of postsecondary paths for high school graduates. Most education-reform initiatives of the last generation either focused on urban schools or took a statewide approach; neither sought to understand and address the specific needs of rural communities.

As such, the policy, advocacy and philanthropic communities know too little about rural K-12 funding, rural test scores, rural access to advanced high school courses, rural graduation rates and so on. We also know too little about how these issues then influence rural postsecondary access and success—for example, whether rural students go to two-year or four-year schools and whether they graduate. Moreover, knowing what disciplines and fields of study rural students who do enroll in college tend to favor would add to our understanding of postsecondary education in these communities. These matters are extraordinarily important because rural America has generally had fewer adults with higher-education credentials, because future jobs will require more postsecondary schooling and because changes in the economy (e.g. automation, off-shoring) are likely to disproportionately influence jobs there.

Accordingly, this report begins answering some of these questions. We offer analyses of national K-12 data to explore whether rural students are prepared for postsecondary work. Then, we look to national and state-level data to better understand how rural high school graduates engage with higher education and what that means for rural communities. We discover some encouraging findings regarding rural students' preparation for postsecondary work, entry into institutions of higher education and persistence. We demonstrate that, despite those findings, the more rural a community, the less likely its adults are to have four-year degrees. This leaves important questions about the "brain drain," rural economic opportunities and more. Indeed, one conclusion from this work is that in order to influence rural postsecondary success, policymakers, philanthropists and other interested parties need to consider the strength of local labor markets, issues related to poverty and addiction, the availability of teachers and internet access, and a host of related "upstream" issues.

— *Andy Smarick*

INTRODUCTION

Much attention is paid to urban America and its schools—and for good reason. Cities are home to millions of kids, concentrated poverty and struggling schools. But fully 60 percent of U.S. counties are mostly or completely rural, and they are home to 14 percent of the nation’s population.¹ Nearly 1 in 3 K-12 schools are in rural America, as well as 1 in 5 students.²

Rural schools have many strengths. For example, they boast high graduation rates and are generally popular with their communities. But, rural America also struggles with persistent poverty, high unemployment and poor health outcomes. One key educational challenge is relatively low attainment among adults: Fewer rural adults hold a postsecondary credential compared with adults in urban areas. This has significant economic consequences, which will only grow as more and more jobs require training and credentials beyond high school.

Low educational attainment has other consequences for rural America. For example, a report on the “brain drain,” published by the Joint Economic Committee of the U.S. Congress in April 2019 argues that American polarization originates in our educational divide. There is:

evidence that highly-educated adults flowing to dynamic states with major metropolitan areas are, to a significant extent, leaving behind more rural and post-industrial states. This geographic sorting of the nation’s most-educated citizens may be among the factors driving economic stagnation—and declining social capital—in certain areas of the country. If we are connecting less with communities and people who are different than us, we could be more likely to see adversaries among those in whom we might otherwise find a neighbor.³

¹ U.S. Census Bureau, “Rural America,” U.S. Dept. of Commerce, last accessed March 12, 2020.

² Ibid.

³ Joint Economic Committee (JEC), *Losing Our Minds: Brain Drain across the United States*, U.S. Congress, April 2019, p. 3.

For these reasons, improving rural postsecondary success could have positive effects for rural economics, as well as national politics and culture.

However, to develop successful strategies for increasing rural postsecondary attainment, we must first better understand the complex landscape of rural higher-education access and success. This report offers data and analysis at the national level and for four states with significant rural populations: Georgia, Kentucky, Minnesota and Texas. These state-level deep dives reveal the extent to which a number of postsecondary indicators vary between rural and non-rural communities within each state, how these indicators differ between states and how each state compares to national numbers.

The indicators of primary interest here include:

- » Population demographics
- » Indicators of economic success for individuals and communities
- » Markers of social well-being
- » Educational attainment among adults
- » Educational outcomes in the K-12 system
- » Measures of postsecondary engagement and success.

Three key indicators of postsecondary engagement and success include:

1. Enrollment: the rate at which students enroll for the first time in a postsecondary program, which includes two- and four-year degree programs, as well as career-oriented non-degree programs that result in an industry-recognized credential that has value in the labor market⁴
2. Persistence: the rate at which students continue in a postsecondary program beyond the first year, sometimes defined by the number of credits earned in a given period of time
3. Completion: the rate at which students earn degrees and credentials.

Nationally, about 67 percent of recent high school completers enrolled in college by the following October as of 2017.⁵

Among students who began post-secondary programs in 2011-12, the persistence rate for students who began at two-year institutions was 57 percent, while the persistence rate for students who began at four-year institutions was 80 percent.⁶ As of 2016, 36 percent of 25- to 29-year-olds had obtained a bachelor's degree or higher.⁷

⁴ This work focuses primarily on enrollment in two-year and four-year degree programs because of data availability.

⁵ National Center for Education Statistics (NCES), "The Condition of Education 2017 (NCES 2017- 144)," U.S. Dept. of Education, 2017.

⁶ National Center for Education Statistics (NCES), "Immediate College Enrollment Rate," U.S. Dept. of Education, February 2019, p. xxiv.

⁷ Students who first enrolled during the 2011-12 academic year are considered to have persisted if they were enrolled at any institution in Spring 2014 or had attained a degree or certificate by that time.

States vary significantly in whether and how they collect and report data related to these indicators and at the level of detail, which is reflected in the profiles of each deep-dive state. There are currently no comprehensive national data sources on these indicators that allow for rural-urban comparison.

One area in which many states are currently enhancing data collection and reporting, but where tremendous variability in data availability and quality exists, is around workforce credentials. Many states collect information on workforce credentialing, at least for programs that operate through publicly funded community colleges and technical institutes. However, in many cases, this leaves out credentials offered by private entities.

In addition, while some states are grappling with how to recognize the “value” of various workforce credentials (i.e. capturing their connection to high-wage, high-demand jobs), much more work needs to be done. Similarly some states are beginning to explore “career pathways” that tether career training to state, regional or local industry workforce needs, but more experience and data are needed.

Finally, even where workforce-credential data is available, it is often reported at the institution level without reference back to the high school from which the credential-earner graduated. This stymies researchers from determining whether factors related to a student’s K-12 experience predict their likelihood of earning a workforce-valuable credential. As states work to build connections between high school career-and-technical education programs, postsecondary training options and employers, we expect data and analyses to improve.

Among our deep-dive states, only Texas and Kentucky collect and report workforce-credential data, but it was not possible in this report to draw conclusions about rural geographies with the data available. Further, those data do not differentiate credentials by industry value, which limits our ability to determine whether rural students are pursuing post-secondary paths likely to support long-term economic success.⁸

⁸ Kentucky provides data on employment outcomes over time (median wage and percent employed by major) that can be filtered by degree or credential through the [Kentucky Center for Statistics](#). The data visualization suggests that county-level data on student origins is available, which could enable geographical analysis of trends. Those data do not appear to be downloadable directly from the site, but may be available upon request and could be an area for further inquiry. Texas reports certificates earned, along with two-year and four-year degrees. However, it appears that the certificates reported are only those granted through a two-year or four-year college or university, which may not account for the full array of certificates earned. In addition, the data reported appear to reflect all certificates issued without the option to filter by industry or credential.

THE RURAL UNITED STATES

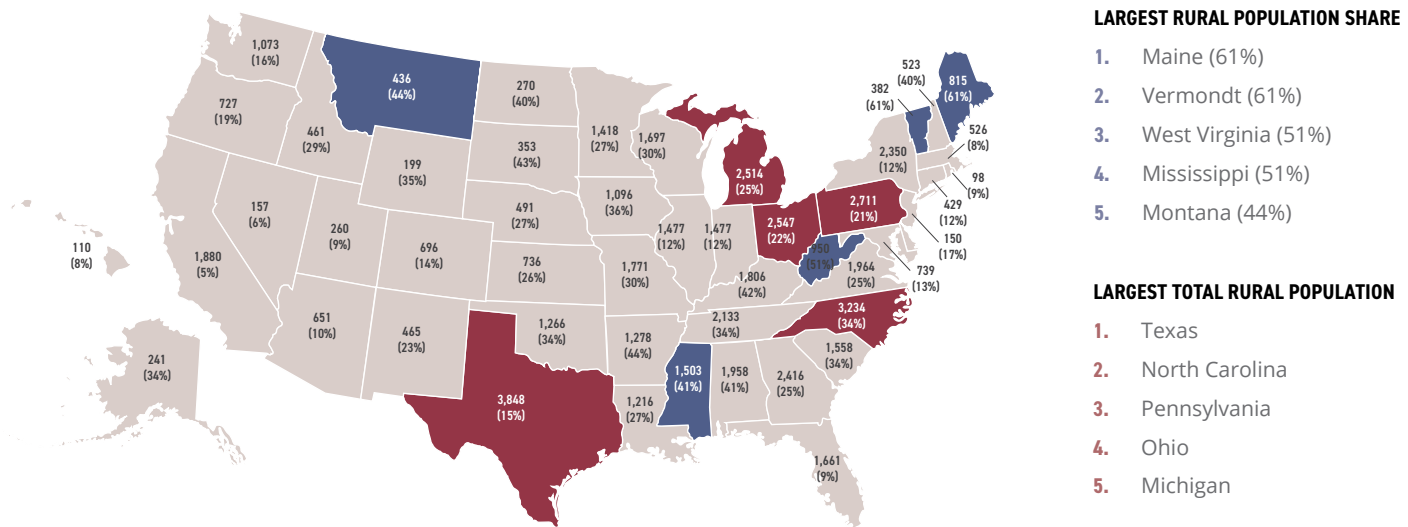
1 in 5 Americans (about 60 million people) live in rural areas.⁹ Rural Americans are not distributed evenly across the country; rather, these populations are heavily concentrated in the southeastern part of the country. Nearly half (47 percent) of all people living in rural areas are in the South region and nearly two-thirds (64 percent) of the total rural population lives east of the Mississippi River.¹⁰ Only 10 percent of the total population in the West region live in rural areas.¹¹

⁹ Numerous definitions of the term “rural” exist but, typically, rural areas are distinguished by their sparse population and/or distance from urban areas. For example, see explanations by the U.S. Census and the U.S. Dept. of Agriculture.

¹⁰ “Rural America.”

¹¹ Ibid.

FIGURE 1. Total Rural Population (in thousands) and Rural Population Share
By State, 2010



In Figure 1, the states in blue have the highest percentage of population living in rural areas, and states in red have the highest numbers of people living in rural areas.

Amongst this sizable portion of the country, there are demographic changes gradually taking place that are altering the racial composition and average age of rural America, as well as its population size. For example, the proportion of the elderly population in rural counties has risen from 15 to 18 percent since 2000, which is faster than the growth of the elderly population in suburban or urban areas. During the same period, the elderly population in suburban and urban areas grew only from 11 to 13 percent.¹² At the same time, the total population of rural counties has also been in decline, as Pew Research Center reports that the majority of rural counties (52 percent) have lost population.¹³ This decline is not simply due to lower birth rates but rather because more people have moved away from the counties than have moved in. This trend of declining population may be reversing, as it has been reported that there were very modest increases in population in the two most recent years for which data is available, from 2017 to 2018.¹⁴ An aging and declining population can make counties more susceptible to economic stagnation and the erosion of the local economy.¹⁵ Moreover, a shrinking population may mean less revenue is available from local taxes to be used for schools and other services.¹⁶

Rural communities are also changing in their racial makeup, although not as rapidly as urban or suburban areas. For example, Pew Research Center finds that since 2000, the percentage of the population that is white (non-Hispanic) decreased from 82 to 79 percent, while the foreign-born population grew from 3 to 4 percent in rural counties.¹⁷

¹² Pew Research Center, Drug addiction is seen as a pressing problem in urban and rural communities, *The Pew Charitable Trusts*, May 15, 2018.

¹³ Ibid.

¹⁴ Kenneth M. Johnson, "Data Snapshot: Rural America Growing Again Due to Migration Gains," *University of New Hampshire*, April 18, 2019.

¹⁵ Joint Economic Committee (JEC), p. 3.

¹⁶ See, e.g., Michael Q. McShane and Andrew Smarick, *No Longer Forgotten* (Rowman & Littlefield Publishers, 2018).

¹⁷ Pew Research Center.

SOCIAL AND ECONOMIC CONDITIONS

Certain indicators of economic and social well-being are less favorable in rural areas compared to other geographies.¹⁸ Households in rural areas tend to have lower income, and rural areas may be disproportionately affected by economic and social challenges, such as automation of jobs and the opioid epidemic.

While adults in rural areas have lower rates of poverty (12 percent in rural areas compared with 14 percent in urban areas),¹⁹ households in rural counties tend to have lower median incomes than households in non-rural areas. Furthermore, child poverty rates in rural areas (24 percent) are actually higher than rates of childhood poverty in urban areas (19 percent).²⁰ And many rural areas suffer from persistent poverty, which is to say poverty that extends over time.

In 2018, rural unemployment stood at 4.2 percent, slightly above the rate of 3.9 percent for urban counties. Jobs at “high-risk” of automation, such as manufacturing, are more concentrated in rural communities than urban ones.²³ On top of this, rural counties, particularly those that had been dependent upon manufacturing, have been slower to recover from the economic downturn of 2007-2009, which has exacerbated economic stagnation and the negative factors associated with it.²⁴ For example, the U.S. Department of Agriculture (USDA) reports that “rural counties with severe recession had much higher average child poverty rates in 2009-13 (31 percent) than they had in 1999 (22 percent).”²⁵

Educational attainment is also an important factor when considering the prospects of rural areas. Adults in rural areas are less likely to have obtained a bachelor’s degree or higher (20 percent in rural areas compared with 29 in urban areas).²⁶ Among our deep-dive states, educational attainment patterns vary by locale. For example, the proportion of adults with college degrees in rural areas of Kentucky (17 percent) is lower than the national average, while its urban-area rate is the same as the national average. Educational attainment in Georgia’s rural areas is comparable to national averages for rural areas (20 percent), while attainment in urban areas exceeds the national rate (35 percent). Minnesota has fairly-high educational attainment overall, but it also has a larger gap between rural and urban areas than most states (25 versus 40 percent). Texas is the opposite, with a smaller gap between rural and urban areas in the percentage of adults with bachelor’s degrees (23 percent versus 31) relative to the other deep-dive states.

Other indicators of well-being also suggest challenges in rural areas. Poor rural counties and those with low economic prospects are among the hardest hit by the opioid epidemic: they have higher rates of opioid prescriptions, hospitalizations and overdose deaths.²⁷ This is especially true in Kentucky.

¹⁸ We do not attempt to control for the differences in cost of living among the various areas assessed in this report.

¹⁹ U.S. Census Bureau, “New Census Data Show Differences Between Urban and Rural Populations,” U.S. Dept. of Commerce, Dec. 8, 2016.

²⁰ Save the Children, “Growing Up Rural America,” *U.S. Complement to the End of Childhood Report, 2018*, p. 4.

²¹ For example, the Economic Research Service of the USDA found that 85 percent of persistently poor counties are non-metro, and 84 percent of persistent-poverty counties are in the South.

²² Economic Research Service, “Rural Employment and Unemployment,” U.S. Dept. of Agriculture, Sept. 23, 2019.

²³ “America at Work: A National Mosaic and Roadmap for Tomorrow,” Walmart, 2019, p. 25.

²⁴ Economic Research Service, “Rural Child Poverty Chart Gallery,” U.S. Dept. of Agriculture, March 26, 2019.

²⁵ Ibid.

²⁶ U.S. Census Bureau, “New Census Data Show Differences Between Urban and Rural Populations,” U.S. Dept. of Commerce, Dec. 8, 2016.

²⁷ National Center for Health Statistics, “About Rural Health” Center for Disease Control (CDC), 2017

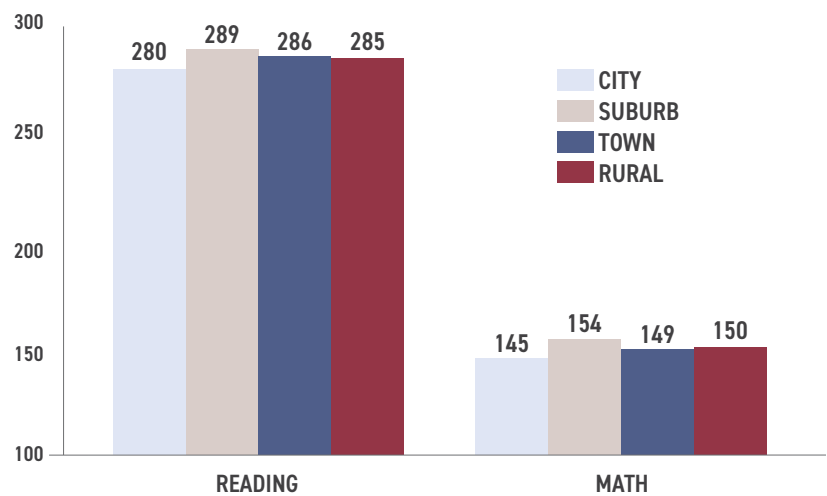
These social and economic factors have implications for rural youth as they consider their options after high school. For example, with low rates of postsecondary attainment among rural adults, rural high school graduates are more likely than their urban counterparts to be first-generation attendees. As such, families may be less experienced in navigating the gauntlet of postsecondary access (e.g. preparing for college-entrance exams or completing financial aid forms). This suggests that even if a rural student is comparable with urban counterparts in terms of academic preparedness, s/he may struggle to access higher education.

COLLEGE READINESS AND POSTSECONDARY ACCESS

In terms of academic preparedness, rural students on average perform at least as well as most students on the National Assessment of Educational Progress (NAEP). Figure 2 (below) shows that average scale scores for schools in rural areas are significantly higher than schools in cities in reading and math, but are significantly lower than the average scale scores for suburban schools in both subjects.

Other indicators of college readiness and access by locale vary widely across states. For example, rural high school graduation rates range from 61 percent in Alaska to 94 percent in Connecticut.²⁸ Nationwide, an estimated 81 percent of rural, low-income students graduate, but rates range from as low as 52 percent in Alaska to 89 percent in Indiana.²⁹

FIGURE 2. Average Scale Scores on the 2015 National Assessment of Educational Progress in reading and math for grade 12, by locale



Source: U.S Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2015 Reading/Math Assessment.

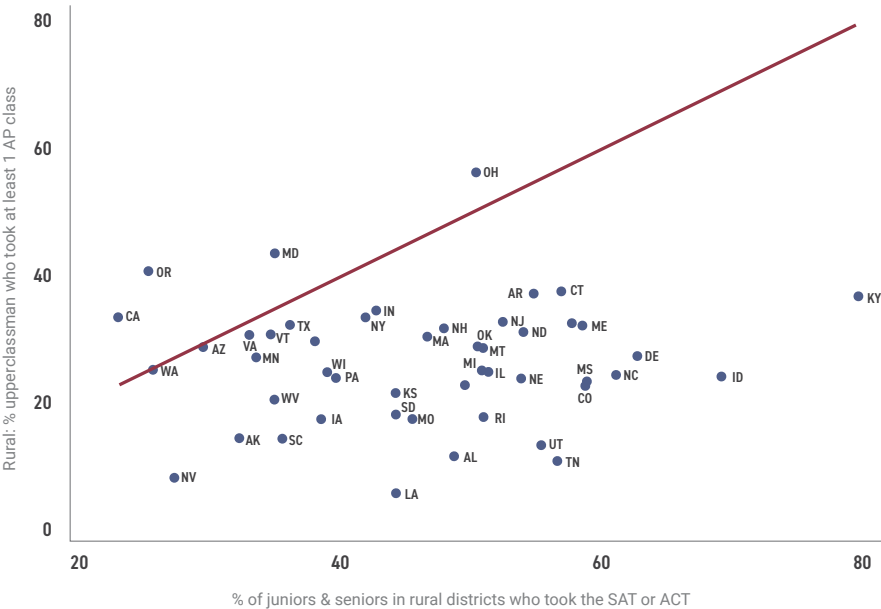
²⁸ D. Showalter et al., “Why Rural Matters 2015-2016: Understanding the Changing Landscape,” The Rural School and Community Trust, 2017.

²⁹ Ibid.

Rural Advanced Placement (AP) course-enrollment rates range from 5 percent for juniors and seniors in Louisiana to more than 56 percent in Ohio.³⁰ Accelerated learning options, which provide students the opportunity to take college courses while in high school and include programs such as AP, International Baccalaureate (IB), and dual and concurrent enrollment, are associated with higher college enrollment and completion.³¹ Compelling research demonstrates that the receipt of credit-granting AP scores increases an individual's probability of earning a bachelor's degree on time.³²

In 21 states, a majority of rural juniors and seniors take the ACT or SAT, and only in California and Oregon do fewer than 1 in 4.³³ Among students in rural districts, taking college entrance exams appears more common than taking AP courses, as seen in Figure 3. Three of our four deep-dive states (Georgia, Minnesota and Texas) have relatively low proportions of students in rural schools taking college entrance exams and taking AP classes. Kentucky stands out for having a high proportion of rural students taking a college entrance exam, which may be reflective of differences in state or local policies.

FIGURE 3. Proportion of high school upperclassmen taking college admissions exams against AP class-taking

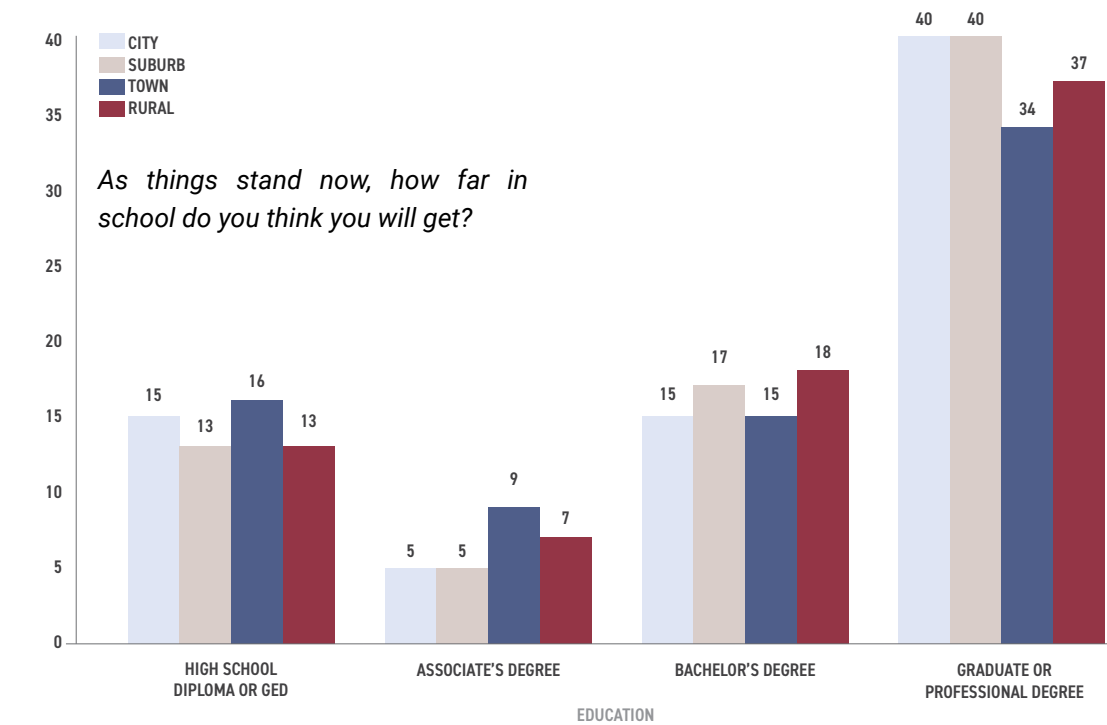


Data Source: U.S. Department of Education Office for Civil Rights

³⁰ Ibid.
³¹ J.N. Wyatt et al., "A Comparison of the College Outcomes of AP and Dual Enrollment Students," College Board Research Report No. 2015-3, 2015.
³² See, e.g., J. Smith et al., "Giving College Credit Where It Is Due: Advanced Placement Exam Scores and College Outcomes," Journal of Labor Economics 35:1 (2017).
³³ Showalter et al.

Rural students express similar or stronger intentions about pursuing postsecondary degrees as students from other locales. About 18 percent say they will complete a bachelor’s degree, which is slightly higher than the rate for other locales (Fig. 4). An additional 37 percent expect to earn an advanced degree, a higher proportion relative to students from towns, but lower than the proportion of students in cities and suburbs (40 percent of whom anticipate earning advanced degrees).

FIGURE 4. Students’ perceptions of future educational attainment, by locale



Data Source: U.S Department of Education, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09)

ADDITIONAL CONTEXTUAL FACTORS

Rural communities struggle with persistent social challenges and lack of access to amenities.³⁴ For example, rural students often lack access to secure food, quality healthcare and social services that are essential to their ability to learn and develop.³⁵ One study finds that, if experienced during early childhood, food insecurity is negatively associated with social-emotional outcomes in kindergarten. For rural communities, where food insecurity can be more common, children can be on a disadvantaged path from a very young age.³⁶ In addition to this, many rural students live far away from school, which limits their ability to rely on their schools for internet access and contributes to long bus rides that can reduce homework, family and social time, and hinder participation in extracurricular activities.³⁷ While 98 percent of school districts have internet speeds that meet the FCC's 100 kbps per-student goal, only 59 percent of nonmetropolitan children have internet access at home, inhibiting their access to continued learning.³⁸

Rural schools can also struggle to provide students with access to high-level and specialized coursework like AP classes or foreign languages. Rural districts are more likely to identify lack of funding, high program costs and facilities limitations as "large" or "very large" barriers to providing Career and Technical Education programs, but are less likely to say that finding or keeping teachers for in-demand industries is a challenge.³⁹ Beyond this, rural students may also be disadvantaged in their pursuit of postsecondary education because of lack of exposure. In spite of making up 97 percent of the geographic territory of America, rural counties are home to only 14 percent of college campuses, which makes rural students' encounters with the resources and inspiration that a university offers less frequent than children who reside in more densely populated areas.⁴⁰ Further, this lack of exposure to college campuses is especially significant given that 56 percent of students at a public four-year institution grew up less than 50 miles from their campuses, and the median community college student travels eight miles to get to school.⁴¹

³⁴ Pew Research Center, "Drug addiction is seen as a pressing problem in urban and rural communities," The Pew Charitable Trusts, May 15, 2018.

³⁵ "About Rural Health."

³⁶ See, e.g., Anna D. Johnson and Anna J. Markowitz, "Associations Between Household Food Insecurity in Early Childhood and Children's Kindergarten Skills," *Child Development* 89:2 (March/April 2018).

³⁷ C.B. Howley et al., "Riding the School Bus: A Comparison of the Rural and Suburban Experience in Five States," *Journal of Research in Rural Education* 17:1 (2001), pp. 41-63.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Colleen Campbell, "Those Left Behind: Gaps in College Attainment by Race and Geography," Center for American Progress, June 27, 2019.

⁴¹ Ibid.

DEEP DIVES INTO SELECT STATES

In the following sections, we explore each of our deep-dive states in more detail. These encompass the wide variety of communities that are often lumped together under the single heading “rural.”⁴² We selected these states (Georgia, Kentucky, Minnesota and Texas) for both demographic and data-related reasons. We wanted our deep dives to capture as much of American rurality as possible. So, for example, we wanted states from different regions, different racial compositions and different primary industries. But, we also needed to choose states that had the data necessary for the analysis we envisioned. Indeed, one of the key lessons of this project is that states collect and report different amounts and types of data related to rurality and, in some instances, what is available is not comparable across states. In total, the four states chosen enabled us to get a sense—but not a comprehensive picture—of America’s rural postsecondary landscape. Our deep-dive sections examine demographics, social and economic indicators, demographics and outcomes in K-12 settings, and postsecondary outcomes in specific state contexts.

⁴² The American Communities Project subdivided rural America into nine different categories that aim to capture the most significant differences between rural communities (American Communities Project). Our deep dive states include eight of these nine distinct types of rural communities.



GEORGIA

GEOGRAPHY AND DEMOGRAPHICS

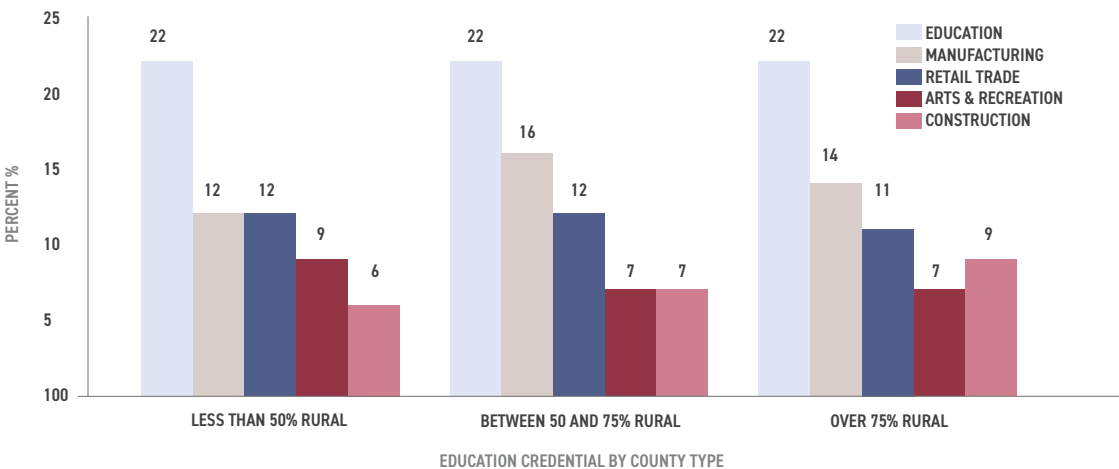
Located in the South Atlantic division, Georgia is home to about 10 million people. About 25 percent of Georgians live in rural areas, making it the 28th most rural state by population. Georgia is approximately 54 percent white, 31 percent Black, and 9 percent Hispanic or Latino.⁴³

⁴³ "Rural America".

In recent years, Georgia has experienced favorable economic conditions. Its average economic growth rate of 2.4 percent between 2011 and 2016 slightly exceeds the national average annual growth rate in real gross domestic product.⁴⁴

In terms of employment by industry, Georgia’s most rural counties have a higher proportion of individuals employed in construction, and counties that are more than half rural have a higher proportion of individuals employed in manufacturing relative to less-rural counties (Figure 5). The reliance on the manufacturing sector is worth noting because these jobs are especially susceptible to automation.

FIGURE 5. Percentage of population age 16+ employed in each industry, by county percent rural, in Georgia



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

As seen in the scatterplots below, incomes in Georgia’s rural communities lag behind urban areas (Figure 6), and median earnings for both male and female full-time, year-round employees are lower in more-rural counties (Figure 7). The percent of families below the poverty level is higher in more-rural counties (Figure 8). Taken together, each of these factors indicates that rural Georgia follows the national trend that more-rural counties are home to less wealth.

⁴⁴ See, e.g., K. Robson et al., “Education in the American South: Historical Context, Current State, and Future Possibilities,” Bellwether Education Partners, 2019.

FIGURE 6. Percentage of population age 16+ employed in each industry, by county percent rural, in Georgia

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

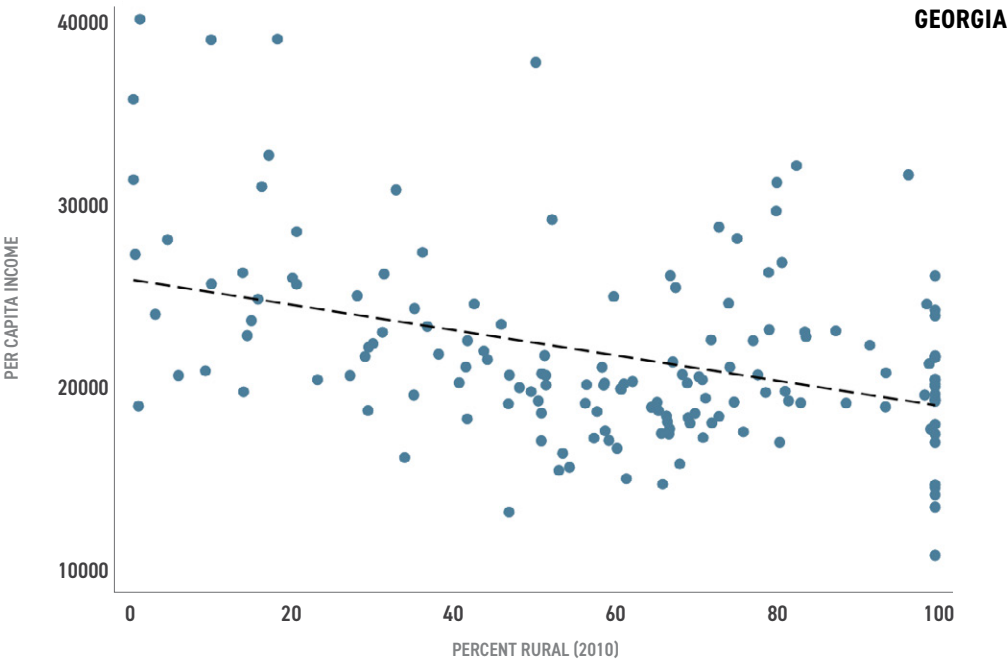


FIGURE 7. Median earnings for full-time, year-round workers by county percent rural, Georgia

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

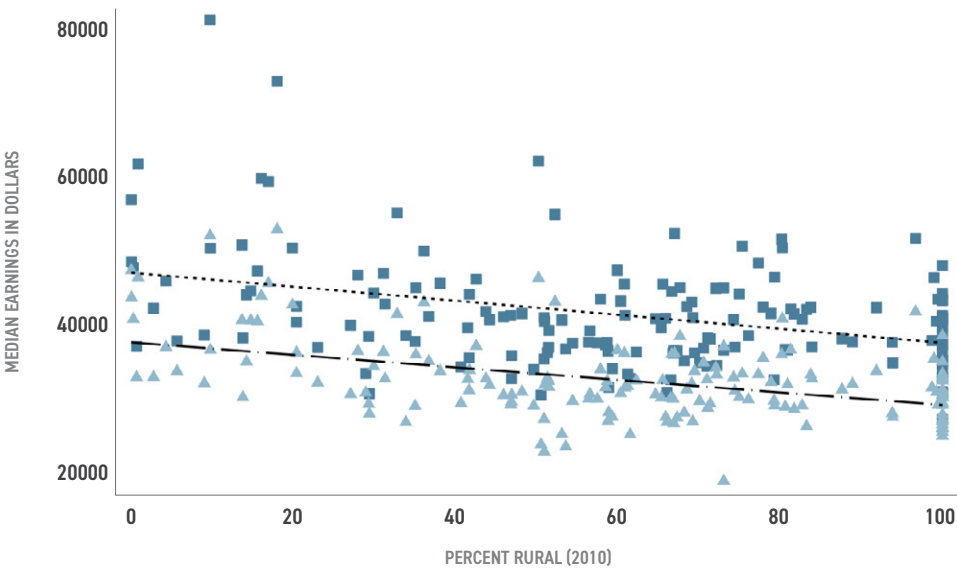
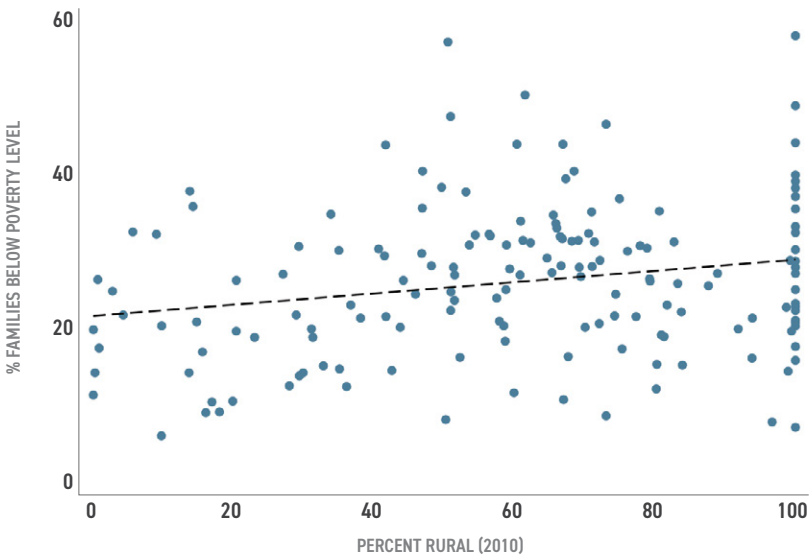


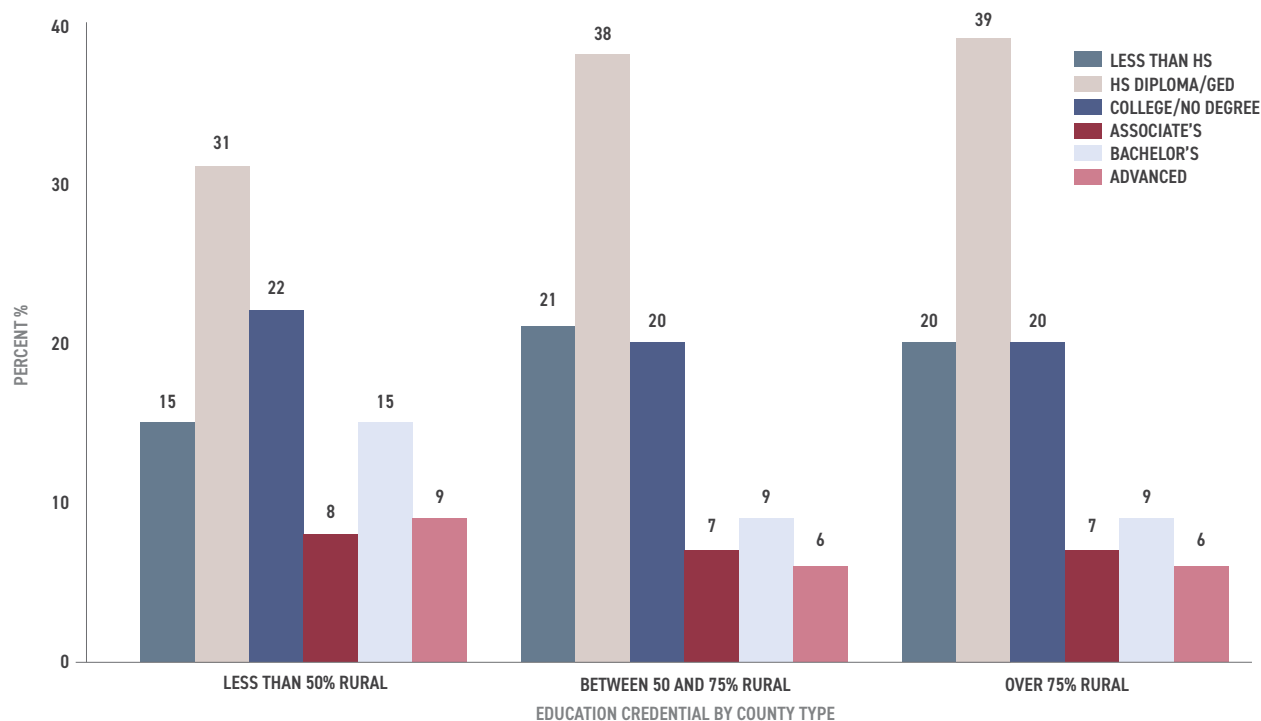
FIGURE 8. Percentage of families with children under 18 living below the poverty level by county percent rural, in Georgia

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates



In addition, educational attainment is lower in Georgia's rural areas compared to less-rural areas (Figures 9 and 10). The proportion of the state's rural adults with a high school diploma is relatively low (83 percent compared to 87 percent in urban areas), as is the proportion with a four-year college degree (about 20 percent compared to 35 percent in urban areas).⁴⁵ The percentage of adults with associate's degrees, however, is quite similar, regardless of the county's rurality.⁴⁶

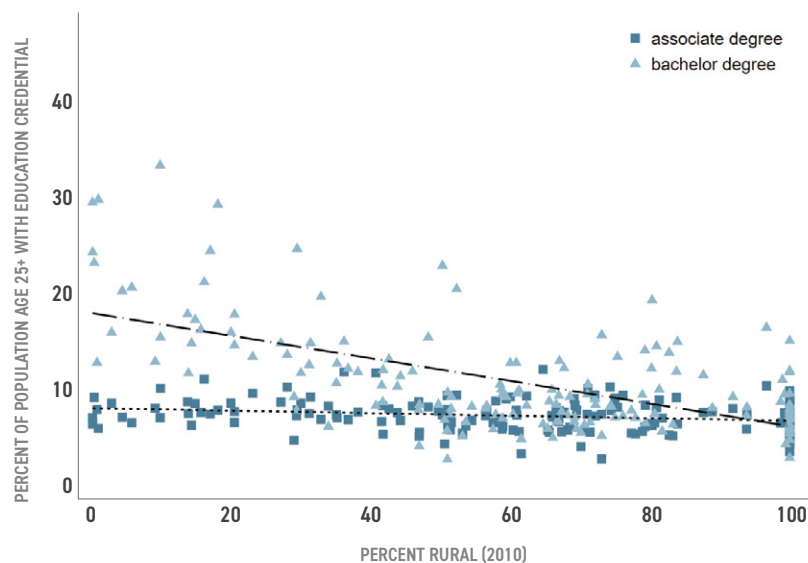
FIGURE 9. Percentage of population age 25+ with education credential by county percent rural, in Georgia



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

FIGURE 10. Percentage of population age 25+ with associate's and bachelor's degrees by county percent rural, in Georgia

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates



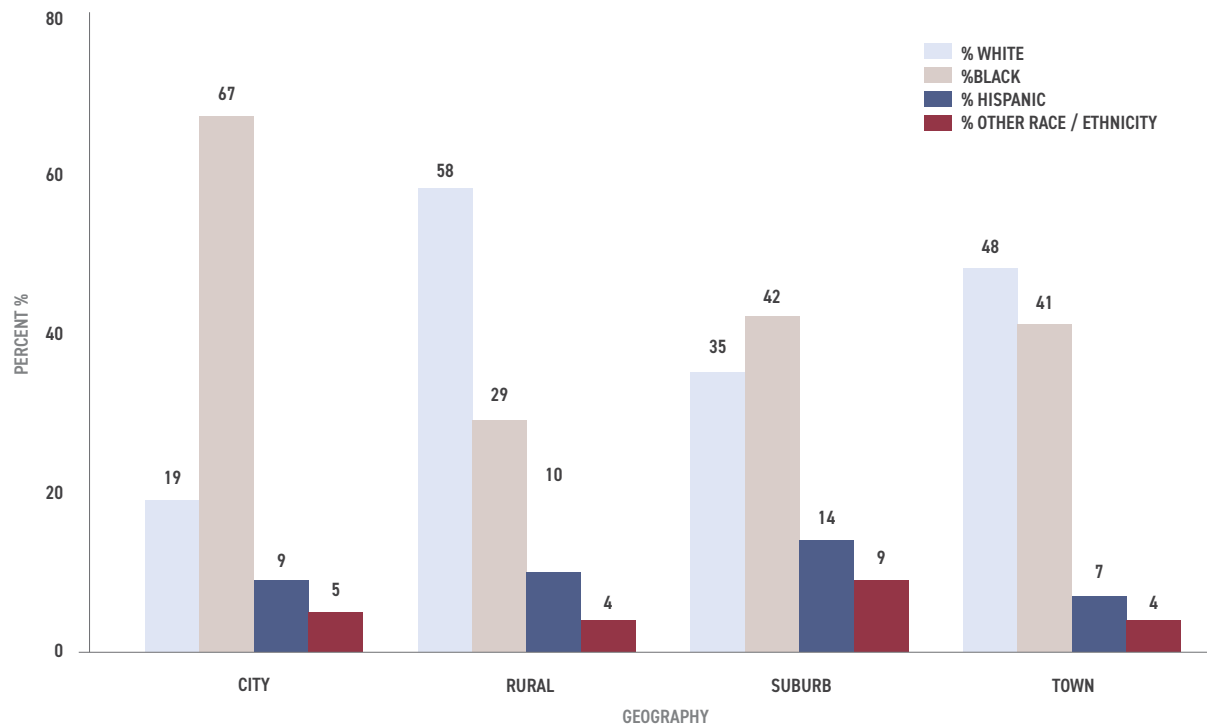
⁴⁵ U.S. Census Bureau, "2017 ACS 1-year Estimates," American Community Survey, June 7, 2019.

⁴⁶ The numbers from the *American Community Survey's* 2017 one-year estimate cannot be precisely mapped to the numbers in Figure 9 because of differences in the data source (Figure 9 uses the five-year ACS estimates instead of one-year estimates) and differences in how 'rural' is categorized.

Compared to rural student enrollment trends nationally, a relatively high proportion of students enrolled in Georgia’s rural districts identify as minority (36 percent compared to 25 percent nationwide).⁴⁷ Georgia’s rural students are also more likely to be low income than rural students nationally: the proportion of students in rural districts who are eligible for free or reduced-priced lunch is among the highest in the country (65 percent compared to about 48 percent nationally).

Compared to other locales within the state, Georgia’s rural high schools serve a relatively high proportion of white students (58 percent) and fewer black students (29 percent). As seen in Figure 11, however, suburbs and towns have about the same percentages of white and black students. In cities, the majority of students are black and in rural schools, the majority are white.

FIGURE 11. Student demographics by locale, in Georgia

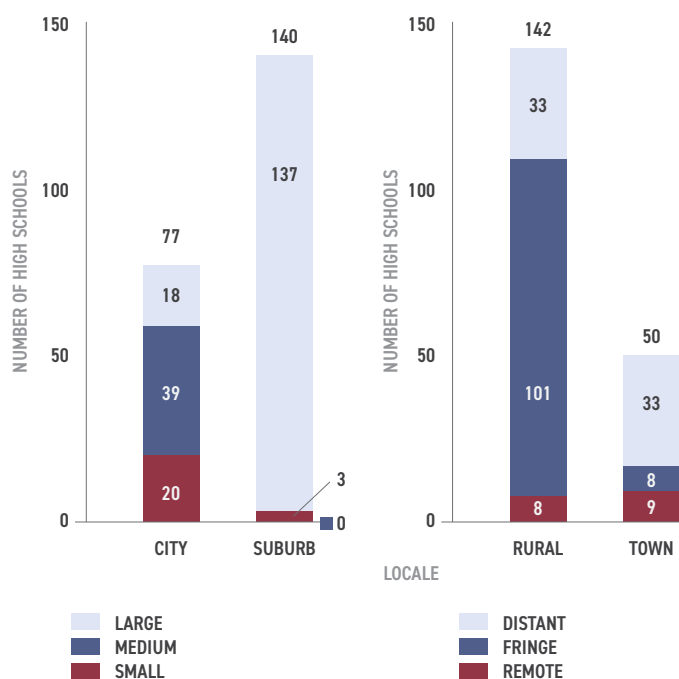


Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

⁴⁷ Showalter et al.

As seen in Figure 12, there are more high schools in rural Georgia than in any other locale. The vast majority are split in location between large suburbs and rural fringe areas.

FIGURE 12. Number of high schools by locale in Georgia **GEORGIA**



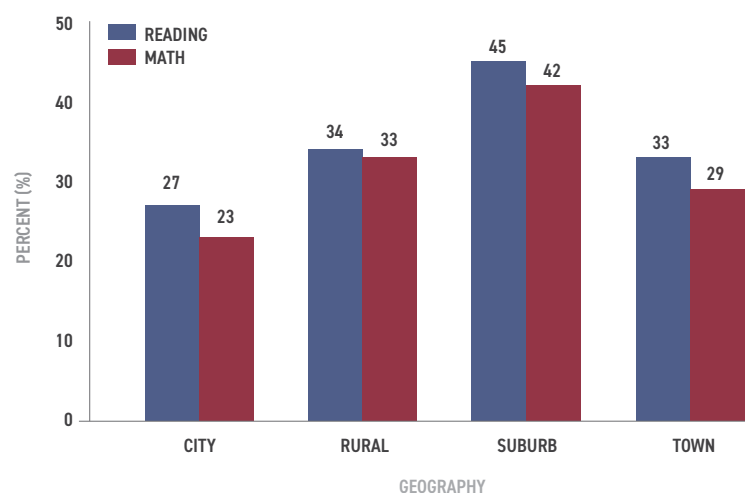
Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

COLLEGE READINESS AND POSTSECONDARY ACCESS

On reading and math assessments, rural high schools have higher proportions of students who score proficient relative to city high schools, but these rates are lower than the percent proficient in suburban high schools (Figure 13).⁴⁸

Student enrollment in advanced courses and student achievement varies by locale. Rural high schools have an average Advanced Placement (AP) enrollment rate of about 16 percent, which is significantly lower than the average of 28 percent enrollment in suburban schools, but is similar to schools in towns and cities (Figure 14).

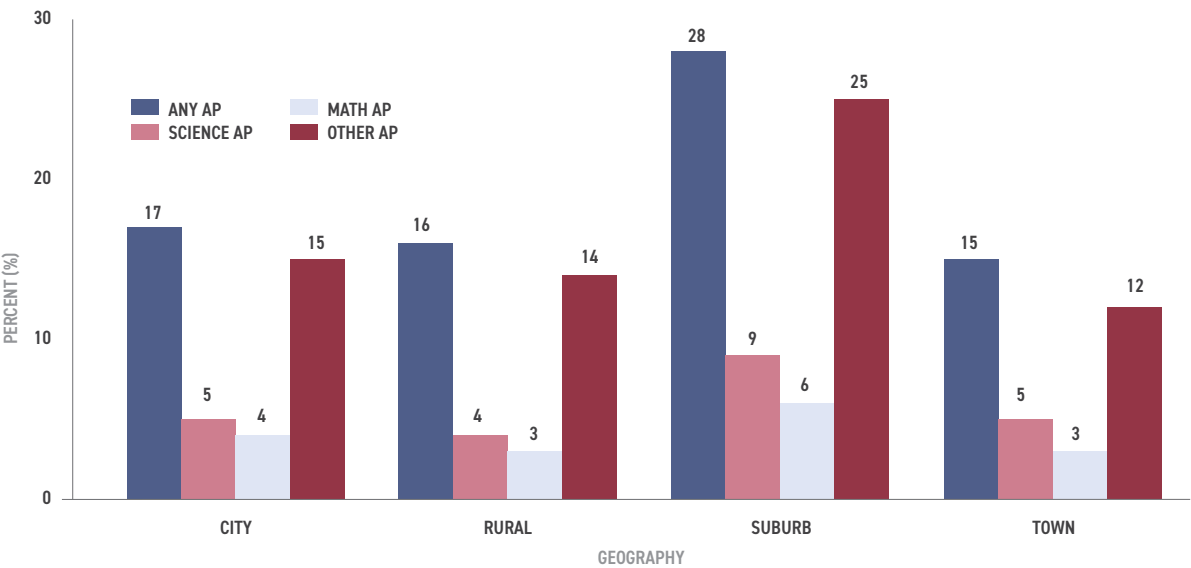
FIGURE 13. Average midpoint of range used to report the share of students scoring proficient by locale, in Georgia



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

⁴⁸ Due to data confidentiality, EDFacts (one of the datasets included in the Education Data Portal) might report a range instead of the exact percentages of students scoring proficient on state assessments. For example, if 72 percent of students score proficient but there are not many students taking the test, EDFacts might report that 60 to 79 percent of students scored proficient. Urban Institute reports this as a low of 60 percent, midpoint of 70 percent, and high of 79 percent. We used the midpoint.

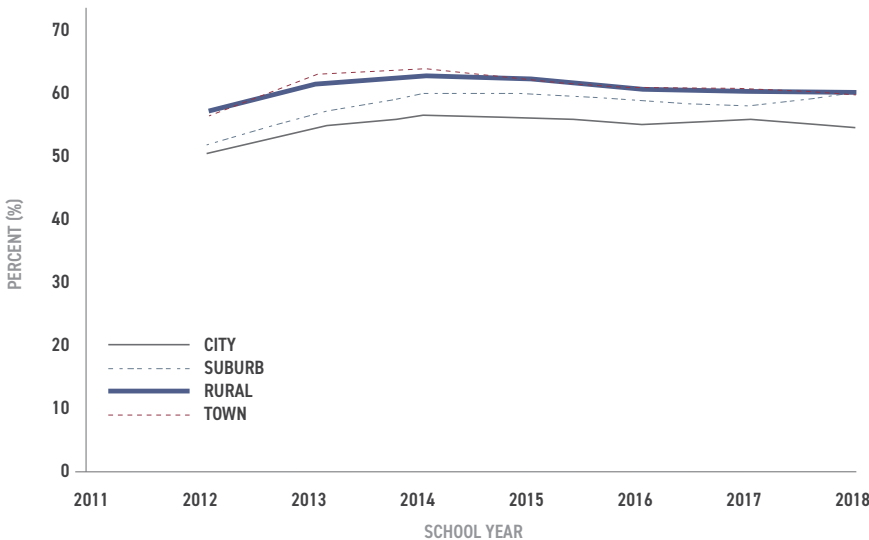
FIGURE 14. Percentage of students enrolled in AP classes by locale, in Georgia



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

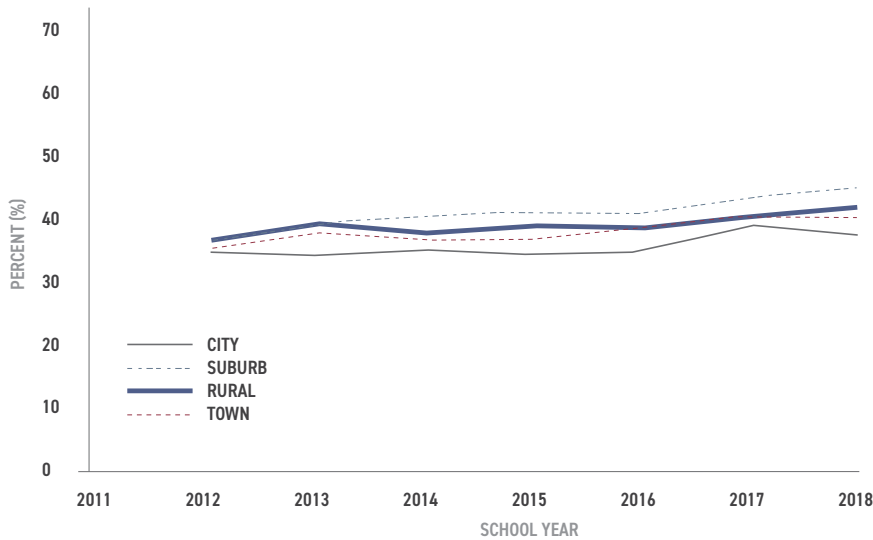
Despite these differences, students from rural high schools in Georgia enroll in postsecondary programs at rates on par with or exceeding enrollment among students from other locales. For the most recent class with data available (2014 high school graduates), rural high schools sent an average of 59 percent of their graduates to postsecondary options within 16 months of graduation (Figure 15). This is significantly higher than the average postsecondary enrollment rate for high schools in cities (54 percent) and similar to the enrollment rate for high schools in suburbs and towns. This means that, while AP scores might be useful for gaining entrance to some selective schools and are often considered an indicator of college readiness and interest, college enrollment by students from rural Georgia does not appear to be significantly hampered by the lack of AP availability.

FIGURE 15. Percentage of high school graduates (class of 2014) who enrolled in postsecondary opportunities within 16 months of graduation, in Georgia



Data Source: Georgia Governor's Office of Student Achievement

FIGURE 16. Percentage of high school graduates (class of 2014) who completed at least one year of credits within two years of enrollment, in Georgia



Data Source: Georgia Governor's Office of Student Achievement

Rates of postsecondary enrollment did not vary dramatically based on whether the high school locale is rural fringe (60 percent), rural distant (56 percent) or rural remote (63 percent).

Postsecondary persistence refers to the rate at which students remain enrolled and earn credits over time. Georgia reports on the number of students who have earned one year of college credits within two years of enrollment, which reveals that graduates of rural high schools persist at comparable rates to graduates from high schools in other types of locales. Among the 2014 high school graduates, on average, rural high schools had about 40 percent of their graduates complete one year of postsecondary credits within two years of enrollment (Figure 16). The persistence rate of suburban high schools is slightly higher (44 percent), but not dramatically so.

As with enrollment, persistence does not vary significantly across type of rural area. High schools in rural fringe areas had a 41 percent persistence rate, rural distant high schools had a 39 percent persistence rate and rural remote areas had a 45 percent persistence rate.

Unfortunately, Georgia does not currently report postsecondary completion data publicly.

How is Georgia accomplishing these encouraging rural enrollment and persistence figures? It was early among states to offer a comprehensive scholarship program called the HOPE Scholarship, which has awarded over \$10 billion to more than 1.8 million students since its inception in 1993. The state now supports six scholarship and grant programs with state lottery funds. Advocates have cited the HOPE program's tendency to disproportionately support middle- and upper-income students and called on the state to add more need-based assistance.⁴⁹ It is possible that the HOPE scholarship plays a role in leveling the playing field. Because of the HOPE program's longevity, rural students in Georgia may be more aware of financial aid for colleges relative to rural students in other states.

In addition, Georgia increased the weight for Career and Technical Education (CTE) students in the state-funding formula to better support quality, and increase the scale of CTE programs.⁵⁰

In the broader social context of the state, Georgia has moved up in state rankings for child well-being, from 49th in 1990 to 38th in 2019. The factors that contribute to these rankings fall into four domains: (1) Economic Well-Being; (2) Education; (3) Health and; (4) Family and Community. Factors of interest for Georgia specifically include rates of teen birth, which declined from 54 per 1,000 in 2006 to 22 per 1,000 in 2017 (still slightly higher than the national average of 19 per 1,000), and the rate of teenage substance abuse, which is below the national average.⁵¹

⁴⁹ Kelly Robson et al., "Education in the American South: Historical Context, Current State, and Future Possibilities," Bellwether Education Partners, May 22, 2019, p. S 110.

⁵⁰ Ibid.

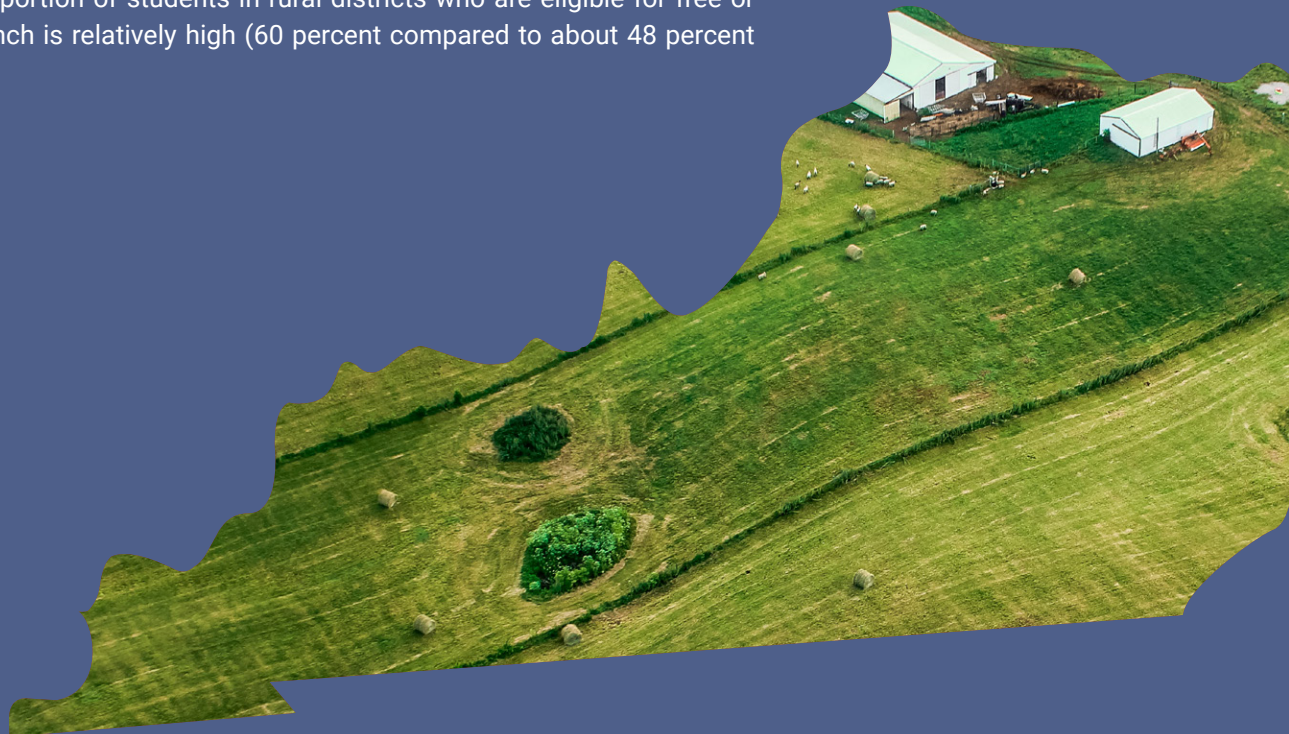
⁵¹ The Annie E. Casey Foundation, *2019 KIDS COUNT Data Book: State Trends in Child Well-Being*, 2019.

KENTUCKY

GEOGRAPHY AND DEMOGRAPHICS

Kentucky is located in the East South Central division, and has a population of about 4 million. Among our focus states, Kentucky has the highest proportion of its population in rural areas at about 42 percent. The state is approximately 85 percent white, 8 percent Black and 3 percent Hispanic or Latino.⁵²

Kentucky's rural areas are disproportionately white compared with national averages.⁵³ Rural districts in the state serve fewer minority students and English-language learners as a share of the total school population, relative to national averages. The proportion of students in rural districts who are eligible for free or reduced-priced lunch is relatively high (60 percent compared to about 48 percent nationally).

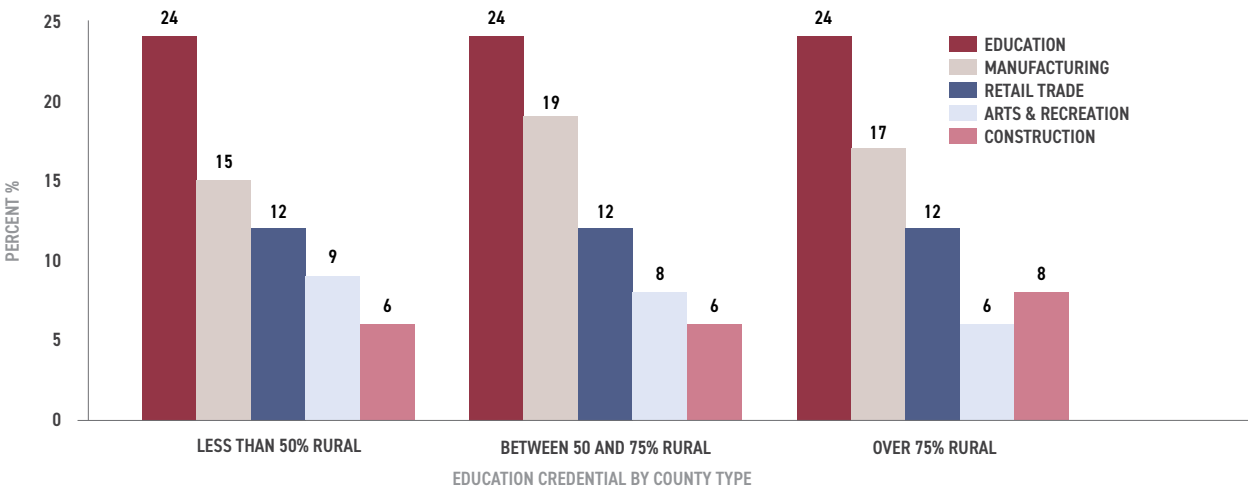


⁵² "Rural America."

⁵³ Showalter et al.

The state struggles on indicators of economic strength and social well-being, and differences in types of employment across locales may make rural areas especially vulnerable. As seen in Figure 17 (below), employment in the education and retail trade industries is consistent across locales, but the proportion employed in manufacturing was higher in counties with more than 50 percent of the population in rural areas relative to less-rural counties.

FIGURE 17. Percentage of civilian population age 16+ employed in each industry, by county percent rural, in Kentucky



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

Just as is the case with Georgia, because the manufacturing sector is most vulnerable to automation, it is possible that economic strength and social well-being in rural Kentucky could decline. The most-rural counties had slightly higher proportions of workers employed in construction and lower proportions of arts and recreation employment relative to less-rural areas.

While the national average annual growth rate in real gross domestic product (GDP) between 2011 and 2016 was 2.0 percent, Kentucky’s growth rate was just 0.7 percent. Rural counties had lower per capita income (Figure 18), lower median earnings for full-time, year-round workers (Figure 19) and higher proportions of families living below the poverty line (Figure 20).

Births to teenagers in Kentucky exceeded the national average (29 per thousand compared to 19 per thousand);⁵⁴ and the age-adjusted mortality rate due to drug overdoses is among the highest in the nation.⁵⁵

⁵⁴ The Annie E. Casey Foundation.

⁵⁵ National Center for Health Statistics, “Drug Overdose Mortality by State,” 2019.

FIGURE 18. Per capita income by county percent rural, in Kentucky

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

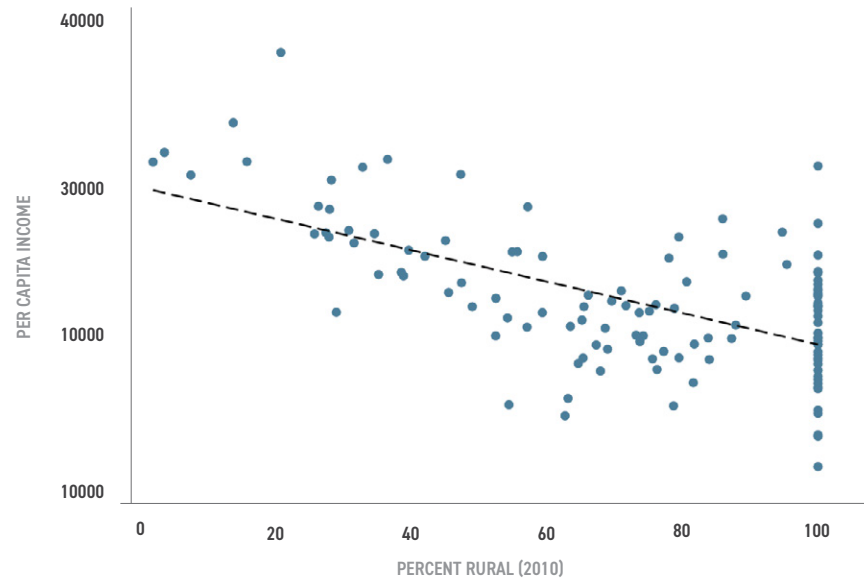


FIGURE 19. Median earnings for full-time, year-round workers by county percent rural, in Kentucky

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

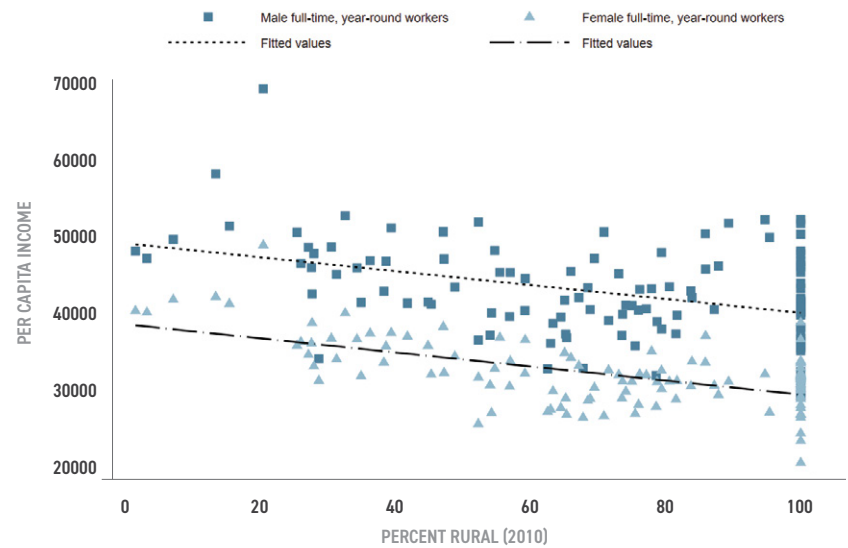
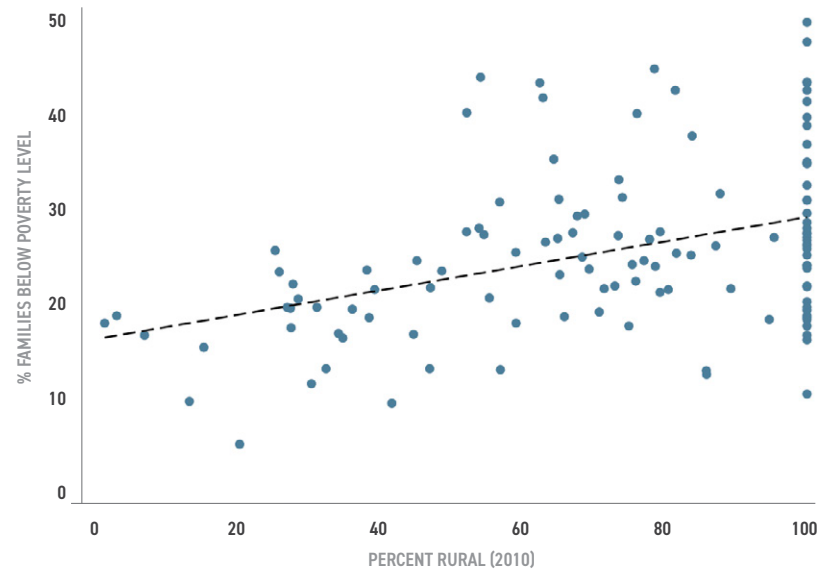


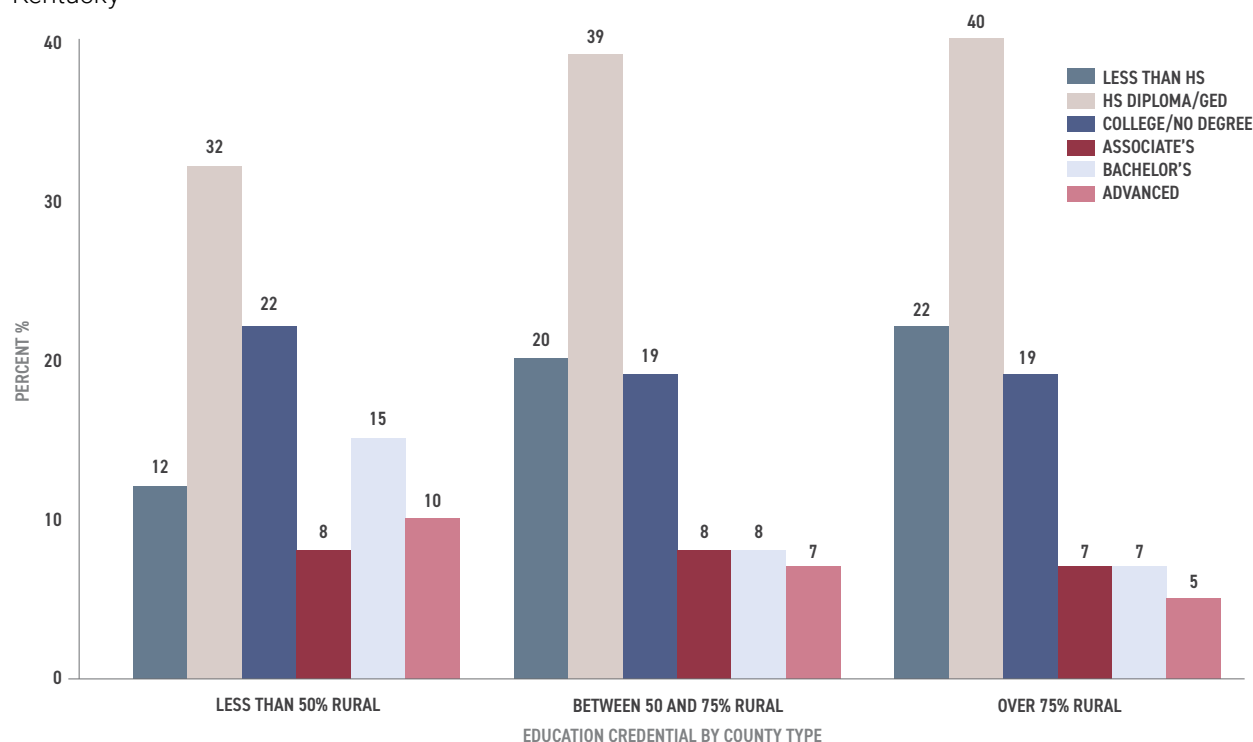
FIGURE 20. Percentage of families with children under 18 living below the poverty level by county percent rural, in Kentucky

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates



The proportion of adults in rural areas with a high school diploma is relatively low (82 percent compared to 88 percent in Kentucky's urban areas), as is the proportion with college degrees (about 17 percent compared to 29 percent in urban areas). Figure 21 displays degrees attained by county proportion rural; in counties where less than half the population is rural, 56 percent of adults have some college or higher, while in the counties where most of the population is rural, just 38 percent do.

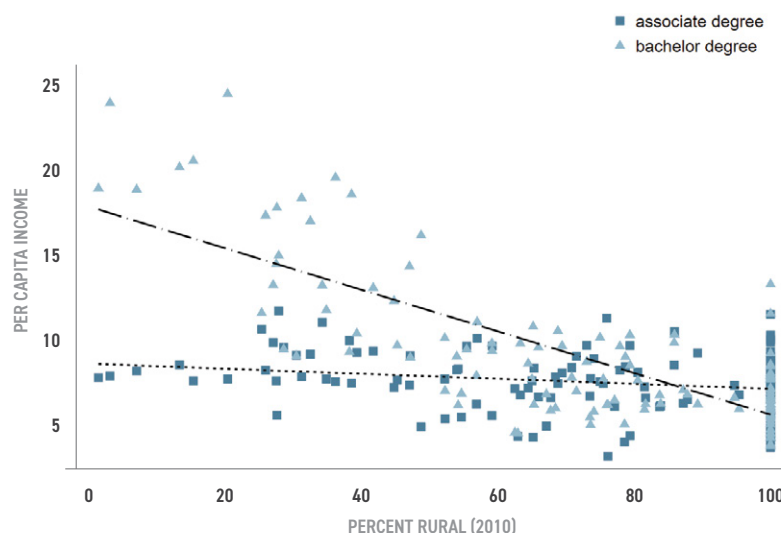
FIGURE 21. Percentage of population age 25+ with education credential by county percent rural, in Kentucky



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

Figure 22 shows little difference in the proportion of adults with associate's degrees by locale, but adults in more-rural counties are less likely to hold a bachelor's degree relative to their more-urban counterparts.

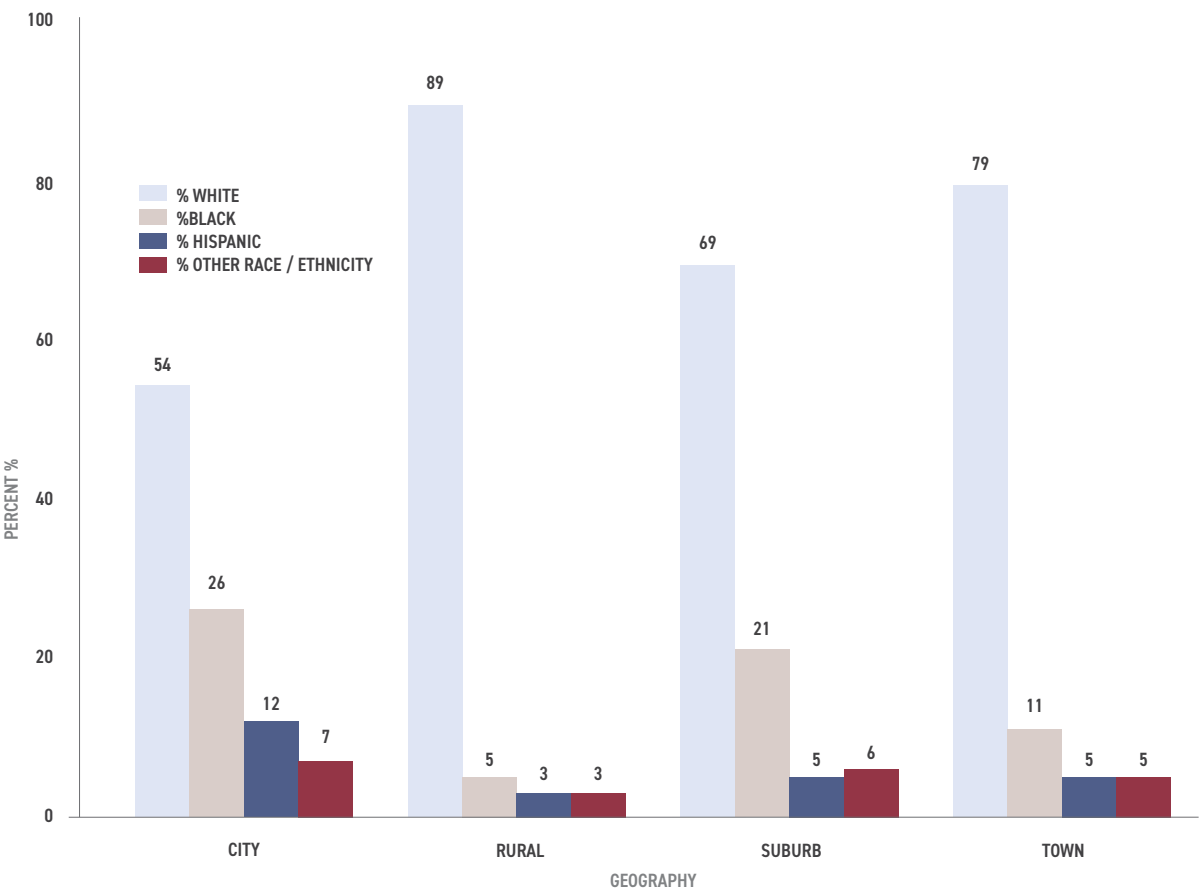
FIGURE 22. Percentage of population age 25+ with associate's and bachelor's degrees by county percent rural, in Kentucky



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

Demographically, schools in rural areas serve a higher proportion of white students (89 percent) relative to other locales, as seen in Figure 23 (below). **KENTUCKY**

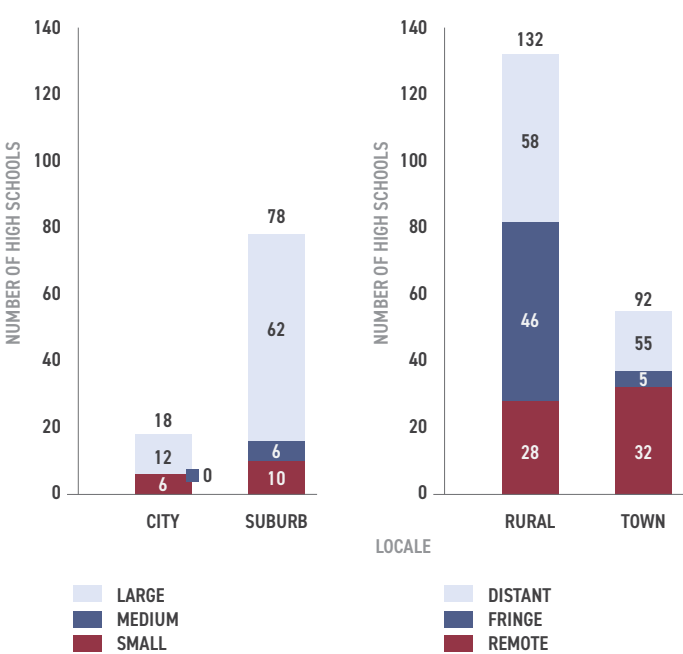
FIGURE 23. Student demographics by locale, in Kentucky



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

Of Kentucky’s 320 high schools, more are in rural areas than in other locales, and nearly a fifth are in remote areas (Figure 24).

FIGURE 24. Number of high schools by locale, in Kentucky

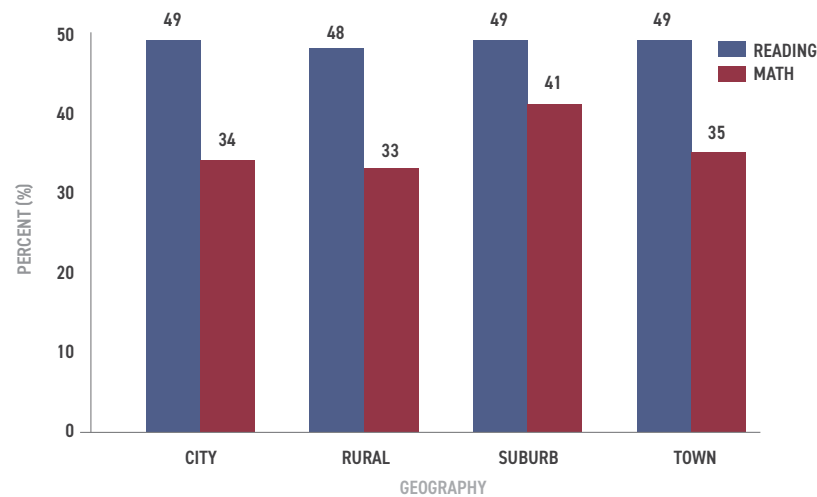


Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

COLLEGE READINESS AND POSTSECONDARY ACCESS

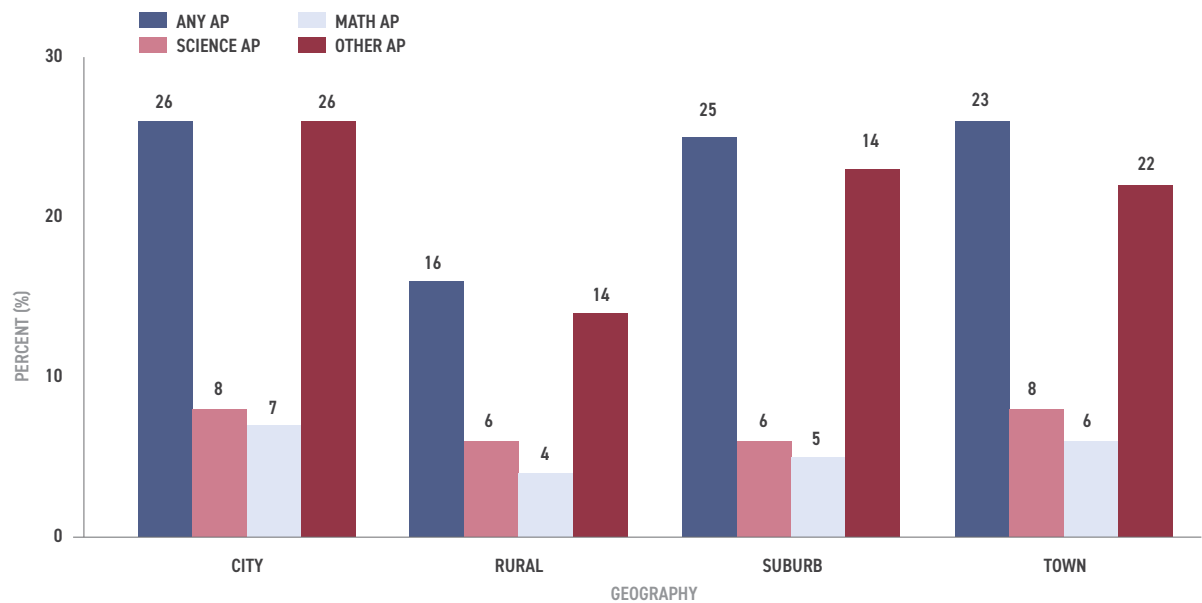
Kentucky’s rural students perform similarly to other locales in reading, and only suburban high schools outperform rural high schools in math (Figure 25). However, educational opportunity may vary across locales. For example, Figure 26 (below) shows that a considerably lower proportion of students enroll in AP classes in rural high schools (16 percent overall) relative to other locales (25 to 26 percent). Despite not taking APs in large numbers relative to other locales, the average math and reading scores of rural students in Kentucky are comparable to those of other localities.

FIGURE 25. Average midpoint of range used to report the share of students scoring proficient by locale, in Kentucky



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

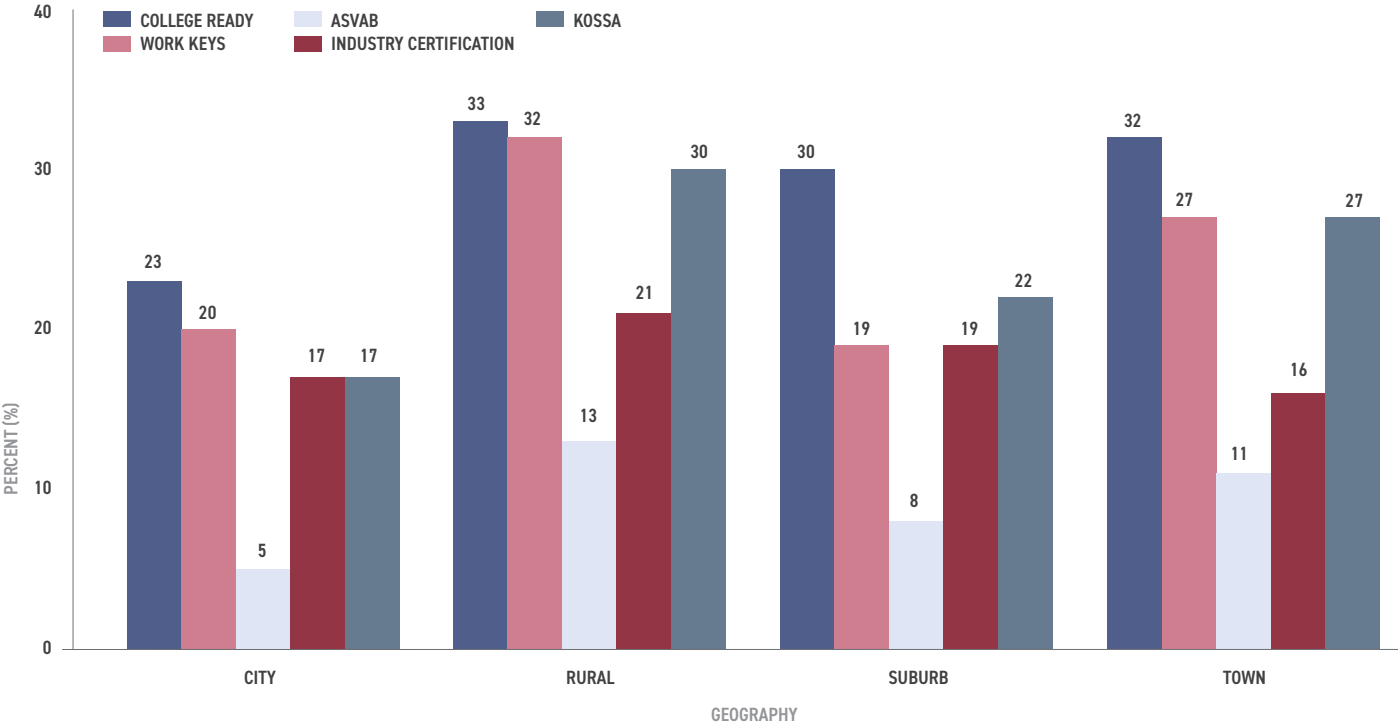
FIGURE 26. Percentage of students enrolled in AP classes by locale, in Kentucky



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

Kentucky reports college and career readiness across a battery of different assessment instruments. In rural high schools in Kentucky, about a third of school year 2016-2017 seniors demonstrated college readiness and another third demonstrated career readiness via the Work Keys, a system of assessments that measure essential workplace skills (Figure 27). About 13 percent met career readiness standards through the Armed Services Vocational Aptitude Battery, 21 percent through industry certification and 31 percent through the Kentucky Occupational Skill Standards Assessment (KOSSA). Rates in rural areas appear to be similar to or higher than rates in cities, suburbs and towns.

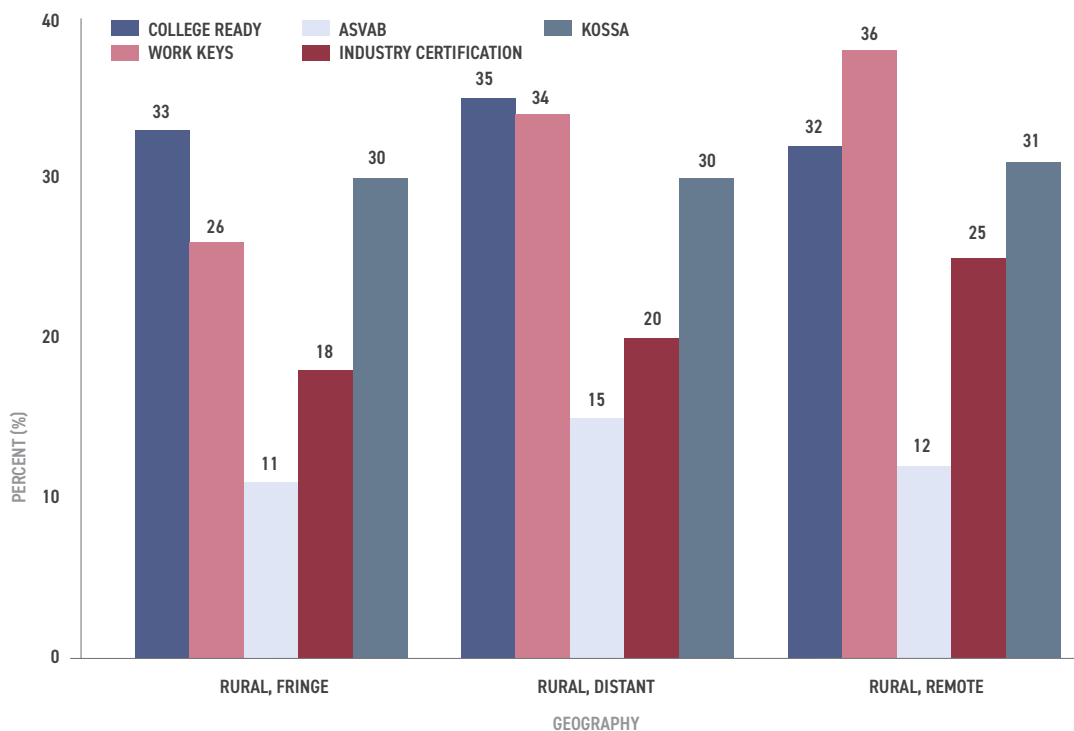
FIGURE 27. Average percentage of seniors (school year 2016-2017) meeting college or career readiness criteria, by locale



Data Source: Kentucky Department of Education KOSSA=KY Occupational Skill Standards Assessment

Looking within different types of rural communities in Kentucky, schools in rural-distant communities have the highest proportion of college-ready students (35 percent), as seen in Figure 28 (below). Rural-remote high schools have the highest proportions of students meeting career readiness through Work Keys (about 38 percent versus 34 percent in rural-distant and 26 percent in rural-fringe communities) and industry certification (25 percent versus 20 percent in rural-distant and 18 percent in rural-fringe communities). The three types of rural communities have similar rates of career readiness demonstrated through the Kentucky Occupational Skill Standards Assessment.

FIGURE 28. Average percentage of seniors (school year 2016-2017) meeting college or career ready criteria, by subtypes of rural locale



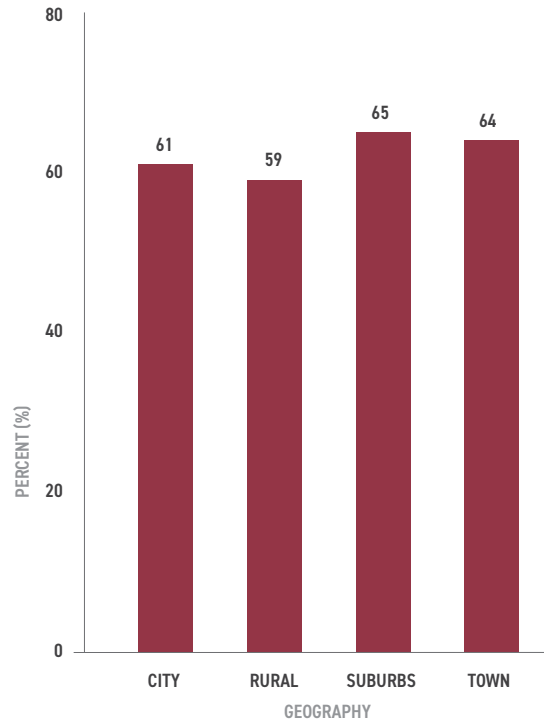
Data Source: Kentucky Department of Education
KOSSA=KY Occupational Skill Standards Assessment

Note that in Kentucky, Senate Bill 1 (2017) mandates that grade 10 and 11 students take a college admissions examination. However, grade 10 participation in the state-required college admissions examination has been contingent on available funds, and the Kentucky Department of Education (KDE) did not secure the additional funding needed to test sophomores during spring 2020. KDE will continue to seek funding for future years' testing in order to comply with Senate Bill 1.⁵⁶

⁵⁶ Office of Standards, Assessment and Accountability, "The ACT," Kentucky Dept. of Education, Jan. 13, 2020.

For the 224 schools for which we have data in Kentucky, students from rural high schools appear to matriculate in college at a lower rate (59 percent) than their counterparts from suburban areas (65 percent) and towns (64 percent), as seen in Figure 29.

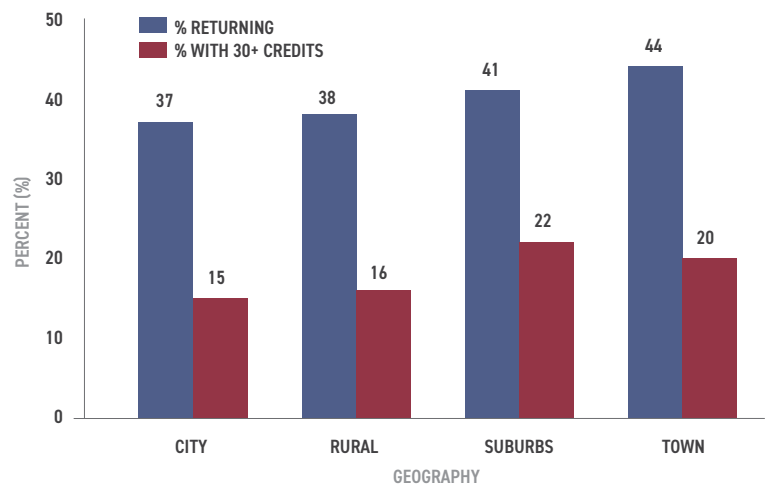
FIGURE 29. Percentage of high school graduates (class of 2014) attending college in academic year 2014-2015



Data Source: Kentucky Center for Statistic

In Figure 30, we observe similar patterns for persistence. Rural students return at a rate of about 38 percent, less than the 40 or more percent in suburbs and towns, and only 16 percent of rural students earned 30 or more credits, as opposed to 20 percent or more in suburbs and towns.

FIGURE 30. Percentage of high school graduates (class of 2014) returning in academic year 2015-2016 and earning 30 or more credit hours, in Kentucky



Data Source: Kentucky Center for Statistic

The opioid crisis has hit rural parts of Kentucky especially hard and as of 2017, about a quarter of children in foster care had entered because of a parent's drug abuse.⁵⁷ Initiatives to address the challenges created by the opioid crisis include the Kentucky Sobriety Treatment and Recovery Team Program, an intervention model that integrates addiction services, family preservation, community partnerships, and best practices in child welfare and substance abuse treatment, as well as the State Youth Treatment-Implementation Expansion and State Adolescent Treatment Enhancement and Dissemination (SAT-ED) grants, which support evidence-based screening, assessment and treatment of youth with substance-use challenges.

Employment challenges in rural Kentucky have spillover effects for schools and students. Declining coal jobs and production have created challenges for Kentucky communities.⁵⁸ Employment declines result in a significant decrease in property assessments, which results in fewer tax dollars for school districts. Tax collections for school districts have declined more than 20 percent in four Kentucky counties. Many counties are also losing students, and therefore more funding under the state's school-finance formula, as families leave coal mining communities to search for work.

In response to this lack of work opportunities, Kentucky has focused investment and policy efforts on workforce preparedness in recent years. Work Ready Kentucky, for instance, provides last-dollar funding for Kentucky students enrolled in an approved program of study leading to an industry certificate or an associate's degree in a high-demand career. For 2018-2019, qualifying areas include healthcare, advanced manufacturing, transportation/ logistics, business services/IT and construction.⁵⁹ Other support for postsecondary opportunities includes a variety of financial incentives: the College Access Program grant, Kentucky Coal Counties College Completion Scholarship, Kentucky Minority Scholar, Kentucky National Guard, Kentucky Teach Award and Kentucky Tuition Grants. Kentucky also has a variety of career pathways for high school students, including accounting, animal science systems, cinematography and video production, computer science, finance, flight and aeronautics, and more.

⁵⁷ T. Klima et al., "The Opioid Epidemic and Kentucky Schools," Regional Educational Laboratory Appalachia at SRI International, (n.d.).

⁵⁸ See, e.g., Robson et al., p. S 109.

⁵⁹ Ibid.

MINNESOTA

GEOGRAPHY AND DEMOGRAPHICS

Minnesota has about 5 million people. The state is approximately 81 percent white, 6 percent Black and 5 percent Hispanic or Latino.⁶⁰ The proportion of the state population in rural areas (about 27 percent) is similar to the national average (26 percent).

Relative to national averages, Minnesota's rural districts serve a whiter and wealthier group of students. The proportion of students in Minnesota's rural districts who are classified in a racial minority group is lower than national averages (14 percent compared to 24 percent). Minnesota's rural districts also have smaller proportions of students eligible for free or reduced-price lunch (39 percent versus 48 percent nationally) and students learning English (1.5 percent versus 3.5 percent nationally).⁶¹



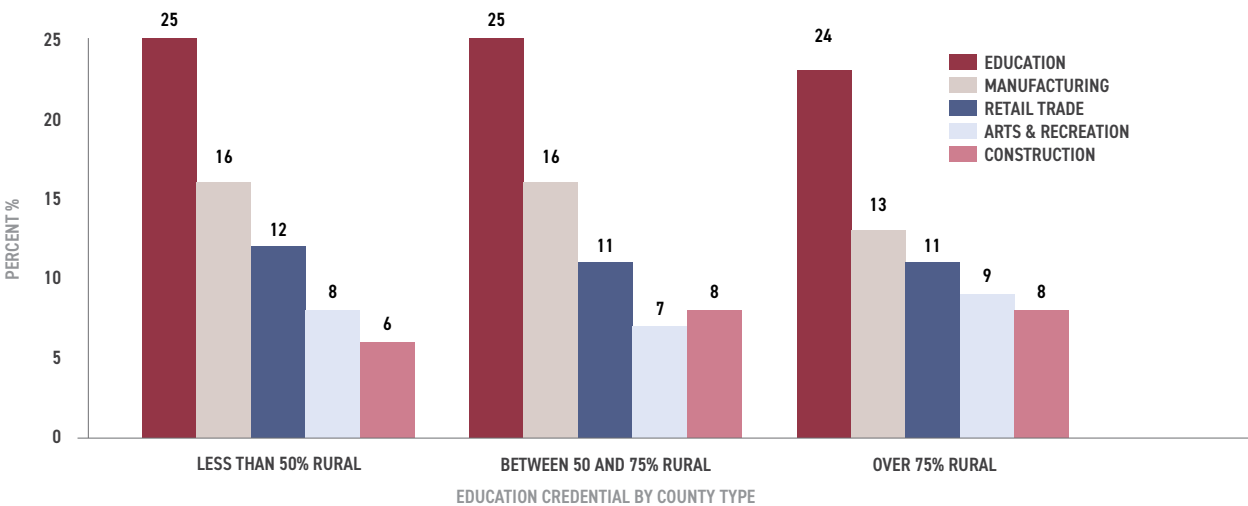
⁶⁰ "Rural America".

⁶¹ Showalter et al.

Unlike Kentucky or Georgia, Minnesota is one of the top-ranked states for child well-being.⁶² However, overall well-being conceals some differences across locale: for example, in Minnesota, children in rural areas are less likely to have health insurance compared to children in less-rural areas.

Minnesotans are employed in similar roles across the state. As seen in Figure 31 (below), differences in industry by locale are small. The most-rural counties appear to have a slightly smaller proportion employed in education (23 percent versus 25 percent in less-rural counties) and manufacturing (13 percent versus 16 percent). The proportion in construction is slightly higher in counties with over half of the population in rural areas (8 percent versus 6 percent).

FIGURE 31. Percentage of civilian population age 16+ employed in each industry, by county percent rural, in Minnesota



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

In spite of employment in similar industries across locales, counties with greater proportions of the population in rural areas had lower per capita income (Figure 32), lower median earnings for full-time, year-round workers (Figure 33) and higher proportions of families living below the poverty line relative to less-rural counties (Figure 34).

⁶²The Annie E. Casey Foundation.

FIGURE 32. Per capita income by county percent rural, in Minnesota

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

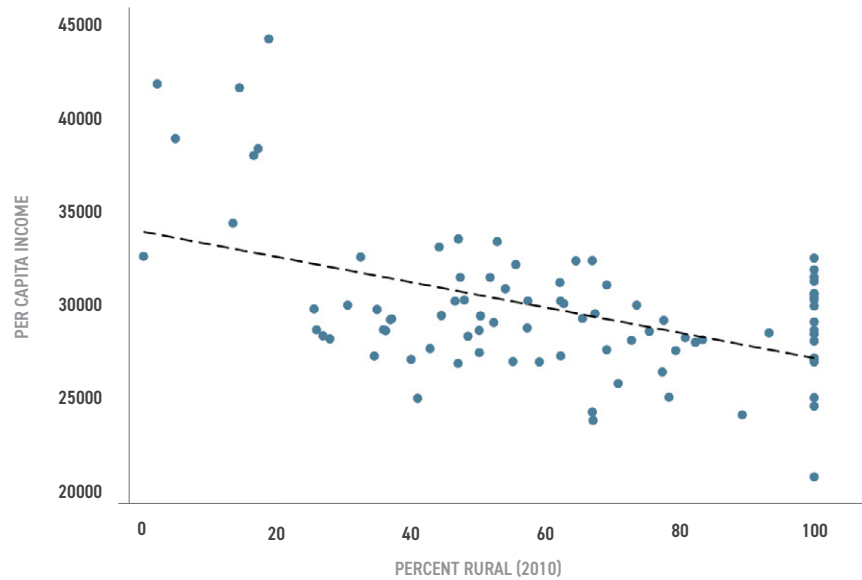


FIGURE 33. Median earnings for full-time, year-round workers by county percent rural, in Minnesota

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

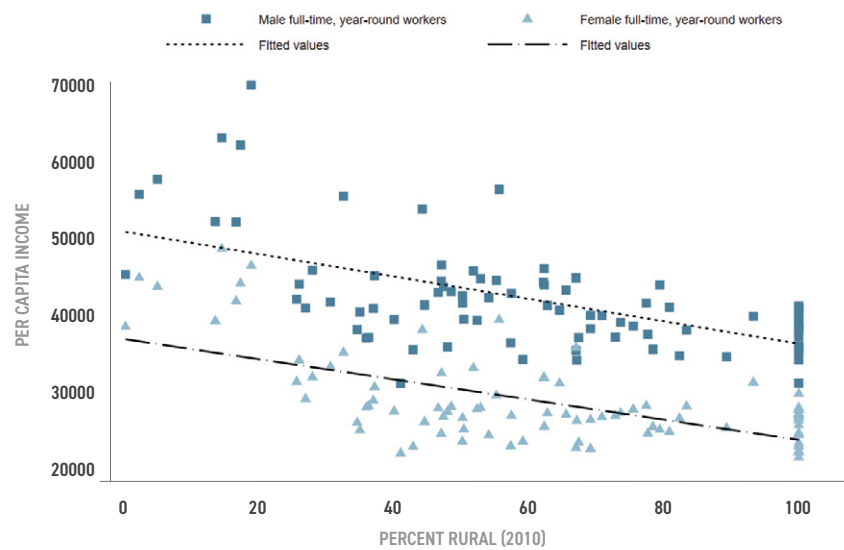


FIGURE 34. Percentage of families with children under 18 living below the poverty level by county percent rural, in Minnesota

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

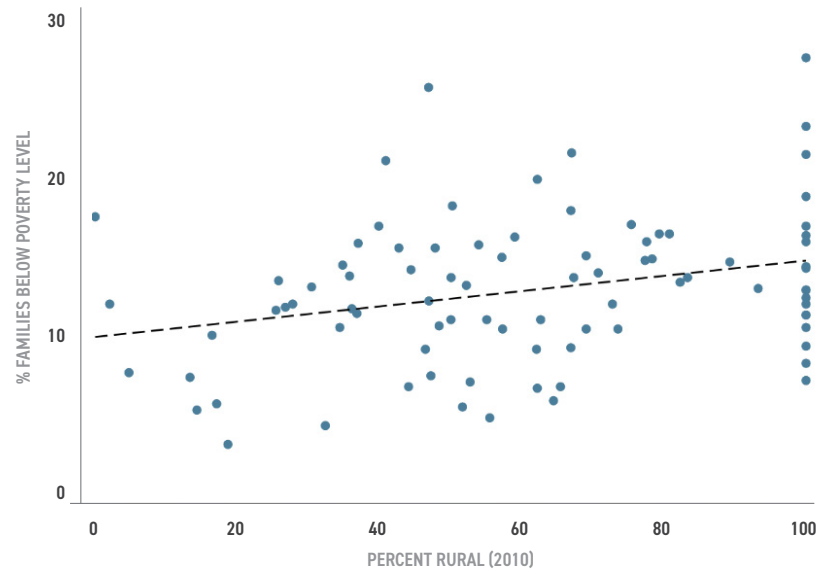
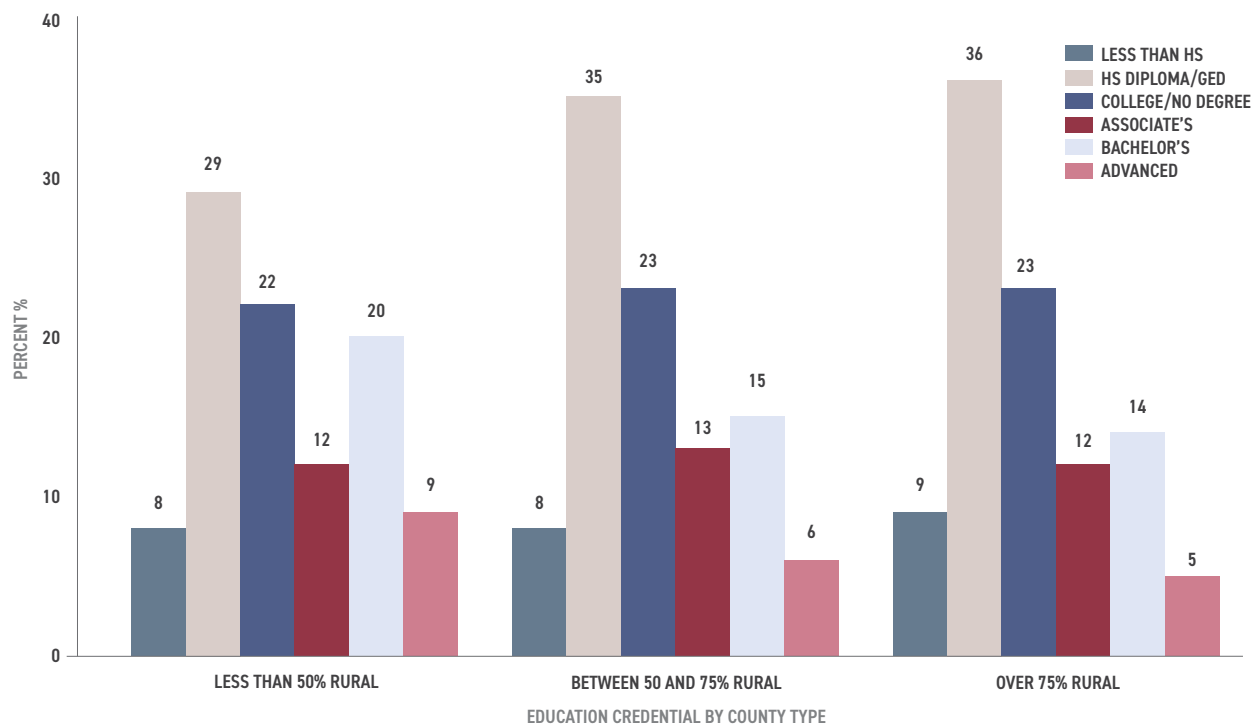


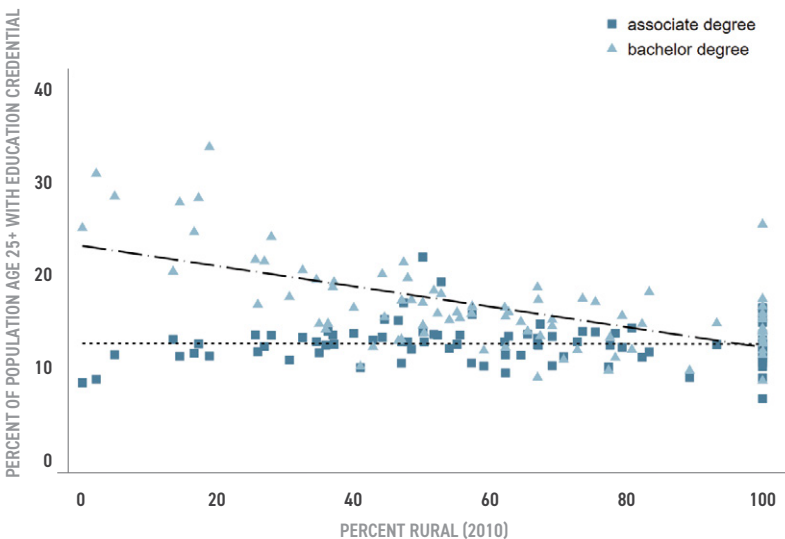
FIGURE 35. Percentage of population age 25+ with education credential by county percent rural, in Minnesota



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

In Minnesota, the proportion of adults with a high school degree is similar in rural and urban areas (about 93 percent). However, the proportion of adults with a college degree is much lower in rural areas (25 percent) relative to urban areas in the state (40 percent). Figure 35 (above) displays various levels of educational attainment by the proportion of county living in rural areas. In counties where less than half the population is rural, 20 percent of adults have bachelor's degrees, while in the most-rural counties, that proportion drops to just 14 percent. Figure 36 (right) demonstrates that there is a relationship between the county percent rural and bachelor degree attainment, but the relationship between county percent rural and associate's degree attainment is small and positive (meaning adults in more-rural areas are more likely to have an associate's degree).

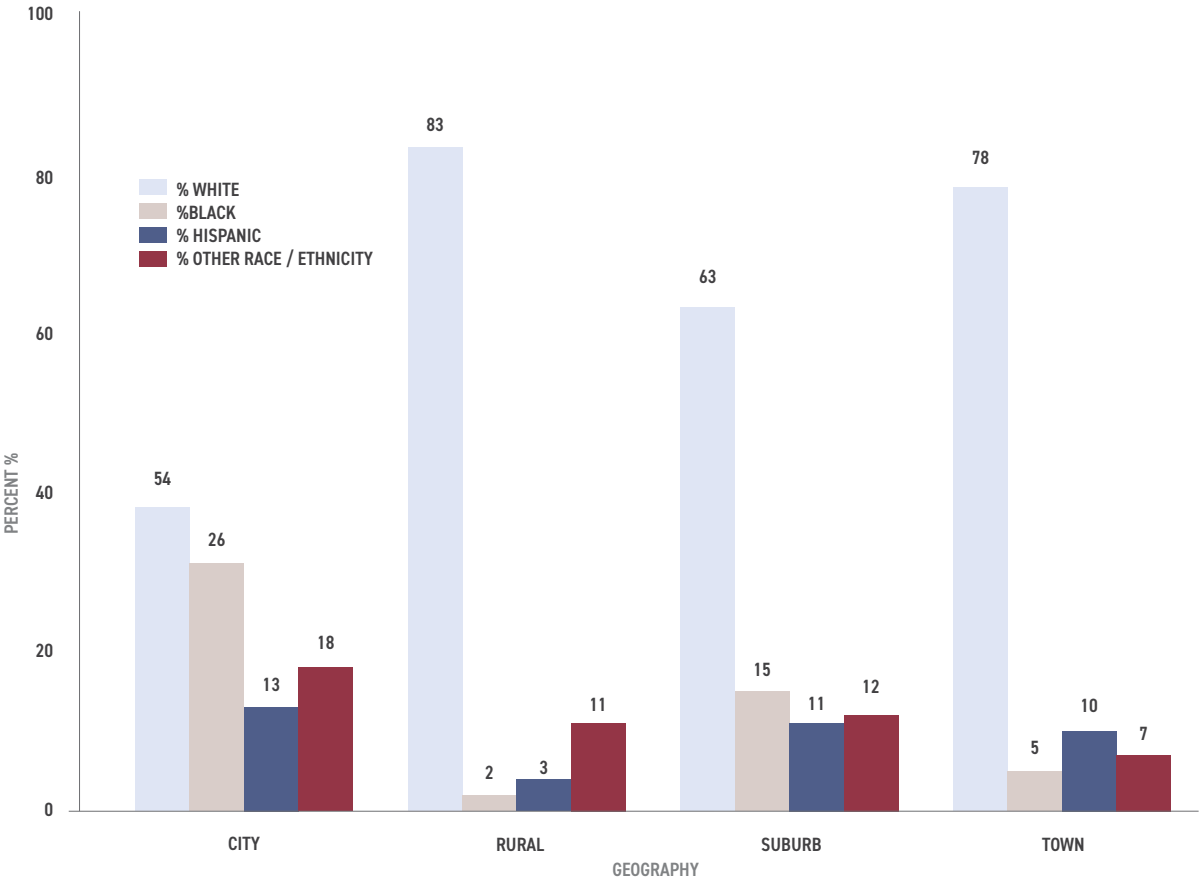
FIGURE 36. Percentage of population age 25+ with associate's and bachelor's degrees by county percent rural, in Minnesota



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

As seen in Figure 37 (below), rural high schools serve higher percentages of white students (83 percent) and lower percentages of Black (2 percent) and Hispanic (4 percent) students, relative to other locales.

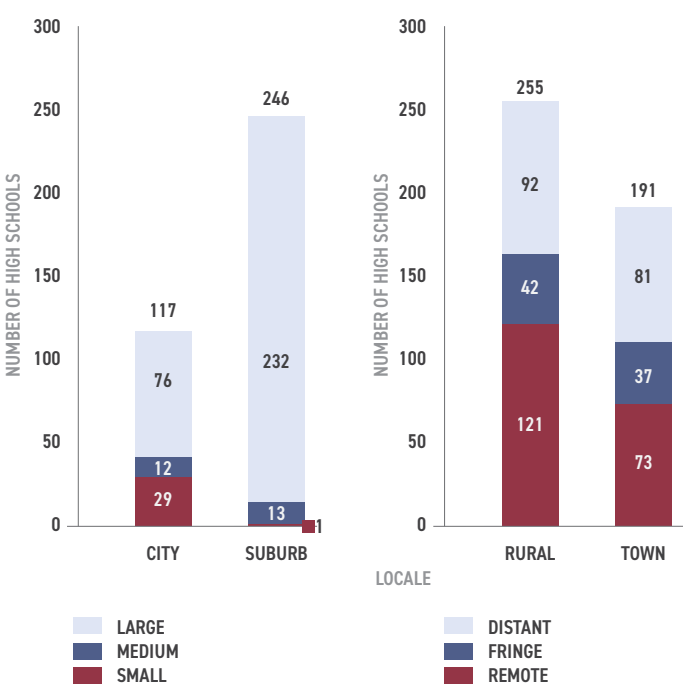
FIGURE 37. Student demographics by locale, in Minnesota



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

Most of Minnesota’s 809 high schools are located in a large suburb or a rural area, with a quarter located in remote locales (Figure 38).

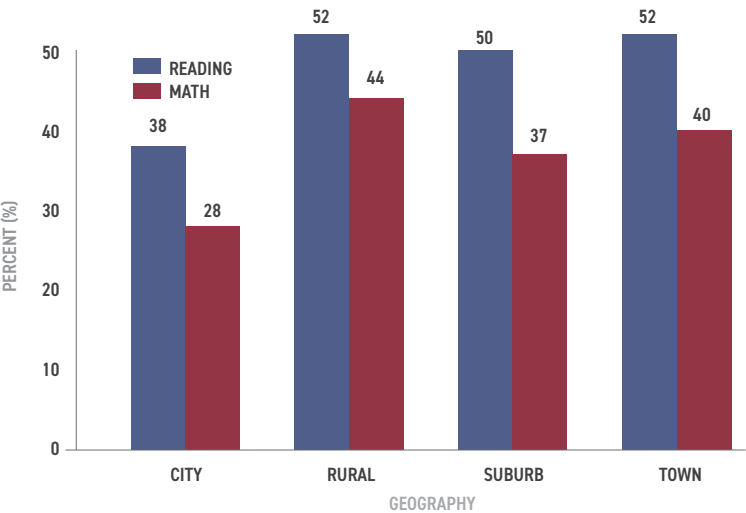
FIGURE 38. Number of high schools by locale in Minnesota



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

Minnesota’s rural high schools outperform both city and suburban high schools in reading and math, and they outperform towns in math (Figure 39). Regardless of an educational divide between urban and rural communities based on college-degree attainment, rural K-12 students seem to compete equally with their urban and suburban counterparts.

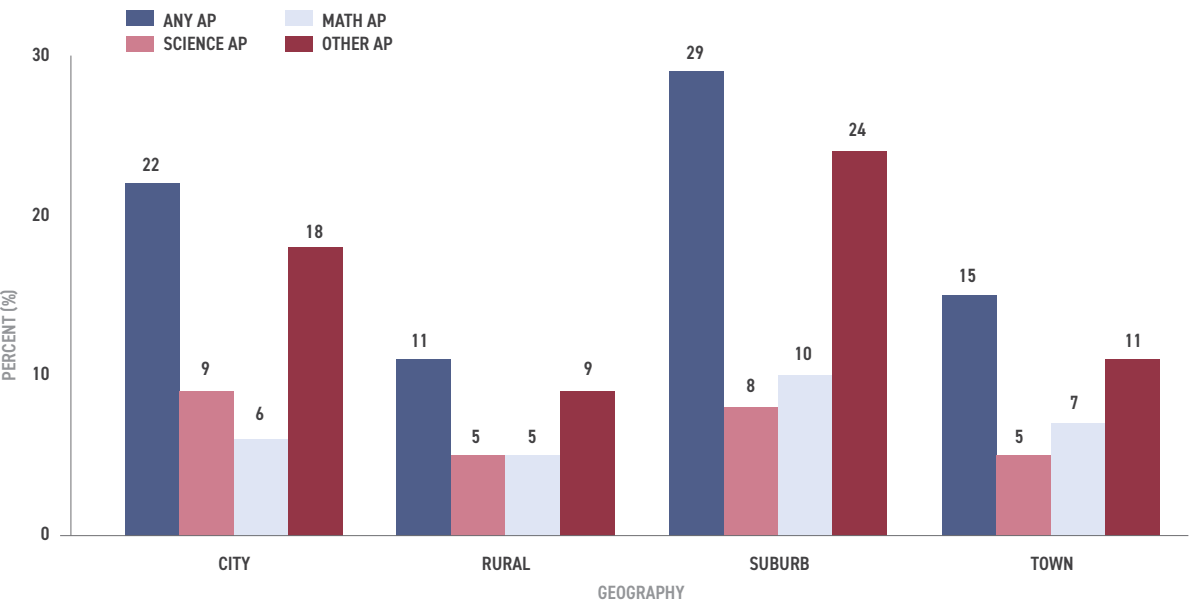
FIGURE 39. Average midpoint of range used to report the share of students scoring proficient by locale, in Minnesota



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

However, educational opportunities vary by locale. As seen in Figure 40 (below), a considerably lower proportion of students enroll in AP classes in rural high schools (11 percent overall), relative to other locales (15 to 29 percent).

FIGURE 40. Percentage of students enrolled in AP classes by locale, in Minnesota



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

Minnesota has a number of postsecondary enrollment pathways, including “Postsecondary Enrollment Options” (PSEO), a program that allows 10th-, 11th- and 12th-grade students to earn college credit while still in high school, through enrollment in and successful completion of college-level courses. These courses are generally offered on the campus of the postsecondary institution, though some are offered online. Approximately nine percent of students in Minnesota participated in PSEO, and about a third participated in concurrent enrollment.⁶³ All districts are required to offer students in grades 11 and 12 an opportunity to participate in a nationally recognized college entrance exam (ACT or SAT) on a school day.⁶⁴

Despite statewide efforts to offer high school students opportunities to engage college preparation, students in rural economic development regions are less likely to enroll in postsecondary options right out of high school, as seen in Figure 41 (below).⁶⁵

FIGURE 41. Percentage of high school graduates (class of 2017) enrolled in postsecondary programs in Fall 2017 by percent of economic development region in rural areas, for Minnesota

Data Source: Minnesota Statewide Longitudinal Education Data System

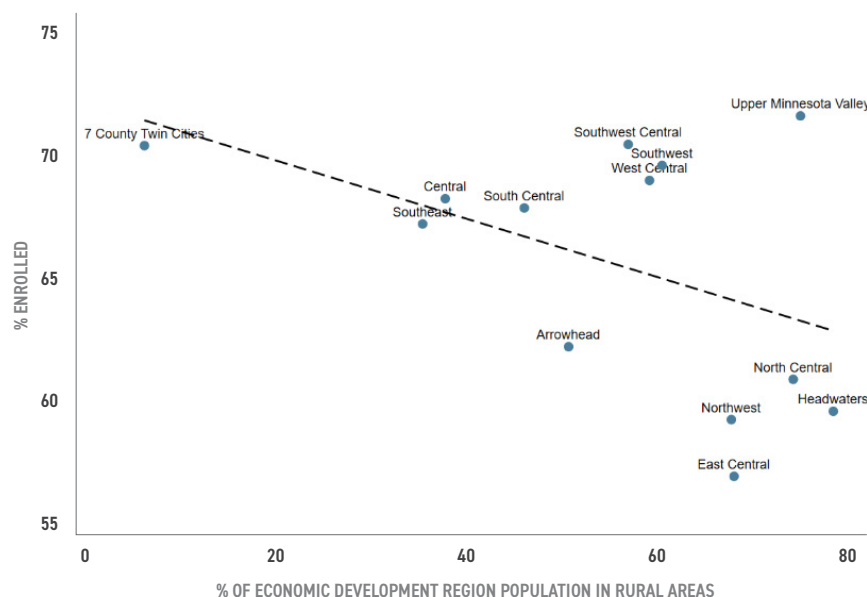
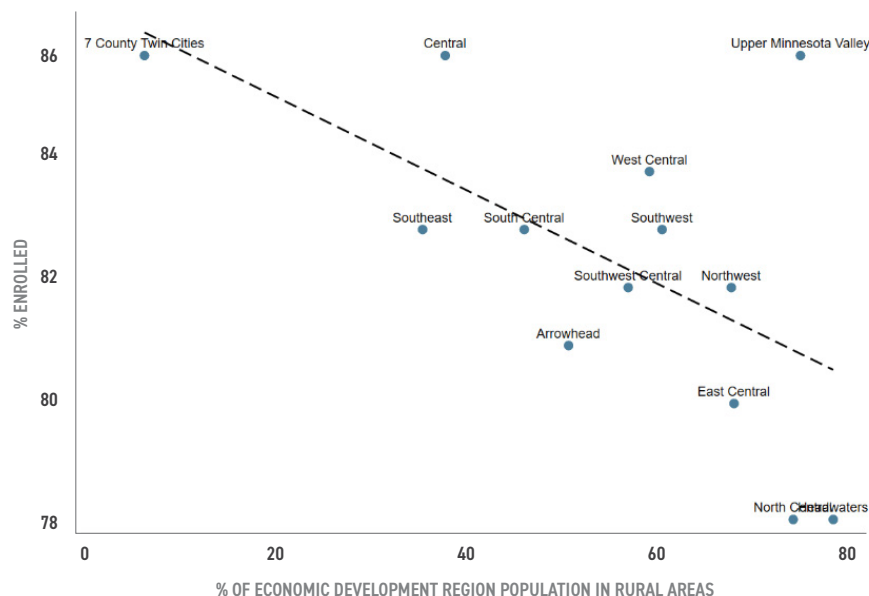


FIGURE 42. Percentage of Minnesota high school graduates (class of 2014) enrolled in a second year of a postsecondary program by percent of economic development region in rural areas

Data Source: Minnesota Statewide Longitudinal Education Data System



⁶³ Minnesota Department of Education, “Minnesota SLEDs,” State of Minnesota, 2019.

⁶⁴ “Statewide Testing,” Minnesota Dept. of Education, last accessed March 16, 2020.

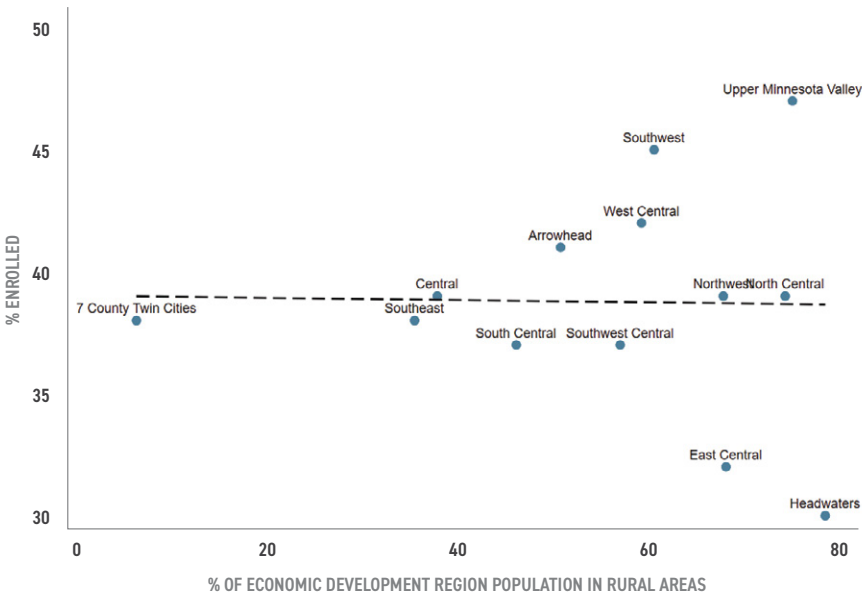
⁶⁵ Minnesota’s 87 counties are clustered into 13 economic development regions. Economic development regions are the smallest unit of analysis available for download from the Minnesota Statewide Longitudinal Education Data System (SLEDs) website.

The relationship between the proportion of the population that is rural and higher-education outcomes is even stronger for persistence into the second year of college (Figure 42).

For the persistence analyses, we used the cohort of students graduating in 2014 as the most recent available data (the cohort graduating in 2017 would not have had data for persistence and completion yet). The proportion that persist may be higher than the number that enrolled for some locales both because they are different cohorts and because some students may have enrolled but not immediately after graduation. Yet students earn degrees at similar rates, regardless of the rurality of their economic development region. It appears that students from more-rural economic development regions are more likely to earn an associate’s degree, but are also less likely to earn a bachelor’s degree, which is consistent with similar tendencies in both Georgia and Kentucky (Figure 43).

FIGURE 43. Percentage of Minnesota high school graduates (class of 2014) earning any degree by percent of economic development region in rural areas

Data Source: Minnesota Statewide Longitudinal Education Data System



One limitation of this work is reliance on data that was available online. A recent report that used Minnesota’s State Longitudinal Education Data System was able to examine matriculation and attainment rates based on the location of the high school, rather than by economic development region. The authors found that neither initial postsecondary pathways nor attainment rates varied by high school rurality.⁶⁶

⁶⁶ See, e.g., A.R. Feygin et al., “The postsecondary education and employment pathways of Minnesota public high school graduates: Investigating opportunity gaps,” U.S. Dept. of Education, 2019.



TEXAS

GEOGRAPHY AND DEMOGRAPHICS

Texas is home to about 25 million people. The state is approximately 43 percent white, 12 percent Black and 39 percent Hispanic or Latino, making it the most racially diverse of all our deep-dive states.⁶⁷ While only about 15 percent of the state population lives in rural areas, due to the size of the population, nearly a million rural students live in the state—more than any other.⁶⁸

Rural school districts in Texas are more diverse relative to national averages. About 45 percent of students in Texas' rural districts identify as minority (compared to 25 percent nationally), and 8 percent are English-language learners, whereas nationally, only about 4 percent of students in rural districts are English-language learners.⁶⁹

⁶⁷ "Rural America".

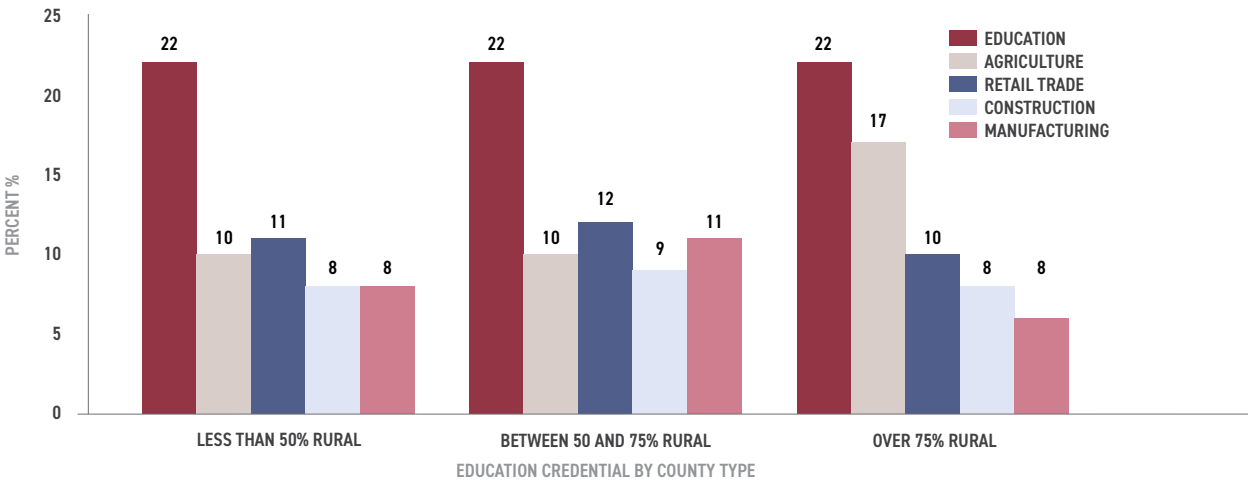
⁶⁸ Ibid.

⁶⁹ Showalter, D., Klein, R., Johnson, J., & Hartman, S.L. Why Rural Matters 2015-2016: Understanding the Changing Landscape, Rural School and Community Trust, 2017.

Texas has favorable social and economic conditions, both as a state and in rural areas. Between 2011 and 2016, its growth rate in real gross domestic product was 3.6 percent, exceeding the national average annual growth rate of 2.0 percent.

As seen in Figure 44 (below), the most-rural counties in Texas have higher proportions of people employed in agriculture and slightly lower proportions in manufacturing, relative to less-rural counties. Rates in education, retail trade and construction are similar across locales.

FIGURE 44. Percentage of population age 16+ employed in industry by county percent rural, in Texas



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

Texas is unique among our focus states in that per capita income does not appear to be related to rurality, which runs counter to the trend seen in each of our deep-dive states wherein rurality is inversely related to income (Figure 45). Median earnings for full-time, year-round male employees are not significantly related to rurality, though full-time, year-round female employees in more-rural counties earn slightly less than their counterparts in less-rural counties (Figure 46). The percentage of families with children under 18 living below the poverty level is unrelated to county rurality, again defying the trend seen in our other deep-dive states (Figure 47).

FIGURE 45. Per capita income by county percent rural, in Texas

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

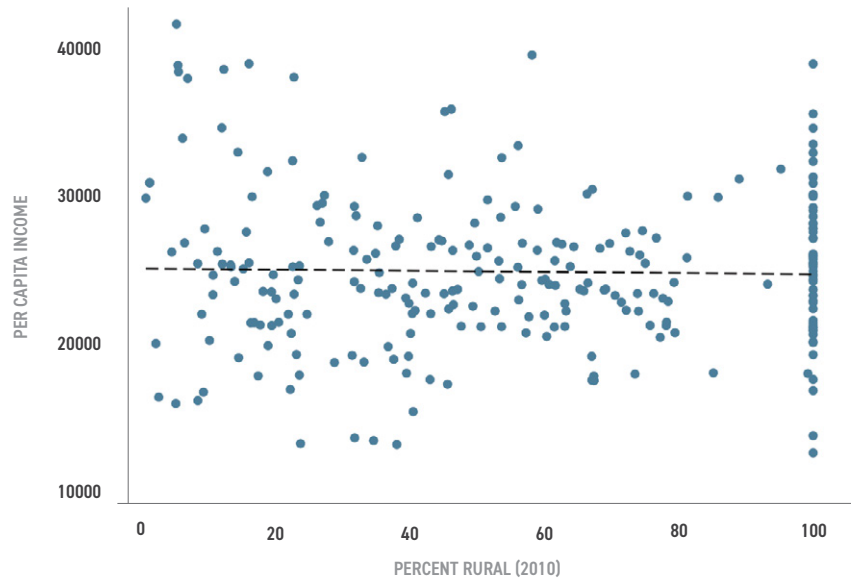


FIGURE 46. Median earnings for full-time, year-round workers by county percent rural, in Texas

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

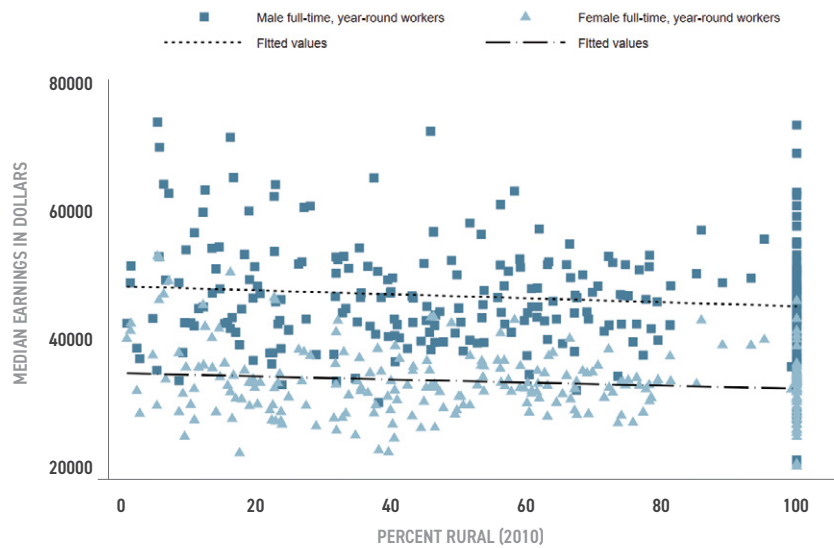
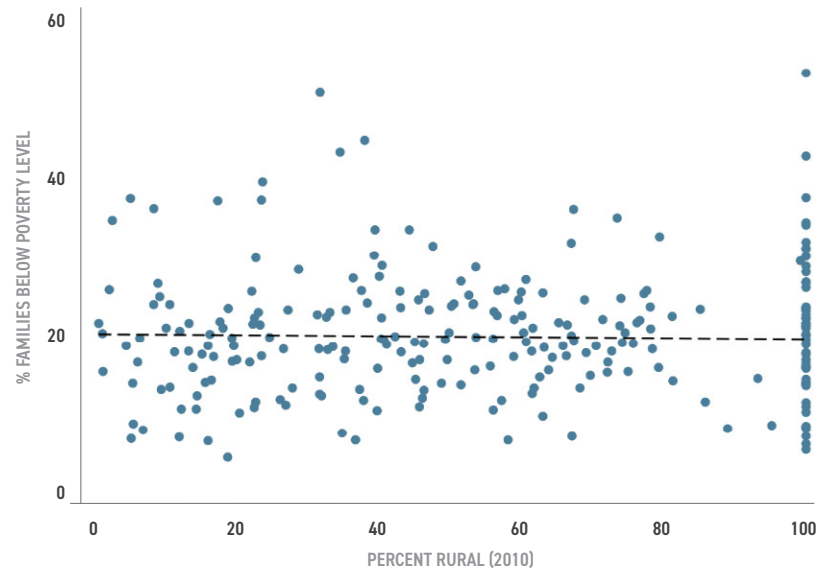


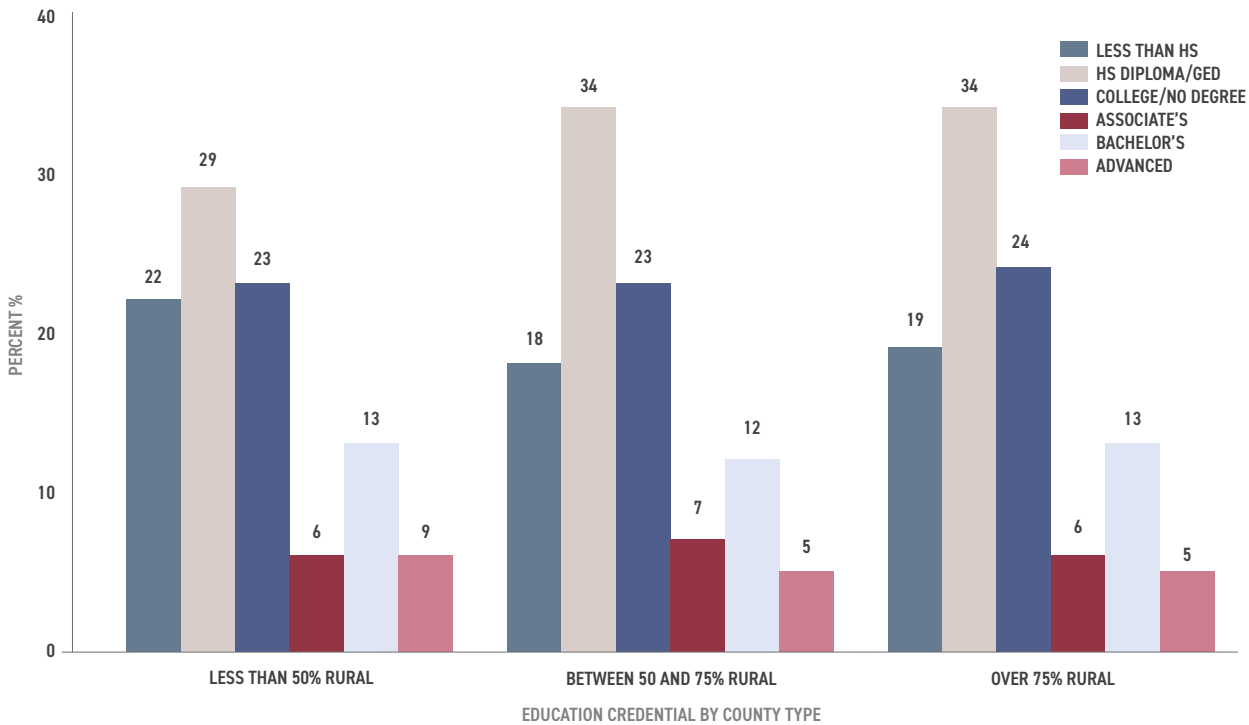
FIGURE 47. Percentage of families with children under 18 living below the poverty level by county percent rural, in Texas

Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates



Additionally, the gap between educational attainment of adults in rural areas relative to less-rural areas is smaller than it is in the other deep-dive states. In Census-designated rural areas, 23 percent of adults have a college degree, while 31 percent in urban areas do. This gap of only eight percent between urban and rural areas is much lower than in, for instance, Minnesota, where the gap is 15 percent.

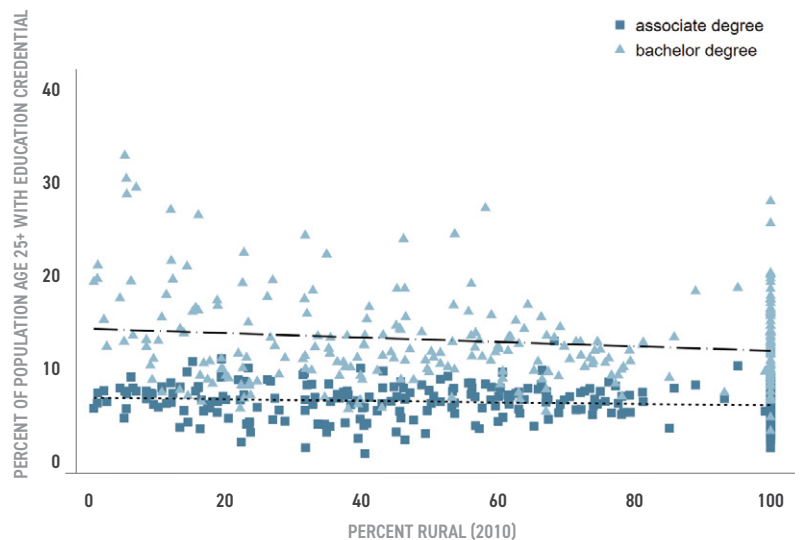
FIGURE 48. Percentage of population age 25+ with education credential by county percent rural, in Texas



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

As seen in Figure 48 (above), rural areas have slightly lower proportions of individuals with less than a high school degree, relative to counties where less than half the population is rural. Figure 49 (right) shows how attainment of associate's and bachelor's degrees relates to the percent of the county living in rural areas: rural areas have slightly lower rates of bachelor's degrees, but the relationship is weak.

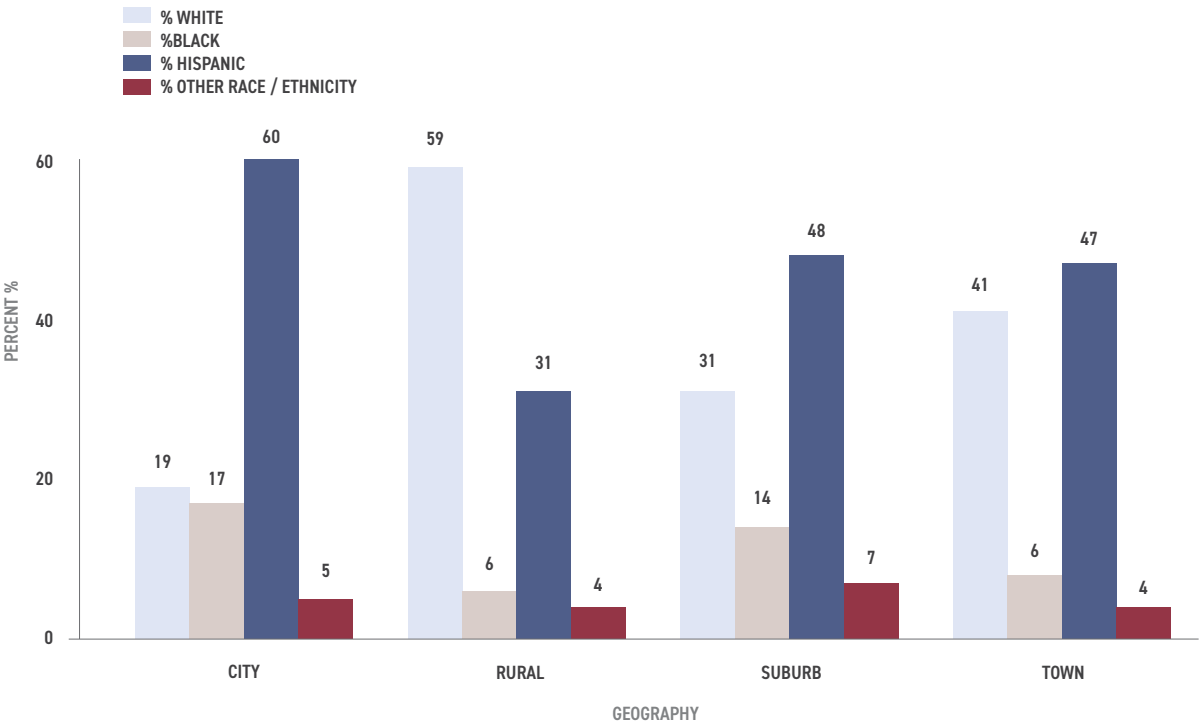
FIGURE 49. Percentage of population age 25+ with associate's and bachelor's degrees by county percent rural, in Texas



Data Source: U.S. Census Bureau American Community Survey 2017 5-year estimates

Relative to other locales in Texas, high schools in rural areas serve a far higher proportion of white students—at 59 percent—and a smaller proportion of Hispanic students—at 31 percent (Figure 50).

FIGURE 50. Student demographics by locale, in Texas



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

Over 500 of Texas’ 1,632 high schools are in cities, and nearly 500 are located in rural areas (Figure 51).

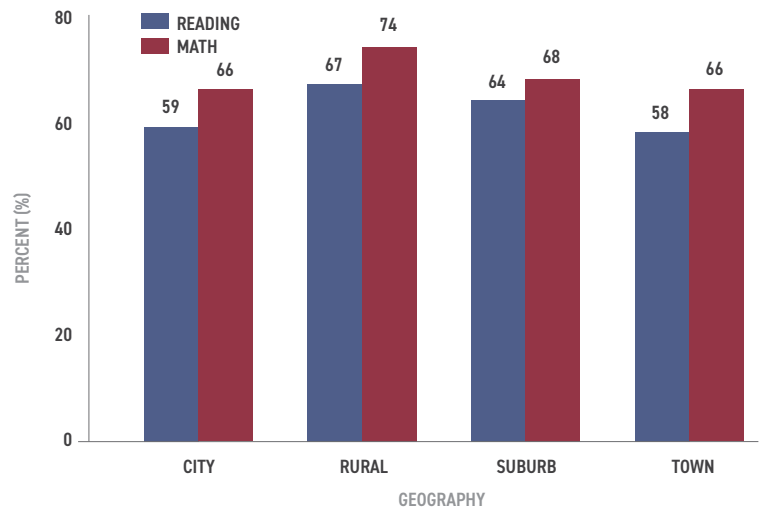
FIGURE 51. Number of high schools by locale, in Texas



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

Rural students perform well relative to students in other locales in reading and math, outperforming each locale in both subjects, as seen in Figure 52 (below).

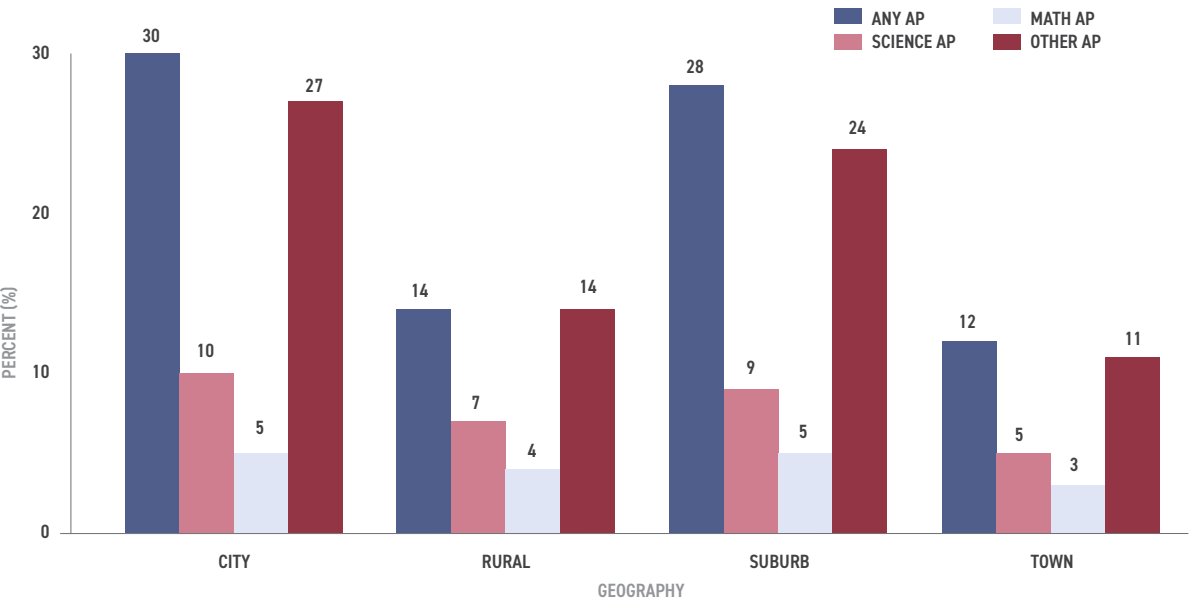
FIGURE 52. Average midpoint of range used to report the share of students scoring proficient by locale, in Texas



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

However, they may have access to fewer advanced academic opportunities. Rural students in Texas are far less likely to enroll in AP classes, as rates of enrollment in APs for both urban and suburban students double the rates of enrollment for rural students, as seen in Figure 53 (below).

FIGURE 53. Percentage of students enrolled in AP classes by locale, in Texas



Data Source: Education Data Portal Version 0.5.0 - Beta from Urban Institute

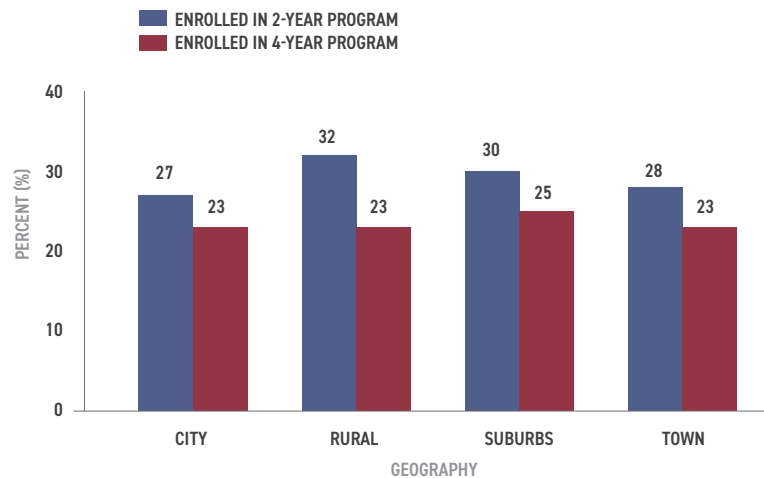
Relative to cities and towns, rural high schools send higher proportions of graduates to two-year programs; the proportion enrolling in four-year programs is similar to other locales. In Texas' rural high schools, on average, about a third of students immediately enroll in two-year programs after high school graduation, which is similar to the rate for suburban high schools (Figure 54). This rate is significantly higher than the rates for high schools in cities (27 percent) and towns (28 percent). Rural high schools send about 23 percent of high school graduates to four-year programs immediately after graduation; this rate does not vary by locale.

Rural high school graduates earn associate's degrees at higher average rates than other locales, as seen in Figure 55 (right). In addition, rural high schools have significantly higher rates of graduates earning a bachelor's degree relative to cities (about 16 percent versus 14 percent).⁷⁰

Analysis of a more-recent cohort of students graduating high school in 2010 suggests completion rates appear to be increasing for bachelor's degrees across locales in Texas, with associate's degree attainment remaining relatively flat (Figure 56).

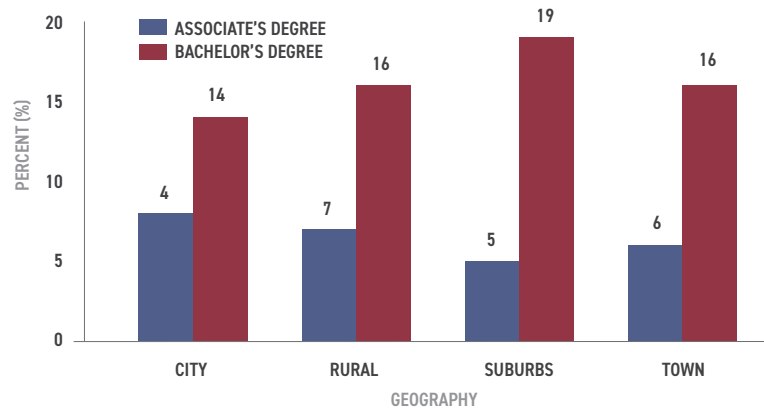
Texas also began collecting and reporting data on certificates earned through two-year and four-year institutions, which reflects overall low percentages of high school graduates earning certificates at roughly even rates across locales. Note that the certificate data appears to include all certificates and, therefore, may not reflect certificates linked to high-demand, high-wage careers or alignment with industry needs.

FIGURE 54. Percentage of high school graduates (combined cohort graduating between 2002 and 2004) enrolled in postsecondary programs by locale, in Texas



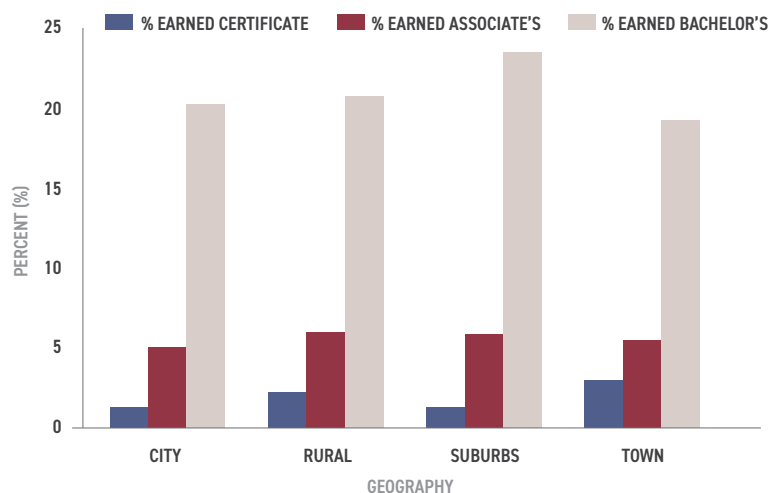
Data Source: Texas Education Agency

FIGURE 55. Percentage of high school graduates (combined cohort graduating between 2002 and 2004) who completed a postsecondary degree by locale, in Texas



Data Source: Texas Education Agency

FIGURE 56. Percentage of high school graduates (cohort graduating in 2010) who completed a postsecondary credential, in Texas



Data Source: Texas Education Agency

⁷⁰ Rates of earning a bachelor's degree are not significantly different between high schools in rural areas and high schools in suburbs or towns.

Texas is unique among the focus-group states in that rural areas are not necessarily less advantaged in terms of income than non-rural areas. Schools in rural areas have a lower percentage of students on free or reduced-price meals (48 percent) relative to schools in cities (64 percent) and towns (57 percent). Rural schools are similar to suburban schools in this regard. In addition, the relationship between rurality and educational attainment for adults 25 years of age or older is much weaker in Texas relative to the other deep-dive states. That is, while, in general, rural areas have a less well-educated adult population, in Texas this is not a strong relationship.

CONCLUSION

In our four deep-dive states, certain social and economic conditions tended to be less favorable in rural communities, but others varied by state. The four states were consistent in that the more rural the county, the lower the proportion of adults ages 25 and older with college degrees. However, patterns of standardized test performance in reading and math for high school students were not consistently related to rurality, despite national NAEP results that suggest that students in rural areas perform slightly less well in reading and math than their suburban counterparts. Rural high schools did tend to have lower percentages of students taking AP courses relative to suburban high schools; this is a significant difference in all four focus states.

But, our deep dives into a number of states added to our understanding about the important differences among rural communities. This illustrates an essential point: the diversity of rural communities across the country demands a diverse array of solutions to meet the particular needs of each. A one-size-fits-all approach would not be appropriate or possible for rural counties, that in spite of their many similarities and shared struggles, are also distinct in key ways.

Despite being around fewer college-educated adults and lower rates of enrollment in AP classes, in three of our four deep-dive states, students who attended rural high schools appear to be matriculating to college at similar rates as their peers from cities, suburbs and towns. In addition, in those states, students from rural high schools appear to have similar persistence and attainment of degrees. This is an encouraging sign. We cannot say for sure that this reflects the experience of all of rural America, only that these are the findings from the states considered here. More research is needed on this point to better understand if there is, in fact, a national picture, and if there are meaningful differences between states and rural areas within states.

We are also unable to explain these findings. It is possible that particular states or district policies and programs to support rural students have been successful. It could be the case that, in some areas, rural advantages in non-school-related factors are having a positive influence. For instance, perhaps in rural areas with more-favorable family structures, rural students are able to advance in schooling despite some of the academic disadvantages; children from rural areas have also been known to have higher rates of upward economic mobility. And in some states (such as Texas), students in rural areas are not necessarily more disadvantaged based on income, on average, relative to their urban and suburban peers.⁷¹

Though it may seem hard to reconcile that rural students are matriculating in similar proportions to their peers from other locales while rural adults tend to have less education, there are several possible explanations. Students from rural areas may be earning degrees but not living in rural areas as adults. Or, it could be the case that K-12 rural outcomes have improved in recent years, and the positive consequences for adult educational attainment have not yet been realized. For the future of rural communities, it will matter a great deal which of these two possibilities—or other possible explanations—proves to be true. That is, if it is the case that rural community factors and rural K-12 schools have consistently prepared students for postsecondary success but those young people do not return to or stay in rural areas because of limited job prospects, this would require a certain set of policy and philanthropic interventions. But, if it is the case that recent improvements in rural K-12 schooling combined with recent expansions of postsecondary financial aid programs have significantly increased rural students' postsecondary attendance and success, the percentage of rural adults with postsecondary credentials may naturally grow over time. That might suggest different types of interventions are in order. In any event, researchers, policymakers and philanthropists should study this phenomenon closely, including understanding differences between the various types of rural communities, to help determine the best course of action.

For those concerned about the so-called “brain drain”—the out-migration of the more-highly educated—prioritizing the strength of local labor markets and community amenities might be the wisest path. If a rural community is to attract and retain those with in-demand knowledge and skills, it must compete with non-rural areas. That means everything from jobs, cultural institutions, community associations, faith-based organizations, non-academic opportunities for kids and other amenities for adults. Importantly, a healthy, stable community does not rely solely on jobs for the highly educated; it typically has a diverse array of employers seeking those with a variety of skills and education levels. So, even if a rural community aims to increase postsecondary attainment, even prioritizing four-year degrees, it should continue to give attention to high school programs, professional development offerings and reskilling efforts that offer career pathways into high-pay, high-demand professions. This work would be aided by better national and state-level data on workforce credentials. Unfortunately, we still know too little about the return-on-investment of

⁷¹ B. Weber et al., “Intergenerational mobility of low-income youth in metropolitan and non-metropolitan America: A spatial analysis,” *Regional Science: Policy & Practice* 10:2 (2018), pp. 87-101.

the myriad certificates, licenses and other credentials currently available. But, as a larger point, we should appreciate that efforts to help rural communities' educational attainment almost certainly need to include integrated lines of work associated with K-12 reforms, apprenticeships, internships, job training, business development and community development.

Our research offered findings primarily at the state and national levels, but additional research could explore disparities within rural communities based on different family structures, race, gender, ethnicity and socioeconomic status. Further categories to be considered for special attention in future studies could include veterans, students with disabilities, gifted students and first-generation college students. In addition, only one of our focus states (Minnesota) had any Bureau of Indian Education schools, and these schools are not included in all datasets examined. The outcomes of Native American students in rural areas may be considerably different than the outcomes of rural students in general, as American Indian teens have considerably higher rates of neither being in school nor working than their white and Asian and Pacific Islander counterparts.⁷² Examining states such as Arizona, New Mexico and the Dakotas could shed more light on these issues, in particular.

Another issue this exercise highlights and that deserves mentioning again is the lack of consistently reported data on key indicators, such as college and career readiness and postsecondary engagement and outcomes, in a way that enables analyses like these. This gap in data hampers research linking PK-12 experiences and postsecondary outcomes generally, and specifically challenges the ability of the field to address questions specific to rural students and other breakdowns within states, where customized solutions in policy and practice that best fit students' and communities' specific context may be warranted.

Finally, as policymakers and philanthropists look for ways to engage in rural communities, they should keep several political, historical and cultural elements in mind. Often, a rural community is dependent upon a single, major industry, which can deeply influence how that community understands its past and future. This can be quite different than a big city or a thriving suburban area. Often, a rural community is dependent upon agriculture, so state and local policies may tax property at lower levels (as a means of preserving that way of life). This can influence the revenues available to schools, which is another dynamic that non-rural reformers might not be aware of.

There is also a long, unfortunate history of outsiders, particularly city-based reformers, attempting to "fix" rural America. This can have the effect of feeding rural suspicion of new "helping hands" being offered. Rural America also tends to be more politically conservative than cities, so its citizens' political sensibilities and policy priorities can be different than those trying to reform rural communities. Indeed, some evidence shows that rural communities believe outsiders have different values. Because of community cohesion and deep trust in their longstanding institutions, rural areas may be skeptical of efforts to fundamentally reform foundational elements of their social, occupational and educational fabric. And because the backstories and defining characteristics of different rural communities can be so different—the legacy of slavery and segregation in the Deep South, reservations in the Southwest, mining in Appalachia, ranches in the Plains—any rural engagement effort should be mindful of the particular histories of distinct communities.⁷³

None of these should be seen as reasons to disengage from rural postsecondary issues, but they should inform how we engage. A vast array of factors have combined to create a postsecondary landscape in rural America that is different than in other geographies, and those factors should be front of mind as we aim to improve that landscape.

⁷² The Annie E. Casey Foundation.

⁷³ See, e.g., McShane and Smarick.

APPENDIX A :

METHODOLOGY

In this brief, we provide an evidence-based analysis of rural students' postsecondary trajectories in four states. This brief also contains a summary of key funders engaged in rural postsecondary education and their key priorities and brief descriptions of five organizations that are supporting rural postsecondary success outside of the K-12 education system.

We started by analyzing national datasets to identify four states for further analysis. Datasets included:

- » National Center for Education Statistics: high school graduation rates
- » Why Rural Matters report (Rural School and Community Trust): SAT and ACT participation rates; Office of Civil Rights data
- » U.S. Census Bureau's American Community Survey for educational attainment and unemployment rates
- » Social Science Research Council: youth "disconnection"

Bellwether layered these national datasets on top of each other to identify four states that are both regionally diverse (i.e., not all from the rural southeast), that demonstrate significant challenges with postsecondary pathways for rural youth, and for which relevant data is available for further analysis. In consultation with our client, we selected Georgia, Kentucky, Minnesota and Texas. Collectively, these states contain about 16 percent of the total people living in rural areas in the United States.

To better understand key trends in rural postsecondary pathways, we explored available data from each of the four states. While states vary in what data they collect and report, we are able to leverage information on a mix of college matriculation, college persistence and graduation, industry certifications and earnings, as well as indicators of local economic and social conditions, such as poverty and unemployment.

Data sources consulted for the focus state analyses included:

1. Opportunity Insights, Harvard University
2. U.S. Census Bureau's American Community Survey
3. Urban Institute's Education Data Explorer, which harmonizes data from a variety of federal datasets, including the Common Core of Data and EDFacts from the U.S. Department of Education.
4. Georgia Governor's Office of Student Achievement
5. Kentucky Department of Education - School Report Cards
6. Kentucky Center for Statistics
7. Minnesota Office of Higher Education
8. Minnesota Office of Employment and Economic Development
9. Texas Education Agency

APPENDIX B :

NCES LOCALE DESIGNATIONS

CITY : The NCES City locale designation is limited to territory located within principal cities of metropolitan areas. It does not include principal cities of micropolitan areas. More specifically, City classifications are limited to the portion of a principal city that is contained within an urbanized area (UA). Therefore, schools located in rural territory are designated as rural, even if they are contained within a principal city boundary. This approach focuses city classifications on large, densely populated areas, and avoids spurious classifications of rural schools resulting from overextended city boundaries primarily intended to accommodate future annexation and growth. The locale framework disaggregates city classifications by size, using 250,000 and 100,000 population thresholds to identify large, midsize, and small areas. Most principal cities of metropolitan areas are classified as small cities.

SUBURBAN : The NCES Suburban designation applies to territory inside a UA that is located outside the boundary of a principal city of a metropolitan area. Although most suburban territory is located within metropolitan areas, micropolitan areas may contain suburban territory as well. As with City classifications, suburban subtypes are defined by population size using the same thresholds (250,000 and 100,000) to determine large, midsize and small areas. Although the geographic extent of suburban territory is restricted to the portion of UAs located outside principal cities, the size designation for suburban locales is based on the population of the entire UA, not just the suburban portion.

TOWN : The NCES locale framework classifies all urban clusters (UCs) as towns. As with the city classification, town locale assignments are based on the extent of the UC boundary rather than the extent of a place boundary (though a UC and place may share the same name). Therefore, schools in rural portions of an incorporated place or Census Designated Place (CDP) are considered rural, while schools located inside a UC are identified as town—regardless of whether the area is contained within an incorporated place or CDP. Towns are commonly located near UAs, often radiating along major roadways that provide easy access to the larger population core. Although they range in size (from 2,500 to 49,999), most towns have a population less than 10,000.

RURAL :

The NCES rural locale assignments rely on the Census Bureau's designation of non-urban territory as rural. This category accounts for the overwhelming majority of U.S. land area, and it includes a considerable range of settlement patterns and land uses. Some rural areas where school-age children live are extremely remote and difficult to access, while rural areas just outside large urban cores may have relatively easy access to a broad range of specialized goods and services typically associated with suburban and city schools. As previously noted, metropolitan areas can contain both urban and rural territory. Because counties serve as the building blocks of metropolitan areas, and the extent of some metropolitan counties is quite large, some rural portions of metropolitan areas may be farther from urban cores than rural territory outside metropolitan areas. Therefore, the traditional metropolitan-based, urban-suburban-rural framework poses difficulties for rural classifications as well. The NCES rural locale provides fringe, distant and remote subtypes that differentiate rural locations based on the distance and size of the nearest urban area. Distance thresholds applied for UCs (2.5 miles and 10 miles) are shorter than the distances used for UAs (5 miles and 25 miles) to reflect potential differences in the functional relationship between rural and urban areas. These criteria assume that families served by a rural school located 10 miles from a town of 10,000 are likely to have different options than families served by a rural school located 10 miles from an urban core with a population of 110,000. Therefore the rural locale criteria take into consideration not only distance, but also distance from which type of urban core. The basic unit for these distance indicators (2.5 miles) was borrowed from the Census Bureau's criterion for connecting densely settled noncontiguous territory to a qualifying core of an urbanized area (UA) or a UC during the urban delineation process, officially referred to as a "jump." Distances used to define locale subtypes are simple multiples of the basic distance unit (i.e., 1x, 2x, 4x, and 10x for Rural; 4x and 14x for towns).

Source: D. Gevert, *Education Demographic and Geographic Estimates Program (EDGE): Locale Boundaries User's Manual* (NCES 2016-012), U.S. Dept. of Education, last accessed Aug. 14, 2019.

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This report was compiled from research conducted by Bellwether Education Partners. It was edited by Andy Smarick of the R Street Institute, with assistance from Clare Basil and Franklin Lee.



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